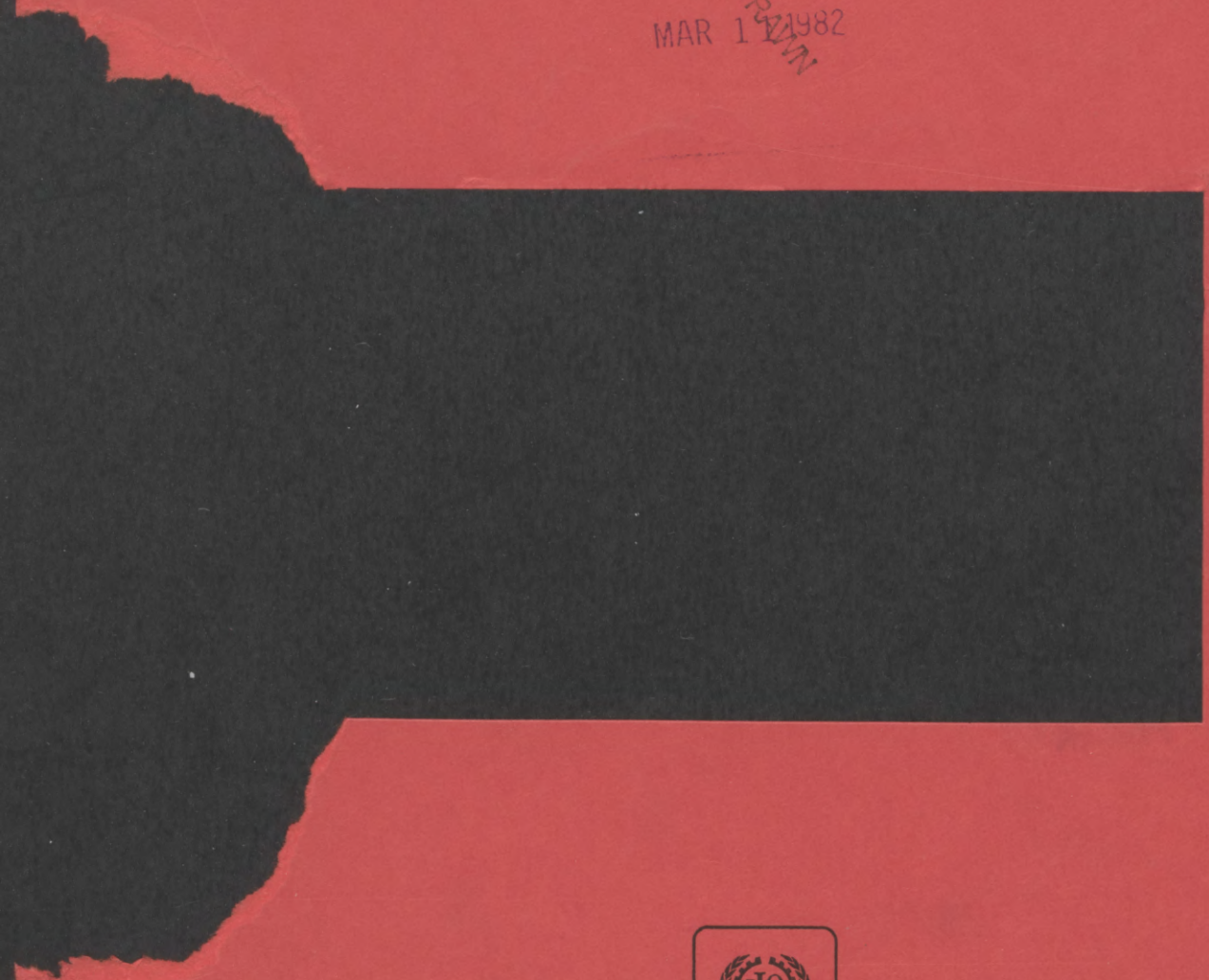
WORLD EMPLOYMENT PROGRAMME RESEARCH

Working Papers



International Labour Office, Geneva

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WORLD EMPLOYMENT PROGRAMME RESEARCH

Working Paper

ECONOMIC AND SOCIAL POLICY SYNTHESIS PROGRAMME

An Analysis of Employment, Underemployment and unemployment

The Case of Colombia

by

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PREFACE

This working paper is about employment and the labour market in Colombia. It represents the first rough draft of a monograph put together while the author was working on an ILO project[1] at the University of Valle in 1981. The paper is divided into four chapters. The first chapter describes a number of theories of the functioning of the labour market that the author uses as a reference for his analysis.

The second chapter examines concepts of the labour market and how they are applied in Colombia, followed by a quantitative examination of the employment problem in Colombia. The chapter concludes that despite many limitations in labour market concepts, the availability of labour statistics is as good as in most developing countries in the urban areas but that there is remarkably little information concerning rural areas. Also the problem of underemployment in Colombia is as important as the unemployment problem although whether the problem has worsened or improved during the seventies is difficult to establish.

The third chapter examines a number of socio-economic hypotheses that have been suggested as partial explanations of why labour is under-utilised in Colombia. It generally concludes that "conventional wisdom" covering such things as high wages, low investment, strong unions, high population growth, high migration, uncontrolled money supply etc. does not readily apply in Colombia rather the problem is one of the distribution and ownership of scarce resources, in particular land.

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[1] This is described in H. Banguero et.al.: "Colombia 2000: a framework for population, employment, growth, income distribution and essential human needs planning," (ILO, mimeographed working paper, Geneva, October, 1981).

The final chapter examines the ILO mission proposals of 1970 and the three main plans of the seventies. It concludes that the analysis of the ILO report remains relevant today even though its policy conclusions are largely inoperable.

November 1981 Jean Mouly

Acknowledgement

I would like to thank the following people who, in discussion, advice or support, one way or another, helped me put this monograph together. Charles Collins, Alberto Corchuelo, Diego Sanchez, Orlando Marquez and Jorge Vallejo of the Department of Economics of the University of Valle in Cali; Jaimé Rodriguez of the Department of Social Medicine at the University of Valle; Bernardo Kugler of CCRP, Bogotá; Regina Mendez and Juan Araujo of DANE, Bogotá; Hernando Torres of Sena, Bogotá; Harold Banguero, José Ocampo, Norma Rey de Marulanda and Ulpiano Ayala of CEDE at the University of Los Andes, Bogotá; Rolph Van Der Hoeven of ILO, Geneva and Gloria Mercedes Cortes Saavedra of ICFES. I should also like to thank Luz Marie of University of Valle and Ms. Italici of ILO for typing various drafts.

Finally I should like to thank the students of the course I attempted to give on employment in the University of Valle using this monograph as a basis. Through no fault of their own but due to the social stress that exists in their country, of which this monograph identifies a part, they were not subjected to a first presentation of the ideas expressed here. They may or may not be grateful for that.

All the above are resolved from any errors that remain or advice that I didn't take.

Mike Hopkins
Geneva
November 1981.

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CHAPTER I

A. An overview of major theories of unemployment[1]

1. Introduction

In this chapter an overview is given of the leading strands of thought that have attempted to explain, among other things, the economic causes of unemployment. Most theories do not have as their centre the causes of unemployment[2] rather they are mainly concerned with what causes accumulation, profits to change, inflation, growth, wages to change, amongst other things, as well as what causes unemployment. Clearly these causes are highly interrelated and so the emphasis of theory on a number of problems at once is not altogether surprising. Nevertheless the main purpose of writing this chapter on many theories at once when this has been done to different degrees in cther places is to introduce the reader to the controversy that exists in the causes of unemployment and, eventually, to link the theoretical discussion to an examination of the causes of unemployment in Colombia.

What theories to consider and to what depth has been eclectic in the sense that those theories which have, according to the author, somewhat more to offer the analysis of contemporary unemployment problems than others have been treated in more depth. Theories have been considered that apply both to developing and developed countries because while countries at different stages of development have different settings for their ccmmon problems, theory can transcend these boundaries to a limited extent. However this should not imply that there is or ever will be one unique theory that can be

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[1] Thanks to R. Van Der Hoeven for comments on an earlier draft.

[2] Clearly Keynes' General Theory of Employment is a major exception.

applied everywhere. As Kornai[1] has remarked, there is not such a thing as an optimal system containing the best possible rules of the game. Planning an economic system is not like visiting a supermarket where on the shelves can be found the various components of the mechanism incorporating the advantageous qualities of all systems. "On one shelf there is the high degree of workshop organisation and discipline like in a West German or Swiss factory. On another there is full employment as it has been realised in Eastern Europe. On a third shelf is an equality of income and purpose such as found in Mao's China. On a fourth is economic growth free of recession, on a fifth price stability, etc." (Kornai). Yet given this caveat a coherent body of theory that can be implemented in a democratic planning framework is attractive, and here I think more of Keynes and Marx than of Smith and Friedman.

In this chapter theories of, and related to, the labour market will be discussed in temporal order. I have grouped them in order to preserve some common factors into six main areas, namely classical theories (Smith, Ricardo, Malthus, Mill, Marx), neo-classical (Say, Schumpeter, Pigou, Hayek, Wicksell, Walras, Solow, Harrod, Domar), social reformers (Keynes, Lenin, Prebish, Kornai), latter day development economists (Lewis, Fei Ranis), monetarists (Friedman), and a relatively new and growing area namely segmentation theorists (Harris, Todaro). Clearly in this preliminary list there are gaps and overlaps between the different schools. Many would say that there exists, today, at most two main schools of theory namely neo-classical and non-neo-classical. But this is perhaps an oversimplification because there are theories or ideas from one school that can be applied in the other. For example at different times Keynes could have been considered a classical, neo-classical, Marxist or even monetarist scholar since there are strands of each school in his writings.

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[1] J. Kornai, "The dilemmas of a socialist economy: The Hungarian experience", Cambridge Journal of Economics, 1980, 4, 147-157.

1. Classical economists

These economists, working in the mid-nineteenth century, were greatly concerned with the interactions between labour, capital and land. Adam Smith in his "Wealth of Nations" was concerned with the principles of free competition and the "invisible hand" of the open market. Few economists would disagree with Smith that markets work when one important condition holds namely that the actors in the market have equal weight in terms of size of firm, information, human and physical capital. However, this condition does not hold in the world of today nor is it likely to. This overriding qualification has led to the growth of economics as a science in trying to understand and shape the organic components of economics. To act under conditions of a free market philosophy when inequalities exist is therefore incorrect.

For Smith[1] the growth of the labour force was related, on the supply side, to population. In the long run he believed that population growth was regulated by the funds available for human sustenance. Consequently the wage rate plays a crucial role in determining population size. The limiting wage was that which was neither sufficiently high to permit an increase in numbers nor sufficiently low to force a shrinkage of the population base. Smith called this rate "the subsistence wage"

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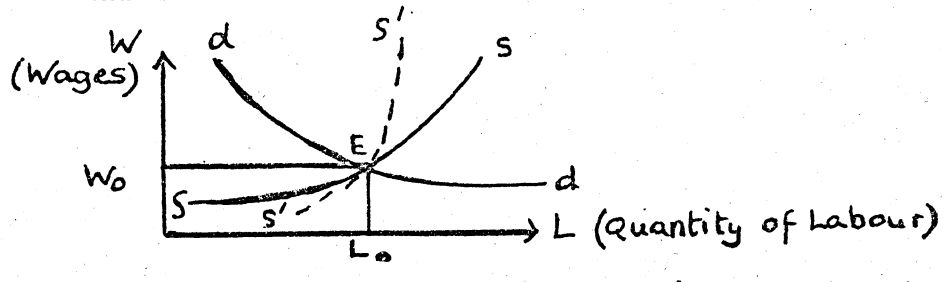
[1] Much of the subsequent discussion relies heavily on Irma Adelman, Theories of Economic Growth and Development, Stanford University Press, Stanford, California, 1961. Professor Adelman discusses five main theories of development namely Adam Smith, Ricardo, Karl Marx, Schumpeter and suggests a neo-Keynesian model of a growing economy. Her general framework of analysis is a production function $Y_t = f(K_t, N_t, L_t, S_t, U_t)$ where K_t = capital, N_t = rate of use of natural resources, L_t = employment, S_t represents society's fund of knowledge, U_t represents the socio-cultural milieu within which the economy operates. Since most of the discussion reported here is well known, only brief summaries are given. The interested reader requiring more information is referred to the texts cited.

one which is consistent with a constant population. Smith thought that in a purely competitive market, if the wage rate fell temporarily below what was necessary to maintain the demand and supply of labour in balance, the pressure of demand would act to raise it. Conversely, should wages be above the equilibrium level, then the excess supply resulting from too rapid a growth of population would soon lower the remuneration of labour. But what determines the demand for labour? In Smith's words[1] "the demand for those who live by wages, it is evident, cannot increase but in proportion to the increase of the funds which are destined for the payment of wages. These funds are of two kinds: first the revenue which is over and above what is necessary for the maintenance; and, secondly the stock which is over and above what is necessary for the employment of their masters". This is the wage-fund doctrine. It relates the employment of labour to the size of the revolving fund destined for the maintenance of the labour force.

An illustration of Smith's view, following Samuelson,[2] is given in Diagram 1.

Diagram 1: Demand and supply curves for labour



The demand and supply curves for labour intersect at full employment at E, at a wage of W_0 and a quantity of labour L_0 i.e. labour will only offer itself at an equilibrium wage level or if there is excess demand for jobs in the system workers will reduce the wage at which they offer themselves until

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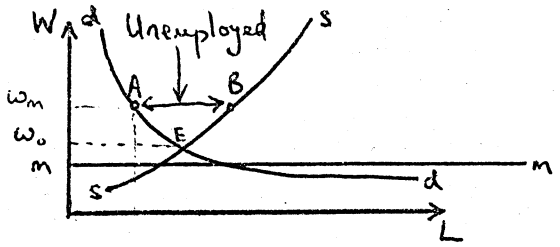
[1] A. Smith, The Wealth of Nations (New York, Random House, 1937), p. 69.

[2] Source: P. Samuelson, Economics, McGraw-Hill, 8th edition, p. 551.

equilibrium is reached. (The dotted line indicates a more inelastic labour supply function.)

Diagram 2: Unemployment and competitive wage cuts



If we look at diagram 2,[1] we can see that Malthus' theory of population implies a constantly increasing supply of labour at subsistence level at which people will just reproduce their numbers. Malthus' theory fell down because he ignored the Keynesian demand effects of a growing population[2] which would serve to push up incomes and the level of living above subsistence level.

Marx's "reserve army of the unemployed" - as shown by AB - need not depress real wages to the mm minimum subsistence level. With perfect competition it can only depress wages from A to E. If labour supply became so abundant that SS intersected dd at mm, the wage would be at a minimum level, as in many underdeveloped regions. But institutional or legal changes can do little when margainal productivity is so low. That open unemployment has remained around the 10 per cent level in Colombia over the past 20 to 30 years suggests that these simplistic diagrams cannot easily be relied on there. This we discuss in Chapter 2 (data on unemployment and wages) and 3 (segmentation of the labour market).

David Ricardo as a forerunner of Marx limited his studies, in general, to the distribution of the social product

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[1] ibid.

[2] This is discussed in M. Hopkins et al., "Evaluating basic needs strategy and population growth", International Labour Review, May 1976.

and (according to Hagen[1]) established two great principles. One that wages could only rise with rises in the accumulation of capital and two, that the class of land owners contributed a growing social weight whose power could be reduced only through free imports of agricultural products.

Ricardo's production function, like Adam Smith's, postulated the existence of three factors - land, capital and labour. In contrast to Smith's function, however, Ricardo's is subjected to diminishing marginal productivity,[2] which stems from the fact that land is variable in quality and fixed in supply. As a result, the marginal productivity not only of land itself but also of capital and labour declines as cultivation is increased. As many have remarked, a great weakness here is that Ricardo underrated the possibility for technological advance in agriculture. Ricardo's notion of population and labour supply was similar to that of Smith, except that he believed that because of capital accumulation the market wage could rise above subsistence level. Yet if labour supply exceeded labour demand the market wage would reduce to the subsistence level so that labour demand would eventually equal supply.

Perhaps the main contribution of Karl Marx to contemporary labour market analysis was a critique of capitalism which he saw in nineteenth century England. No other work, with the possible exception of Keynes, can match his unique contribution to the economics debate which continues to rage even today a 100 years after his death. According to Furtado,[3] all the force of Marx concentrated on two main things firstly to identify the fundamental relation of production of

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[1] E. Hagen, La teoría económica del desarrollo, A.I.D., Centro Regional de Ayuda Técnica, México/Buenos Aires, 1968.

[2] D. Ricardo, The Principles of Political Economy and Taxation (London, Dent and Son, 1937), cited in I. Adelman (op. cit.).

[3] Celso Furtado, Teoría Política del desarrollo económico, 8a. ed. Siglo XXI, 1979.

the capitalist mode and secondly to determine those factors that develop the factors of production. Marx identified two main classes capitalists and workers and believed that the owners of capital will always seek to maximise profits (or surplus value as he called them) whilst paying workers a subsistence wage. These wages would be sufficient so that labour could reproduce itself in order to maintain a reserve army of unemployed. This was so capitalists could dictate both employment and wage levels.

To analyse capitalism Marx introduced the labour theory of value i.e. if 1 kg of rice was produced by 1 labourer in 1 week, and 2 kg of flour by 1 labourer in 1 week. Then 1/2 kg of rice should have the same value as 1 kg of flour. Marx defined surplus value as the unpaid work of the workers. The total product of a nation, called the social product (P) was equal to the sum of constant capital (C, depreciation, raw materials used in production, and energy inputs), variable capital (V, paid salaries) and surplus value (M), i.e.

$$P = C + V + M \quad \ldots (1).$$

Marx defined the rate of exploitation of the workers as $\frac{M}{V}$, $\frac{C}{C+V}$ as the index of organic capital needed to create new value, and $\frac{M}{C+V}$ as the profit rate. For accumulation only surplus value could be transformed into capital (equivalent to the classical assumption that Investment=Savings) Marx did not indicate clearly what were the principles governing the distribution of surplus value between the consumption of the capitalist class and their accumulation. Marx just considered that each capitalist struggled to increase surplus value and he did not much care about the conflicts within the capitalist class. Marx predicted the demise of capitalism within the next 10 to 100 years, through a "crisis". This could come about because labour as a class could begin to organise itself and force up wages. This would lead, from equation (1) above, to a reduction in surplus value and hence a reduction in the accumulation of capital. This process continues until capitalism collapses because of massive unemployment and social

unrest. Capitalists could try and prevent this by (a) more intense exploitation of the workers through reducing wages, (b) exporting capital to the colonies, (c) intensify accumulation in order to raise the quantity of profit. Clearly for the "crisis" to occur there would have to be a persistent insufficiency in effective demand. Historically a number of "crises" have occurred with massive unemployment in capitalist economies, yet they have pulled through for a number of reasons, the main one in my view can be attributed to Keynes and the theory of effective demand.

In England - the model of Marx in the nineteenth century - all of the above-mentioned three alternatives were tried and staved off a major depression until the 1930s. A war intervened to step up public works and, possibly, prevented another crisis followed by an intensive effort in social security efforts to compensate workers in unemployment. The labour movement in England increased its power steadily but channelled its major efforts into the formation of a political party - the Labour Party - which was elected into office for the first time in the 1930s. The introduction of benefits for workers has propped up the English economy and lessened social unrest even up to the present day. In the late seventies and early eighties another huge rise in employment in the United Kingdom has occurred equalling the magnitudes of the great depression in the 1930s. Because of falling profits due mainly to the rising share of workers' wages in total output, investment has been dropping in the tradition of a classical "Marxian crisis". One way to counteract this has been to reduce government expenditure and, in particular, the benefits of the unemployed. This is likely to intensify the recession due to a fall in effective demand - assuming that the difference cannot be made up through increased exports. Whether this will lead to a social revolution remains to be seen. Yet these mini-Marxian crises could continue ad infinitum since it is theoretically possible that through deficit financing, effective demand could be increased leading to growth in the economy.

Marxist theories provide an essential and useful critique of capitalism since they can offer directions in understanding economic policy. The day has still not arrived, however, when a coherent body of theory can be successfully applied. Certainly the ideas of Marx were taken up by Lenin and gave the world Marxist-Leninist thought. This has been applied successfully in Eastern bloc countries in providing full employment. However in terms of welfare indices and other aspects of fulfilling basic needs many problems still exist. This is discussed further in section 3.

3. Neo-classical economists

These theories generally underline the importance of market forces in bringing systems into equilibrium. Their main addendum to the classical economists is their focus on the role of prices as regulatory mechanisms i.e. they do not differ with classical economists such as Smith in general only in terms of emphasis. That markets for goods or labour do not clear, they believe, is a matter of distortions in the price system, hence the existence of unemployment occurs because the price of labour (wages) relative to the price of capital (interest rate) is too high. If labour reduces its price it will be absorbed. The view so far expressed can be attributed to any number of economists but perhaps Marshall was a forerunner here. This area is rich in mathematical models, and perhaps the typical model is that of Walras[1] which has 2 factors of production (capital and labour), 2 commodities and 2 production functions characterised by Leontief style fixed coefficients. All product markets are cleared through price adjustments to a "Walrasian equilibrium". The model therefore assumes full employment. There is no mechanism to introduce demand. In a dynamic version of this model, the Harrod-Domar model,[2] $Y=K/\nu$ (Y=output, K=capital, ν=constant capital output ratio), ν is

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[1] Eckaus R., "The factor proportions problem in underdeveloped areas", AER, Vol. 45, No. 4 (Sept. 1955).

[2] Domar E., Essays in the Theory of Economic Growth (New York, OUP, 1957), see also R.G.D. Allen, Macro Economic Theory, Macmillan, London, 1968.

fixed and hence the economic system is geared to a steady state of growth. In this model there is no market mechanism to equilibrate demand and supply of labour and hence the rate of growth of production may well be exceeded by the exogoneously determined rate of growth of the (working) population. The result is an exponential rate of growth in labour unemployment.

Solow[1] rescued this model from the inevitability of unemployment by arguing that the choice of technique, the capital-output ratio, could shift in response to a growing availability of labour, as could the savings ratio, hence labour could be absorbed if the "technique" was right, since over time the price of labour would dictate the technique. This was perhaps, the birth of the idea of labour intensive techniques where it is suggested that labour can be absorbed for a given output by choosing a technique that maximises the absorption of labour. Presumably if market pricing were working such a labour intensive policy prescription would be unnecessary. This is because the price of labour is attractive to producers compared to the price of capital, in a neo-classical world labour will be absorbed through an appropriate choice of technique. If this does not happen, it implies there are other factors at work. Some clues to what these factors are can be found in examining the institutional barriers to the setting of wage rates and in the discussion of dependency theories suggested by Prebisch when working in ECLA. His theory is discussed in section 3 below.

In a more recent article Solow[2] turning away from his earlier stance has admitted the existence of institutional factors in explaining unemployment. There he asked whether one should think of the labour market as mostly clearing, or at worst in the process of a quick return to market-clearing equilibrium. Or should one think of it as mostly in

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[1] Solow R., "A contribution to the theory of economic growth", QJE (Feb. 1956).

[2] Solow R., "On theories of unemployment", AER, presidential address, Mar. 1980.

disequilibrium, with transactions habitually taking place at non-market clearing wages? Solow sides with the latter quoting a classical economist Pigou.[1] He believes that Pigou, himself, has evolved his thinking in his more recent work compared to his earlier work.[2] in his most recent work Pigou finds four main reasons why the labour market does not work as if workers were engaged in thorough going competition. Firstly because the labour market is segmented e.g. unemployed labourers cannot compete for jobs held by craftsmen. Secondly trade unionism and wage stickiness restricts movements to equilibrium wages. Thirdly the provision of unemployment insurance has made workers more resistant in accepting employment for wages even above unemployment insurance (why work for 20 per cent more than unemployment benefit when this can be replaced by leisure or informal sector earnings). Fourthly workers get to know the rate for the job and are reluctant to accept less than the going market rate. Solow in his presidential address to the American Economic Association asked his audience whether they themselves would not be surprised if they learned that someone of roughly their status in the profession, but teaching in a less desirable department, had written to their department chairperson offering to teach their courses for less money! Clearly this does not happen.

The great revolution to the classical and neo-classical ideas was that of Keynes.[3] As Klein[4] argued and Keynes himself stated[5] Keynes' theories were a reaction to the classicial economists. A main theory was that of Say, known as Say's law, that supply creates its own demand. But Keynes used as his

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[1] A.C. Pigou, Lapses from Full Employment, London, 1945.

[2] A.C. Pigou, The theory of unemployment, London, 1933.

[3] This is argued in L.R. Klein, The Keynesian Revolution, Macmillan, New York, 1961 (first published in 1947).

[4] L.R. Klein, see previous footnote.

[5] Chapter 2 in John Maynard Keynes, The General Theory of Employment, Interest and Money, Macmillan, St. Martin's Press, 1936.

main source of classical thought Pigou who, in his earlier work[1] believed that the 1930s unemployment in Britain was caused by the improper allocation of people among jobs and the existence of wage rates above the level called for by the general demand conditions. Following these lines of arguments, he supported a policy of wage cuts. Schumpeter too, believed that there could be no persistent unemployment in a perfect, frictionless capitalist system. Aside from his theory of innovations which explained relatively short period movements, he claimed that[2] the forces of work in the early period of the 1930s depression were the agrarian crisis, protection, high taxes, high interest rates, high wages, and the lack of free price movements. Nevertheless while Schumpeter could see nc valid economic reason for the breakdown of capitalism, like Marx before him, he predicted that the capitalist form of society would eventually be superseded by socialism.[3]

4. Social reformers

Keynes viewed capitalist systems as smoothly working except for artifical barriers. Keynes was no great egalitarian, and felt that an unequal distribution of wealth was necessary to maintain the level of savings high enough to supply the abundant demand for capital formatien. The principal difference between Keynes and the classicals was in the determination of equilibrium. Keynes argued[4] that the volume of employment in equilibrium depends on (1) the aggregate supply function, (2) the propensity to consume, and (3) the volume of investment. This was the essence of his General Theory of Employment. The classicals insisted that prices will change to make supply equal demand in product, capital and labour markets. Keynes essentially argued that

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[1] A.C. Pigou, 1933, op. cit.

[2] J.A. Schumpeter, "The Present World Depression", AER, Vol. XXI, 1931, p. 179.

[3] J.A. Schumpeter, Capitalism, Socialism and Democracy, 3rd ed. (New York, Harper, 1950), cited in I. Adelman (op. cit.).

[4] J.M. Keynes, General Theory (op. cit.).

quantities would change to achieve equilibrium, and that real wages were rigid (actually he did not assume this, but dropped the assumption of perfect information). From the simple Keynesian model given in figure 1 it can be seen that if there is a fixed quantum of labour, and if labour supply is determined by wages then any decline in aggregate demand (AD) and hence output (Y) produces more unemployment.

Figure 1: Simplified Keynesian model

$AD = Y$	L = fixed labour supply
$W = cY$	U = unemployment
$U = L - E$	W = wage bill
$E = W/w$	E = employment
$I = S$	I = investment
$Y = f(w, I)$	S = savings
$S = (1 - c)Y + F$	w = wage rate
	F = external flows

Further it can be seen that if the wage bill is increased (i.e. c increases) the profits will be squeezed and investment will drop. This need not occur if foreign capital flows are obtained, if the government runs a deficit or if the government taxes that part of the income of the rich that does not go to savings. Also a reduction in real wages exacerbates the situation since it reduces aggregate demand. All these follow from the Keynesian model. As Klein[1] remarked Russian full employment follows directly from Keynes since any sensible central planning board will set the amount of investment at that amount which will just offset savings out of a full employment national income. Some Marxist economists such as Paul Sweezy of the United States, do not oppose Keynesian

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[1] Klein, op. cit.

economics but believe the class based division inherent in government will not allow liberal social reform.[1] The convergence is even stronger in neo-Keynesian economics where vigorous government intervention is suggested to achieve full employment. Support then comes from the working classes. Keynes and Marx were in agreement[2] that capitalism faces the problem of aggregate demand viz. will the level of aggregate demand generated by any level of output be sufficient to purchase the whole of that output?

To implement a Keynesian approach requires state planning since as Bhatt[3] remarked, how can governments assume responsibility for the maintenance of adequate investment growth without inquiring further into the pattern of investment, which is so much relevant for the nature and structure of growth and welfare? Can the decisions relating to volume of investment be isolated from the decisions relating to the pattern of investment?

As an explanation for unemployment in LDCs, however, Berry and Sabot[4] point to three main criticisms of the Keynesian approach. Firstly (following Reddaway[5]) although there is abundant labour, at least of unskilled types, a general increase in demand will not lead to a general increase in output, because other co-operating factors are needed to work with labour. The traditional one to take is capital, i.e. real capital equipment, "nothing much can be done with bare hands alone". I believe this is a fair criticism, not in the

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[1] See, for example, P. Sweezy, "What has Keynes contributed to the analysis of capitalism", Science and Society (Oct. 1946).

[2] See Kenway P., "Marx, Keynes and the possibility of crisis", Cambridge Journal of Economics, ...

[3] V.V. Bhatt, "Sterility of Equilibrium Economics", Economic Development Institute, IBRD, 1974.

[4] A. Berry and R. Sabot, op. cit.

[5] Reddaway W.B., "The economics of underdeveloped countries", Economic Journal, Mar. 1963.

sense that Keynes ignored capital, he did not, but in the sense that the economy is segmented and in many sectors capital is underutilised for a variety of institutional reasons e.g. poor maintenance, supply bottlenecks - screws missing etc.

Secondly they believe that demand deficiency abstracts from such longer run influences on output as population growth, technological change and capital accumulation. I disagree with Berry and Sabot here because the demand effects of population e.g. the impact of a young and growing population on technical progress outweigh its negative effects. Technological change is more difficult to quantify. New techniques can be introduced even at a marginal productivity lower than the wage rate of labour because of a number of institutional reasons (e.g. social investment, quality of product, environment).

Thirdly the specificity of location and the form of unemployment, e.g. the coexistence in LDCs of urban surplus and rural scarcity contradicts the Keynesian models that the direction if not the rate, of change in aggregate demand is the same in all sectors.

Another person who could be considered a prominent social reformer is the Hungarian economist Kornai, a present day embodiment of neo-Keynesian and Marxist thought. Kornai believes that the inefficiences in the capitalist mode of production as exemplified in the West manifest themselves mainly in terms of unemployment. In the East, in the so-called communist countries, inefficiencies manifest themselves not in unemployment but in the form of shortages.[1] Hence if one wishes to discuss problems of unemployment in centrally planned economies it is not possible, one must rather turn one's attention to shortages. Shortages appear in the supply of goods both consumed and produced. Generally consumers have the cash for the services they want, yet even in Eastern Germany (GDR) consumers may have to wait for up to ten years for, say,

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[1] J. Kornai, The Economics of Shortage, North Holland, Amsterdam, 1980.

an automobile.[1] The main problem seems to be the absence of incentives or signals in the system which will lead to a rapid response of the forces of production. Clearly this is one of the central economic problems of centrally planned economies. Hungary, as in post-Mao's China has therefore reverted somewhat to the workings of competitive markets.

As Kornai remarks,[2] in Hungary the centralisation of economic management started in 1948-49. The majority of firms were nationalised and a wide co-operative sector was established. Public firms were controlled centrally, with the aid of a hierarchical multi-level apparatus. The fulfilment of production plans given to firms, as well as adherence to the input quotas allotted to them, was strictly obligatory. Price setting and the allocation of investment were highly centralised. In the reform of 1968, the main purpose was to free the public firm from bureaucratic ties and to increase its autonomy. The firm does not receive an obligatory directive as to what it should produce in the next year. Rationing of inputs by obligatory quotas has almost ceased. "Command economy" was replaced by a system in which independent firms are connected to a large extent through the market. Some prices continue to be set centrally but the sphere of contract prices determined by the agreement of seller and buyer has been enlarged considerably. The right of investment decision is shared among central organisations, credit-granting banks, and firms independently initiating investment and also financing part from their own savings.

The reform brought tangible results, according to Kornai, with production growing at 5-6 per cent yearly during the ten years after the reform. There is full employment and in some cases increasingly labour shortage. Real wages have grown regularly, supply to consumers has noticeably improved, and the variety of consumer articles has widened.

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[1] Le Monde, 15 Mar. 1981.

[2] J. Kornai, op. cit. (1980, CJE).

5. Development economists

Development economics is generally thought to be a poor relation to mainstream economics. This is because (it could be argued) that the underdeveloped countries are so resource poor in terms of natural resources, technology, capital and skilled labour that their problems do not require sophisticated analysis. What is probably more accurate, however, is that the relative unsophistication of development economics is due to the lack of reliable data and a sufficient number of economists to engage in dialectical debate found in most developing countries. Clearly the theories of such economists/philosophers as Keynes, Marx, Schumpeter to name but a few have applications in developing countries. Yet in this section I consider (only) four economists who I believe have made some of the major contributions concerning development economics, namely Arthur Lewis, Fei, Ranis, and Prebisch.

Arthur Lewis in his seminal paper[1] characterises developing countries as having an unlimited supply of labour where the population is numerous in relation to capital and natural resources. There the marginal productivity of workers in agricultural activities can be negative because when labour supply is very much greater than demand there is no need to pay more than subsistence wages even though these are probably less than the average product. According to Lewis high rates of population growth provide a high rate of growth of labour supply and consequently a continuing downward pressure on wages.

Lewis' celebrated dualistic model, considers two main producing sectors capitalist where capital is reproducible and capitalists receive a rent from ownership of it; and subsistence where, in general, reproducible capital is not used. Salaries in the capitalist sector are related to those in the subsistence sector and hence capitalists have a direct

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[1] Arthur Lewis, "Economic Development with Unlimited Supplies of Labour", The Manchester School, 20 May, pp. 139-191.

interest in keeping down subsistence wages. In agriculture sectors the subsistence wage is excgenous to the supply and demand of labour and unemployment is the result of an economy wide rigid wage in excess of the market clearing level. For example a piece of land that can be fully cultivated by 2 may actually be worked by 4, if a family of 4 working men have no other employment opportunities but happen to own the land, each of the 4 would then work half time but for the same subsistence wage. Thus in this case the supply and demand of labour does not influence the subsistence wage.

Alternatively capitalist sector wages can be 30-100 per cent more than the subsistence wage because of cost-of-living differences (although this is probably illusory because of higher prices in the capitalist sector which tends to be in urban areas) and because discipline amongst workers exists even without trade unions to the extent that workers refuse to accept lower wages than existing workers (note how this differs from the neo-classical school). Savings and investment increases because all savings come from the rentier class and little from the working class. This is because if there exists an unlimited supply of labour at a constant real wage, the capitalists surplus will augment continually and the annual investment will be proportional to the growth in national income. This cannot go on for ever since, for example, all labour might be absorbed at subsistence level wages because capital accumulates faster than labour supply. Then wages will rise and profits fall. Hence the capitalistic sector cannot expand indefinitely. Consequently there is likely to be immigration and/or exports of capital from and to labour surplus countries.

In a modification and formalisation of the Lewis model Fei and Ranis emphasised the dual model of development by replacing the subsistence sector of Lewis by the agriculture sector and the capitalist by industry. The fundamental basis of the model is the financing of industrialisation on the basis of the surplus in agriculture. In their view the marginal productivity of a considerable part of agriculture labour is

zero and hence the surplus workers abandon agriculture for industry. The per capita consumption of those workers who stay then remains constant. Then the former agricultural workers with their higher industrial salaries buy the food that they previously self-consumed. The profits go to the landowners. In a critique of the models of Lewis and Fei/Ranis, Hagen[1] argued that viewing workers solely as a reserve army is fallacious. This is because if a worker leaves a family when his marginal productivity is zero, his family will have a surplus of food that it can sell hence increasing their incomes. Also, Lewis ignored the rise of co-operatives and societies which for example in the United States in 1966 represented 48 per cent of net private savings.

An alternative theory to Lewis, Fei and Ranis evolved in the studies of CEPAL and its best known proponent, Prebisch,[2] namely the dependency theory of development. This theory is largely based on Latin American semi-developed countries but can have relevance in other poorer countries too. The fruit of Prebisch's efforts led to the creation of CEPAL,[3] in 1949, the same year in which his study "The Economic Development of Latin America and its Main Problems" appeared.

"Imitative capitalism" is what Prebisch calls the model many Third World countries are trying to apply.[4] His thesis is that this cannot work. The alternative he proposes is a mix of state control, market forces and South-South co-operation. In essence this is because he characterises the developed countries to be in the centre and the Third World in the periphery. In the centre capitalism is the inventor, the

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[1] Everet Hagen, op. cit.

[2] See for example "Capitalismo periférico y subdesarrollo", Isidro Parra-Peña, Comercio Exterior, Vol. 29, No. 11, Mexico, Nov. 1979, pp. 1233-1242.

[3] CEPAL, in English is the UN Economic Commission for Latin America (ECLA).

[4] See R. Prebisch, Interview in South Magazine, January 1981.

periphery is the imitator and the agents of capitalism in the periphery are the multinational corporations. In the periphery the consumers and investors of the higher classes copy the centre leading to a pattern of investment and consumption in the periphery better suited to the needs of the centre than the periphery. This leads to unbalanced development, increasing poverty and a worsening of the distribution of income. A conflict arises since the periphery needs to accumulate capital much more than the centre to absorb the growing labour force. This is because there are two types of capital, reproductive capital with a power to multiply employment opportunities through more capital accumulation e.g. education; and capital for consumption to satisfy the desires of the consumer e.g. luxury housing. Prebisch's analysis is an elaboration of Marx's theory of surplus value. To break out of this vicious circle Prebisch suggested that countries should adopt a planned import substitution coupled with planning to improve income distribution, agrarian reforms and the control of various drainages of scarce foreign exchange. How this was to be done would, presumably, be through changing the balance of power. How this, in term, was to be done other than appealing to "enlightened" self interest of the dominant power groups is unclear in Prebisch's analysis.

6. Monetarists and employment

A characterisation of monetarism is whether it is Walrasian or not. This distinction is used by Hahn[1] to disentangle monetarist thought from other branches of economics. He suggests that monetarists are Walrasian because they both believe that involuntary unemployment does not exist since the unemployed can always offer themselves up at a lower wage to those employed and employers will recruit at the lower wage even if this means rehiring all the work force again.

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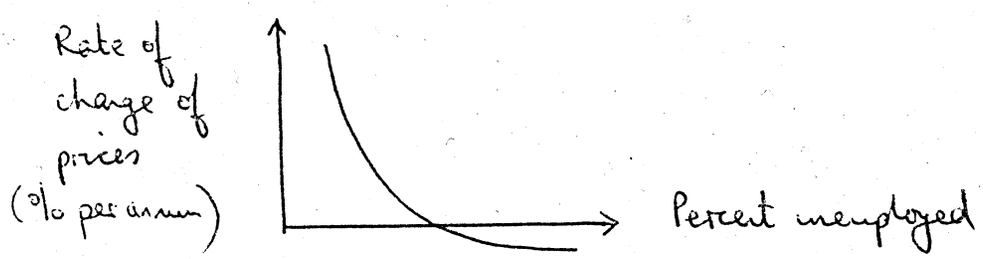
[1] F.H. Hahn, "Monetarism and Economic Theory", Economics, 47, 1-17 Feb. 1980, and R. Thorn (ed.), Monetary Theory and Policy, Random House, 1966.

Milton Friedman[1] writes that "I continue to believe that the fundamental differences between us and Keynesians are empirical not theoretical". Yet Friedman believes that all observed unemployment is a "natural" rate of unemployment - containing both frictional and structural unemployment (defined in Chapter II). Clearly then there is a difference between Friedman and Keynes, the former being Walrasian (price adjustments) and the latter not (quantity adjustments).

Hahn does not attempt to formally define monetarism, and follows Friedman in agreeing that any definition is bound to be necessarily a coarse division. Hahn, though, labels monetarists as believing that actual economies are only for short periods out of equilibrium. Fundamentally the dispute between monetarist and Keynesians does not turn on the role assigned to money. For instance both agree that the desired money stock is proportional to money income. However, according to Hahn, Keynes tended to ignore the fact that if there are more bonds to finance more government spending interest rates will be higher. Further if the government budget is not balanced the stock of financial assets will be changing and the economy cannot settle down to its long-run stationery equilibrium.

The overwhelmingly most important postulate of the monetarists is that the invisible hand works and that it works pretty swiftly, although not instantaneously. This can be demonstrated with reference to the "Phillips curve" pictured in diagram 3.

Diagram 3: Phillips Curve



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[1] In J. Stein (ed.), Monetarism, 1976.

The central message conveyed by this diagram is that there is a trade off between fighting inflation and lowering unemployment. The negative slope indicates that as the unemployment rate is lowered the rate of inflation is increased. Thus the "cost" of lowering unemployment is the associated higher rate of inflation. Similarly, the "cost" of reducing the rate of inflation is the higher level of unemployment the economy must absorb.

The Phillips curve, and Keynesian school were hurt by the fact that unemployment and high rates of inflation coexisted in the 1970s in the capitalist nations despite greatly increased government expenditure. This was, according to Friedman,[1] because the government's use of monetary and fiscal policy is designed to increase the demand for goods and services, thereby increasing the general price level, making labour's services more valuable. The result is that the demand for labour is increased and unemployment falls. While Friedman does not dispute these events he believes the Keynesians end this story prematurely. He believes that when the workers find that their real purchasing power has been reduced due to the increase in prices, they will demand and receive wage increases that restore their previous level of purchasing power. But if wages rise by as much as prices this removes the incentive firms had to expand employment initially, and the levels of employment and unemployment will return to their old levels. This is demonstrated in diagram 4.

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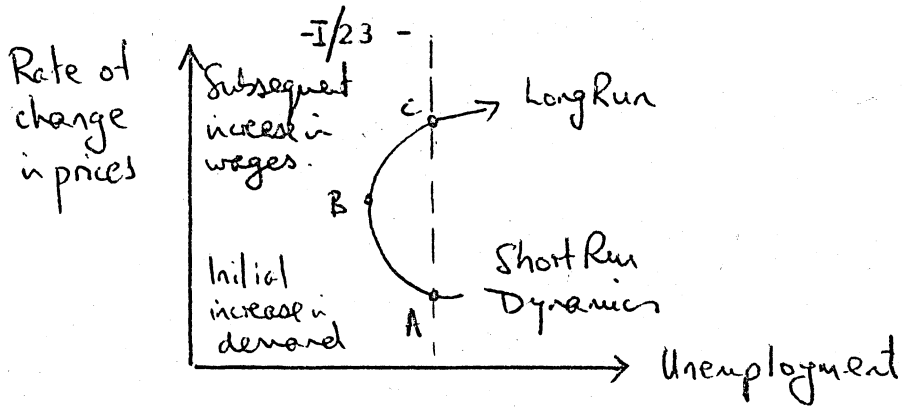
[1] See Chapter 12 in Marshall, Cartter and King, Labour Economics, 1976, Richard D. Irwin, Illinois, for further discussion.

Diagram 4:

Prices and Unemployment



A spurt of inflation results (in diagram 4) in a reduction of unemployment as the real wage is lowered. This sequence of events corresponds to the "short-run" Phillips curve, segment AB. Subsequently as the previcus real wage is restored unemployment increases (the economy moves from B to C) and we are left with a higher rate of inflation but the old level of unemployment. Thus the only change that is possible in the long run is from A to C. Friedman believes the Keynesians are in error by recognising only the short-run nature of the movement from A to B, and ignoring the longer run movement from B to C.

The two major causes of inflation are costs rising faster than increases in productivity and demand running higher than supply. Presumably Friedman considers the latter mechanism tc work first and the former to occur second. In a non neo-classical world, however, wage rises need not necessarily be financed through inflation they could be financed from profits and, if these were too low, from increased taxation of the richer in favour of the poorer workers. Workers do not necessarily demand wages in excess of productivity increases. They demand a wage which, at least, does not fall in real times. Hence when information is poor concerning future inflation workers will attempt to discount the future through asking for wage increases above the inflation rate plus productivity increases thus contributing to a further bout of inflation. In a democratically planned society with full participation of the workers in all levels of planning and budgeting this need not necessarily happen.

1. Segmentation and empirical theories

A segmented labour market is one in which some workers receive higher real wages than others with the same level of human capital simply by virtue of their sector of employment.[1] This can result, for example, in a mismatch between worker's skills and actual requirements and in unfulfilled demand for labour in some sectors and excess supply of labour in others.[2] To a certain extent both the Lewis and Fei/Ranis models satisfy this definition. However Squire[3] criticises these models because he believes their dualistic idea is too simple to reflect the complexity of the real world. He believes that it ought to be extended to include at least three additional factors. Namely a theory of wage rate determination or a demonstration that the industrial wage (for example) is indeed determined by minimum wage legislation. Secondly two sectors are not sufficient, a major development being the informal sector (see below). Thirdly, and this to my mind is the most interesting because it shakes the theory of segmented labour markets, is the assumption that labour is a homogeneous factor of production.[4] For example dualistic models explain

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[1] A. Berry and R. Sabot, "Labour market performance in developing countries: a survey", World Development, Nov.-Dec. 1978.

[2] Such a combination of urban unemployment and rural labour scarcity has been noted in, for example, Sri Lanka. See Thorbecke E., "The employment problem: a critical evaluation of four ILO comprehensive country reports" International Labour Review, Volume 107, No. 5 (May 1973).

[3] L. Squire, "Labour force, employment and labour markets in the course of economic development", World Bank Staff Working Paper, No. 336, June 1979.

[4] According to Squire labour hetereogeneity has not received sufficient attention in formal modelling. Exceptions apparently are: (1) A. Fields, "Private demand for education in relation to labour markets in LDCs, EJ, V. 84, Dec. 74, and (2)

(Footnote continued on next page)

unemployment and wage differentials for labour of homogeneous quality by reference to the existence of segmented labour markets. If labour is hetereogeneous, however, unemployment can be explained without reference to segmented labour markets, unemployment can exist for some types of labour (e.g. educated workers) and not for others (e.g. unskilled workers). Recognition of heterogeneity makes it very difficult to interpret earning differentials. On the one hand they could reflect quality differentials, on the other they could indicate a distortion. This will be considered, empirically for the case of Colombia, in the following chapter.

Turning back to the informal sector, my main criticism of it is the fact that it is considered in isolation from other sectors in the economy i.e. there does not exist a formal model where the informal sector is precisely defined in terms of other sectors or in the relations of production. Squire[1] defines it as that sector in which the return to labour, whether or not it be in the form of wages, is determined by the forces of supply and demand. This, presumably, is meant to convey the impression of a marginal sector but it could equally encompass the situation where a multinational company employed a highly skilled computer engineer (for example) at a very high real wage just because such people are scarce in a developing country.

Squire feels unhappy with the other definitions because they are only empirically based and do not fit into an over-all theory. These are the ones by Hart[2] who defines the informal

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(Footnote continued from previous page)
Pinera and Selowsky, "Unemployment, labour market segmentation", World Bank Working Paper, No. 233, 1978. In qualitative work discussion can be found in S. Kannappan, "Studies of urban labour market behaviour in developing areas", International Institute for Labour Studies, ILO, Geneva, 1977.

[1] Squire (op. cit.).

[2] K. Hart, "Informal income opportunities and urban employment in Ghana, "Journal of Modern African Studies" (London), Vol. II, No. 1, Mar. 1973.

sector to contain those workers in self-employment and the formal sector as those in wage employment. And the one by the ILO,[1] who identify it by a reference to a variety of characteristics such as that sector containing enterprises with a small scale of operation, or with reliance on indigenous resources or with family ownership of enterprises.

Unemployment is sector specific in the Lewis model, even though the wage floor is economy wide because it is in agriculture that excess workers can obtain the means to subsist. Hence in Lewis' capitalist sector workers are in open unemployment and in his subsistence sector in disguised rather than open unemployment i.e. they are underemployed (more on definitions is given in the next chapter).

In the Harris-Todaro model[2] there is also a rigid wage but unlike Lewis it is not economy wide. The contribution (according to Berry and Sabot) of this model to the explanation of unemployment is a labour allocation mechanism under which actual wages are not equalised but the actual rural wage is equated with the expected urban wage, the latter defined as the (rigid) minimum wage weighted by the rate of employment (i.e. the share of persons in this labour market who are employed). The Harris-Todaro model then explains why workers remain in open unemployment rather than accept a job readily available at a lower wage e.g. workers employed in the rural sector have no chance of obtaining a high wage job - or, conversely, only those excess workers in open unemployment have a chance of obtaining a job in the rigid wage sector. Note too that a worker is not unemployed solely because of the absence of aggregate imbalances between labour supply and demand. Hence, in its description of the labour market the Harris-Todero model is neither neo-classical nor Keynesian, it can best be

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[1] ILO, Employment, Incomes and Equality in Kenya, Geneva, 1972.

[2] J. Harris and M. Todaro, "Migration, unemployment and development: a two sector analysis", American Economic Review, Vol. 60, No. 1 (Mar. 1970).

characterised as an empirically based theory. Like Lewis the model is, in its original form, specified so that there is full employment in the rural sector and unemployment in the urban sector. This is consistent with the fact that urban wages have continued to rise in many developing countries. With a labour supply function based on expected income, there will be open unemployment as long as a worker without a job has a higher probability of obtaining a high wage job than does a worker with a low wage job.

Educational differences in the labour market can lead to a "cascade" model where the highly trained currently unemployed replace the less qualified, and the latter in turn replace people less qualified than them and so on. If all unemployment were of the search rather than the queuing variety, then the unemployed would be self employed in information collection and, according to Berry and Sabot, would be optimally allocated. In this view we see shades of Friedman's monetarist view of unemployment viz. all observed unemployment is natural for that given economy at that given time. Then the "social" cost of a given amount of unemployment would be less than in a situation where Keynesian deficiency of demand prevails since then the unemployment would be involuntary.

Educational differences in the labour market can also lead to "mismatch". The mismatch that has received most attention to date is that related to the use of educated persons in positions which could be filled at lower opportunity cost by others. The problem involves the relationship between the education and occupation levels of labour force members and the degree to which the educational system is providing workers with the appropriate skills, give the composition of the demand for labour at some future point in time.[1]

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[1] For a discussion of manpower forecasting see R. Wéry, "Manpower forecasting and the labour market", International Labour Review, Vol. 117, No. 3, May-June, 1978.

B. Concluding remarks

The main concern of this chapter has been to give an overview of the major theories which have attempted to describe how the labour market works. The point of this, in turn, was so that contemporary analyses of what determines unemployment in Colombia could be examined critically using as reference available theory. The most complete review of contemporary theories of the labour market in developing countries has been given by Berry and Sabot. Even they, however, ignore Marxist theory and, generally, the role of institutional factors (e.g. the discrimination against women). Perhaps most importantly though they regard labour markets to be malfunctioning because of distortions in the wage rate. It is felt that if only market signals could be improved e.g. better information about job openings, wage rate equal to the market clearing rate, then unemployment would disappear. This suggests a return to the neo-classical word of Walras, vigorously opposed by Keynesians and Marxists. In subsequent chapters the definition of employment and unemployment will be examined, and the dimension of the problem with a view both to examine the previously set out theory but also to find out what causes un- and underemployment in Colombia.

CHAPTER II

A. An examination and mapping of employment and income distribution in Colombia

1. Introduction

To properly examine and map employment in Colombia it is necessary to define concepts, examine the available data with a critical eye and summarise the evidence. Each is taken in turn in this chapter. A shorter part is devoted to the distribution of income not because it is relatively unimportant but because this bock concentrates more on employment questions per se than the distribution of income.

That employment is an important area of study, or more appropriately the creation of productive employment with a reasonable remuneration to those who want it, is unquestionable today in Colombia. However, a surge in interest in this question has only occurred in Colcmbia over the past ten cr sc years with the publication (end sixties/beginning seventies) of four important works.[1] Each of these is drawn on heavily in this monograph. Further, in the latter part of the seventies, a number of institutions have begun, are completed or are nearing completion or have completed substantial wcrks, notably, Fedesarrollo, CCRP, ICFES, ANIF, CEDE, CIE, SENA, DNP

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[1] (i) CEDE, Empleo y desempleo en Colombia, Ediciones Universidad de Los Andes, Bogotá, 1968 (315 pp.).

(ii) ILO, Towards full employment: A Programme fcr Colombia, ILO, Geneva, 1970 (471 pp.).

(iii) J. Gaviria, F. Gómez, A. López, Contribución al estudio del desempleo en Colombia, CIE/DANE, Universidad de Antioquia, 1973.

(iv) ANIF, Empleo y desempleo, Bogotá, Tercer Mundo, 1976.

and the Ministry of Labour. In the seventies, too, the national statistical office DANE has taken over the role of CEDE of the University of Los Andes of the sixties and conducted quarterly surveys of the labour force in Colombia.[1]

The rest of the chapter is organised as follows. First, the labour force definition of DANE is given, followed by existing data on labour supply, labour force participation rates, unemployment and underemployment. These concepts are examined in the light of alternative definitions. Next is given a discussion on disguised unemployment. The chapter ends with a section on the distribution of income.

2. The Colombian labour force

2.1. Definitions

Table 1 gives the distribution of the population according to the labour force (working population or labour supply) definitions used by DANE in their labour force surveys. Table 2 gives the definitions. Despite this fairly elaborate disaggregation of the labour force there are a number of problems with the definitions as we shall see. Further, a number of categorisations have not been included that some authors believe are important in order to devise adequate policies to eliminate unemployment or underemployment.

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[1] Regrettably few are devoted to rural areas, most are devoted to the four major cities (Bogotá, Cali, Medellín, Barranquilla) or seven (previous four plus Bucaramanga, Manizales, Pasto).

Table 1: The distribution of the population according to the labour force definitions of DANE

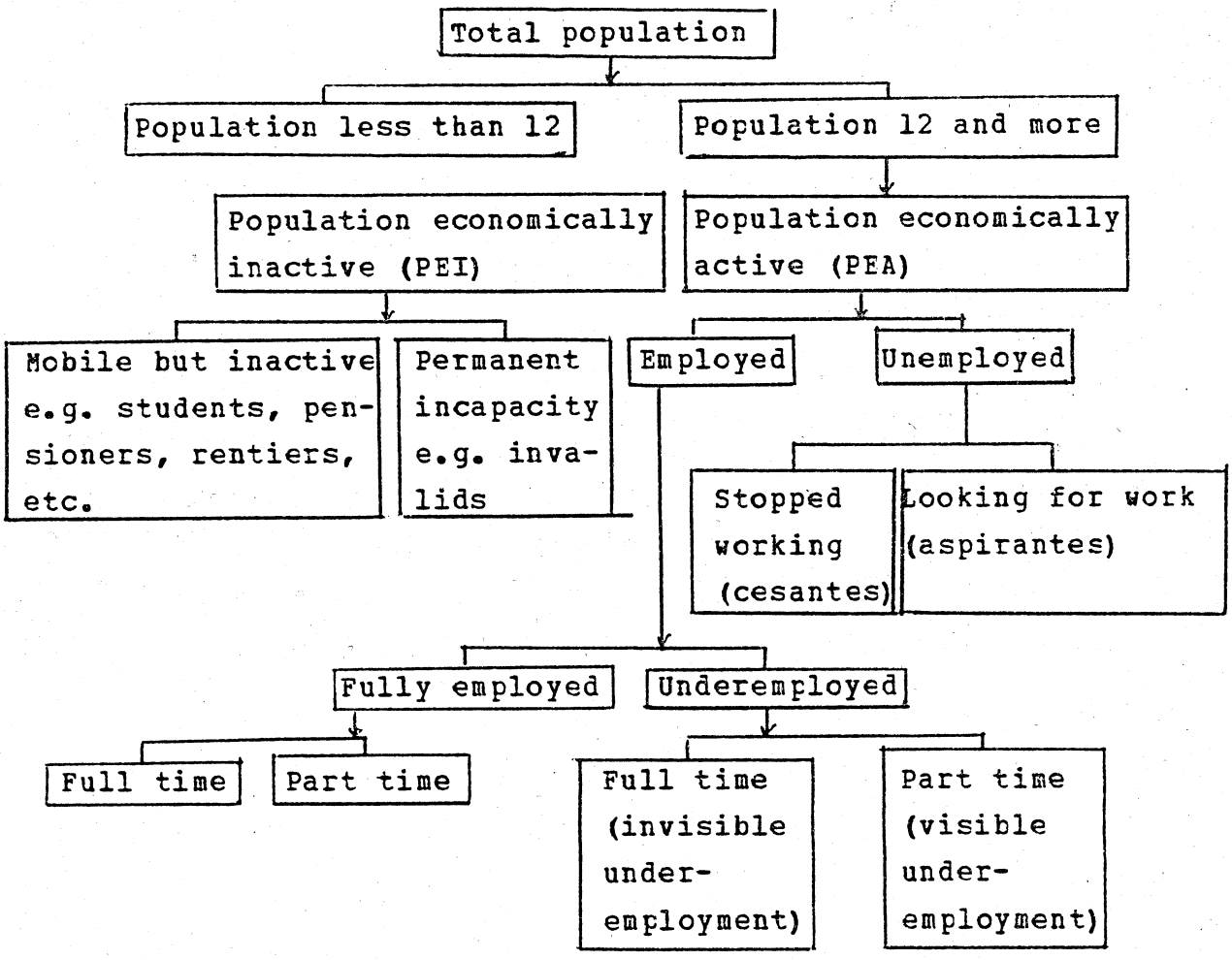

Table 2: DANE - Labour force, basic definitions

1. PEI, population in age of work: people greater than or equal to 12 years of age

2. PEA, population economically active = labour force: people aged 12 or more who during the reference period (the week before the survey date) were employed or not[1]

3. Population employed (ocupada)

   (i) People who during the reference period worked one or more hours for paid work.

   (ii) People who during the reference period worked 15 hours or more without payment (unpaid family workers).

   (iii) People who were not working in the reference period but have some work or business.

4. Population unemployed (desocupada)

   (i) People who made some effort to look for work.

   (ii) People who did not work nor made any effort to look for work in the reference period but had looked for work at some time in the last year.

   (iii) People who had working prospects and were waiting for confirmation.

   (iv) People who had been suspended temporarily from work (more than 30 days) without pay and looking for work.

All divided into: (a) cesantes: people who had looked for work before but not in the reference period.

(b) aspirantes: people who were looking for work.

5. Population underemployed (subempleados)

(i) Visible underemployment: working for less than 32 hours a week.

(ii) Invisible underemployment: consider that their income is not sufficient or they believe there exists a mismatch between the education and training they have and the position they fill.

6. Population economically inactive (PEI)

(i) With permanent incapacity, e.g. invalids.

(ii) With capacity to work but doing other things, e.g. students, rentiers, pensioners, etc.

[1] PEA was those aged 12 or more plus those working but aged under 12 until survey EH8 (November 1974), then all who were 10 or more for subsequent surveys.

Source: En-345, April 1980, boletín mensual de estadística, DANE.

Urrutia,[1] for example, suggests that unemployment should be disaggregated into frictional unemployment and structural unemployment. The former occurs in an economy with a high mobility of labour, e.g. through population growth, migration and new entrants. Hence, there is bound to be a certain amount of unemployment as these look for work. Their unemployment is of short duration. It could be reduced according to Urrutia through improving the information base of employment opportunities and can be mainly attributed to poor information concerning job availability. Hence, Urrutia believes frictional unemployment to be relatively unimportant compared with structural unemployment. This latter covers people in regions without much economic future, those with skills not necessary for the system of production, old people, the sick,

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[1] M. Urrutia, "Metodos para medir los diferentes tipos de subempleo y desempleo en Colombia", en CEDE, 1968, (op. cit.).

infirm, those suffering from poor nutrition, etc. The social cost of this form of unemployment is very high because it is more or less permanent or at least of long duration. It can be avoided, according to Urrutia, through a number of measures such as regional employment subsidies, public works, re-education programmes, e.g. SENA,[1] programmes of employment for senior citizens, subsidies to firms to employ such workers. Urrutia argues for substantial government intervention - Keynesian style - to avoid structural unemployment. As well as these two categories, Marshall et al.[2] would add cyclical unemployment. This occurs because of the general slacking of demand during recession periods and also includes variations in demand because of the change in seasons. Usually the burdens of cyclical unemployment are spread widely and even employed workers are likely to suffer from reduced weekly hours and/or reduced take-home pay.

Two other categories or concepts that have appeared in particular in the Colombian literature are additional and discouraged workers. Standing[3] states that when there is a fall in the demand for labour, implying a lower return per unit of time spent in the labour force, the result is an additional worker effect to the extent that families affected attempt to make up for what they consider to be a transitory decline in income by increasing the number of household members in the labour force (these are mainly married women). If the size of the labour force declines as the level of unemployment rises those workers who leave the labour force are known as discouraged workers. Standing names six types: (i) discouraged jobseekers; (ii) those inhibited from entering or re-entering the labour force; (iii) those who adjust their timing of partial labour force participation; (iv) laid-off secondary workers whose attachment to the labour force is very weak, even when unemployment is cyclically low; (v) those who

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[1] SENA - the national programme for training workers.

[2] Marshall, Cartter and King (1976, op. cit.).

[3] G. Standing, Labour force participation and development, ILO, Geneva, 1978.

retire earlier than anticipated; and (vi) those who remain in or re-enter education as a response to unemplcyment.

In Colombia, Urrutia,[1] making use of 1967 survey data, suggested that the inclusion of discouraged unemployed workers would have increased the urban unemployment rate from 14 tc about 21 per cent. A regression analysis using quarterly data for Bogotá from 1963 to 1966 showed that the aggregate participation rate declined as unemployment rose, but the rise in unemployment was positively related to the participation rate of young women aged 15-19 and of older women aged 45 to 49. The results of Urrutia were used by the Seer's ILO report on Colombia.[2] This report estimated un- and underemployment in 1967 to be of the order of 25 per cent in urban areas. The work of Urrutia has been heavily criticised by Fadul[3] - this is examined in more detail in section 2.5 implying that the ILO overestimated numbers of un- and underemployment and (since they were later used to measure this) poverty in Colcmbia in 1967.

Before examining the definition of disguised unemployment as used in the Colombian case, I shall present a number of statistics that are generally used by Colombian statisticians, economists and politicians in presenting the extent of the employment problem in Colombia. Not all of the various categorisations of labour listed above have been quantified in Colombia. However data are available for all categorisations listed in table 1 in urban areas. There is a paucity of data available for rural areas - this is discussed later in section 2.6.

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[1] M. Urrutia, "El desempleo disfrazado en Bogotá", en Empleo y Desempleo en Colombia, CEDE, Ediciones Universidad de Los Andes, Bogotá, 1968.

[2] ILO, 1970 (op. cit.).

[3] Maite Fadul, "El desempleo disfrazado en Colombia: los erectos del trabajador adicional y desalentado", Documentos de Trabajo, CEDE No. 011, Bogotá, June 1974.

2.2. The Colombian labour force

2.2.1. Population economically active and open unemployment in census years

Table 3 gives the total population of Colombia for the census years from 1951 to 1973, a projection to 1980 and the historical rates of population growth. The population numbered 26 million in 1980 and was growing at 2.1 per cent per annum; this rate of growth has dropped from over 3 per cent in the mid-sixties. Table 4 gives the population economically active for the post-war census years.

Table 3: Total population of Colombia and rates of growth to 1980

	Population	Rates of growth
1951	11 228 790	
1964	17 484 508	3.4
1973	22 501 175	2.8
1980	25 940 000	2.1

Source: Departamento Nacional de Planeación, El mercado laboral en Colombia, DNP-UPG, Enero 1980, División de Precios y Salarios, Bogotá, table 2.1.

Table 4: Population and global rates of participation

	1951	1964	1973
Pop. total (PT)	11 228 790	17 484 505	22 501 175
PET (in age of work >10%)	69.4%	66.3%	70.4%
PEA (pop. ec. act)	33.4%	29.4%	27.2%
PEA/PET	48.2%	44.3%	38.6%
PEA/PT	33.4%	29.4%	27.2%

Source: DNP-URG, table 2.5.

The number of young people has remained more or less the same from 1951 to 1973 as a proportion of total population, but the participation rate, i.e. the number of those economically active as a proportion of the total population, has dropped from 33.4 per cent in 1951 to 27.2 per cent in 1973. No figures are currently available for the whole country for later years. Under the assumption that the participation rate remained around 27 per cent during the seventies with a population growth rate of 2.5 per cent per annum a crude calculation suggests that if the population increased by 6 1/2 million between 1970 and 1980[1] the extra number of people looking for work in the decade of the seventies over 1970 was 1.8 million.[2] Thus, each year in the seventies 180,000 extra people were looking for work in Colombia because of previous population growth alone. If these had remained unemployed they would have added nearly 3 per cent each year to the unemployment figures on average. If we assume that none of the new entrants found work then 1.8 million people would have been added to the unemployed of 1980. In fact, as we shall see,

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[1] Estimates of population for 1970 and 1980 were taken from Colombia Estadistica 1979, DANE.

[2] Twenty-seven per cent of 6.5 million.

there exists no reliable global figure on unemployment in Colombia for 1980. Assuming that the ILO's 1967 estimate of unemployment, 14 per cent, still applies today, then that figure would have been increased to 40 per cent.[1] This has not happened. Hence, despite (as we shall see) high unemployment, underemployment and poverty in Colombia, the economy has still managed to absorb 26 per cent of the labour force who arrived because of population growth alone (again assuming open unemployment is 14 per cent).[2]

Table 5 gives, for the economy as a whole for the census years, the population economically active, by age and sex as a proportion of total population. The table combines the effects both of changes in labour force participation rates and in population distribution. The main effect that can be seen, with the exception of the less than 15s, is that the number of young people aged 15-24 in the population is dropping proportionately. This is probably because of the increases in life expectancy as Colombia develops economically, which serves to "age" the population. The increase in very young people (less than 15) is because infant mortality dropped sharply in Colombia over the period 1951-73.

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[1] The increase from 14 to 40 per cent, i.e. 26 per cent, is calculated as follows:

26% = new entrants in 1970s ÷ (1980 population x participation rate).

i.e. 26% = 1.8 million ÷ (26 million x 27%) x 100.

[2] This argument seems to support Malthusian population economics, e.g. cure population growth and unemployment would have been -12 per cent, i.e. a 12 per cent surplus demand for workers. This paradox cannot be explained simply. However, that minus 12 per cent does not occur shakes the simplistic Malthusian view. In fact, what happens is that new entrants or population increase the effective demand for goods and services in the economy and hence new output and employment.

Table 5: PEA by age and sex (%)

Age	1951			1964			1973		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<15	3.8	5.8	4.2	4.4	4.7	4.4	7.2	10.9	8.2
15-19	15.1	20.4	16.1	13.5	19.7	14.8	13.4	19.6	15.0
20-24	16.6	18.7	17.0	14.7	18.9	15.6	14.6	19.5	15.9
25-34	24.0	22.0	23.6	24.7	23.1	24.4	23.7	21.5	23.1
35-44	18.1	15.7	17.7	19.1	16.1	18.5	18.4	13.4	17.1
45-54	11.9	9.5	11.5	12.9	10.2	12.4	12.5	8.1	11.3
55-59	3.4	2.4	3.2	3.8	2.6	3.5	3.7	2.1	3.3
60>	6.9	5.4	6.7	6.9	4.7	6.5	6.6	4.7	6.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total	3 054 420	701 189		4 102 063	1 032 062		4 515 260	1 597 987	

Source: DNP-URG, table 2.7.

In table 6 participation rates by age and sex for the census years are given. Male participation rates have dropped steeply over the period 1951 to 1973 for all ages. This is probably because of increases in educational opportunities for all age groups but could be because of the discouraged worker effect. Female participation rates, however, have climbed steeply for young women between the ages of 20 and 30, although other female age groups have not changed much. The former is probably because of the great gains in the awareness of the female role in society but could also be because of the additional worker effect.

Table 6: Participation rates by age and sex

	1951			1964			1973		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<15	16.8	6.2	11.6	15.6	4.3	10.0	19.7	10.6	15.3
15-19	84.8	23.6	52.6	66.3	21.8	42.9	48.6	22.8	34.8
20-24	95.4	23.9	59.0	89.8	26.3	56.3	72.3	29.1	48.9
25-34	97.6	19.7	57.8	96.4	20.8	56.9	82.7	23.6	51.3
35-44	97.9	19.1	58.2	97.5	19.8	57.8	83.1	19.1	49.3
45-54	96.8	17.9	57.6	95.3	18.8	57.3	80.5	17.2	47.5
55-59	94.8	15.9	56.2	92.5	16.5	54.8	72.2	14.5	42.9
>60	79.3	12.3	43.4	70.2	10.6	38.5	55.4	12.4	32.8
TOTAL	54.7	12.4	33.4	47.6	11.6	29.4	41.3	13.8	27.2

Source: DNP-UPG, table 2.10.

2.2.2. Labour force participation rates from surveys

An attempt to explain the changes in Colombian participa-

tion rates has been made by Berry.[1] He noted that: (i) there appeared to have been a general decline in age specific participation rates between the 1951 and 1964 population census; (ii) between 1964 and 1970 no such general trend appeared and there were increases for the age groups 20-45; (iii) for both men and women the declines since 1951 have been concentrated in the younger age groups; (iv) for other age groups there was little change for men and an increase for women; and (v) Colombian participation rates for women were still low by world or Latin American standards at the end of the 1960s.

Berry believed that the increase in unemployment rates mainly determined the fall in participation rates, with workers entering disguised un- and underemployment. Berry's main evidence stemmed from a cross-sectional test which was undertaken by DANE on the basis of its 1970 household survey. If each category in each of the five regions into which the country was divided for purposes of the survey were considered as an observation, a rather clear, negative relationship emerges for urban males (see diagram 5). For 24 of the 31 observations the derivation from the respective national means for the two variables went in opposite directions. More significantly, this negative relationship was strongest in the younger age groups (12-24) where the participation rate is lower. The participation rate-unemployment rate relationship was weak - almost absent - for males 25-24, where the participation rates were generally quite high. A regression line fitted to the observations in diagram 1 indicated that an unemployment rate 1 per cent lower might be associated with a participation rate 2-3 percentage points higher. We examine high unemployment (tables 9 and 10 later) for the decade of the seventies, using DANE household surveys over a number of points in this relationship - low participation is substantiated but in reverse because in the seventies there is a decline in

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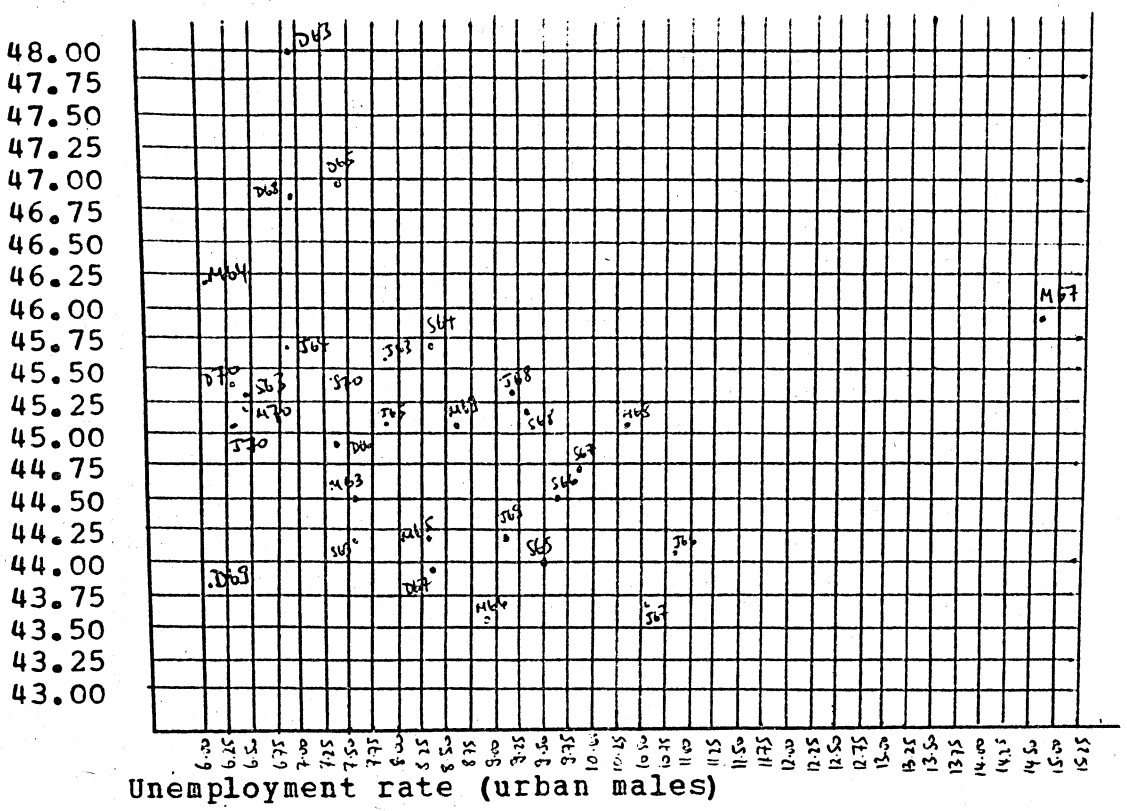
[1] R.A. Berry, "Disguised unemployment and the participation rate in urban Colombia", Journal of Economic Studies, Vol. 4, No. 2 (Nov. 1977).

Diagram 5: Cross-regional relationship behaviour (1964-70): The participation rate and the unemployment rate, urban males



Source: DANE, Encuesta de Hogares, 1970. Reproduced in R.A. Berry (Nov. 1977, op. cit.).

unemployment rates and an increase in participation rates. There, however, the decline is not as steep as the above cross-section results. In a regression line over time (data from table 10) the PEA against the unemployment rate was estimated to be:

<u>for males</u>:

(a) PEA = 70.49 - 0.25U R. = -0.16, N = 18

<u>for females</u>

(b) PEA = 36.02 - 0.02U P. = -0.17, N = 18

Only a weak relation was found between participation rates and unemployment, the result being stronger for males than for females. The signs were both in the expected direction yet a 1 per cent decline in unemployment for men gave only a 1 per cent increase in the participation rate for males and 0.06 per cent for females compared with the 2.3 per cent found by DANE. In fact, in 1979 and early 1980 it can be seen from table 9 that participation rates are much higher than could be predicted by the regression coefficients. Note that the male regression line gives a maximum participation rate of 70.4 per cent and the female 35.02 per cent with zero unemployment. Both these rates were easily succeeded in late 1979/early 1980. The results suggest that disguised unemployment is becoming less of a problem than Berry thought based on 1960 data, it probably being replaced by additional workers - particularly women - as unemployment rates increase.

In table 7 open unemployment rates for the census years are given. There it can be seen that labour supply grew at less than the rate of population between 1951 and 1973, and that labour demand grew faster than the labour supply from 1951 to 1964. Open unemployment went down in spite of the fact that labour demand grew less than labour supply from 1964 to 1973 and in spite of higher GNP growth rates. This, if the figures can be relied upon, suggests that unemployment is as much a function of capital intensity in the production process (because employment went down when GNP increased) as it is due

Table 7: Over-all unemployment rates

	1951	1964	1973	Growth rates (annual)	
				1951-64	1964-73
Population (P)	11 228 790	17 484 505	22 501 175	3.4	2.8
PEA (labour supply)	3 755 600	5 134 100	6 116 800	2.4	2.0
PEA/P (part. rate)	.33	.29	.27		
Labour demand	3 246 900	4 546 300	5 188 500	2.6	1.3
GNP (million 1970 pesos)	50 917	94 708	159 195	4.9	5.9
GNP/capita (pesos)	4 535	5 417	7 075	1.4	3.0
Unemployment (D)	508.7	587.8	998.3	1.1	5.9
Rate of open unemployment (D/PEA)	.14	.11	.16		

Source DNP-URG, table 3.1.

Table 8: Participation rates, unemployment and underemployment by sex, urban areas of Colombia, June 1978

	Participation rate	Unemployment			Underemployment			Unemployment plus underemployment
		Total	Stopped working	Aspirants	Total	Visible	Invisible	
Total	34.3	7.6	5.2	2.4	12.5	2.7	9.8	20.1
10-11	1.5	10.6	6.9	3.7	7.7	0	7.7	18.3
12-14	8.7	11.6	6.9	4.7	10.4	2.9	7.5	21.5
15-19	33.1	16.3	9.1	7.2	13.6	2.8	10.8	29.9
20-29	65.5	10.6	7.0	3.6	14.0	3.0	11.0	24.6
30-39	67.2	3.3	2.7	0.6	12.4	2.5	9.9	15.7
40-49	64.0	2.9	2.7	0.2	13.2	2.8	10.4	16.1
50-59	54.8	3.6	3.5	0.1	8.7	2.0	6.7	12.3
60-69	39.0	3.9	3.9	0	7.2	2.0	5.2	11.1
70-79	20.2	5.9	5.9	0	9.9	6.2	3.7	15.8
Men	46.8	6.7	5.2	1.5	13.4	2.0	11.4	20.1
10-11	1.5	13.8	13.8	0	13.2	0	13.2	27.0
12-14	11.2	12.8	9.8	3.0	15.1	3.6	11.5	27.9
15-19	41.8	16.9	11.8	5.1	17.8	3.5	14.3	34.7
20-29	87.1	8.9	6.2	2.7	15.5	2.1	13.4	24.4
30-39	98.2	2.6	2.5	0.1	12.4	1.4	11.0	15.0
40-49	97.6	2.8	2.8	0	12.3	1.4	10.9	15.1
50-59	88.1	3.4	3.4	0	8.8	1.1	7.7	12.2
60-69	69.7	3.9	3.9	0	8.1	1.9	6.2	12.0
70-79	43.3	7.4	7.4	0	11.7	7.0	4.7	19.1

Women	23.1	9.4	5.3	4.1	11.1	4.1	7.0	20.5
10-11	1.6	7.4	0	7.4	2.2	0	2.2	9.6
12-14	6.4	9.7	2.3	7.4	2.9	1.6	1.3	12.6
15-19	25.9	15.5	5.5	10.0	8.1	2.0	6.1	23.6
20-29	48.4	13.0	8.1	4.9	11.7	4.3	7.4	24.7
30-39	42.2	4.7	3.1	1.6	12.3	4.4	7.9	17.0
40-49	34.6	3.3	2.6	0.7	15.4	6.2	9.2	18.7
50-59	27.1	4.2	3.7	0.5	8.7	4.5	4.2	12.9
60-69	14.9	3.8	3.8	0	3.5	2.2	1.3	7.3
70-79	6.7	0	0	0	3.3	3.3	0	3.3

Source: DANE, Encuesta de Hogares, Etapa 19, Cuadro No. 35, June 1978.

Note: Definitions as in table 2.

to increases in the labour supply. Remember that I argued statistically above that increases in unemployment due to population growth are not an over-riding factor. These questions are discussed further in Chapter III.

Table 8 gives the results of a recent survey (June 1978) of the labour force in urban areas in the country as a whole. The global participation rate is much higher at 34.3 per cent than those given in table 4 because rural areas have been excluded and it is a result of a survey not a census. The participation rates[1] for men for the age groups between 20 and 59 oscillates between 87.1 per cent and 98.2 per cent. For women for the same age groups it varies between 27.1 per cent and 48.4 per cent. It is interesting to see that the participation rate of men jumps 11 points between the age groups 20-29 and 30-39 whilst that of women drops by 6 points. This suggests the importance of matrimony in determining participation rates and the continuing importance of the male role as the provider in general. Note, too, the importance of education for both men and women up to the age of 15 because after this age labour force participation jumps upwards. Nevertheless, substantial numbers of people enter the labour force when they are very young and this gives one of the reasons why the rate of unemployment is very high (16.3 per cent) for those between the ages of 15 and 19, and is above 10 per cent for those in the age group 10-14. The rate of unemployment for the age group 20-29 is 10.6 per cent and diminishes to less than 4 per cent for older workers, with the exception of those aged 70-79.

For the age groups up to 19, the rates of unemployment of men are greater than women, after which the situation is reversed until the 50 to 59 age group. A probable explanation for this phenomenon is that the labour supply of men of age 20

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[1] This discussion draws on another analysis of this table presented in J. Fernández, A. León, L.F. Rodrigues, "Características del desempleado en Colombia", Revista de Planeación y Desarrollo, Vol. XII, No. 2, May-August 1980.

or more has more experience than women. This is also suggested by Kugler et al.[1] who found that women who were working had the same educational level as men but that women had, on average, less than half the accumulated years of experience as had the men.

The rate of urban underemployment over-all is 12.5 per cent, 13.4 per cent for men and 11.1 per cent for women. It is divided into 2.7 per cent visible underemployment and 9.8 per cent invisible. The largest rates - those larger than 10 per cent - are encountered in the age range 12 to 49 for men while for the women this occurs for those aged 20 to 49. Adding un- and underemployment together gives a total for the country of 20.1 per cent in urban areas in June 1979. Younger people are most seriously affected in terms of open unemployment yet adding both un- and underemployment rates together shows that both men and women up to the age of 50 are affected severely. Further, even those over 50 are severely affected since their lower participation rates suggest that they have become discouraged because of the labour market situation. Hence, taking both un- and underemployment together plus an eye on the participation rates suggests that the problem is very widespread and not just confined to the young age groups as some would have us believe.[2] I return to this in section 2.4 where I also re-examine Berry's analysis of participation rates. Before this, though, I should like to finish my overview of Colombia's employment situation.

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[1] B. Kugler et al., Educación y Mercado de Trabajo Urbano en Colombia: Una comparación entre sectores Moderno y no Moderno, CCRP, Vol. X, May 1979, Bogotá.

[2] For example, R.A. Berry in "Open Unemployment as a Social Problem in Urban Colombia: Myth and Reality", Economic Development and Cultural Change, Vol. 23, Chicago, 1975, pp. 276-291. The rates of un- plus underemployment are 34.7 per cent for men between 15 and 19, but 24.4 per cent between 20-29 with participation rates of 41.8 per cent and 87.1 per cent respectively. Clearly, in terms of absolute numbers the problem is worse for men aged 20-29 than for those younger.

In table 9 the summary results of a number of household surveys containing some information on rural areas are given. Not much attention has been given to data collection of the labour force in rural areas; most recent DANE surveys refer to the four or seven major cities of Colombia.

Table 9: National household surveys on[1] the participation rate and the unemployed global participation rate[2]

Survey		Participation rate		Unemployed (% PEA)		
		Male	Female	Male	Female	Tctal
Etapa 1	Total	73.1	23.9	6.0	11.6	7.5
(June 1970)	Urban			8.8	12.1	10.0
	Rural			2.9	10.4	3.9
Etapa 3	Total	71.9	23.3	5.2	10.6	6.6
(April 1971)	Urban	65.6	27.8	8.2	11.2	9.3
	Rural	80.0	15.6	1.8	8.7	2.9
Etapa 4	Total	71.7	24.3	6.3	17.7	9.5
(July 1971)	Urban	66.1	28.6	9.2	15.1	11.2
	Rural	79.7	16.6	2.9	25.9	6.8
Etapa 5	Total	74.3	28.4	6.4	16.6	9.4
(Nov. 1971)	Urban	68.4	32.2	9.1	15.8	11.6
	Rural	82.9	21.3	3.1	18.7	6.2
Etapa 6	Total	73.4	27.6	6.0	14.9	8.6
(Sep. 1972)	Urban	68.0	30.8	8.1	13.5	10.0
	Rural	81.7	21.3	3.2	19.0	6.4
Etapa 8	Total					
(Nov. 1974)	Urban	69.7	31.9	7.9	15.1	10.4
	Rural					
Etapa 19	Total					6.2
(June 1978)	Urban	64.2	29.8	6.7	9.4	7.6
	Rural	78.3	17.9	1.7	9.6	3.1

[1] Proportion in the age at work has not changed much except 1978 was aged 10 or more.

[2] This is the participation rate of the working age population, i.e. as a proportion of those aged 12 or more. Unemployment percentages are, of course, percentages of labour supply (PEA).

Source: Boletin mensual de estadistica, DANE, No. 345, April 1980.

The reasons for this and the limitations of the rural surveys are discussed later in this chapter in section 2.6. Fernández et al. (op. cit.) states that in rural areas important problems of open unemployment do not exist. For the June 1978 survey open unemployment (see table 9) was 7.6 per cent in urban areas but only 3.1 per cent in rural areas. Further, according to the 1973 census, only 32 per cent of the population over the age of 10 was in the rural areas. Hence, a national open unemployment rate of 6.2 per cent had only one of its percentage points coming from the rural areas. Although Fernández et al. states that rates of rural underemployment are high, he does not give - nor does there appear to exist - any figure to support this. The ILO report of 1970 stated that the 1964 census gave a figure of 17 per cent for rural underemployment, but the report noted that this census provided "a somewhat confused estimate of open unemployment on the day of the census" and "an overestimate of the combined rate of underemployment during the week of the census and the average rate of open unemployment during the 12 months preceding the census" leading to a measure of underemployment which in fact was "a mixture of open unemployment, disguised unemployment, underemployment and voluntary, temporary withdrawal from the labour force".

Table 9 shows that participation rates are higher in rural than urban areas for men but lower for women. This suggests that female emancipation has not infiltrated rural

areas as much as the urban areas and further suggests that the rural areas are more backward in socio-economic development than urban areas. This is if it is accepted that development is a necessary, if not sufficient, condition for female emancipation.

Rural open unemployment is generally lower than urban open unemployment. Open unemployment, also, has dropped in both urban and rural areas from the early 1970s (rates of 7.5, 6.6, 9.5 in 1970 and 1971 compared with 6.2 in June 1978) if the results of the 1978 survey can be believed. Table 9 also suggests some consistency between urban and rural open unemployment rates, when urban increases rural increases.

If this is assumed to be always true then from table 10 it can be seen that urban open unemployment dropped from 1974 to 1980 (except for March 1980 when the numbers rose to 10.8 per cent) and if rural unemployment dropped as expected then the employment problem is ameliorating slightly in Colombia. This, as table 10 demonstrates, occurs even in the face of rising male and female participation rates (from 67 to 72 per cent for males and from 34 to 40 per cent for females over the period 1974 to 1980). Table 10 also demonstrates a consistency between estimates over time suggesting that the urban surveys (they covered only the main four or seven cities in Colombia) are reliable. The main upset seems to be the March 1980 survey with a sudden jump in the open unemployed in urban areas to 10.8 per cent.

Table 10: Participation rates and unemployment in urban areas (four or seven cities)

Survey	PEA		Unemployed (% PEA)		
	Male	Female	Male	Female	Total
7 (June 1974)	68.3	36.4	10.4	16.2	12.7
9 (Oct. 1975)	67.1	33.4	9.1	12.9	10.6
10 (Apr. 1976)	67.5	34.9	10.0	13.0	11.2
11 (June 1976)	68.1	34.5	8.7	12.2	10.0
12 (Sep. 1976)	67.4	34.4	9.6	11.6	10.4
13 (Nov. 1976)	68.1	35.4	8.3	10.7	9.2
14 (Mar. 1977)	66.3	34.3	9.2	11.8	10.2
15 (June 1977)	67.5	34.9	8.2	12.2	9.8
16 (Sep. 1977)	67.5	35.2	7.8	11.9	9.4
17 (Dec. 1977)	66.3	34.3	6.5	10.4	8.0
18 (Apr. 1978)	66.9	34.7	8.1	12.5	9.7
20 (Sep. 1978)	67.2	35.4	6.8	10.1	8.2
21 (Dec. 1978)	68.8	36.4	7.1	10.3	8.4
22 (Mar. 1979)	69.5	35.8	7.9	11.4	9.2
23 (June 1979)	69.9	36.4	7.0	10.6	8.5
24 (Sep. 1979)	71.2	37.8	7.2	11.5	8.9
25 (Dec. 1979)	72.1	39.3	7.4	10.3	8.6
26 (Mar. 1980)	72.1	40.4	9.2	13.1	10.8

Source: Boletin mensual de estadistica, No. 345, April 1980, DANE.

2.3. Concepts of labour force participation and underutilisation[1]

In this section I examine and review briefly the concepts underlying the determination of the labour force with a view to

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[1] This section draws heavily from G. Standing (1978, op. cit.).

assessing the reliability of the statistics collected by DANE. Indices of labour force participation provide a measure of labour supply and indicate the extent of labour utilisation. There is, however, no generally accepted and hence ideal labour force concept. Standing has grouped what concepts exist in the literature into two main groups. One is basically behavioural, i.e. attempting to define labour supply through what people do with their time, and the other is basically normative, i.e. it attempts to evaluate and hence define work in terms of what people actually get out of it.

2.3.1. Labour force approach

This approach is basically behavioural, is the most widespread, the one used in Colombia, and the one generally recommended by the ILO. The labour force is equal to the working age population multiplied by the economic activity rate. It is based on the distinction between active and inactive and assumes that the working age population is easy to find. Each country that applies this method has a slightly different version, e.g. even in Colombia the working age population is defined sometimes as those over 10 and sometimes as those over 12. For an excellent summary of the variations in the application of this in 20 developed countries and 20 developing countries see Mehram.[1]

In practice the economic activity rate is based on the notion of employment which is usually defined as any occupation by which the person who pursues it receives compensation in money or in kind or in which he assists in the production of marketable goods and services. To be called economically active a person without work has to have been "available and wanting work" during a specified period and also should have been actively seeking it. In Colombia the reference period is generally the week before the survey takes place but this can

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[1] Mehram, "Measuring employment, unemployment and underemployment", Working Paper, Meeting of experts on household surveys, ILO, Geneva, 6-10 April 1981.

vary from survey to survey. There are clearly many problems with this approach in order to define an economic activity rate. Firstly, in low-income countries and in particular in rural areas dominated by subsistence agriculture the concept is meaningless since the specialisation of activities has not been developed, e.g. domestic work is excluded, criminal activities are excluded or men sitting under a tree deciding what action to take over some local dispute would probably not be called working, yet in another country their informal deliberations would be replaced by the salaried employment of judges and barristers. Secondly, by a rigorous interpretation of the definition a beggar could be counted as gainfully employed since, hopefully, he occasionally receives compensation. Consequently, so that the beggar would not be counted, gainful employment might be defined by some reference to production. But then suppose the beggar attempts to increase his income by singing to passersby;[1] he would be producing a service of sorts, just as he would if his begging took the form of insisting on cleaning cars or windows. In that case it might seem that one could either relate gainful employment to expected demand or to the recognition aspect of employment. If the existence of demand rather than its expectation was taken as a criterion then it would tend to result in the exclusion of many lottery ticket sellers who by perpetually pestering people hope to stimulate a demand for their products. Thirdly, the reference period for classifying people as working unemployed or economically inactive is also crucial. It is affected by seasonal variations, illness, holidays, absence from work, etc. In Colombia surveys are carried out quarterly during the year and can capture such variations, except for the fact that they are largely urban based. Fourthly, it assumes that aggregate

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[1] It is not unusual to see (and hear) little children of both sexes of the ages 5-10 singing in public buses in the major towns of Colombia. I have seen some gain as much as 150 pesos ($2) from three songs in a full but not crowded bus of 50 people. These are not counted as part of the labour force in Colombia - excluded both by age and occupation.

labour supply can be measured by size of labour force. Yet labour supply cannot be measured simply by the number of employed and unemployed, however defined. Labour supply consists of hours, days and months; effort and intensity of work, commitment to specific jobs and continuity of work. Measurement can be improved by measuring hours worked (note that visible underemployment in Colombia is defined in terms of hours worked - 32 hours or less in this case). However, this ignores those who work long hours for meagre rewards, e.g. newspaper vendors, shoe shiners, etc.

The following approaches have been suggested as a response to the above criticisms of the labour force approach and, following Standing, can be termed normative.

2.3.2. Subemployment index

The open unemployment rate is widely accepted to be an inadequate index of labour underutilisation because it treats all employed and unemployed as supplying an equivalent amount of labour, many of those measured as employed may be underutilised working at a lower level of productivity than they are capable of working, or working for shorter periods less intensively than they would be able and willing to work. In the Gordon[1] report, because of this dissatisfaction, it was suggested to have a "subemployment" index to include the unemployed, discouraged workers, people working part time who wanted full-time work and family heads who did not earn enough to keep their families out of work. Myrdal[2] suggested discarding entirely the concepts of "unemployment" and "underemployment" as inadequate to reality. Concepts should be based on simple behavioural concepts: which people work at all,

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[1] United States, Measuring employment and unemployment: The President's committee to appraise employment and unemployment (Washington, 1962).

[2] G. Myrdal, Asian Drama (Harmondsworth, Middlesex, Penguin Books, 1968), Vol. 2.

for what periods during the day, week, month and year, with what intensity and effectiveness, etc.

It is already becoming clear, however, that normative concepts or, at least, those that criticise the labour force approach suffer from one main problem, namely complexity. They complicate life. We have already seen in table 8 that the attempt in Colombia to define invisible underemployment found more people invisibly underemployed than those openly unemployed (for men the former was 11.4 per cent, the latter 6.7 per cent). Even here the Colombian concept can be criticised (see table 2 for definition) because it excludes disguised un- and underemployment (7-10 per cent according to Urrutia at one point in time). Further, the Colombian definition allows workers' own value judgements to define invisible underemployment because they are allowed to define whether their own income is insufficient, etc. Depending on your point of view, the statistic obtained is either too high (because workers exaggerate) or too low (because workers have too low an opinion of their own importance).

2.3.3. Basic needs approach

I have defined un- and underemployment to exist for all those families who do not satisfy their basic needs.[1] Hence, even those who appear, according to conventional definitions, as openly unemployed (e.g. educated workers waiting for jobs, frictional unemployment, etc.) and belong to families whose basic needs have been satisfied are excluded with this new definition. A major problem here, of course, is what to define as basic needs, what indicators to use and at what level they should be set. This is discussed elsewhere.[2] Given that basic needs can be defined - I defined it in terms of adequate

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[1] M. Hopkins, "A global forecast of employment", ILR, Sep.-Oct. 1980.

[2] M. Hopkins, "Basic needs approach to development: A view", May 1977, Working Paper, ILO, to appear as a chapter in a book in preparation with R. Van Der Hoeven.

nutrition, housing, education and health - the method has an advantage in terms of its analytical tractability.[1] This is because a household income can be calculated at which point households can obtain the physical goods of the basic needs basket. Given reliable consumption expenditure information, an estimate of un- and underemployment can be constructed. Policies can then be examined with a view to how they can satisfy basic needs. The policies then concentrate on the genuinely underprivileged rather than, perhaps, generating employment in areas where, according to my definition, it is not needed. This brings us in to the controversy of whether increasing productive employment opportunities is equivalent to satisfying basic needs. If under conventional definitions those who are un- or underemployed <u>have not</u> satisfied their basic needs then the set of policies would be equivalent. If, however, those who are <u>not</u> considered un- or underemployed <u>have</u> also <u>not</u> satisfied their basic needs as if those who <u>are</u> un- or underemployed <u>have</u> satisfied their basic needs then the two sets of policies are not equivalent.[2]

2.3.4. <u>Labour efficiency approach</u>

Myrdal[3] proposed that the level of labour utilisation be expressed as the product of three ratios, viz.

$$\left[\frac{\text{working numbers}}{\text{Labour force}}\right] \times \left[\frac{\text{man-hours}}{\text{working numbers}}\right] \times \left[\frac{\text{output}}{\text{man-hours}}\right] = \left[\frac{\text{output}}{\text{labour force}}\right]$$

(participation rate) (duration) (efficiency)

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[1] The provision of public services can be priced as inputed income (see Hopkins and Van Der Hoeven, op. cit.).

[2] A recent article on India suggests that indeed poverty and unemployment go hand in hand. Only an empirical analysis in Colombia could confirm whether the two sets overlap a great deal or not. See ..... World Development, Sept-Oct, 1981.

[3] G. Myrdal (op. cit.), Vol. 2.

Underutilisation of the labour force is the non-achievement of those values of the three components of labour utilisation which can reasonably be assumed to be brought about by feasible policy measures during a planning period. Clearly the measurement here introduces as many problems as the labour force approach because of impossibilities of definition as to what is reasonable and feasible.

2.3.5. Symptomatic approach

There are several related approaches here, where the attempt is to measure labour underutilisation based on a classification of different types of underemployment. The one recommended by the ILO is:

(a) visible underemployment - involuntarily working part time or for shorter than usual periods of work;

(b) invisible underemployment - working time is not abnormally reduced but unemployment is inadequate because:

(i) their jobs do not permit full use of their highest existing skills or capacities;

(ii) their earnings from employment are abnormally low;

(iii) they are employed in an establishment or economic unit whose productivity is abnormally low.

(i), (ii) and (iii) are disguised underemployment. This approach is used in the Colombian labour force surveys (except for (iii)). However, a rigorous definition of disguised underemployment might lead to the conclusion that most workers in most countries of the world are invisibly underemployed because the definitions are phrased in terms of vague words such as "abnormally", "usual periods of work", etc.

2.3.6. The Hauser approach

This method proposed by Hauser[1] is a variant of the symptomatic approach. He suggested that the workforce should be divided into two parts: utilised adequately or underutilised. The latter is to be further subdivided into four parts: underutilised by employment, by input, by productivity, by mismatch of occupation and education. All persons with less than full-time work were to be classified as underutilised. Further, all those reporting full-time work whose income falls below an income level determined to be a suitable point for policy and programme purposes are to be classified as underutilised by productivity. Problems arise here because not all those working short weeks want to be, or are, capable of working full-time nor full weeks. Secondly, in terms of mismatch, there is a difficulty of defining compatibility. Hauser suggested the mean educational level for each occupation should be the yardstick, but there is no reason to suppose that this will reflect the appropriate amount of education for a specific occupation (e.g. on-the-job skill acquisition). Moreover, it is a mismatch if a worker has an education compatible with his/her occupation but is nevertheless unable to work as much as he/she might want or is earning less than he/she might reasonably be expected to earn in that occupation.

2.3.7. Socially approved labour force

Here the amount of underutilisation of labour would be measured with reference to predetermined standards of potential social productivity. The approach would be both a derivative of the labour force approach and a generalisation of other normative approaches. It could have a basic needs or welfare element since, in determining the criteria for social productivity, factors other than physical or revenue product could be considered, e.g. the need to achieve a fairer income distribution and greater equality between men and women.

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[1] P. Hauser, "The work force in developing areas", in I. Berg (ed.): Human resources and economic welfare (New York, Columbia University Press, 1972), pp. 142-161.

Clearly the problem here is, as with other normative approaches, how to quantify it. Who decides on what is socially approved, etc.

2.3.8. Marxist approach

The Marxist approach, as interpreted by Standing, is essentially concerned with the emergence, absorption and growth of surplus labour in the course of capitalistic industrialisation. It falls, more or less, into the labour force approach above. Surplus labour would be similar to the labour underutilised of other approaches and would include the unemployed and the underemployed. In the latter would come the "stagnant sector" workers, namely those with extremely irregular employment, paupers, the dangerous classes - orphans, demoralised, the ragged -, the aged, and the "victims" of industry. Marx would have divided the labour force into socially unproductive labour - all forms of work which had as its function the consumption or transfer of revenue - and productive labour - all work performed for the purpose of extending the process of capital accumulation. Domestic labour causes some problems since Marx called it "free labour" and implied that it was unproductive labour. Essentially, therefore, Marx's definitions are tied into the organisation of production. Nevertheless his suggestions face the same problems of other normative approaches since the grey area between productive and unproductive labour exists, e.g. the planner whose aim is to increase capital accumulation could be either productive or unproductive depending on interpretation of the word "aim".

2.3.9. Summary

What does the above discussion imply for the statistics collected regularly by DANE? Firstly, it can be seen that the DANE definitions include both behavioural and normative parts. One could almost compliment DANE for having gone so far. Yet, secondly, what do the unemployment statistics mean? Are they reliable estimates of labour underutilisation in Colombia?

Even if we ignore statistical, questionnaire and response uncertainties, the statistics are crude. The reasons for this are because of the variety of possible definitions of labour underutilisation. These have been discussed in the above text and need not be repeated. One major conclusion stands out however. That is that the statistic referring to the percentage openly unemployed, namely those both in the labour force and looking for work, is probably fairly reliable within 3 or 4 percentage points. The main problem with it is that it says nothing about labour underutilisation. Unfortunately for the statistician that is where the problem lies. In a sense openly unemployed people are marginally more fortunate,[1] they can afford to look for work ipso facto their problem is not so serious as those underemployed. This does not mean to say that I think that those openly unemployed are in voluntary unemployment; the majority are not. I wish to draw the distinction between open unemployment and underemployment in the sense that those who can claim to be unemployed and looking for work but are not forced to carry out any arduous, wretched task to scrape a few pennies together are relatively better off. Provocatively, Standing[2] states "that those claiming voluntary unemployment is widespread - and arguing implicitly or explicitly that unemployment in low-income countries is not associated with great hardship ... should be obliged to substantiate their claims and identify quite clearly the assumptions they introduce in trying to do so". Nevertheless he remarks that it is difficult to distinguish both conceptually and empirically between "voluntary" and "involuntary" unemployment.

The underemployed, too, are difficult to statisticise. As a group they are potentially more numerous than the open unemployed and, if the above argument is accepted, likely to suffer extremes of hardship more severe than those openly unemployed.

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[1] But see section 2.4 for a fuller discussion.

[2] G. Standing: "The notion of voluntary unemployment", International Labour Review, Vol. 120, No. 5, Sep.-Oct. 1981.

Where does this leave us? Either to improve the conceptualisation and analysis of the underemployed - a seemingly difficult or impossible task - or do something else to measure deprivation in society. This reasoning has led the ILO, amongst others, to concentrate more on such concepts as basic needs than hitherto. Therein I believe lies the direction for future work.

2.4. Open unemployment: Myth or reality?

Two authors, Berry[1] writing on Colombia and Ramos[2] on Latin America in general in the mid-seventies, have argued that open unemployment is not such a serious problem as is generally believed. Berry suggests that a good share of open unemployment is explained by a discrepancy between income and occupational status aspirations of people who are in a position to refuse unattractive possibilities while waiting for the desired one. To examine this Berry substantiates three hypotheses namely:

(1) a high proportion of the unemployed will be young and relatively well education;

(2) the representative unemployed person is not badly off compared with many people in the labour force: his unemployment reflects both that someone is able to maintain him and his high aspirations relative to the jobs available;

(3) for a given age and educational level, the unemployment rates will be higher for people born in cities than for people who migrated to them.

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[1] R. Berry, "Open Unemployment as a Social Problem in Colombia: Myth and Reality", Economic Development and Cultural Change, Vol. 23, No. 2, Jan. 1975.

[2] J. Ramos, "An heterodoxical interpretation of employment in Latin America", World Development, July 1974.

Some support for hypothesis (1) comes from table 8 where, in 1978, there were higher rates of open unemployment for the young ages 15-20 - 16.3 per cent - than any other group. Berry, in his article, however offered no evidence about the educational level of the young unemployed. DANE's 1978 survey (No. 19) for urban areas gave a breakdown of unemployment by education (although not age) and there 45 per cent of the unemployed had only primary education, 43 per cent secondary, 7 per cent university and 5 per cent no education. This negates Berry's first hypothesis somewhat.

For his second hypothesis Berry draws on fragmentary evidence. He cites a CEDE 1967-68 family budget survey. He finds that the consumption basket of families with unemployed heads suggests that they are about the same level as the "obrero" (or worker) category, i.e. poor but not destitute. However, he finds that about one-third of the unemployed in eight cities in 1967 occurred in the professional, executive and clerical categories. Meanwhile domestic servants and rural workers had low unemployment rate - these workers can be expected to be among the poorest in the country.

Finally, for his third hypothesis he found in 1967 for eight cities that unemployment rates were higher for natives of the city than for immigrants from elsewhere.

Berry concluded that with an over-all urban unemployment rate of 10 per cent, perhaps 3-5 per cent of the labour force is unemployed and in bad economic straits. He argues that the severe unemployment problems not recorded as open unemployment are suffered mostly by low-income people - the underemployed. A major implication of his discussion is that policy should focus more on employment creation than on unemployment avoidance, because it should not be assumed that an upward shift of the demand curve for the labour of relatively low-income people - what is normally discussed in employment generation policies - is the opposite of unemployment avoidance.

Ramos hypothesises that the relative excess of labour that has traditionally characterised Latin American labour markets (including Colombia) has been decreasing since the Second World War. His major evidence falls into two parts. Firstly, he argues that if the labour surplus was rising then there would be a downward pressure on real wages to the extent that employers could keep the real wage constant simply through hiring formerly unemployed labour at a cheaper rate. As we have seen from Chapter I, this neoclassical hypothesis has been under vigorous attack and analysis over the past 50 years. Not surprisingly Ramos finds that the real wage has in general risen. In Colombia Ramos finds that real wages rose, in general, between 1948 and 1954 by 2.2 per cent per annum; and in manufacturing real wages also rose by 2.2 per cent per annum over the longer peiod 1948-70. In fact, as we shall show later, this is because of the declining importance in manufacturing (and agriculture) in providing employment compared with the significant increase in services. Added to the fact that the labour market is segmented in Colombia weakens Ramos' argument somewhat. Secondly, Ramos argues that underemployment is decreasing because the percentage of the labour force in non-salaried employment (e.g. self-employment, non-remunerated family workers and employers) is falling in agriculture and in urban areas.

Both these authors downplay the importance of unemployment but for a different set of reasons. For a third set of reasons - namely definitional - I have also questioned the concept of unemployment if not the trend. In fact the trend of open unemployment, as tables 9 and 10 show, has been downward in the seventies but is increasing as Colombia enters the eighties. The open unemployment rates of around 10 per cent plus underemployment of around 15 per cent do not suggest, whatever the direction and despite definitional difficulties, that the employment problem is not serious.

2.5. Disguised unemployment

The work of Urrutia[1] was the first in Colombia to attempt to estimate the numbers in disguised unemployment. Urrutia used data for Bogotá collected by CEDE using 12 household surveys between March 1963 and March 1968. Urrutia estimated the following equation:

$$\frac{PEA}{P} = a \pm b\frac{D}{P} \pm ct$$

where PEA = population economically active, P = total population
D = population openly unemployed, t = time

If the coefficient b were negative, Urrutia could say that increased unemployment reduced the participation rate and hence workers became discouraged with increasing levels of unemployment. Unfortunately for Urrutia the specification of his equation did not allow him to distinguish between discouraged workers (forcing b to be negative) and additional or secondary workers (making b move in a positive direction). For females and males together Urrutia found the following equation:

(1) $$\frac{PEA}{P} = 41.52 - 2.61\frac{D}{P} - 0.09t$$

(0.98) (0.07)
(significant at 5 %) (not sign.)

R	F	K	N-K-1	F significant
0.065	8.33	2	9	at 1%

Hence, Urrutia was able to show a strong discouraged worker effect. Not content with this, Urrutia wanted to calculate the magnitude of disguised unemployment. He assumed that 2 per cent of the total population in Bogotá were structurally unemployed, i.e. whatever the economy did there would always be 2 per cent for whom it would be impossible to find employment

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[1] M. Urrutia (op. cit., 1968).

(2 per cent of population was equivalent to 6 per cent openly unemployed as a percentage of the labour force). In 1965 in Bogotá the proportion of the population (3.958 million) unemployed was 2.93 per cent. His calculations were as follows:

Step 1:.	PEA (from equation (1) when D/P = 2% and P = 3.958)	= 1.399 million
Step 2:	PEA (observed in 1965)	= 1.298 million
Step 3:	Disguised unemployment = 1.399-1.298	= 101,000
Step 4:	Observed unemployment in 1965	= 116,000
Step 5:	Total population in Bogotá in 1965	= 3.958 million
Step 6:	% of unemployment disguised (101 ÷ 1.399) x 100	= 7.22%
Step 7:	% of unemployment visible (116 ÷ 1.399) x 100	= 8.29%

From these calculations Urrutia found about as much disguised unemployment as visible. Fadul[1] criticised the reasoning of Urrutia because:

(a) it was not possible to separate out the effects of both additional and discouraged workers;

(b) Urrutia broke down his analysis by sex and age, finding his hypothesis confirmed when males and females were examined separately, but noticed some reversal of sign when age and sex were considered. Fadul argued, statistically, that if Urrutia had taken household status as a variable of disaggregation he would have been able to enumerate both discouraged and additional worker effects - under the hypothesis that the disaggregation household head or not, male or female, would have identified the discouraged workers who are usually male heads, and additional workers who are usually male and female non-heads of households;

(c) the data that Urrutia used were not seasonally adjusted and so (since the surveys were taken in holiday periods

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[1] M. Fadul (op. cit., 1974).

in order to use students as enumerators) Urrutia would find in pre-Christmas periods that a lot of extra women were employed for the holiday period and that a lot of men would be taking holidays and be counted as unemployed, etc.

Most importantly, Fadul re-estimated Urrutia's equations on 29 observations using all the observations from CEDE's 29 households between March 1963 and June 1970. Then he found a positive coefficient for D/P in equation (1). Some of these surveys were not available to Urrutia, but, nevertheless, the recalculations of Fadul raised a serious question to the validity of Urrutia's (celebrated) results.

I examined Urrutia's results in some detail because his analysis was used to prepare a much publicised table, reproduced as table 11 below.

Table 11: The extent of urban work opportunities, 1967 (% of active urban labour force)

	Total	Males	Females
1. Open unemployment (persons without work and seeking it)	14	12	19
2. Disguised unemployment (persons without work and who would probably seek it if unemployment were much lower)	(7)	10	-
3. Open underemployment (persons working less than 32 hours per week and seeking to work longer)	2	2	1
4. Disguised underemployment (persons working less than 32 hours per week who would probably seek longer hours if the opportunity were available)	3	2	4

Source: ILO, Colombia Report (op. cit., 1970).

This table was used by the ILO to suggest that 25 per cent of the urban labour force in 1967 were experiencing work shortages. Although the calculation of the table was admitted to be rough, considerable use was made of the Urrutia study - his methodology was used to estimate disguised unemployment and in turn his data were used to estimate open and disguised underemployment. From Fadul's arguments it seem that the effects of additional and disguised workers can cancel each other out, hence a more appropriate figure for the ILO to have used would have been 16 per cent. Yet, because the ILO ignored invisible underemployment (table 8 suggests this is around 10 per cent when visible underemployment is around 2 per cent) the ILO, in its Colombia report, probably got its over-all estimate

of those experiencing work shortages correct because of a double error. This is hardly the ILO's fault since, from our previous discussions on the difficulties of estimating the labour force, un-, underemployment, visible or not, almost any non-zero figure can be justified!

2.6. Rural employment

To be considered in a later version of this paper.[1]

2.7. Who are the unemployed?[2]

As we have seen from previous tables, the unemployed are relatively young and male. In terms of education 46 per cent of those unemployed have completed primary education, 43 per cent secondary, 7 per cent university and 5 per cent have no recorded education.[3] The breakdown is similar for males and females.

In table 12 the sectoral breakdown of unemployment and size of sector are given.

Allowing for the mismatch between different years, the last column of table 12 gives a crude index of the seriousness of unemployment in any one sector from the point of view of individuals who want a job. Clearly relative to the size of the sector in providing employment, agriculture and services are the best for jobseekers because these sectors have a relatively low percentage of the total unemployment compared

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[1] See also S. Rodríguez, Oscar y Tissier, Proyecto de Encuesta sobre la Fuerza de Trabajo en el Medio Rural Colombiano, DANE, 1977.

[2] In this section tables are reduced to a minimum since it overburdens the presentation. Sources are given. Our information is only for openly unemployed people and hence excludes a breakdown of underemployment for example. An historical view of unemployment is given in Van Arkadie et al. (op. cit.).

[3] DANE, Encuesta de Hogares, etapa 19, June 1978.

Table 12: Sector composition of unemployment/employment

Sector	% of total employment by sector (1973) (A)	% of total unemployed by sector (June 1978)	Index of employment possibilities
Agriculture	30	10	3
Mining	1	1	1
Industry/manufacturing	13	19	.7
Electricity, gas, water	1	1	.5
Construction	4	13	.3
Commerce, restaurants, hotels	11	26	.4
Transport + communications	3	7	.4
Financial services	2	3	.7
Community + personal services + government	35	18	1.9
No information		2	-
	100.0	100.0	

Sources: 1973 census; 1978 etapa 19, DANE.

with their size. Alternatively, the construction sector, at least in 1978, was the worst.

On average, in June 1978, the unemployed had spent 17 weeks in looking for work. Those aged 15-19, 16 weeks, aged 20-29, 19 weeks and 30-59, 15 weeks. These statistics can be taken to represent the number of weeks out of work if the sample was truly random. Hence, again, the young are more disadvantaged than the older workers. Note though that the 20 to 29 year olds fare worse than those younger than themselves.

The same survey in June 1978 showed that family status was an important variable. The head of the household if unemployed - predominantly male - spent less time looking for work than did his wife (15 weeks versus 16 on average). Both of them found it easier to find jobs than their children who spent 19 weeks on average looking for work. Nevertheless, 40 per cent of the unemployed find work within 4 weeks of looking and only 8 per cent of the unemployed are out of work for more than one year.

The unemployment rate (7.6 per cent in June 1978) was lower for household heads (3 per cent) than for their wives (8 per cent), children (15 per cent) or other household members (7 per cent). This suggests that when the male head has to work he does.

The migrant status of the unemployed is given in table 13 for the four major cities of Colombia.

Table 13: Open unemployment for natives and migrants (December 1979)

	Natives			Immigrants			Total		
Bogotá	8.4	11.9	9.7	4.1	5.4	4.6	5.7	7.3	6.3
Medellín	17.4	28.7	21.7	9.4	14.4	11.3	12.5	19.9	15.4
Cali	14.1	15.0	14.5	5.6	9.4	7.3	8.7	11.1	9.6
Barranquilla	5.7	18.1	6.4	2.7	2.8	2.8	4.2	5.2	4.5
Total	10.9	15.7	12.6	5.3	7.6	6.2	7.4	10.3	8.6

Source: DANE, Encuesta de Hogares, Etapa 25.

There it can be seen that migrants, of both sexes, generally enjoy unemployment rates one-half of those found in residents. This occurs in all of the four major cities of Colombia and generally attests to the hypothesis that migrants are upwardly mobile people.

3. The distribution of income in Colcmbia

In this section I aim to briefly summarise the available evidence on the distribution of income in Colcmbia. I shall be brief because many articles[1] and books have appeared over the

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[1] See, for example: (a) ILO Colcmbia Report (op. cit., 1970); (b) G. Ranis, "Distribucción del ingreso y crecimentc en Colombia, "Desarollo y Sociedad, No. 3, Enero, 1980, CEDE; (c) O. Altimir, various publications on income distribution and poverty in Latin America, ECLA, Santiago de Chile; (d) A. Berry and R. Soligo (eds.), Economic Policy and income distribution in Colombia, Westview Press, Boulder, Colcradc, 1980; (e) CIE, "Distribucción de los ingresos", Controversia, Bogota (56), pp. 77-86, 1977; (f) M. Urrutia, "Tendencias de la Distribucción del Ingreso en la Proxima Década", La Economia Colombiana en la

(Footnote continued on next page)

past few years all with the major purpose of describing income distribution in Colombia, hence another lengthy piece on the same data is undesirable. According tc Bourgignon,[1] income distribution data in Colcmbia are scarce or not very reliable, and the best information about income inequality goes back to 1964 and has been put together by Berry and Urrutia.[2] Among the 53 countries listed by Paukert,[3] Colcmbia had the second largest Gini coefficient around 1970. Bourgignon thought,

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Década de los Ocherta, Fedesarollo, Bogota, 1974; (g) A. Berry y M. Urrutia, La distribucción del ingresc en Colombia, Editorial la Carreta, 1975; (h) P. Wright, Chapter V, "Employment, income distribution, poverty and structural change", in Van Arkadie (op. cit.); (i) A. Berry y M. Urritia, Income distribution in Colombia, New Haven and London, Yale University Press, 1976; (j) M. Urritia, "Income distribution in Colombia", International Labour Review, Vol. 113, No. 2, Mar.-Apr. 1976; (k) W. Thirsk, "Aggregation bias and the sensitivity of income distribution to changes in the composition of demand: The case of Colombia", Journal of Development Studies; date: ... (l) M. Selowsky, "Income distribution, basic needs and trade-offs with growth, the case of semi-industrialised Latin American countries", World Development, Vol. 9, pp. 73-92, 1981; (m) V. Tokman, "Dynamics of the labour market and distribution of income in Latin America", 6th World Congress, Mexico, 4-9 Aug. 1980; (n) G. Fields and T. Paul Schultz, "Regional inequality and other sources of income variation in Colombia", Ec. Dev. Clt. Chge., 1980; (o) F. Bourgignon, "General equilibrium analysis of the Colombian income distribution", ILO, Working Paper, EMP/REP, June 1978; (p) L.I.A. Zambreno, "Un Submodelo de Distribucción de Ingresos para Colombia", Tesis de Credo, Uniandes, Bogota, Julio de 1980; (q) A. Berry, "Changing income distribution under development", Review of Income and Wealth, 1973, pp. 289-316.

[1] Bourgignon (June 1978, op. cit.).

[2] Berry and Urrutia (1976, op. cit.).

[3] F. Paukert, "Income distribution at different levels of development: A survey of evidence", International Labour REview, Aug.-Sept. 1973, pp. 97-125.

without stating them, that there were some reasons to believe that the coefficient reported by Paukert was somewhat overestimated. Although according to Berry[1] the distribution of income in Colombia was probably higher in the early 1970s than during the thirties. Bourgignon found, as well as others (e.g. Wright, Berry, Ranis cited in footnote 1), that despite rather satisfactory growth performance, income inequality in Colombia has probably been increasing since 1970. As the initial level of inequality was already high such a tendency was becoming alarming. According to Bourgignon the main cause for this high and possibly rising income inequality must be found in a too slow growth of the demand for labour resulting in a combination of high unemployment rates and persistingly low, if not falling, real wages.

As table 14 I reproduce Ranis'[2] table of estimated Gini coefficients for urban and rural areas. I also include Wright's estimates (my own Gini estimate from his data) for labour income in 1973. As most authors have attested, and as Ranis' graph shows, the over-all distribution of income worsened until the late sixties, improved until the early seventies and then has started to worsen again. Ranis puts the worsening of the distribution in the seventies down to three main reasons, namely the capital intensiveness of industrial production, the unequal distribution of land ownership and the replacement of traditional crops by commercial crops. All these have led to rather small rises in the real wages of workers between the mid-sixties and the early seventies. I examine these causes in more detail in Chapter III when I

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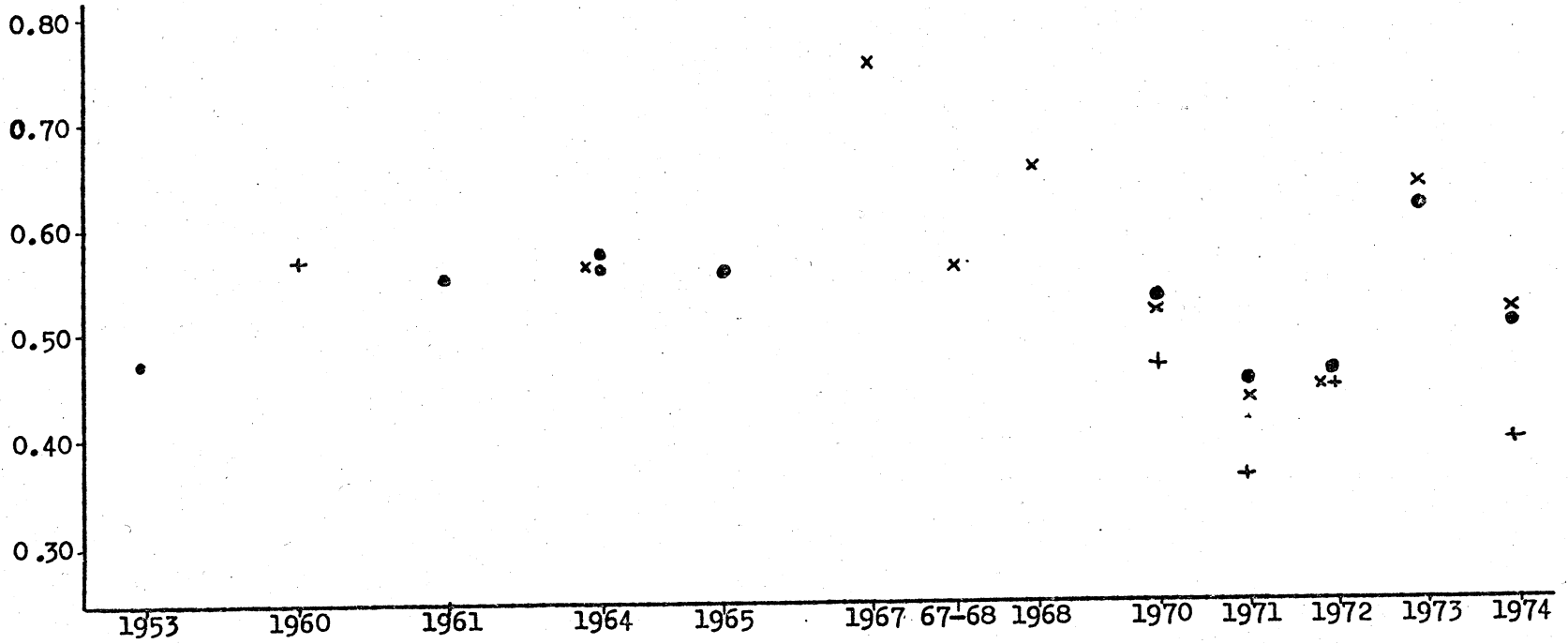
[1] A. Berry (1973, op. cit.).

[2] G. Ranis (op. cit., 1980). Unfortunately Ranis is not clear on whether the Gini's refer to household or labour income and to pre- or post-tax or subsidies. Further income distribution is affected by the prices that are paid for goods. These tend to vary in and amongst the regions of Colombia. As far as I can see no adjustment for this has been made by any of the authors cited - to be fair data would be hard to come by to do this.

TABLE 14

GINI COEFFICIENT TOTAL URBAN AND RURAL



• GINI TOTAL
X GINI Urban
+ GINI Rural

Sources: 1953: CEPAL, Analysis and Proyections of Economic Development (Individuos); 1960: A. Berry, Land Distribution, Income Distribution and Productive Efficiency of Colombia Agriculture (Individuos); 1961: M. Tylor, Fiscal Survey of Colombia (Individuos); 1964 (a): M. Urrutia, A. Berry, La Distribución del Ingreso en Colombia (Individuos); (b) McLure, The Incidence of Taxation in Colombia; 1965: CEPAL, Notas Sobre la Economía y el Desarrollo de América Latina (Individuos); 1967-68: CEDE, PRESFAM (G. Ranis) (Familias); Encuesta CEDE, G. Ranis (Familias); 1970: P. Córdoba, La Distribución del Ingreso en Colombia (individuos); 1971-1972: Encuesta DANE, G. Ranis, (Familias); 1974: G. Ranis, COLDATOS (Familias); Encuesta Selowskys, Banco Mundial. 1973: Wright, Labour income distribution (1973 advanced sample of census)

consider the closely related problem - the causes of the underutilisation of labour in Colcmbia.

In terms of poverty Wright (op. cit.) shows that the numbers in absolute poverty (those in the lowest quartile of income earners in the labour force in 1964) rose from 25 per cent to 57 per cent between 1964 and 1973 - most of the rise being in rural areas (43 per cent in poverty in urban areas and 68 per cent in rural areas with Wright's definition). These figures are quite astounding when it is considered that the same proportion of income in 1973 as in 1964 was being earned by 37 per cent, 33 per cent and 28 per cent (over-all, rural and urban respectively) of the labour force ccmpared to the 25 per cent of 1964 again using Wright's figures. Astcunding because during 1964-73 Colombia experienced growth rates in output of the order of 5 per cent implying that real wages should have risen somewhat (evidence cited in Chapter III shows that they have not fallen in real terms for any workers even though they have hardly risen in some cases). It is difficult to say but probably the numbers in absolute poverty did not change much although they might have increased if the income distribution figures can be believed. The high figure of Wright probably occurs because the lower tail of the income distribution is difficult to measure with any certainty - in 1973 Wright has 50 per cent of the population in the lowest decile.[1]

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[1] Wright got his information from the advance sample of the 1973 census. The income data there only referred to the employed labour force. Hence Wright had to allocate the unemployed which he did by placing them in the lowest two deciles. Following Berry's arguments ccncerning the myth of open unemployment in Colombia, some misallocation probably occurred.

CHAPTER III

A. Why is labour underutilised in Colombia?

1. Introduction

Up to now we have seen that unemployment in Colombia is a difficult concept to measure. Yet the evidence points to substantial shortfalls in productive employment opportunities where all who desire can obtain an adequate return for their labour. The problem has been identified as one of labour underutilisation rather than one of unemployment per se. In this chapter I try and piece together the fragmentary evidence available in Colombia as to why labour is underutilised.

This chapter falls into essentially two major parts. The first part examines whether the root of the problem is because of labour market imperfection, i.e. it examines the neo-classical view stated in Chapter I and the view that the labour market is segmented. Neither of these two are opposites, yet as we shall show those who have argued that the labour market is not segmented in Colombia have attempted to demonstrate this through showing that returns to human capital are more or less the same whatever the sector of activity. With this view labour underutilisation is the result of market imperfections. To argue the opposite, i.e. that labour markets are segmented in Colombia is to argue that questions of politics, institutional reasons and choice of development strategy are the culprits. Such an examination has been done by Carnoy[1] et al. for other Latin American countries although not in Colombia itself.

The second part of the chapter examines a number of socio-economic reasons, e.g. population growth, migration, inflation, land distribution, etc., that have appeared in the literature as partial explanations of the employment problem.

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[1] M. Carnoy et al., Can educational policy equalise income distribution in Latin America?, Saxon House for the ILO, Farnborough, Hants., UK, 1979.

This part is not necessarily conceptually distinct from the first part but is distinguished frcm the first part so that exposition remains clear. This is of course rather difficult due to the tangled inter-relationships of cause and effect in such a complex problem.

2. Is the labour market segmented in Colombia?

As discussed in Chapter I a segmented labour market is one in which some workers receive higher real wages than others with the same level of human capital simply by virtue of their sector of employment. If the labour market is characterised by segments and each segment in turn is rewarded differentially not so much because of marginal productivity reasons but more for political and social reasons, earnings distribution will not be affected primarily by changes in the strucutre of the economy - the distribution of types of jobs - nor by the distribution of education and other personal characteristics except as those changes affect the political power of the various segments, particularly the ability of wage earners in each segment to raise their wages relative tc other segments (Carnoy et al., op. cit.). Hence the structure of wages is influenced and dominated primarily by variables exogenous to individual productivity: sexism, racism, custom, "divide and conquer methods" of employers' production organisation, monopoly power, the nature of firms' markets for goods, bureaucracy, status considerations, maintenance of class structure, etc. Then productivity and returns to it are a technical relation determined by the amount and types of machines available and not by personal characteristics. Further the relationship between productivity and schooling is less strong than the relationship between earnings and schooling. This latter discussion suggests that a test of one hypothesis, e.g. that earnings and schooling are related, does not necessarily discuss either theory. Because in the neo-classicial non-segmented labour market theory the returns tc education are the returns to the impact cf increased human capital on productivity. And in the segmentation school

education does not do much to alter productivity, it ups the entrance requirement for the best jobs, i.e. since higher education is associated with privilege and is related to social position, education serves as a proxy to segment the labour market for institutional reasons. This means that the choice between labour markets not functioning properly because of imperfections caused by policy or through institutional reasons that can be alleviated through policy is difficult to make. The choice between the human capital theory and segmented labouar market theory is not clearcut.

What evidence is available in Colombia?

Kugler et al,[1] based on a survey of 3,200 workers in urban areas of Colombia (towns more than 30,000 people) in 1975, studied the possible existence of dualism in the urban labour markets of Colombia. They did this through an application of Becker's theory of human capital[2] in order to examine whether monthly salaries differed between sectors after allowing for education and years of experience. The equation

$$\log y = a1 + a2\ Ed + a3\ Exp + a4\ Exp^2$$

where y = income, ed = years of formal education, exp = years of experience

was estimated and found in all sectors considered (modern, non-modern, traditional, marginal) to give the expected signs (namely a1, a2, a3, >0, a4 <0). This implied that salaries were positively correlated with education and experience. However, both Schultz[3] and Selowsky[4] fcund that social rates of

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[1] B. Kugler, A. Reyes, M. Isabel de Gómez, "Educación y Mercado de Trabajo Urbano en Colombia: Una comparación entre sectores moderno y nc moderno", CCRP, Vol. 10, Mayo 1979, Bogotá.

[2] Becker, G.S., Human Capital, New York, NBER, 1964.

[3] Schultz, T.P., "Returns to education in Bogota - Colombia", The Rand Co., Santa Monica, 1969.

[4] Selowsky, M. "The effects of unemployment and growth on

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return decreased with the level of education for primary, secondary and university. But Kugler[1] found that the private rate of return to primary education was less than secondary but that there were no significant differences between secondary and university. Kugler et al. thought that this was because of differences in definition and because of high sensitivity of the rate of return of primary education to the opportunity costs of people with low education and experience. Costs which are very difficult to measure with precision.

It is not my intention to go into much detail of the effects of education. Suffice to say that despite apparent low rates of return and high costs of secondary and university education, the narrowing of wages because of the increasing supply of educated persons in Colombia in the past two decades and the corresponding positive impact this has on the distribution of income is no bad thing in a country with such a poor distribution of income as Colombia. This ignores, too, the impact an articulate and educated public can have on reducing violence and improving social justice and culture.

Returning to the urban labour market survey of Kugler et al. I reproduce as table 3.1 the main results of their work. The distinction between modern and non-modern sectors is based on a number of criteria. Briefly all government employees are modern, so are all private sector employees in enterprises with greater than 25 employees. Those self-employed without a professional or technical qualification, domestic servants, personal services, marginal sector activities, etc., were classified as non-modern. Monthly income included income from secondary employment and own account, plus social benefits and subsidies.

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the returns to educational investment: An application to Colombia", Resista de Planeación y Desarollo, Bogota, 1969.

[1] Kugler, B., "Influencia de la educacion en los ingresos del trabajo: El caso Colombiano", Revista de Planeación y Desarollo, Bogota, 1974.

Table 3.1: Mean monthly income in modern and non-modern sectors by years of education and experience by sex, 1975 - Urban areas in Colombia (pesos)

Years of education	Years of experience	Men Modern	Men Non-modern	Women Modern	Women Non-modern
Total		5 324**	3 887**	3 044**	2 106**
0-4		3 060	3 210	1 706	1 541
	1-4	1 453	1 658	1 418	1 255
	5-8	1 913	2 133	1 480	1 360
	9-15	4 247**	2 740**	1 566	1 591
	16-+	3 105	3 740	2 309	2 166
5-6		4 560	3 782	2 402	2 526
	1-4	2 509	1 465	2 315	1 670
	5-8	2 904	2 601	2 155	1 473
	9-15	4 524	4 269	2 629	6 526
	16-+	5 274	4 810	2 780	2 149
7-8		5 356	4 242	2 786	2 024
	1-4	2 516**	1 443**	2 163	1 173
	5-8	3 319	3 126	2 605	2 150
	9-15	3 739	3 473	4 537	4 753
	16-+	7 963	5 836	4 657*	1 666*
9-10		5 118	4 161	3 211	3 985
	1-4	2 385	2 185	2 357	2 777
	5-8	3 605	2 605	3 385	1 804
	9-15	5 813	5 992	4 633*	5 962*
	16-+	7 518	5 601	4 242**	9 000
11-+		8 835	8 417	3 837	3 720

Source: B. Kugler, et al., op. cit., 1979.

Note: The difference between mean incomes was significant only in those cases with asterisks at 1% (**) and 5% (*) in a t-test.

From table 3-1 it can be seen that mean salaries are higher in modern sectors than non-modern sectors, but men earn more than women even when allowing for education and experience differences (hence an institutional segmented market exists here). However allowing for sex differences it can be seen from the table that there are only few significant differences in mean salaries when controlling for education and experience. That modern salaries are higher is because more educated work there proportionately than in the non-modern sectors.

The regression analysis of Kugler et al. (of the above-mentioned equation) gives a higher coefficient for education than experience suggesting that there are larger returns for education than experience - with increasingly diminishing returns to experience. Generally, then, these results lead Kugler et al. to believe that, at least between modern and non-modern sectors where the most pronounced segmentation could be expected to lie, the labour market in urban areas of Colombia is not segmented and, hence, classical assumptions of increasing returns to human capital are justified. However, discrimination against women is illustrated, the results say nothing about the possibilities of segmentation between more disaggregated sectors, urban/rural differences, firm size differences, nor between workers without education or experience.

Some support for Kugler comes from a study of Bogota by Bourgignon.[1] In an intertemporal comparison of earnings functions in Bogota by he found that although there was a positive correlation between education and earnings, the rate of return to education and job experience has declined whereas the supply of both factors has substantially increased. He

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[1] F. Bourgignon, "The role of education in the urban labour market during the process of development: The Case of Colombia", Sixth World Congress, Human Resources Employment and Development, Colegio Nacional de Economistas, Mexico, Aug. 1980 (mimeo.). (He uses 64 and 73 census data plus DANE: labour force surveys in Bogota.)

finds, too, some equalisation of the labour-income distribution due to the increased supply cf more educated labour-force participants which he says contradicts Carnoy's statement that earnings in segmented labour markets are unlikely to change without changes in the structure of political power.

Further he concludes that the rate of return to education is fairly competitively determined and that it is clcsely associated with productivity. This conclusion was based on the fact that the education and job experience coefficients in his earnings functions were not significantly different when the estimation was performed on self-employed workers, wage workers in very small production units or employees in larger units. If it is accepted that the first two submarkets may reasonably be considered as free-entry competitive labour markets where earnings reflect the true contribution of individuals to output, Bourgignon suggests that this implies that the rate of return to education seems competitively determined across the whole labour market in Bogota and that it is closely related to productivity. This, he believes, clearly advocates in favour of the human capital model against cther theories of the role of education in the labour market.

He qualifies this somewhat by remarking that his analysis showed a significant unexplained earnings differential between large and small or self-employment production units. Sc it seems likely that Bogota's labour market is subject to some competitive imperfection or segmentation. Finally, he too questions the validity of further investments in higher education since the internal rate of return, when foregone earnings and direct education costs are taken into account, is considerably lower than other education levels.[1]

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[1] A well-known article on how to estimate the returns to educated labour is given in S. Pinera and M. Selowsky, "The opportunity cost of labour and the returns to education under unemployment and labour market segmentation", Quarterly Journal of Economics (Aug. 1978), pp. 469-488.

In another more detailed study specifically concerned with examining segmented labour markets, Fields[1] found little evidence for market segmentation in Bogota. He found differences between incomes according to experience and education - a form of segmentation. He also found evidence of segmentation between men and women with the same level of education and experience. Those with the same educational level had roughly similar incomes between industries, although some difference was noted.

2.1. Comment

What is the importance of segmentation for policy? If the labour market is not segmented than it can be accepted that human capital theory is working well in that adequate returns are being obtained for education and experience. For policy purposes the demand for labour is adequate in a non-segmented market because earnings are what can be expected and the policy problem if unemployment exists is on the labour supply side, i.e. labour supply is heterogeneous and the only bars to entering into employment are the lack of adequate qualifications, skill and/or experience. If, in fact, the problem was of lack of demand for a particular labour category then the earnings received for that particular labour category would be lower than what the human capital theory would predict. That this is not so suggests that labour is heterogeneous in looking for the job that suits it and hence unemployment results. The policy response, if this were the case, would be to improve the information flow concerning available jobs.

A segmented labour market implies that the problem is more on the demand side than the supply. This is because institutional forces are barring entry and keeping wages unnecessarily high when there is excess labour supply for a

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[1] Gary S. Fields, Que tan segmentado es el mercado laboral en Bogota?, Documento de Trabajo No. 7, Enero 1980, Corporación Centro Regional de Poblacion, Bogotá, Colcmbia.

particular labour category. The policy response is then to do something about the demand side - often this means attempting to reduce the price of labour through wage policy or supply side policy (e.g. retraining). Since wages are very resistant to falling policy usually fails. Retraining or increasing effective demand can work but then other problems appear.

In both segmented and non-segmented labour markets then, unemployment can occur. The evidence in Colombia suggests that wages don't fall, that adequate returns are obtained for increases in human capital (at least in urban areas) that open unemployment is largely frictional and the employment problem is one of low productivity and underemployment than structural open unemployment. This is consistent with a non-segmented labour market. The evidence for a segmented labour market in Colombia is sparse, although it has to be admitted that an adequate multi-sector, multi-firm size, multi-region analysis does not exist to test this. Certainly, as both Bourgignon and Fields found, some evidence of segmentation exists, and a knowledge of Colombia where one sees discrimination against negroes, queues for jobs at factory gates and construction sites from presumably well-qualified people attests to this. The conclusion then to draw from the above is that a mixture of segmented and non-segmented markets exists in Colombia with the latter more widespread than the former. This does not help labour market policy much because it requires a much closer examination of the labour market than has been done hitherto - only that demand side policy seems to be more important than policy to change labour supply characteristics.

A major implication for analysis is that quantitative regression analysis across industries for different age, sex, education, occupation, migrant status, experience etc. has only a limited value in identifying segmented labour markets. In order to identify institutional and political constraints to entry into employment a case study approach of specific labour

market situations is likely to be more profitable.[1] This is provided, of course, that this is done inside a general analytical framework.

3. Socio economic factors affecting the employment balance

There are other closely related factors than the functioning of the labour market itself that affect the employment balance. In this section each of these factors is considered in turn together with available empirical evidence. The questions asked are:

(1) Is the sectoral composition of output correct?

(2) Is technology too capital intensive?

(3) Is there a lack of effective demand?

(4) Are savings not used for investment?

(5) Are wages too high to absorb labour?

(6) Is population and hence labour supply growth too high?

(7) Is rural to urban migration too high?

(8) Is land too unequally distributed to absorb labour?

(9) Is the international trade pattern incorrect?

3.1. Sectoral composition of output

In table 3.2 is given the percentage distribution of output by sector of origin for the period 1950-74. It can be seen that agriculture is declining in importance in the economy despite a reasonable growth rate of nearly 4 per cent. The secondary sectors have increased their importance, with an adequate growth rate of around 7 per cent over the period. The tertiary sectors have also increased their share of output in

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[1] More ideas for such an approach can be found in G. Standing, Unemployment and Female Labour, Macmillan, London and Basingstoke, 1981.

Table 3.2: Percentage distribution and growth of GDP by sectoral origin
(current market price data)

	Sector	1950	1960	1970	1974	1978	Growth .. in GDP 1951-63	Growth .. in GDP 1964-73
P	(Agriculture	36	32	25	26	26.9)		
P	(Fisheries and hunting	0.2	0.2	0.6	0.6	0.6)	3.4	3.9
P	(Forestry	0.3	0.4	0.4	0.4	0.4)		
P	(Mining	2	4	2	1	1	4.4	1.9
S	(Industry	18	19	19	22	20.6	6.6	7.0
S	(Construction	3	3	5	5	4.2	5.7	9.6
T	(Commerce	14	15	17	17	18.6	4.8	6.3
T	(Transport	7	6	6	5	4.9	5.8	6.2
T	(Communications	0.4	0.6	1	1	0.8	10.2	10.5
T	(Electricity gen. works	0.5	1	1	1	1.3	10.3	9.6
T	(Banking and finance	1.7	2.5	3.4	3.4	3.7	9.7	9.2
T	(Net property rents	7	5	6	5	4)	4.8	5.9
T	(Personal services	8	7	7	6	6.5)		
T	(Government services	4.3	5.1	6.5	7	5.9	4.7	6.1
						Over-all	4.8	5.9

Source: Banco de la Republica, Cuentas Nacionales, 1970-78.

Note: P = primary; S = secondary; T = tertiary.

the economy from 43 per cent in 1950 to 45.4 per cent in 1974. Both secondary and tertiary sectors have increased in importance because of the relative decline in the primary sectors.

The employment implications of this sectoral composition is given in table 3.3. Note that despite the moderate growth in output of agriculture, productivity has increased sharply over the period 1964-73 to the extent that employment is actually dropping there at an annual rate of nearly 3 per cent. Whether this is a technological or a land distribution phenomena or a combination of both is examined as a later point below. Growth in employment is coming from a relatively small sector in terms of output, namely personal services but government is an important employer too. The share of agriculture in employment has dropped from 48 to 30 per cent of total employment in ten years to 1973, being replaced largely by personal services. These increase from 17 to 28 per cent.

The elasticity of employment with respect to agriculture and mining is negative, and is only just positive in secondary sectors (except transport). Personal services, commerce, banking and finance and government are the growing providers of jobs and account for the fact that open unemployment did not change much between the 1964 and 1973 censuses. Clearly any growth in the absorption of labour in the future in the absence of any structural changes in the composition of output will come from these latter sectors.

A worrying possibility here and largely neglected in the Colombian literature is the microelectronics revolution.[1] Practically all services can be replaced by equipment based on the microprocessor chip, at prices below that of labour. Services will begin to be replaced by machines for example,

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[1] A full discussion of the likely impacts of this new technology is given in J. Rada, The impact of microelectronics, ILO, 1980. The economics are discussed in M. Hopkins and R. Van Der Hoeven, "A model of technology and jobs", Futures (forthcoming).

Table 3.3: Growth in employment demand by size of sector in terms of employment

Sector	1951-64 Growth in employment demand	% employment (1964)	Elasticity of employment/output (EP_S)[1]	1964-73 Growth in employment demand	% employment (1973)	Elasticity of employment/output
Agriculture	1.8	48.2	0.53	-2.9	30.2	-0.74
Mining	2.1	1.6	0.48	-7.7	0.7	-2.42
Industry	2.7	12.5	0.41	2.0	13.3	0.29
Construction	4.1	4.2	0.72	0.5	3.9	0.05
Commerce	5.2	7.3	1.08	6.1	11.2	0.97
Transport	3.6	3.4	0.62	-0.2	3.0	-0.03
Communications	2.6	0.3	0.25	1.4	0.3	0.13
Elec., gas, water	4.8	0.4	-0.47	1.8	0.4	0.19
Banks, finance	9.1	1.1	0.94	5.5	1.6	0.60
Personal services	3.1	17.1	0.65	7.1	28.2	1.20
Government services	4.0	3.9	0.85	8.1	7.2	1.33

Source: DNP/UPG, op. cit., tables 3.2 and 3.3.

Note: [1] $EP_S = \frac{\text{(change in employment per annum)}}{\text{(change in output per annum)}_S}$, where s = sector

hand washing by automatic washing machines, banking counter services, by minicomputers, secretarial services by word processors, etc. This will be a revolutionary and welcome step away from drudgery. Yet unemployment is likely to rise and the distribution of income to worsen even further in the absence of policy intervention.[1]

The consumption and trading pattern that lead to the composition of output in Colombia is unlikely to change without a significant change in the distribution of income and a lesser dependence on the outside world (in the dependency theory sense discussed in Chapter 1).[2] Even then it has been argued by Cline,[3] amongst others, that the impact of income redistribution on total employment and the structure of factor earnings is small. A number of studies have attempted to quantify the net effect of the different influences on the level of total employment and the level of income earned by the poor. In Colombia, Ballentine and Soligo[4] found that the deduction in the demand for labour services by the rich was dominant; for example taxing the rich and transferring the proceeds to the poor shifted the pre-tax distribution of earnings in favour of the rich.

Contrary to this evidence, Thirsk[5] found that a weakness in these studies was that the composition of firm size in each industry was not permitted to vary in response to a

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[1] M. Hopkins and R. Van Der Hoeven (op. cit.).

[2] For its application to Colombia see Eduardo Saenz, Teoria de la dependencia, Univalle, Depto. Economia, Lectura No. 2499 (mimeo).

[3] W.R. Cline, "Distribution and Development: A Survey of the Literature", Journal of Development Economics, Feb. 1975.

[4] J.G. Ballentine and R. Soligo, 1978, "Consumption and Earnings Patterns and income Redistribution, "Economic Development and Cultural Change.

[5] W.R. Thirsk, "Aggregation Bias and the Sensitivity of Income Distribution to Changes in the Composition of Demand: The Case of Colombia", Journal of Development Studies, 1979.

redistribution of income. In Colcmbia these reservations carry a special weight because of the dual nature of its industrial structure. Nelson et al.[1] analysed Colombian manufacturing development in terms of a "two-technology" diffusion process. They noted that there are much greater differences in output per worker between large and small firms within an industry in Colombia than in the United States, that large firms tend to use a different, more capital intensive technology than small firms and that wage rates paid by large firms in an industry were typically three times or more larger than those in small ones.

Berry[2] has also shed some light on the historical importance and evolution of the small firm manufacturing activity in Colombia. He distinguishes between cottage shops which employ fewer than five workers and small-scale factory firms with a work force of less than twenty-five. During the decade of the 1960s cottage-shop workers, not all of whom were employed full time, constituted about 60 per cent of the entire manufacturing labour force, a percentage which displayed some slight tendency to rise over the course of the decade. Workers in small-scale factories, on the other hand, comprised about 27-29 per cent of all factory workers, a proportion which has remained fairly stable over time.

It appears that in 1964 the bulk (cver 75 per cent) of cottage-shop employees were active in the textile, clothing and footwear, wooden furniture, transportation and food and beverage industries. In most of these sectors cottage-shop employment grew as fast or faster than factory employment over the period 1951-64. Only in the clothing and footwear industry did cottage-shop employment lose ground. Berry suggests that in this and other sectors there is direct and vigorous

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[1] R. Nelson et al., 1971, Structural change in a developing economy, Princeton University Press.

[2] R.A. Berry, "The relevance and prospects of small-scale industry in Colombia", Yale University Economic Growth Center Discussion Paper, No. 142, 1972.

competition between large and small-scale plants but that only in the case of clothing and footwear is there any discernible tendency for the large competitor to drive out the smaller one. Although their productivity growth is less, smaller firms seem to be "holding their own" in Colombia.

The study by Berry and that by Nelson, et al., conclusively document the existence of a wide range of factor proportions within broad industry classifications, a range which may even exceed that which exists among different industries. What has not been adequately documented, however, is the presence of a systematic relationship between the income class of the purchaser of industry output and the industry technology used to produce that output. Casual impression supports the view that the poor transact most of their business with small-scale firms in which the majority of the poor are employed. Conversely, large firms that utilise the services of the upper income groups seem to cater primarily to the rich and well-to-do.

Thirsk concludes therefore that a fiscal redistribution favouring the poor will be reinforced if the poor continue to purchase their goods and services exclusively from small firms in every industry. Then a peso of income transferred to the poor will ultimately raise their incomes by as much as two, or perhaps even three dollars.

The notion that there is a tight linkage between expenditures at various income levels and factor proportions has a long tradition in Latin America and gave rise to the dependency school of thought. The new industries that are established, Renault cars in Colombia, for example, provide incomes primarily for the rich who in turn use their incomes to purchase the products of the newly established industries. However, a flaw in the argument seems to be that if the poor obtain significant increases in income there is the possibility that they too will follow the consumption patters of the rich.

In summary the composition of sectoral output is clearly important in terms of employment in Colombia. But how to

change it in the rather unlikely absence of a full socialisation of the economy seems to be difficult if not impossible.

3.2. Technology is too capital intensive

For a given unit of output the relation between the factors of production capital and labour depend on the technology being used. In table 3.4 is given, for 1973, the relationship between labour and capital (measured as the additons to capital stock from investment) for the major sectors of the economy. The table illustrates the labour intensiveness of commerce and services already remarked upon and, surprisingly, shows that despite a respectable ICOR of 4 agriculture is generating negative employment for each unit of new investment. This suggests that new growth from agriculture is heavily capital intensive. If the hypothesis, posed above, concerning microprocessors, is correct then one could expect a reducing $\Delta E/\Delta K$ in the eighties. Clearly the table illustrates that some areas of activity are capital intensive and others labour intensive. By implication a neo-classical view would be that the most efficient way to absorb labour would be through greater accumulation of capital. This is because, in the absence of the substitution of capital by labour since the price of the latter is not falling to reflect its surplus (this is discussed further in section 3.5. below) relative to the scarcity of capital, only an acceleration of growth can absorb the surplus labour. Following Arthur Lewis, it would then be hoped that the modern, capitalistic sector would expand leading to greater employment in that sector, and eventually absorbing all the surplus labour residing in the traditional sector. Yet despite increases in the accumulation of capital (gross investment has been growing at 5.1 per cent over the period 1970-78 in Colombia) growth in employment in the secondary sector has been disappointing.

As Lysy[1] remarks, economists have normally explained this unexpected result by the ex-post rationalisation that the investment done was of a very capital-intensive nature. And, merely an ex-post rationalisation that the technology adopted must have been capital intensive since the stock of capital increased and employment did not is really no explanation at all by itself. The technology argument ranges from the crude argument that newer technologies which were both superior and more capital-intensive at existing prices became available; to quite complex arguments on how the wage/rental ratio might have been expected to move in a direction which favoured a more capital-intensive technology.

In Colombia, awash with illegal dollars from what is now alleged to be its major export - narcotics,[2] the scarcity of investable funds is not such a problem that the neo-classical argument applies and hence it is unlikely that labour will be substituted for capital. Further, because of institutional and social factors - fears of labour unrest, the urge to modernise being à la mode, ease of access to US technology, etc. -, substitution of labour for capital is not likely to occur. Hence the urge, for example from the ILO,[3] to use labour-intensive techniques or what is now becoming known as appropriate technology (although that is a misnomer because in a neo-classical world what is being used is appropriate) is unlikely to be taken up.

3.3. Lack of effective demand

Unlike other sections in this chapter it is difficult to find direct evidence linking unemployment to lack of effective demand and therefore the argument must be even more circum-

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[1] F. Lysy, "Investment and employment with unlimited labour", Journal of Development Economics, 7(1980), pp. 541-566.

[2] For a discussion see section 3.9.

[3] ILO, Colombia Report (1970, op. cit.), pp. 157-172.

stantial than elsewhere. Let us consider the following accounting identity:

$$X = A'X + E-M + PC + PI + GC + GI \quad \ldots(1)$$

where X = output, A'X = intermediate demand (A - the Leontief input-output matrix), E = exports, M = imports, PC = private consumption, PI = private investment, GC = government consumption, GI = government investment.

Then any positive change in X, i.e. growth, must come from increases in variables on the right-hand side of the equation (less M). Effective demand comes from this side of the equation. If we assume intermediate demand is a function of output in turn a function of other variables on the right-hand side then growth comes from a comination of growth in exports, consumption and investment.

We shall examine trade in section 3.9. so ignoring that for the moment we concentrate on investment and consumption here. Lysy[1] has argued that the growth in aggregate demand that would follow an increased capital supply might not be adequate to assure a satisfactory growth in employment. From equation (1) it can be seen that an increase in capital supply (or investment) will increase output growth. But there is no guarantee that there will be an equivalent growth in consumption. Further the increase in capital supply may, if its price falls, just succeed in replacing labour hence increasing unemployment. Aggregate consumption need not necessarily fall since those staying in employment may obtain increased incomes because their productivity has risen due to new machines, and hence output growth will continue. All this can be seen from equation (1). What cannot be seen there is that un- and underemployment can increase because of increases in capital accumulation and, consequently, the distribution of income worsens. Nevertheless, there is no guarantee that aggregate consumption will grow, i.e. that those in employment

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[1] F. Lysy (op. cit.).

Table 3.4: Relation between increments in employment, capital and output for economic sectors in 1973

Sector	Δ E[1] (thousands)	Δ P ($ million in 1970)	I = Δ K ($ million in 1970) (% of total in brackets)	$\frac{\Delta E}{\Delta K}$ x 1,000 (additional employment for each $1 million invested)	$\frac{\Delta K}{\Delta P}$ (ICOR)
Agriculture and fishing[2]	-61.1	1 243.8	4 987.5 (17.5)	-12.3	4.0
Mining	- 2.9	130.9	114.0 (0.4)	-25.4	0.9
Industry	13.2	2 551.8	6 342.2 (22.3)	2.1	2.5
Construction	1.1	852.0	4 275.0 (15.0)	0.3	5.0
Commerce	34.2	2 194.5	738.0 (2.8)	42.9	0.4
Transport	- 0.3	768.8	3 163.0 (11.1)	- 0.1	4.1
Communications	0.2	181.3	741.0 (2.6)	0.3	4.1
Elec., gas, water	0.4	238.7	2 878.5 (10.1)	0.1	12.1
Banks[3]	4.4	467.6	2 008.3 (7.0)	2.2	4.3
Personal services[3]	95.8	1 163.1	940.5 (3.3)	101.9	0.8
Government services	28.8	772.7	2 251.5 (7.9)	12.8	2.9
Total	113.8	10 565.2	28 500.0 (100.0)	4.0	2.7

Source: DNP/URG, op. cit., taken from Matriz de Inversion 1972 - DANE-DNP-UPG; and Cuentas Nacionales del Banco de la Republica.

Notes: [1] Net investment (I) is considered to be equal to the increment in capital stock (Δ K).
Δ E = increment in employment 1972-73.
Δ P = increment in GDP 1972-73.

[2] Includes fishing, hunting and forestry.

[3] Includes net rents from housing.

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will make up for the foregone consumption of those now un- or underemployed.

The national accounts summary presented in table 3.5 according to the notation[1] of equation 1 does not substantiate a lack of private demand in comparison to other components of final demand. It grew at 6.6 per cent compared to a growth in national income of 7 per cent[2] over the period 1970-78 (real prices). However, public consumption grew at a lesser rate and public investment declined even further as a proportion of total government expenditure.[3] The relative fall back in government consumption and investment is somewhat surprising considering the growing public deficit. Further some commentators[4] have argued that public expenditure has grown excessively in Colombia - the evidence at least for the period 1970-78 disputes that.

Attempts to control government expenditure have grown popular in recent years because of the alleged failure of Keynesian demand side policies. This failure is apparently because increases in demand stimulate inflation. Yet inflation can occur from a number of sources as well as from demand exceeding supply (of products). These are from wage rises exceeding productivity increases, from imported inflation due to excessive devaluation, from the need to print money to cover

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[1] Note that government investment is not distinguished there from private investment. From E. Fernandez, "Compendio de estadisticas de ingresos y gatos del sector publico", Mision de finanzas Intergubernamentales", Bogota, Agosto 1980; this split can be obtained. Figures are slightly different from the Banco de Republica for reasons unknown. From Fernandez, however, it can be seen that government investment as a proportion of government consumption fell sharply from around 38 per cent in 1970 to around 28 per cent in 1979.

[2] Banco de Republica, Cuentas Nacionales, 1970-78.

[3] See footnote 1.

[4] M. Urrutia citing the national plan - the PIN - in Coyuntura Económica, Vol. XI, No. 1, Abril 1981 (p. 177).

Table 3.5: Output and final demand (constant 1970 prices)
('000 millions of pesos)

	1970	1971	1972	1973	1974	1975	1976	1977	1978
1. Net internal output at market prices (X-AX)	130.3	137.9	148.6	159.1	168.8	175.2	183.2	192.2	209.2
2. Imports of goods and services (M)	20.6	23.1	21.2	19.8	24.2	21.8	23.6	26.2	33.0
3. Private consumption (PC)	93.9	99.6	108.7	113.7	126.4	130.2	133.9	140.8	156.3
4. Government expenditure (GC)	9.9	11.8	11.3	12.2	12.0	12.7	13.5	14.0	15.0
5. Investment (change of stocks plus fixed capital formation) (PI+GI)	28.6	30.8	30.2	26.8	35.6	29.4	36.8	42.0	42.7
6. Exports of goods and services (E)	18.5	18.8	19.6	20.2	18.9	24.6	22.6	21.6	28.2

Percentage growth and distribution

	Growth rate	Percentage distribution								
	1970-78	1970	1971	1972	1973	1974	1975	1976	1977	1978
1. X-A'X)	6.1	86.3	85.6	87.5	89.0	87.4	88.9	88.6	88.0	86.4
2. M)	6.1	13.7	14.4	12.5	11.0	12.6	11.1	11.4	12.0	13.6
3. PC)	6.6	62.2	61.9	64.0	66.9	65.5	66.1	64.7	64.5	64.5
4. GC)	5.3	6.6	7.3	6.7	6.8	6.2	6.4	6.5	6.4	6.2
5. PI+GI)	5.1	18.9	19.1	17.8	15.0	18.5	15.0	17.9	19.2	17.6
6. E)	7.9	87.7	88.3	88.5	88.7	90.2	87.5	89.1	90.1	88.4

Source: Banco de la Republica, Cuentas Nacionales de Colombia, 1970-78.

government borrowing deficits, and price increases over and above increases in costs. Failure to control any of these can lead to inflation. As we have seen from table 3.5 the rise in private consumption has not been met by an equivalent rise in investment, so even at this level of aggregation it can be seen that some inflation is being generated by goods simply not being available. An increase in government investment, therefore, could help to reduce inflation.

This can also be shown by examining the Fischer monetary equation:

$$MV = PX,$$

i.e. money supply times velocity of circulation is equal to price times output. In Colombia the money supply M2 has been growing at around 40 per cent (M1 has been growing at around 30 per cent),[1] price inflation has been around 26 per cent and interest rates have been around 28 per cent in the seventies. The policy of controlling the money supply both through reducing government expenditure and raising interest rates is important if the growth of the money supply is the sole cause of inflation. Yet, as stated above, there are other factors of importance too. Further controlling the money supply can have the effect of depressing output because industry will not borrow money to invest in production when the cost of borrowing is high, and government will not invest in order to reduce the government deficit. All this follows from the Fischer equation.

This is because V, the velocity of circulation has been shown to be remarkably constant[2] and the Fischer equation reduces to $M = kPX$. Now if the equation is something more than an accounting identity and has behavourial significance and the direction of causation goes from left to right then a reduction

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[1] Source: table 1, Banco de la Republica, Colombia Indicadores Económicas, Bogota, Jan. 1981.

[2] See Trevithwick, Inflation (Pelican, Harmondsworth Press, 1979).

in money supply can lead to either a reduction in P or a reduction in X. Since P has not reduced much in the seventies in Colombia (and in 1981 seems to be increasing) it is likely that money supply policies have only succeeded in depressing X, i.e. production. With growing capital intensivenesss in Colombia and declining production both increasing unemployment and inflation can and do co-exist.

In summary, the growing open unemployment rate has not affected demand - the private consumption share of demand has increased over the period 1970-78 - but investment in particular government investment has declined proportionately. The increasing share of consumption suggests that the distribution of income must have worsened because there were more people unemployed in the late than the early seventies. In the next section I examine some of the reasons for declining (relatively) investment. Finally, inflation in Colombia on the evidence presented seems to follow from shortfalls in supply rather than demand. Thus inflation from increases in money supply may be illusory and this illusion may have only served to increase unemployment and inflation.

3.4. Savings not invested

We have seen above that the rate of growth of investment is declining relative to other components of final demand. In this section I examine what contribution private savings make to this and where the shortfall in investible funds originates.

Table 3.6: Sources of capital formation in Colombia, 1970-78
('000 million pesos current)

	1970	%	1974	%	1978	%	Growth 1974-78 (%)
1. Internal capital formation	26.4	(92)	63.9	(86)	181.0	(88)	27.2
2. Change in stocks	2.2	(8)	10.4	(14)	24.8	(12)	35.4
3. Total investment (1+2), (4+5+6+7)	28.6	(100)	74.3	(100)	205.8	(100)	28.0
4. Savings of enterprises	13.5	(47)	34.5	(46)	103.2	(50)	29.0
5. Savings of families	2.2	(8)	16.0	(22)	41.6	(20)	44.4
6. Savings of government	7.7	(27)	14.3	(19)	65.7	(32)	31.0
7. Balance of payments	5.2	(18)	9.5	(13)	-4.7	(-2)	-20.0

Source: Banco de la Republica, Cuentas Nacionales, 1970-78.

In table 3.6 is given a breakdown of investment in terms of savings over the years 1970-78. Table 3.5 illustrated that investment had declined relatively to other components of final demand (it had a real rate of growth of 5.1 per cent per annum). Table 3.6 (in current prices) illustrates that private

savings from households have been growing strongly and have compensated for shortfalls in investment from the growing balance of payments deficit,[1] and for the relatively lower growth of enterprise and government investment (inflation averaged 19 per cent over the years 1970-78). The shortfall in investment can therefore be identified as coming from enterprises and government. The latter because, presumably, of concerns with the money supply. The former because, presumably, high real interest rates make borrowing for investment in industry less attractive.

The rising balance of payments deficit is also constraining investment. In comparison with the early seventies when the balance of payments roughly equalled government investment, it has sharply fallen in the late seventies to the point where it is making no contribution. Clearly there is not much scope for increasing investment from private individuals. The effort needs to be concentrated in enterprise and public investment. However one worrying sign is the increasing transfers to the rest of the world from private individuals (3,131 million pesos in 1978 compared to 267 in 1970) in comparison with private transfers from the rest of the world (1,275 in 1978 compared to 451 in 1970). Returning to 1970 levels could halve the balance of payments deficit.

3.5. Wages too high

If real wages had been growing faster than productivity the neo-classical school would expect labour to be replaced by capital and/or inflation to increase. In table 3.7 is given an analysis of salaries, employment and productivity over the period 1951 to 1973.

From the table the evidence is mixed. In the sectors where one could expect a more free entry of labour and wages to reflect market conditions, namely primary and other services;

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[1] 1974 was an unusually good year. The economy was in deficit on balance of payments in the years 1976-81, in surplus 1970-75.

Table 3.7: Rates of employment and real indices of productivity and salaries for major sectors in census years
(Indices for salaries and mean salaries have a base of 100)

Sector[1]	(Employment in 1973) ÷ (Employment in 1951)	(GNP in 1973) ÷ (GNP in 1951)	Rate of Unemployment			Index of Productivity			Index of salaries		
			1951	1964	1973	1951	1964	1973	1951	1964	1973
Primary	0.9	2.2	13.9	9.4	15.5	68.7	63.6	84.8	76.3	58.2	65.1
Secondary	1.7	4.3	13.1	13.4	31.3	111.5	129.2	143.2	109.6	148.3	168.0
Modern services	2.0	5.0	19.1	13.8	35.7	190.2	204.8	235.7	240.3	283.8	290.1
Government services	3.4	3.1	5.8	5.8	5.8	202.3	167.3	91.9	401.9	401.5	268.8
Other services	2.9	3.2	13.1	13.8	6.5	139.4	121.3	76.5	79.2	65.0	41.6
Total	1.6	3.1	13.6	11.5	16.3						

Sources: DNP/UPG, Banco de la Republica - Cuentas Nacionales.
DANE, Censos de Poblacion, 1951, 1964, 1973.

[1] Primary = agriculture, fishing and mining.
Secondary = industry + construction.
Modern services = transport + communications + electricity + gas + water + banks + finance.
Other services = commerce + personal services + rents.

one finds in the former over-all unemployment has dropped, productivity has increased, salaries have not kept up with productivity increases, and yet the rate of unemployment has remained high. In the latter sectors over-all employment has sharply increased, productivity has decreased, salaries have decreased too in keeping with the neo-classical school and as the theory predicts, the rate of unemployment has fallen too. In the other sectors salaries seem to have been determined more or less by productivity changes yet with the exception of government unemployment has sharply risen. Clearly the changes in salaries have only a limited impact on hiring practices, and unemployment cannot be attributed to excessive wage claims.

Further evidence for this point of view comes from more recent information on real salaries presented in table 3.8. There it can be seen that nominal salaries have increased sharply in agriculture, manufacturing and commercial services. These increases are of course illuscry because of inflation. Real wages however have behaved more modestly. In the poorer agricultural regions of the country (i.e. usually those with a hot climate) real wages have remained constant and for those who are not paid in kind with food, they have dropped in real terms. In manufacturing real wages for white-collar workers have increased only marginally and well behind the level of productivity increases implied by the 3 to 4 per cent per capita income growth rate in the country. Blue-collar workers in industry have performed better mainly because of a sharp increase between 1977 and 1978. In commerce too workers have done well. Again un- and underemployment is high in agriculture and manufacturing industry yet lower in services. Yet the response of salaries has again been mixed leading to the conclusion that more recent high levels of open unemployment cannot be attributed to excessive wage increases.

Table 3.8: Mean monthly salaries in selected years and sectors, 1975-80[1]

(1) Agricultural workers mean daily wage 1978-80

	Cold climate				Hot climate			
	With food		Without food		With food		Without food	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1978								
I	69	100.0	103	100.0	78	100.0	115	100.0
II	71	96.4	108	98.2	81	97.3	119	97.0
III	78	103.1	117	103.7	88	102.9	128	101.0
IV	85	107.3	126	106.7	95	106.1	137	103.9
1979								
I	86	99.3	129	99.9	96	98.1	139	96.4
II	89	96.8	135	98.4	100	96.2	144	94.0
III	100	104.4	150	104.9	111	102.5	159	99.6
IV	114	112.5	163	107.7	116	101.2	162	95.9
1980								
I	113	105.8	167	104.7	126	103.5	180	101.1
II	119	102.0	174	100.0	131	99.3	186	95.7
III	127	105.4	185	102.9	139	102.0	197	98.1

Source: DANE, Journales Agropecuarios, y Avances.

[1] Note: These tables have been taken from Coyuntura Economica April 1981.

(2) Mean monthly wage for blue and white collar workers in manufacturing, 1976-80

Year	Month	Blue collar Nominal ($)	Blue collar Real	White collar Nominal ($)	White collar Real
1976	December	3 665.6	92.0	8 257.8	100.9
1977	December	4 782.6	92.8	10 330.8	99.1
1978	December	6 129.2	100.9	12 841.8	102.9
1979	December	8 005.8	101.6	16 284.0	103.1
1980	February	8 143.7	100.0	16 338.0	100.0
	April	8 947.9	103.3	17 528.6	101.8
	June	9 247.5	101.7	18 029.0	100.4
	August	9 633.6	104.2	18 696.0	101.7
	October	10 091.9	104.9	19 617.9	102.8
	December	10 312.8	103.4	20 117.3	102.3

Source: DANE, Muestra Mensual Manufacturera, y Avances.

(3) Monthly wages in consumer commerce, 1975-80

Year	Month	Nominal	Real
1975	Mean	3 038	82.41
1976	"	3 870	88.33
1977	"	5 037	86.93
1978	"	6 610	96.06
1979	"	8 472	100.0
	December	11 905	124.91
1980	I	10 329	102.57
	II	11 452	104.64
	III	11 321	99.48
	October	12 184	103.76
	November	12 191	101.17
	December	15 037	123.10
	Mean	11 594	104.32

Source: DANE, Muestra Mensual de Comercio al Consumidor, y Avances.

An economic analysis of the determination of the global level of employment over the period 1970 to 1978 in 20 manufacturing sectors by Villarreal[1] gave the following results. He estimated the equation

$$L_i = \alpha_1 + \alpha_2 W + \alpha_3 \frac{W}{P} + \alpha_4 W_o + \alpha_5 \frac{W_o}{P_o} + Y_{t-1}$$

where L_i = global level of employment sector i, W = nominal salary for white-collar workers, P = price level, $\frac{W}{P}$ = real salary white collar, Wo = nominal salary for blue-collar workers, $\frac{W_o}{P_o}$ = real salary blue collar, Y_{t-1} = production level at t-1.

The results of his analysis I have summarised as table 3.9.

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[1] Julio Villarreal: "Syndicalismo, salarios, empleo y desarrollo", Uniandes, Tesis de grado, Bogotá, 1980. (Note that, despite the title of the thesis, Villarreal left out unionisation as a variable in the determination of employment and included nominal salaries where an index of inflation would have been better.)

Table 3.9: Results of Villarreal's analysis of the determinants of the global employment level in 20 manufacturing sectors, 1970-78

Independent variable		W	W/P	$\frac{Wo}{Po}$	$\frac{Wo}{Po}$	Y_{t-1}
Number of times a significant coefficient appeared out of 20 regressions (sig.<5%)	+ve coeff.	7(5)	3(2)	4(2)	3(2)	15(12)
	-ve coeff.	2(2)	8(7)	5(4)	11(8)	1(1)
(sig. at 1% in brackets)	Total possible	20	20	20	20	20

If wages were affecting employment negatively one would have expected real salaries to have been significant and negative in the majority of regression equations. This is so in over half the equations for blue-collar workers (where free-entry conditions might be found more often) and nearly half for white-collar workers. Hence it can be concluded that there is some effect of wages on decreasing employment levels in a few of the sectors. Further, the most important effect, not surprisingly, is the size of the sector in terms of output. If it can be assumed that inflation can be proxied by the nominal salary variables (variation due to real salary changes having been captured by the real salary variable) then it can be seen that increasing inflation seems, on balance, rather surprisingly to increase aggregate employment levels rather than reduce them. Alternatively this latter result can be viewed to suggest that inflation has little effect on aggregate employment levels. Whether this relationship is true or not in the other direction following the ideas embedded in the

Phillips curve,[1] viz. higher unemployment will reduce inflation, cannot be deduced directly from this result. However the result is consistent with the idea that high levels of unemployment need not necessarily reduce inflation. This has certainly happened in Colombia where inflation and unemployment are both increasing.

In summary, Villarreal's results give evidence to support the view that wage increases affect global levels of employment in some sectors. The evidence at a macro-level (five sectors of table 3.7) supports this too, i.e. some sectors are protected, others not. A more detailed study of wages by sector would be needed to establish the whys and wherefores. Clearly though, a blanket notion that wages affect employment and unemployment cannot be accepted.

If it had been clear that wages strongly influenced employment levels an analysis of the determination of wages would have been much more important. Yet the brief analysis here suggests that wages have only just kept pace with inflation and real wage gains have hardly kept up with productivity increases. Suffice to refer then to one or two studies that have attempted - without much success - an economic investigation of the determination of salaries in Colombia.[2]

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[1] For an analysis of the Phillips curve applied to Colombia which supports the ideas expressed here, see Juan Manuel Mesa Arévalo: La curva de Phillips, Ediciones Tercer Mundo, AA 4817, Bogotá, Jan. 1977.

[2] See for example (i) Rafael Garcia Posada: "Los determinantes del salarios en la industria textil Colombiana", Tesis de grado, Universidad de los Andes, Bogotá, Feb. 1980. He estimates the equation: $\dot{S}=\dot{U}+\frac{1}{U}+\dot{P}+\dot{Q}+\dot{PS}+\dot{PR}+\dot{SM}+T$ where S = nominal salaries, U = unemployment, P = prices, Q = productivity, PS = power of unions, PR = crude productivity, SM = minimum salary, T = time. He does this for three firm sizes.

(Footnote continued on next page)

Most of these studies have been limited to the manufacturing sector where good information is available. In general, the studies conclude that unions have an influence on wages in the manufacturing sector (Urrutia[1] noticed that unionised factory salaries were 14.44 per cent better than non-unionised), productivity is an important determinant and that the minimum wage is an important determinant in the wages of agricultural and blue-collar workers.

3.6. Population growth too high

In Chapter II I examined the impact of population growth on labour supply in terms of labour force participation rates, and there is no need to repeat that discussion here. The question of population growth is a two-edged sword because the

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(Footnote continued from previous page)
(ii) DNP-UPG (op. cit.), Tomo II: "Cuantificacion del impacto de los sindicatos", pp. 222-244. Also discusses effects of productivity by sector of activity on wages. (iii) Carmen Sanjines Orejuela, "Tendencias del salario real para obreros y empleados en el sector manufacturec Colombiano, 1960-1970", CEDE, Uniandes, Documento No. 024, Bogotá, Junio de 1975. He estimates for each manufacturing sector

$$\bar{w}_t = a_1 + a_2 \bar{p}_t + a_3 d_t + a_4 g_t + a_5 k_t + a_6 I_{t-1}$$

where $\bar{w}_t$ = real salary, $\bar{p}_t$ = mean productivity (value added ÷ employment), d_t = index of inequality, g_t = proportion of capital in value added, k_t = technology (energy consumed ÷ labour, to approximate capital labour ratio), I_t = price indice. He concluded that the growth in nominal salaries of white-collar workers follows inflation, but those of blue-collar wages do not except in those years where minimum salaries are changed. Productivity was the variable the most significant in the determination of salaries. Technology had little influence except that it was useful in explaining differences in salaries between sectors.

[1] M. Urrutia, Historia del Sindicalismo Colombiano, Ed. La Carreta, Medellín, 1976.

positive and negative effects are difficult to separate. Improvements in the socio-economic circumstances of families lead to reductions in family size and reduced population growth.

A growing population is a young population and technological innovations are more forthcoming. Also a growing population stimulates demand for goods and services, whilst also increasing the labour supply that can produce them. Yet a growing population can have a depressing effect on wages since the incentive to increase wages - especially for the bottom end of the market - will be lower when there are more people pressing for jobs. Thus to understand the impact of population growth and hence growing labour supply on emplcyment needs a mechanism or model which takes into account all these factors. Such a model would need to cover the impact of socio-economic factors on population growth, labour force participation rates, and the demand for labour - disaggregated at least into urban/rural, sectorally and by skill level.[1]

A methodology for computing the effects of population growth has been developed by Fedesarollo.[2] The results of such a calculation for seven cities are presented in table 3.10.

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[1] In fact, two mathematical models exist that are capable of performing this calculation, although I am not aware that they have done so. Namely, the SERES model of the CCRP and the Colombia 2000 model of CEDE. See H. Banguero: Colombia 2000: A framework for population, employment, growth, income distribution and essential human needs planning (Geneva, ILC, 1981; mimeographed World Employment Prcgramme research working paper).

[2] Described in "Empleo y desempleo urbanos", Fedesarollo, Coyuntura Económica, Vol. VI, No. 4, Dec. 1976. Used by A. Corchuelo and E. Lora in: "La dinamica del mercado laboral en Cali, Bcletín de Coyuntura Socioeconómica 1, Mayo de 1980, Univalle, CIDSE, Cali, Colombia. Repeated by Fedesarollo in Vol. VI, No. 1, Apr. 1981, Coyuntura Económica, p. 57.

Table 3.10: Example of population growth effects calculation applied to major seven cities[1] during 1980

	Period		
	Sept. 1979	Sept. 1980	
Unemployed	392 894	445 095	
Difference			+52 201
Comparison of the difference:			
(1) Due to population growth in population economically active			+21 864
(2) Due to changes in the over-all labour force participation rates			-26 605
(3) Due to changes in demand for labour			+58 138
(4) Residual (because of way calculation performed)			- 1 196

[1] Refers to Bogotá, Medellín, Cali, Barranquilla, Bucaramanga, Manizales, Pasto.

Source: Coyuntura Economica, Apr. 1981.

This table illustrates, at first glance, that changes in the demand for labour have eliminated 58,138 jobs, that demographic growth accounted for 21,864 more unemployed and that 26,605 people withdrew from the labour force. Hence changes in demand were more important than increased contributions from population growth if the figures are taken at face value. Further, more people withdrew from the labour force than entered because of increases in population supply.

There are, however, at least two serious weaknesses in the calculation. Firstly, in-migration is excluded (this is discussed in the next section) and, secondly, the demand effects on output and hence employment of that part of the increased labour supply that did find jobs and incomes is excluded. This latter point means that if demographic growth had been static (hence component (1) in table 3.10 would equal

zero), the demand for labour in component (3) of table 3.10 would have been even less than actually did occur. Whether the variation in demand would have equalled such a fictitious drop in population growth is a moot point. Because a drop in demand might also have encouraged a greater variation in the participation and migration rates.

The above arguments, if accepted, imply that the calculation of the components in table 3.10 is difficult because none of the categories is independent of one another. This is particularly so if one takes a dynamic view of the economy. Nevertheless, what fragmentary evidence is presented suggests that, at least in the Colombia context, concerns with excessive population growth as a major cause of unemployment are largely unwarranted.

3.7. Rural to urban migration is a main cause of unemployment?

In this section I examine what evidence exists to support or reject the hypothesis expressed in the section heading. It is not my intention to examine in any detail the causes or theories that determine migration from rural to urban areas that has and is being done at length elsewhere.[1]

That migration from rural to urban areas is important as a social phenomenon is undoubted. It has been estimated that in the period 1951-64 6.6 per 1,000 Colombians changed each

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[1] See, for example, in Colombia, I. Marmora et al.: Migraciones Laborales, Ministerio de Trabajo, SENALDE, Bogotá, June 1979. This ILO is also carrying out an immense project on migration. See various publications from EMP/POP, ILO, Geneva. For a critique and analysis of the Harris-Todaro model, see Jorge Sapoznikow, "Segmentacion de marcados y migracion interna en paises menos desarollados", CEDE, Uniandes, Documento No. 031, Mayo de 1976.

year their department of residence. This slowed in the period 1964-73 to 6.3 per 1,000.[1]

Fields[2] has demonstrated that people migrate because they wish better incomes and employment. Further, that regions with lower unemployment and higher income levels attract a higher share of migrants. Already this implies that recipient regions of migrants have relatively lower unemplcyment rates than regions with low in-migration, in turn this implies that migrants do not contribute as much as might be believed to the unemployment rate.

This is backed up by Berry[3] who shows that the unemployment rate is higher for people born in cities than for people who have emigrated to them. This is because the uncertainty of finding a job and inadequate wealth level to sustain lengthy unemployment are likely to deter such migration until a job has been obtained. In 1967 for all eight cities studied average unemployment rates were higher fcr natives of the city than for immigrants from elsewhere in the same department or from cther departments. This evidence is presented in table 3.11.

Berry further remarked that the fact that rapid rural to urban migration goes on in the face of unemployment might be adduced as evidence that people who could have remained employed in agriculture (say) choose tc risk beccming unemployed in urban areas; the usual argument is that urban incomes are sufficiently above rural ones so that the expected value, even after allowing for some unemployment, exceeds that in agriculture. On the other hand the low lcoking for first

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[1] DNP, Grupo de Población: Situación Actuel, Tendencias Históricas y Perspectivas de la Dinámica Poblacional del Pais: 1950-2000, Documento de Trabajo, Mayo de 1979.

[2] Gary Fields: "Migración permanente en Colombia: Prueba de la hipótesis del ingresso esperado", Desarrollo y Sociedad, 3, Enero de 1980, Bogotá.

[3] R.A. Berry, op. cit.

Table 3.11: Rates of participation and unemployment by place of birth: eight cities, unweighted averages, 1967

	Unemployment rates				
	Men	Women	Total	Previously employed	First-job seekers
Barranquilla:	15.2	26.3	18.4	11.74	6.66
Natives	17.6	30.3	21.3	13.03	8.27
Immigrants - same department)	11.4	20.4	14.1	9.84	4.26
Immigrants - other department)					
Bogotá:	14.9	17.9	16.0	9.88	6.12
Natives	20.0	26.5	22.5	12.4	10.1
Immigrants - same department	11.0	12.5	11.6	8.23	3.37
Immigrants - other department	14.1	16.3	14.9	9.79	5.10
Bucaramanga:	7.4	13.3	9.8	6.04	3.76
Narives	10.0	15.6	12.3	6.74	5.57
Immigrants - same department	6.0	11.1	8.2	5.54	2.65
Immigrants - other department	4.9	14.6	8.k	5.67	2.43
Cali:	11.1	22.3	14.9	9.30	5.6
Natives	14.2	26.6	19.3	10.69	8.61
Immigrants - same department	9.2	18.2	11.6	8.0	3.60
Immigrants - other department	10.1	-19.9	13.3	8.95	4.36
Ibague:	11.4	16.4	13.1	10.08	3.02
Natives	16.0	19.9	17.6	14.62	2.98
Immigrants - same department	10.7	15.6	12.5	88.72	3.78
Immigrants - other department	6.6	8.5	7.0	5.13	1.87
Manizales:	15.5	21.2	17.4	12.87	4.53
Natives	19.4	24.2	20.8	13.68	7.12
Immigrants - same department	13.3	21.2	16.3	13.71	2.59
Immigrants - other department	10.6	16.9	12.9	10.32	2.58

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Medellín:	11.8	19.2	14.5	9.64	11.86
Natives	12.3	24.7	16.9	10.72	6.16
Immigrants - same department	13.4	15.4	14.1	10.00	4.11
Immigrants - other department	3.7	21.3	10.1	5.35	4.75
Popayan:	8.3	14.1	10.8	5.87	4.93
Natives	9.0	20.9	13.5	6.89	6.61
Immigrants - same department	5.6	5.5	5.5	3.5	2.0
Immigrants - other department	8.9	14.1	11.1	6.34	4.76

Source: Rafael Isaza and Francisco Ortega, Encuestas urbanas de empleo y desempleo: Analysis y resultados, Cede, Bogotá, Uniandes, Jan. 1969. The last two columns were added by Berry from the same data source, in his article.[1]

[1] R.A. Berry (op. cit.).

job period[1] for migrants suggests that they are rather careful about planning jobs before they come to the city. Over-all it appears that if the rural-urban migration flow is a significant cause of the open urban unemployment, then its effects must operate through the increased competition in the job market which these migrants create for the natives of the city. In fact, a large share of the urban unemployed are immigrants - about 52 per cent of all the unemployed in the eight Colombian cities in 1967 studied by Isaza and Ortega were not born in the cities where they sought work, but this is simply because such a large share (69 per cent) of the labour force of these cities were immigrants.

Since many of the natives of the cities are looking for white-collar jobs and many of the migrants for blue-collar ones, it is likely that the large reservoir of blue-collar labour increases the demand for most types of white-collar labour rather than the reverse. In terms of competition for native blue-collar workers, the evidence, cited by Berry, suggests that migrants react rather well to income differentials and are unlikely to flood the urban market in disregard of relative wages or unemployment.

If it is accepted that the cost of public service schemes per capita (e.g. sewerage, health, transport, electricity, water, education, etc.) is much less when the population is concentrated, the case for attempting to retain potential immigrants in the countryside - through rural electrification schemes, for example - seems to be rather weak. Particularly, too, if the reduction of open unemployment in the cities is a goal.

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[1] Evidence is from A.B. Simmons: "The emergence of planning orientations in a modernising community: migration, adaptations and family planning in Highland Colombia", Cornell University, Latin American Studies Program, Dissertation Series No. 15 (Ithaca, N.Y., Apr. 1970). Cited by R.A. Berry, op. cit.

An example, following from this, of how policy can go wrong is to cite the case of Medellín. Currently (March 1981) it has the highest (measured) open unemployment rate (15.9 per cent) of any other place in Colombia. An obvious response to the public outcry over unemployment is to pump more job creating resources into Medellín. Yet this will attract migrants as unemployment starts to fall and may, in the short term at least, actually serve to increase unemployment levels. It might well be that in-migration to cities in Colombia where open unemployment is low (e.g. Bogotá with 5.6 per cent in March 1981) will be much higher than where unemployment is high. Perhaps, in this case, employment creating opportunities should not be created in places such as Medellín but in places such as Bogotá.

Two other aspects of labour movement ought to be mentioned, namely social mobility and international migration. In the former it might be expected that Colombia with a strong concept of class and caste[1] may have strong barriers to occupational and social mobility. Berry,[2] again, found that over a long period of time occupational mobility in Colombia is not out of line with that in industrial nations. This has been because of the fast evolution of the industrial structure, which has been as fast or faster recently in Colombia than at any time in the new developed countries. International migration, in particular in recent years to oil-rich Venezuela, is according to some estimates (in 1973) around 300,000[3] and in

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[1] See, for example, Andrew H. Whiteford: Popayan y Queretaro, Facultdad de Sociologia, Universidad Nacional de Colombia, Bogotá, 1963, for a study of class hierarchy in Popayan.

[2] R.A. Berry: "On occupational and sectoral mobility in Colombia", Department of Economics, University of Western Ontaric, London, Canada (mimeo.), Apr. 1973.

[3] L. Marmora, op. cit.

the early eighties is possibly as much as twice that.[1] If these migrants had stayed in Colombia and (an unlikely event) became unemployed they would have increased the over-all unemployment rate by around 6 per cent. If the transfers from abroad from migrants is taken into account as well, clearly international migration ought to be encouraged.[2]

3.8. Unequal distribution of land

In 1960, 70 per cent of Colombia's agricultural land was in multi-family units, and (according to Dorner and Felstehausen[3]) there is no evidence to believe that this distribution is basically different today. Despite the fact that sub-family and family farms utilised less than one-third of Colombia's agricultural land, they accounted for two-thirds of the value of agricultural output. As table 3.12 demonstrates, the basic misallocation of land and labour resources is evident - too much land and too little labour on the large farms and too little land and too much labour on the small ones (Dorner and Felstehausen).

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[1] Personal estimate.

[2] Brain drain problems aside.

[3] P. Dorner and H. Felstehausen: "Agrarian reform and employment: The Colombian case", International Labour Review.

Table 3.12: Distribution of farms, work force, agricultural land and value of production by farm size groupings in Colombia in 1960

Farm size grouping	Farms	Agri-cultural workforce	Agri-cultural land[5]	Value of produc-tion
Sub-family[1]	64	58	6	21
Family[2]	30	31	23	45
Multi-family, medium[3]	5	7	21	19
Multi-family, large[4]	1	4	50	15
All sizes	100	100	100	100

Source: Comité Interamericano de Desarrollc Agrícola (CIDA). Tenencia de la tierra y desarrollo socio-económico del sector agricola: Colombia (Washington, D.C., 1966). Cited in Dorner and Felstehausen, op. cit.

[1] Farms large enough to provide employment for less than two persons with the typical incomes, markets and levels of technology and capital prevailing in each region.

[2] Farms large enough to provide employment for 2 to 3.9 persons on the assumption that most of the farm work is being carried out by the members of the farm family.

[3] Farms large enough to provide employment for 4 to 12 people.

[4] Farms over 12 people.

[5] Cultivated and pasture land.

To meet present demands for new farms, Colombia enacted a series of land reform measures starting with Act No. 200 of 1936. The most comprehensive legislative programme was passed in 1961 providing for land redistribution and titling through the Colombian Agrarian Reform Institute (INCORA). However, what evidence is available is that the programme has done

little to change either the skewed distribution of land ownership or the trend toward greater subdivision of already tiny farm holdings in the mountains. In fact, what evidence is available, at least up to 1970 (see table 3.13) is that the land distribution has become even more unequal.

Table 3.13: Distribution of land in Colombia

	Distribution of ownership (%)				Distribution of area (%)			
Hectares	1960	1962	1967	1970	1960	1962	1967	1970
1	24.8	37.7	36.4	23.7	.4	.5	.3	.4
1-2	14.1	14.5	13.8	14.2	.8	.7	.5	.6
2-3	8.4	7.7	7.4	8.8	.8	.6	.4	.7
3-4	7.2	5.3	5.1	6.8	.9	.6	.5	.8
4-5	4.5	3.5	3.5	4.6	.7	.6	.4	.7
5-10	4.4	8.9	9.0	13.5	3.8	2.4	1.6	3.2
10-50	18.5	14.9	16.1	19.1	15.9	8.9	9.2	14.4
50-100	3.8	3.8	3.9	4.4	9.1	12.0	7.4	10.3
100-500	3.6	3.0	3.6	4.1	27.0	21.2	17.6	27.6
500-1,000	0.4	.3	.4	.5	11.3	8.3	6.4	11.3
1,000 and over	0.3	.4	.5	.3	29.5	44.2	55.7	29.7
Gini	.852	.905	.915	.853				

Source: DANE, Censos Agropecuarios 1960 y 1970. Tamayo Héctor, "La Reforma Agraria en Colombia" (mimeo.).

As Ranis[1] noted, the distribution of land ownership compares very badly to a country like Taiwan with a gini of land concentration of .595 compared to Colombia's 0.9. Admittedly the land reform in Taiwan was forced upon them after the

[1] Ranis (1980), op. cit.

Chinese revolution. Further, Ranis remarked that multiple cropping practices do not seem to exist in Colombia, which implies that technical changes that are not land intensive but intensive in labour such as the introduction of high-yielding crops have been much less important than the mechanisation of agriculture. What has been happening has been that commercial crops (such as cotton, soya, rice and sugar) have been replacing traditional crops (such as beans, platana and yuca potatoes) as mechanisation and export crops have taken the upper hand. In table 3.14 this can be seen. Further it can be seen from table 3.15 that the inputs per unit of output for commercial or cash crops use half as much labour as traditional crops.

Table 3.14: Changes in the area under cultivation in five branches of arable agricultural production (1960-72) (1958 = 100)

Year	Mechanised commercial	Tradi-tional	Planta-tion	Mixed Semi-mechanised	Coffee
1960	134	100	104	90	107
1965	185	104	119	100	98
1972	208	119	163	85	101
% land in 1972	23.0	23.0	4	28	22

Source: Salamón Kalmanovitz: La Agricultura en Colombia 1950-72, Boletín Mensual de Estadistica, DANE, No. 278, septimbre de 1974.

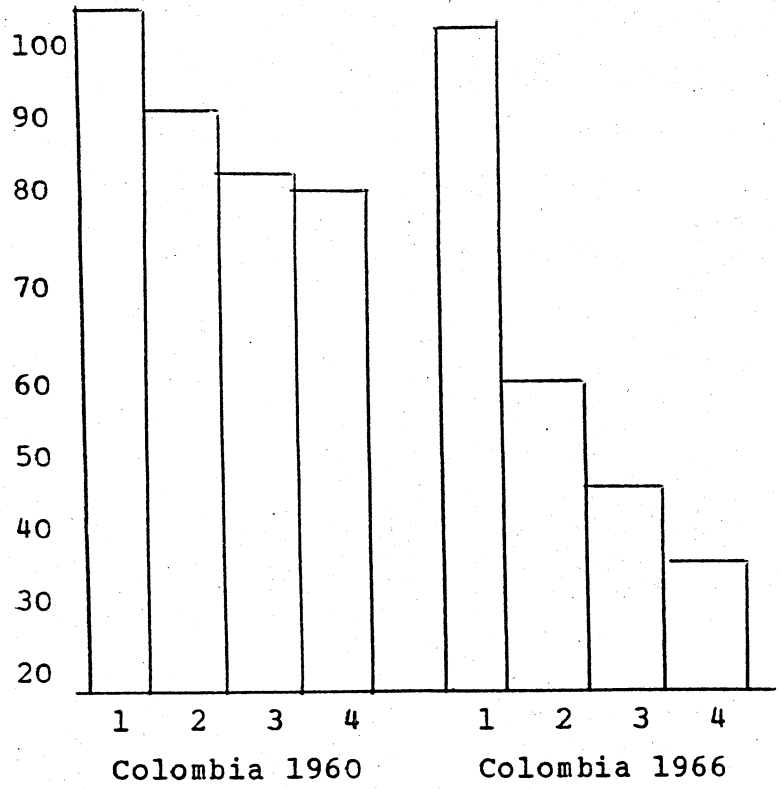
Table 3.15: Per cent distribution of direct costs for type of agriculture

Inputs	Commercial crops	Traditional crops
Machines	37.0	5.4
Labour	18.3	39.9
Seeds	9.5	7.7
Fertilizers	14.1	17.7
Inserticides, etc.	17.5	6.7
Other	3.6	22.6
Total	100.0	100.0

Source: S. Kalmanovitz (1974, op. cit.).

What follows then is that increased mechanisation coupled with an unequal land distribution has not been able to absorb labour leading to un- and under-employment in rural areas and a large rural to urban migration. Arguably the worsening of the distribution of income and high underemployment caused by the Colombian agricultural strategy could be justified by the increased output of agricultural products for export and for the feeding of the urban population in Lewis tradition. Yet, as figure 3.1 illustrates, output per hectare is far greater for smaller farms than large farms.

Figure 3.1: Relative output per hectare of farms of different size groups



Sources:

(1) Colombia 1960. US Senate, Committee on Foreign Relations: "Colombia: a case history of US aid together with a report of the Comptroller General", in Survey of the Alliance for Progress, Document No. 91-17, 91st Congress, 1st Session (Washington, D.C., 1969).

(2) Colombia 1966, Emil B. Haney, Jr.: "The economic reorganisation of minifundia in a highland community of Colombia" (Ph.D. dissertation, University of Wisconsin, 1969).

3.9. International trade and employment

In this section I briefly examine the composition of Colombia's trade and its impact on employment.

Ranis[1] has described the decade of the fifties as a period of primary import substitution where non-durable

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[1] Ranis (1980), op. cit.

consumer goods began to be produced domestically in Colombia. This was followed by a period of secondary import substitution, i.e. the replacement of imports of capital goods, durable consumer goods and intermediate goods for the internal market by domestic production. In the mid-sixties this strategy although not superseded, since this type of import substitution continues in Colombia today, was matched with the policy of export promotion.[1]

The results of this policy are given in table 3.16, where it can be seen that both exports and imports as a proportion of national product have remained more or less constant in the seventies, with imports dropping as a proportion so that the current account moved into surplus in the late seventies. Unfortunately the price of coffee - its importance to exports can be seen in table 3.17 - has dropped sharply from 1980 to 1981 and for the first quarter[2] of 1981 exports have dropped in money terms by 75 per cent over the first period of 1980.

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[1] In passing it is worth mentioning that classical trade theorists would have none of this, they would understand trade to take place in order to exploit the comparative advantage (for example low labour costs and no seasons to prevent year-round production of such crops as coffee, cotton and sugar) that Colombia has over its trading rivals. Yet in a world of quota arrangements and varying tariffs it would be ludicrous to leave trading policy solely to the vagaries of almost non-existent free markets.

[2] Source: El Pais, 9 June 1981.

Table 3.16: Trading position of Colombia 1970-81

Year	Exports as % of national product[1]	Imports as % national product[1]	Growth in national product	Balance of payments[2]
1970	12.3	13.7	-	-5 229.4
1971	11.7	14.4	5.8	-8 088.3
1972	11.5	12.5	7.8	-3 919.8
1973	11.3	11.0	7.1	- 807.3
1974	9.8	12.6	6.0	-4 530.5
1975	12.5	11.1	3.8	-1 536.5
1976	10.9	11.4	4.6	+ 78.5
1977	9.9	12.0	4.9	+4 336.0
1978	11.6	13.6	8.9	+ 831.6
1979			-	+1 134.5[3]
1980			3.3[4],4.0[4]	+ 740.2[3]
1981			4.1[5]	- 428[3]

[1] Source: Banco de la República, Cuentas Nacionales 1970-78 (constant 1970 prices).

[2] Source: Banco de la República, Cuentas Nacionales 1970-78 (constant 1970 millions of pesos).

[3] Source: Fedesarollo, Coyuntura, Apr. 1980. 1981 figure is a projection (millions of current US dollars).

[4] The higher figure comes from Banco de la República, the lowest from Fedesarollo, op. cit., where the discrepancy is discussed.

[5] Fedesarollo, op. cit., prediction.

Table 3.17 Major exports and imports in the seventies[1]

Export item	1974 exports % total	1978 exports % total	Import item	1974 imports % total	1978 imports % total
Coffee	44.1	65.0	Mechanical machines	14.0	16.2
Hydrocarbons	8.3	4.3			
Cotton	8.1	3.8	Vehicles	10.1	12.8
Clothing	3.0	1.8	Hydrocarbons	.2	7.2
Edible fruits	1.9	2.8	Iron and steel	8.7	6.4
Plants and and flowers	1.1	1.6	Electrical machines	5.2	5.6
Sugar and related products	5.4	1.0	Chemicals	14.2	13.9
			Animal and vegetable oils	2.5	2.6
Other (including manufacting)	28.1	19.7			
			Plastics	2.8	3.0
			Paper and cellulose	2.7	2.5
			Cereals	6.0	3.1
			Other	33.6	26.7

[1] Source: DANE, Boletin mensual de estadistica, No. 351, octubre 1980 (current FOB prices in millions of dollars).

Table 3.17 demonstrates (i) the overriding and increasing importance of coffee in Colombia's exports, (ii) that Colombia has not been seriously affected by oil price hikes because it is almost self sufficient even to the extent of exporting some hydrocarbons, and (iii) that it is heavily dependent on primary exports and secondary sector imports.

The direct employment effects of this trading pattern follow directly from previous discussions in this chapter, in particular section 3.8. concerning agriculture. There we saw that traditional crops were being replaced by commercial cash

crops with a far lower labour content because of different techniques of cultivation. We also saw that the highly unequal distribution of land prevents a considerable proportion of the rural population from participating in agriculture. Hence an increase in total exports from Colombia which preserves the same composition of exports will do very little to absorb labour through its direct effects because of the capital intensiveness of the exports and the unequal distribution of the rewards. On the other hand, further import substitution is unlikely to create many jobs directly because the imports are generally machines, chemicals, vehicles, iron and steel, all products of highly capital intensive industries.

In conclusion, therefore, the direct effects of trade do not help to create much employment because of the way in which production is organised domestically. It could be argued of course that the quality of products made by large organisations and/or land holders is higher than those of small holders, although I don't know of any evidence (nor have I seen from casual empirical observation in the Cauca Valley) that suggests that large farms are producing, for example, better coffee beans. What is probably more likely is that small holders would consume a far greater proportion of production than the large holders, thus reducing the surplus for feeding urban areas and for export. Hence the choice has been made that the Colombians in power prefer to retain a highly unequal distribution of income and squeeze the poor even further in order to optimise cash crops and exports. This strategy could pay dividends if the profits gained were to be equally divided to the poor alike. This is not so, and as Ranis[1] has remarked, the day of reckoning cannot be long in coming unless a change is forthcoming.

The indirect effects of the export promotion strategy come from the increased availability of foreign exchange which can be then used for investment purposes. We have already seen

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[1] Ranis, 1980, op. cit., p. 79, "el día de arreglar cuentas".

(page ..) that the contribution of foreign exchange was of varying importance to investment, ranging from a good year (1977, when the surplus contributed to 10 per cent of investment) to a bad year (1971, when a deficit drained 10 per cent of capital formation). It was thought[1] in the late sixties that, in the absence of the then import constraint, and with the help of a 2-gap model, Colombia could grow at 6 per cent per annum. Further with a productivity growth of 2 1/2 per cent labour could be absorbed at the rate of 3 1/2 per cent per year. The empirical evidence has not confirmed this prediction, since Colombia grew at higher than 6 per cent in the early seventies when it was running a balance of payments deficit and in the late seventies below 6 per cent with a current account surplus. And, as has been seen, urban open unemployment has been around 15 per cent. This implies that Colombia's economy has not, as early observers thought, been foreign exchange constrained.

An examination of the effects of foreign investment and foreign owned or influenced industries on employment was made by Wright.[2] This was because it had been argued by some Colombian economists[3] that the growth of foreign owned or influenced industries (in intermediate and durable goods) creates less employment than more "national" industries (textiles, clothing, etc.) because of a more capital intensive choice of technique. Wright contended this argument because he thought that it was not clear that industries dominated by foreign capital were using more capital intensive techniques than other Colombian owned industries. Further, he suggested that what was really at stake was that foreign capitalists were paying higher wages and hence the labour share of output was not being spread between a large enough number of workers.

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[1] Richard R. Nelson: "The effective exchange rate, employment and growth in a foreign exchange constrained economy", The Rand Corporation, RM-5680-AID, Nov. 1968, Santa Monica, California.

[2] P. Wright in Van Arkadie, op. cit.

[3] See J.F. Gaviria, F.J. Gomez, P. and Hugo Lopez, op. cit.

Also if foreign capitalists paid lower wages, that would not necessarily mean more employment only the labour share of output would fall. Finally, Wright showed that those industries where foreign capital was concentrated showed a higher rate of growth of employment than more traditional importsubstitution style industries.

One area of growing importance in Colombia is the export of drugs. Estimates vary. One source[1] puts the trade of cocaine to the USA at .9 per cent of GNP and 3.6 per cent of GNP is obtained from exports of marihuana. The same study suggests that the black capital market associated with this drug trade (i.e. flows of dollars to the Colombian economy) is of the order of 5 per cent of GNP or 25 per cent of total public and private investment.[2]

At a value of US$70 per pound, in 1978 US$1,400 million of marihuana was exported.[3] This is equivalent to 44 per cent of total Colombian exports in 1978, or 82 per cent of coffee exports in that year. If the exports of cocaine are added to that, it is clear that the illegal production and exportation of narcotics from Colombia (around 80 per cent of which goes to the USA) is the largest single export from Colombia. In 1981 with the price of coffee fluctuating, illegal narcotic exports will probably account for around two-thirds of Colombia's exports bringing the balance of payments from an officially recorded projected deficit into a healthy surplus (it is not altogether clear what proportion of narcotics exports are recorded legally in the trade statistics). Hence the economic importance of this trade for inflation, employment, imports and foreign exchange cannot be ignored.

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[1] Roberto Junquito y Carlos Caballero: "La otra economía", Coyutura Econommica, Vol. VIII, No. 4, Dec. 1978, Fedesarallo.

[2] 40,000 million pesos divided by national accounts information for GNP and interest.

[3] Source: Hernando Ruiz Hernandez in: Marihuana, legalizacion o represion, ANIF, Junio de 1979 (p. 165).

The direct employment effects seem to be small. The ANIF study[1] of the Macizo region around Santa Marta in Northern Colombia, where around 60 per cent of the country's marihuana is produced, estimated that of the potential area of 300,000 hectares for growing marihuana, 19,000 hectares were sown giving employment to around 13,000 people. The total in the country, including cocaine production, is probably around 26,000,[2] added to which come the distributors, transport workers, etc., of probably around 2,000, giving a total of 28,000. However, the value added is large at each stage. The farmers obtain around US$4 for a pound of marihuana[3] and on arrival to the American importer they pay around US$70 a pound. With net incomes per hectare less costs three times higher than traditional crops, farmers are unlikely to reduce production in the near future.

Nevertheless, despite the high economic benefits of the narcotics trade, the social costs give great cause for concern.[4] A worsening of the distribution of incomes, increased violence and no-go areas, corruption, crime and inflation are the main problems that have to be contended with. It is also becoming accepted that the effects of marihuana, at least, are considered not to be any more harmful than smoking or alcohol consumption. The Government has considered legalising marihuana production and consumption which as an economic solution to a social problem seems justified since prices will come tumbling down and many of the social costs of the high prices will be diminished. That it has not done so to date is

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[1] Bernando Ruiz Hernandez, op. cit.

[2] Not much cocaine is grown in Colombia. It mainly comes from Peru, Bolivia and Ecuador as cocaine paste where it is refined further in small laboratories before its onward journey (mainly to the USA). Assuming cocaine is 1/5th as important as marihuana in terms as employed as well as value given, roughly 26,000 people are engaged in production.

[3] ANIF figure from Macizo region, op. cit., 1978 prices.

[4] This is argued in the ANIF document (1978, op. cit.) and in Alvaro Canacho G. (1980, op. cit.).

presumably because of domestic pressure on the Government from the profiteers of marihuana production whose interest is tc keep the price high and the international pressure from countries such as the US to prevent legalisation. Economically, at least, this is to be regretted.

B. Summary and conclusions

The information and literature studied in this chapter suggests at a macro level of discussion the fcllowing:

(1) There is evidence of both non-segmented and segmented labour markets. For the former, even though wages do not fall when unemployment exists, adequate returns are obtained for increases in human capital at least in urban areas. Open unemployment is largely frictional, not structural, and the employment problem is more one of lcw productivity and underemployment than one of structural open unemployment. Evidence for a segmented labour market is sparse, particularly since those economists who have studied the Colombian labour market come from the neo-classical school to whom segmented labour market are anethema.

(2) Growth in the provision of emplcyment is coming from a relatively small sector in terms of output, namely personal services. Government too is important as an employment creator. However, the elasticity of employment with respect to agriculture and mining output is negative and only just positive in industrial sectors.

(3) There is little evidence to show that in agriculture or manufacturing industries, capitalists prefer to use labour instead of capital. Hence industry is heavily capital intensive. In the tertiary service sector - the largest source of growth for employment - not much impact has been made from the microprocessor technological revolutien. This could hit this sector very hard through displacing labour with electronic machines.

(4) The growing rate of open unemployment and under-employment in the decade of the seventies has not affected the growth of private consumption relative to other components of demand. Investment, in particular government investment, has declined relatively. The direction of causation is difficult to establish but it seems that lack of effective demand on average fro private consumers is not a fundamental cause of unemployment. Hence a Keynesian attempt to stimulate private consumption without altering other components of demand, in particular government investment, is likely tc add to inflation because there are signs that the Colombian economy is supply constrained on the product market. All this assumes that the existing highly unequal distribution of income remains unchanged. A redistribution of income need not necessarily increase inflation because the products the poor buy are nct the same as those bought by the average consumer. However, increases in income to the poor could lead to higher inflation without changes in the pattern of production, because agriculture is mainly devoted to cash crops for export and increased income of the poor will be spent (in Engel tradition) on food.

(5) The source of shortfalls in investment and capital accumulation is government and private enterprise not private households. The balance of payments deficit in the early seventies did not help capital accumulation but this has improved in the late seventies.

(6) A blanket notion that high wages cause unemployment cannot be accepted. The evidence is mixed. In the sectors where one would expect a more free entry of labour and wages to reflect market conditions, namely in the primary and service sectors, over-all employment has dropped, productivity has increased, real salaries have not kept up with productivity increases and yet the rate of open unemployment has remained high. In the service sector over-all employment has sharply increased, productivity has decreased, real salaries have decreased and the rate of unemployment has fallen. In the other sectors salaries have followed productivity changes yet

unemployment has risen sharply. In general, nominal wages keep up with inflation but real wages increase only slowly, particularly for blue-collar unionised workers.

(7) The fragmentary evidence presented suggests that concerns with excessive population growth as the or a major cause of unemployment are largely unwarranted.

(8) Rural to urban migration has been moderately high - around 6 Colombians per 1,000 per year change their department of residence. People migrate in general because they wish better incomes and/or employment. Regions with lower unemployment and higher income levels therefore attract a higher share of migrants. However, migrants have lower unemployment rates than natives, particularly in regions with high in-migration. In general, the direct and indirect (through displacing natives from their jobs) effects of migration cannot be said to be a major cause of unemployment in the cities. Indeed, the effect of rural to urban migration is probably beneficial to the economy as a whole.

(9) There seems to be too much land and too little labour on the large farms and too little land and too much labour on the small ones. The highly unequal distribution of land in Colombia is a major cause of the low absorption of labour in agriculture, and consequently high levels of un- and under-employment in the countryside. The trend, despite attempts at land reform by the Government, is towards greater not less concentration of land holding.

(10) International trade has done little to create employment directly because the composition of exports is heavily dependent on cash crops from agriculture, and agriculture is largely capital intensive and suffers from poor land distribution. The evidence suggests that economic growth has not been foreign exchange constrained. Moreover, with illegal narcotics the largest export, the country is awash with foreign exchange. The negative social effects of the narcotics trade are substantial and probably outweigh the economic advantage obtained.

The above conclusions suggest that Colombia is a speculative economy which works well for the already rich. This, when added to their power and the corruption they generate, works to the disadvantage of the poor. In the absence of changes in the substantial inequalities in power, wealth, income and land in Colombia, high levels of un- and under-employment will continue. It is not surprising, therefore, that Colombia is a violent society with considerable social unrest which can only help to foster the guerilla movements in the countryside. The prospect for Colombia in the absence of changes in distribution is bleak even for the speculators because they will need increased protection from the social unrest that they are helping to create.

CHAPTER IV

A. Contemporary responses to the Colombian employment problem

1. Introduction

Contemporary analyses of the Colcmbian employment problem have been referred to, either directly or cbliquely, many times in the foregoing pages. The purpose of this chapter is tc concentrate on a few of the more impcrtant ones and, in particular, those that have proposed wide ranging strategies tc deal with the employment problem. Each of these studies will be discussed in the light of the analysis presented in preceding chapters. In the rest of this chapter I begin with the ILC report - towards full employment - briefly discuss its projections and alternative cnes by Buendía of Fedesarollo, and present its major recommendations. I end with a discussion on the Colombian plans that have been drawn up in the seventies, concentrating on the most recent plan, the PIN.[1]

2. Towards full employment[2]

This report, prepared by 27 people and led by Dudley Seers of the University of Sussex, was the first of a number of such reports by the ILO and, in particular, the first to be organised in such a manner i.e. a short visit of around two months to a country by a large number of experts concentrating on employment questions. The impact of the report has been long lasting if judged by the number of references it has received in the academic and popular press. Even today its projections of unemployment are widely known if only to be criticised. These projections were important because they gave an impression of the magnitude of the unemployment problem, how it would evolve into the mid-eighties if existing trends continued and provided a basis for the strategy developed.

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[1] Plan de Integracion Nacional, 1979-82.

[2] ILO (1970, op. cit).

In 1970, when the report was written, the active labour force consisted of about 6.5 million; in 1985 it was predicted to be not far short of 11 million. Hence to mop up existing unemployment and to take account of the new entrants into the labour force the ILO predicted that around 5 million jobs had to be created between 1970 and 1985. With a simple model - extrapolating past trends in participation rates, population growth, labour productivity, sectoral labour demand and growth - the report suggested that by 1985 there would be between 3 and 4 million unemployed or between 30 and 40 per cent of the labour force unemployed. The lower bound represented an optimistic figure if economic growth rates accelerated while the upper bound represented a pessimistic figure of lower economic growth.

Hernando Buendía criticised[1] the ILO figures because he felt that their sectoral disaggregation did not take into account the increased growth that occurred in manufacturing in the early seventies (the ILO figures were based on pre-seventies' data). The ILO had divided economic sectors into alpha (mining, large industry, public services), beta (construction, small industry, commerce), gamma (finance and similar, other services) and other activities. Alpha consisted of activities typically intensive in capital, beta of activities intensive in unskilled labour and gamma of activities intensive in skilled labour. The ILO considered that the alpha sector - the capital intensive industries - would not create as many jobs as other sectors. Yet Buendía showed (see table 4.1) paradoxically that those sectors were where the growth in jobs was coming from.

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[1] Hernando Gómez Buendia, Capitulo III, "Perspectivas Ocupacionales", en La Economía Colombiana en la Decada de Los Ochenta, Fedesarollo, Bogotá, Sept. 1979.

Table 4.1: Rate of annual growth in employment by sectors of economic activity, 1951-1973
(% per annum)

Sector	1951-64	1964-73	1951-73
1. agriculture	1.4	- 2.9	- 0.1
2. alpha	2.9	6.1	4.2
3. beta	4.7	5.8	5.1
4. gamma	3.4	4.4	3.8
5. other activities	2.1	2.1	2.1
6. total	2.4	2.9	2.6

Source: Population census (adjusted), cited in Buendia (op. cit.).

Note: Sectors defined in text following ILO, 1970 (op. cit.)

Previously, however (see table 12 in Chapter II), I showed that, despite the size of industry in terms of the number of people it employed as a proporcrtion of the index of employment possibilities, it was small compared to personal services, government and agriculture.[1] Further the ILO thought that a growth rate of 14.0% per annum for 15 years (1970-85) would be necessary in the alpha sectors for these sectors alone to create all the necessary jobs.

Buendia did not, however, think that the ILO was wildly out in its predictions since he, himself, thought that unemployment would range between 12 and 26 per cent in the mid-eighties and 5-26 per cent in the early nineties. Again he used optimistic and pessimistic projecticns for sectoral economic growth, labour force participation and productivity. Like the ILO he thought that on the labour supply side there would be pressure on employment in the mid-80s because

[1] Note too that the largest growing sector of the alpha set was public services (1.8% per annum 1951-64, 10.7% 1964-1973).

fertility rates only started to fall in 1965 and hence the 1953-1965 births would continue to exacerbate the employment situation around 1980 to 1985. The main policy conclusions of Buendía were conditional i.e. if high rates of economic growth could be continued, if the rate of growth of population continued to fall and if the growth in the economy could be balanced both across regions and time then the level of unemployment could be maintained at manageable levels and could even reduce significantly after 1985.

The ILO report took a similar line to that of Buendía and suggested an across the board balanced economic growth strategy. They rejected concentrating solely on agriculture even though they (as I) felt that the Colombian land tenure system was at "the heart of the rural problem", because they did not think that there was much that could be done about it. It was essentially a political problem. They rejected, too, a strategy where all the 5 million jobs were to be found outside the agricultural sector because it implied a rate of growth of 14 per cent per annum per year for a period of 15 years. This did not look at all possible at that time nor, indeed, does it now. The ILO therefore suggested an intermediate strategy, the main points of which were:

(1) to redistribute income from the rich to the poor so that consumption would be more concentrated on labour-intensive goods;

(2) to encourage labour-intensive practices by changing the exchange rate and internal price structure in favour of labour at the expense of capital; by avoiding growth in non-agricultural productivity and by implementing an incomes policy;

(3) to encourage imports of capital goods in order to accelerate investment to 8 per cent per annum;

(4) to diversify exports away from coffee towards other agricultural exports and manufacturing goods;

(5) to restrain private consumption through income taxes - these were (and are) low by international standards - in order to encourage investment and growth;

(6) faster agricultural growth and an effective land reform;

(7) to control the labour supply by increasing measures designed to control population growth.

Van Arkadie,[1] in his review of the impact of three ILO missions including Colombia (the other countries were Sri Lanka and Kenya) concluded that the ILO report, in practice, reflected lines of thinking already present within the government; thus it was characteristic of its conclusions that it was both to include a redistributive element and also to provide an avenue to renewed economic expansion. In the immediate event the proposals fell by the board by virtue of a change in administration. Nevertheless Van Arkadie remarked that the ILO work should be seen as primarily academic in function, not in the sense in which that term is sometimes used as an autonym of "practical" or "realistic" but in the positive sense of offering an analysis which is made one step away from the day-to-day immediate pressures of policy making.

Colin Leys, in his critique[2] of a similar analysis with similar conclusions performed by the ILO in Kenya is worth quoting in full because his remarks could equally well be addressed to the earlier Colombian mission, namely:

> The mission's thinking about the motivation which the government might have for implementing its proposals was unclear; the reason for this lay, however, not so much in particular illusions about the nature of the regime, as in the limitation of its whole approach. It saw clearly enough that within the existing socio-economic arrangements the problem of unemployment was certainly insoluble. But its thinking was cast within

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[1] Van Arkadie et al., op. cit.

[2] Colin Leys, Underdevelopment in Kenya (Heinemann, London, 1975), p. 264.

the logic of a social science whose central concepts ultimately embodied bourgeois interests. What it saw, therefore, was not the contradictory reality, but only an "imbalance"; not a struggle of oppressing and oppressed classes, but only a series of particular "conflicts of interests" which the "leadership" would resolve, if only from enlightened self-interest, in favour of the common good. The mission saw that poverty and unemployment were connected with "income inequality" and that this in turn was linked to the role of "foreign capital" (in the sense of foreign companies producing capital-intensively for narrow markets of relatively affluent consumers). But it did not see that these in turn were an expression of, and a condition for, the power structure (in Kenya) and in the international capitalist system as a whole. They wrote of social or political forces antithetical to their own proposals as "interests" or "obstacles" which would have to be overridden or overcome, as if there were some further "interest", independent of these and more powerful, which would respond to its appeal. But the political power of the compradors, and the political impotence of the "working poor" were also integral parts of the structure of underdevelopment.

Once this is grasped, the central weakness in the mission's analysis can be discerned throughout its argument, and not merely in the utopianism of its recommendations.

Since many of the ideas in the ILO report found their way into the next three Colombian plans, as we see next, Leys' criticism equally applies there as well.

3. The four strategies

The four strategies were introduced by Laughlin Currie in the early sixties[1] and in 1972 were reproduced by the planning

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[1] L. Currie, Accelerating Development, McGraw Hill, 1966.

department as the document Guidelines for a New Strategy.[1] The four strategies were, essentially, to promote urban housing, exports, increase agricultural productivity and redistribute income.

The role of the housing programme was not, according to Van Arkadie,[2] first and foremost to provide much needed housing for the poor but to convert the construction sector into one of the leading sectors of the Colombian economy.[3] Exports were supposed to support the construction sector as a "leading sector" and to provide foreign exchange. The strategy for the agricultural sector involved the development of large-scale commercial agriculture. In the long run, the incomes and productivity of rural workers would benefit from the "take-off" in the non-agricultural sector. The unfettered development of the market mechanism would, it was hoped, eventually discourage extensive cattle rearing in the fertile valley bottoms. How, though, redistribution was to be achieved when the strategies eliminated any commitment to land reform, placing the emphasis on modernised large-scale agriculture and playing down the role of state intervention to redistribute income, was unclear.

The Currie strategy was seriously attempted in the early seventies probably because it offered much and did not provide a challenge to the existing power structure. I do not propose to discuss it in detail here, suffice to say that its few main points have been examined amongst others in Chapter III.

4. Closing the gap

In 1974 the National Front ended and the Liberal Party came to power in the first freely contested elections for 16

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[1] Guidelines for a New Strategy, National Planning Department, Bogotá, 1972.

[2] Van Arkadie, et al., op. cit., p. 400.

[3] The negative effects of the construction programme on unemployment in Bogotá is described in H. Lubell and D. McCallum, Bogotá: Urban development and employment (ILO, Geneva, 1978).

years with a large majority but in a very low poll. Lopez-Michelsen became President and in 1975 replaced the Four Strategies by a new development strategy entitled "Para Cerrar la Brecha" (closing the gap).[1]

Its main purpose was to close the breach between city and country. Its objective was to have economic growth, to create productive employment and to benefit the It gave sectoral priority to rural areas because investment in agriculture was where the most employment is generated. It introduced a major fiscal and tax reform to benefit the 50 per cent poorest. It, as many before, also wished to stimulate private sector exports.

The strategy, according to Van Arkadie[2] was not particularly employment orientated. However the plan did include various programmes of social justice covering nutrition, health, education, infrastructure improvement etc. The most important programme was probably the PAN (Plan Nacional de Alimentación y Nutrición) which included a system of coupons which could be exchanged for foods with a high nutritive content. Nevertheless it hoped that employment would be generated by the system not by the state. This plan had many similarities with the next plan, the PIN, which followed it. This is discussed in more detail in the next section.

5. The Colombian Plan 1979-82 (PIN)[3]

5.1. Summary statement of PIN

The specific objectives of this plan were stated to be:

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[1] Para Cerrar la Brecha: Plan de Desarollo Social, Económico y Regional 1975-78, Departamento Nacional de Planeación, 1975.

[2] Van Arkadie, et al., op. cit., p. 415.

[3] Plan de Integracion Nacional 1979-82. Departamento Nacional de Planeacion, Tomes I-II.

(1) The decentralisation of economic activities and regional autonomy.

(2) The development of transport and communications.

(3) The development of the energy and minerals sector.

(4) The development of a new social strategy.

I shall concentrate on the fourth part with only passing reference to the others. First, I state the over-all emphasis of the plan then present its suggestions on labour policy and conclude with a discussion.

The plan stated that the planning problem in Colombia was one of diagnostics and policy rather than one of lack of resources.[1] It wished to concentrate on specific plans of action and not generalities, and did not claim to be much different in emphasis from the previous plans - the "four strategies" and the "closing the gap" plans. The new plan, as others before, clearly identified the need for a mixed economy with the public sector acting mainly as a modest engine to provoke growth coming from the private sector. The implicit model in the PIN, as Sarmiento remarked,[2] consists of leaving the private sector to market forces and applying a strong push in public expenditure to accelerate economic expansion. The main control on the private sector was to come from the monetary strategy central to the plan - the money supply was to be constrained mainly through changing its price, the interest rate.

5.2. Social policy in the PIN

Social policy was to continue the seventies' emphasis on social development, namely education, health, recreation,

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[1] PIN, p. 25.

[2] Eduardo Sarmiento: "La Vision Macroeconomica del PIN", in Controversia sobre el plan de integracion nacional, CEDE-CIDER and FENALCO, Bogotá, Colombia, enero de 1981.

housing and sport, and to continue concentrating resources on the poorest 50 per cent of the population.[1] Part of the social strategy was to concentrate on work and social security policy. The objectives here were to improve the conditions of the young, the informal sector and the rural sector by a rapid growth in and sustained employment, and through increased productivity and real incomes of workers.[2] More specifically this was to be done through expanding the demand for goods from the domestic market by increasing both domestic demand and exports. To make goods more competitive, it was seen as indispensable to raise productivity.

Unemployment and underemployment resulted from high rates of growth of the labour supply in the cities, certain imperfections in the operation of the labour market and low capacity of the economy to generate employment. High rates of labour supply are because of continuing high population growth (although the rate of growth of population dropped sharply in the seventies), and because internal migration and labour force participation rates have increased.[3] There exist structural factors causing unemployment that can be cured by raising the demand for the labour force. The plan then went on to consider in more detail two main factors thought to cause unemployment and where it thought something could be done. These two factors actually boiled down to one.

This was that salaries were very different for work of a similar nature - for example high salaries and illegal benefits[4] existed in monopolistic sectors having strong unionisation, whereas salaries near the legal minimum together with (substantially lower) legal benefits occurred in competitive sectors. These differentials, according to the PIN, contributed to create an expecation of salaries rather higher than those actually occurring. Consequently people

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[1] PIN, p. 194.

[2] PIN, p. 199.

[3] PIN, p. 200 and ff.

[4] The plan did not specify what these were.

spend a longer time than necessary looking for work coupled with a high rotation of jobs between poorly paid workers - particularly for the young and women. Unemployment is then concentrated in the sectors with the highest remuneration. The PIN concluded that this job search problem was the fault of a lack of transparency in the labour market.

To offset this five policies were suggested:[1]

(a) Diminish monopolistic concentration in production in order to improve the functioning of the competitive market - this to be done only where it can be proven that concentration is not needed because there do not exist economies of scale advantages.

(2) A revision of labour legislation in order to obtain increased mobility and labour market transparency.

(3) Introduce taxation schemes to finance social security in order to reduce the burden on employers, i.e. raise the contributions that workers pay in order to reduce the price of labour versus capital and hence encourage the substitution of labour for capital.

(4) Strengthen control mechanisms to avoid unfilfilled legislation on salaries (i.e. the spirit of this was, again, to reduce salaries where possible).

(5) Orient labour to fulfil the requirements of the labour market.

The plan introduced a number of measures concerned with the informal sector. This was because 40 per cent of new urban jobs, it was estimated, were to be created in this sector. The sector was defined by the PIN as that sector that has workers with a salary below the minimum legal salary, working long days, suffering from the absence of social benefits and having poor conditions of work. Some characteristics of the sector in Colombia are given in table 4.2.

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[1] PIN, p. 201.

It was thought in the PIN that it was not realisitic to expect that economic growth in the modern sector could completely absorb the informal sector and therefore special policies were needed to deal with it; namely to develop mechanisms of intermediate finance and better access to credit and to improve the transfer of technology. In particular this would mean (1) extending the national training scheme (SENA) to help the sector, (2) adopting legal measures to favour the formation of small enterprises, (3) rationalising legislation to prevent duplication in forms of association, (4) extending social policy to this sector by reducing the minimum size necessary for adhering to a capital fund and (5) reorienting the fund towards low income groups.

Table 4.2: Characteristics of the labour force in modern and informal sectors in four cities, 1974[1]

Characteristics	Workers in the informal sector	Workers in the modern sector	Income in the informal sector	Income in the modern sector
Sex				
- Men	53.5	70.4	3 024	5 078
- Women	46.5	29.5	1 663	3 020
- Total	100.0	100.0	2 375	4 476
Age				
- less than 20	19.4	7.6	1 269	1 432
- 20 to 30	27.2	36.7	1 805	2 928
- 30 to 40	20.1	26.9	2 452	4 940
- 40 to 65	30.2	25.6	3 138	5 399
- Over 65	3.1	1.2	2 277	9 380
- Total	100.0	100.0	2 375	4 476
- Mean age	34.3	33.8		

Years of residence				
- less than 5 years	24.4	15.3	1 694	4 582
- more than 5 years	75.6	84.7	2 530	3 216
- Total	100.0	100.0	2 375	4 476
Education				
- None	8.5	1.8	1 281	1 675
- Primary	65.7	34.2	1 619	2 090
- Secondary	25.6	40.8	3 776	3 673
- University	0.2	23.3	3 658	8 323
- Total	100.0	100.0	2 375	4 475

Source: Data given in Bourgignon, F., "Pobreza y Dualismo en el Sector Urbano de las Economias en Desarollo. El Case do Colombia", Desarollo y Sociedad, enero de 1979. Data taken from DANE, National Household Survey, No. 7, 1974.

Note: Bourgignon used a similar definition as that in the PIN to define the informal sector.

Finally, the plan introduced a migration policy. The object of this was firstly to alleviate problems caused by high internal migration through giving zones that receive migrants the necessary infrastructure and social services. Secondly, the PIN recognised the need to improve the conditions of life and work for international migrants through promoting the Andean Pact conventions concerning international migrants.

5.3. Discussion of PIN

5.3.1. Macroeconomic policy

A major criticism of any plan such as the PIN is that it is just a plan. There is no guarantee despite the fact that the PIN has entered Colombian law that any of its conclusions will be acted upon, let alone have the intended effects. It is also not possible since the time that the PIN has been prepared to say whether those things that have actually been implemented

have occurred because of the plan or would have occurred anyway because of the difficulties in changing a metaphorical "elephant of progress". Nevertheless this is clearly recognised in the plan although it then goes on to state that policy rather than resources is the major problem.[1] Hence I shall examine the plan solely from the point of view of its technical basis with only passing reference to what has or happened in practice.

A major concern of commentators on the plan has been that it is inflationary despite the plan's assurance that it does not ask for increased resources over what would normally be available from government and foreign sources. Pizano[2], for example, complains about its inflationary aspects because it has concentrated 60 per cent of its investment in energy and infrastructure sectors where there is already a considerable shortage of such inputs as cement. Further, the external borrowing requirement over the four years of the plan will be around 50 per cent of the monetary base of only one year (1980). Finally Pizano calculates that it will add around 9 per cent to the taxes of families.

In a longer critique of the financial aspects of the PIN than I can give here, Junguito and Ospina[3] noted that the plan provides for a real growth of 19 per cent per annum of public expenditure over the period 1979-82 with 32 per cent of the total coming from resources outside the country (compared to 16 per cent between 1967 and 1978). These extra resources are likely to be difficult to obtain since a substantial part of Colombia's borrowing in the early seventies came from the World Bank and with the world recession it is unlikely to increase its lending significantly.

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[1] E. Pizano in Controversia, op. cit., p. 323, notes that in 1980 only $60,000 millions (pesos) were spent on the PIN compared to the $110,000 millions budgeted.

[2] E. Pizano, ibid.

[3] R. Junguito and J. Ospina S.: "El financiamento del PIN", in Controversia, op. cit.

In terms of employment, the financial aspects of the plan could be beneficial because it proposes an increase in government investment and as we noted in section 3.3.3 this fell badly behind in the seventies.

I have discussed the effects of monetary policy on output in section 3.3. and those comments apply equally well to the macroeconomic monetary policy of the PIN. Sarmiento, too, discusses the monetary aspect of the PIN with similar conclusions to myself. In a recent article[1] he notes that the monetary policy of increasing interest rates suggested by the PIN has actually failed. Money supply and inflation have actually increased in the first two years of the PIN.

The emphasis on the free market of the plan and the almost total lack of discussion on the inequalities in land and wealth and income distribution that this emphasis has produced over the post-war period is a major fault of the plan. As Sarmiento[2] remarks, even a free market needs government policy to make it operate effectively, and even if the PIN is intended only to intervene in the external sector, public expenditure and monetary policy, all three have an important effect on private industry. It is therefore ludicrous to leave private industry outside of the PIN discussion. Sarmiento further remarks that the mixture of tariff policy to be applied to the external sector is clearly designed to give an image of commercial liberty rather than to make a real change. Additionally, contraband and the narcotics market has increased so significantly that there is already a great weakness in control. That the PIN ignores Colombia's largest export - narcotics - attests to this. Finally restricting the plan to give priority only to public investment in roads, transport and communications cannot provide the motor of growth that the plan says it wants to do because it implies a relative reduction in resources for agriculture and industry.

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[1] Eduardo Sarmiento: "La Politica Económica del Gobierno", 1979-80, Coyuntura Economica, Vol. XII, No. 1, Apr. 1981.

[2] E. Sarmiento, op. cit., 1981.

5.3.2. Social policy

In a critique of the social policy in PIN, Urrutia[1] noted a radical change in its direction in comparison to the other plans formulated under the liberal governments of the seventies. The major focus of the "four strategies plan" and the "closing the gap" plan was to create employment and improve the incomes of the poorest - the experience of Colombia in the seventies suggests that neither occurred, indeed the position of the underemployment and the poor probably deteriorated. PIN, on the other hand and according to Urrutia, has a different diagnosis and development model. This leads it to have social policy as only one of its four priorities and even then (see above) the other priorities are concerned with the development of particular sectors, e.g. the minerals sector, where job creation is relatively small.

Indeed the PIN implies a relative reduction in social expenditure over previous plans in order to increase investment in infrastructure. The PIN proposes[2] that total expenditure on infrastructure - transport (21 per cent), electricity (38 per cent), hydrocarbons (15 per cent), carbons (5 per cent), communications (12 per cent), aqueducts (9 per cent) - be 70 per cent more than on social expenditure - integration of services and community participation IPC (1.5 per cent), nutrition programme PAN (3.1 per cent), rural development DRI (8 per cent), health (11 per cent) and education (77 per cent). All this, according to Urrutia, implies that the social sector is inefficient. Further, despite the prominence given to a new social strategy, no new initiative is proposed comparable with, for example, the nutrition programme PAN in the previous plan.

Why? The main reason is that the fiscal resources of

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[1] Miguel Urrutia Montoya, "La estrategia social", in: Controversia, op. cit.

[2] See table 1 in Urrutia, p. 213, op. cit.

the government in PIN was not to be increased[1] from the central government budget. This is surprising considering that Colombia has one of the lowest proportions of national product going to public consumption than any country in the world.[2] Hence to increase infrastructure spending without increasing total government expenditure means that there is a need to reduce social expenditure.

Urrutia believes that these priorities are misplaced considering that the distribution of income is not improving in Colombia and given the evidence showing the importance of, for example, education in incomes and equality. Further expenditure on infrastructure tends to provide increased benefits to the middle to rich income groups and not the poorest groups. For example, expenditure on national roads benefits producers, consumers, transport companies and land owners. Given the unequal distribution of land in Colombia the benefits to the land owners only serve to concentrate incomes. Urrutia remarks that if roads are really essential then their costs should be borne out of increased taxes on petrol.

5.3.3. Labour market policy

Using more or less the same data available to the planning board (the DNP) I come to substantially different conclusions. The DNP believes that unemployment and underemployment is largely caused by imperfections in the labour market, i.e. they adopt a neo-classical view. Hence, as

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[1] This is stated by Urrutia (p. 212) yet Junguito and Ospina (p. 312 in the same volume, Controversia) state that public investment in PIN is to increase by a real 19 per cent per annum over 1979-82. The reason for the discrepancy is not clear.

[2] In another article Urrutia shows that public consumption over national income was 7 per cent in Colombia in 1979, compared to 13 per cent to other middle-income developing countries and 18 per cent for the industrialised countries (Coyuntura, Apr. 1981, p. 178).

can be seen from the above, their policy suggestions revolve around wage policy - so that workers become more attractive vis-à-vis capital - and information flow - so that mobility between sectors can be increased. This can be seen more clearly as I examine their policy suggestions (underlined) one by one.

(1) Increased productivity leads to higher incomes for those still employed, yet it can also lead to the displacement of workers if over-all output levels remain constant. Implicit then in this proposal is that increased growth from productivity increases will absorb labour. Colombia's experience during the sixties and seventies of relatively high rates of growth and poor labour absorption attests to the weakness of this approach.

(2) Increased demand and exports clearly will work if they are big enough. However, as we saw in Chapter III, there has not been a problem of lack of private consumption demand in Colombia and increased exports tend to benefit large land owners which, in turn, leads to a worsening of the distribution of income. Employment absorption is low because the pattern of exports is agriculturally based, and mechanisation coupled with poor land distribution does not readily lend itself to creating jobs in rural areas.

(3) Unemployment and underemployment comes from high labour supply growth which in turn is fuelled from migration, labour force participation rates increasing and population growth. These arguments were examined in Chapter III and not found to be convincing.

(4) Structural factors cause unemployment is about as close as the PIN got to understanding the rationale of unemployment. PIN admits that some unemployment is structural (see definition in Chapter II) but then suggests curing it through raising the demand for the labour force. This is like saying some unemployment exists therefore do something about it; a deeper analysis would have been beneficial here.

(5) Wage policy. PIN noted that there were imperfections in the labour market and noted the existence of segmentation - they recognised that there exists salaries very different for work of a similar nature. Unfortunately they didn't in their statistical section give any information to justify this. This is particularly unfortunate since a number of commentators whom they cite such as Bourgignon and Kugler have not found much evidence of segmentation. The PIN presumably considers this of great importance because of the space given to the discussion and the policy proposals based on it. Nevertheless the policy prescriptions largely consist of suggestions to reduce the price of labour versus that of capital. The weakness of this approach has been discussed earlier both theoretically in Chapter I and empirically in Chapter III.

(6) Frictional unemployment is identified by the PIN. Rather lamely, however, the PIN puts the onus of blame on the workers implicitly accusing them either of being greedy and waiting for high paying jobs to appear or not knowing where the opportunities lie. Evidence quoted in Chapter III concerning migrants suggested that they quickly obtain good information concerning the labour market and do not remain out of work long. This suggests that information is not difficult to come by, at least.

(iv) Informal sector

A novel feature of the PIN is its characterisation of the informal sector. This sector has come under much study because of its capacity to absorb surplus labour, in particular by the ILO.[1] Clearly this sector is of importance if only because 40 per cent of the labour force work there. However it seems to me that there is a major problem of definition since, in any

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[1] See, for example, studies in Latin America by PREALC: Sector Informal, OIT, Ginebra, 1978, or S.V. Sethuraman, ed., The Urban Informal Sector in Developing Countries (ILO, Geneva, 1981).

economy, the labour market does not lend itself easily characterisations in nice little boxes. The labour market is a continuum of different sectors. Only if the informal sector can be clearly defined and is homogeneous in terms of policy is it worth the trouble, otherwise other characterisations of the labour force can cover a larger proportion of the labour force just as well and, ipso facto, are important too. For example of all women workers or all workers in agriculture or all urban workers or, for that matter, all workers wherever they may be. Often, as in the PIN, the informal sector is characterised as the self-employed or small businesses (less than five people say). The case is often made, and the PIN is no exception, to extend credit to these small holders. Yet by virtue of being small they are difficult to contact. Further I have yet to see a bank that will give a man and his friend off the street a loan to set themselves up in business. Examples abound in Colombia. For example, hill farmers around the big towns own around three hectares of land, yet to buy this land they have usually had other professions, e.g. lawyers, doctors, etc., whose regular salary provides collateral for a loan. There is no chance for the indigenous population - now known as squatters - to buy this land because they have no collateral. They then tend to finish up as landless labourers for their city-based boss who presumably is then counted as an informal sector worker. Only a full socialisation of private property will allow informal sector workers to obtain loans. This is unlikely in Colombia and, in consequence, a lot of hot air will be generated but improving the conditions of informal sector workers through direct policies to this effect will simply not work under existing conditions of ownership and distribution.

B. Summary

The social and economic policy in the PIN is based on the principle of the free market. Where the PIN suggests intervention to bolster this market, its benefits in terms of employment and distribution seem small if not counterproductive. Whatever happens to the growth in the money

supply, economic growth, inflation, foreign borrowing and infrastructure investment during the course of the plan implementation - and available evidence already suggests that these indicators are worsening - unemployment and underemployment will not change much by the end of the plan period and, indeed if the arguments presents here are accepted, may even be worse than at the beginning.

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