Income Deficiency, Transfers, and Development: A Microeconomic Perspective

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Abstract: This paper attempts to examine the behaviour of households with particular reference to the Caribbean context. The Caribbean environment is one that is characterized by chronic unemployment and persistent poverty. Furthermore, major long-standing attempts to deal with these two problems are also characteristic of the Caribbean scenario. The primary concern within the region is with the living conditions of the vast majority of the people, referred to by C.Y. Thomas as the “poor and powerless.” The second level of concern in this paper is with the use of resources in programmes that are designed to eradicate poverty and unemployment. Since these programmes seem not to be working as expected, the question that we ask is whether they are in fact unintentionally contributing to the problem. Moreover, does this anomalous situation stem from making inappropriate assumptions about household behaviour? Given these concerns, our analysis suggests that if the Caribbean region is to ever escape the twin problems of persistent poverty and chronic unemployment, public policy should in fact attempt to encourage households to respond not merely to income deficiency but also to income insecurity.

Key words: Deficiency, income, household, transfers

INTRODUCTION

In trying to understand how households or individuals behave it seems reasonable to begin with the assumption that the driving force behind the economic behaviour of all individuals is the need to generate or access income necessary to provide for the needs and wants which they deem to be important. The early emphasis of economic theory on the phenomenon of distribution was probably a reflection of this assumption (Ricardo, 2004). For the fundamental questions, which were being addressed, had to do with the functional and the personal distribution of income in the society. How was the output of the society distributed among the factors of production, and how was the total income of the society shared up among individuals and households? This concern with income distribution can be interpreted as a concern with income security.

With the rise of neoclassical economics, in the context of an economy assumed to be fully employed, the emphasis shifted to a concern with price determination. Household incomes were taken as given. While we remained concerned with the determination of aggregate income there was no need to focus on household incomes specially. Under these arrangements, the economic system was properly described as a simultaneous system of production, resource allocation, income distribution and savings determination, all glued together by a system of competitive markets (Stigler, 1987; Blaug, 1997). In this set up, the primary solution would be a price vector, which would then be used to derive solution paths for production, resource levels, income levels and savings levels (Arrow and Debreu, 1954). In this model, once the levels of factor use and factor rewards were determined, incomes were determined as a simple product.

The argument of this study will be that shifting to prices as the main focus was not beneficial for understanding economies that are still developing. In the case of the Caribbean region for instance, persistent poverty has resulted in the concerns of households in the Caribbean being quite different from the households of more economically developed countries. Caribbean households are not as concerned with adjusting their consumption pattern to price changes as they are with acquiring increased income for members of the household. This concern with income generation is a direct result of the persistent poverty, and the consequent income insecurity, that the majority of Caribbean countries are faced with. The point that will therefore be made is that one of the features of a developing economy is that, for households, income generation remains centre stage and that even prices are best conceived of as the “desired-income” instruments of one group in the society (producers), and the “desired-income” triggers of the other group (individuals).

Denoting producer income by $Y_n$, consumption of goods and services by $X_n$, price by $p_n$, and household expenditure by $E$, we have the basic identity that:

$$Y_n = p_n X_n = E$$

(1)
If we assume that households’ expenditure exhausts their income, denoted by $Y_H$, we then have the simple result:

$$Y_n = Y_H$$  \hspace{1cm} (2)

Once the level of production, $X_i$, is decided, any desired increase in producer income will only happen if $p_i$ is increased. It is in this sense that the price is seen by producers as an instrument of income generation. For example, if there is a sense that taste for the commodity has changed, producers may interpret this as a golden opportunity for them to increase prices.

From the point of view of the household, if at the prevailing price $p$, with $X$ taken as a necessary level of consumption, and therefore, for the moment, a fixed target, the level of expenditure required is below household income $Y_H$, then households will see income as the variable to be adjusted. In this case the price level would be the trigger for attaining a higher level of income. The microeconomics of a developing country will therefore begin with firms adjusting prices and households adjusting incomes.

In summary, the working of a developing economy is then characterized by the adjustments to these respective desired-income targets. If we accept that firms are out to generate income (called profit) and that households are on a similar quest in order to make necessary consumption possible, it becomes easy to see that income generation remains a fundamental microeconomic concern in developing countries.

**RESULTS AND DISCUSSION**

**Taking a broader view:** In a very general sense it can be argued that the working of any economy depends on the kinds of desires people in the society have, the value system they live by, the natural endowments of the space delimiting the economy and by implication, the kinds of choices people make as they proceed to fulfill their desires. In other words, the working of the economy depends on what kind of people we are – what we set our sights on, how we use what we are endowed with and how we relate to one another as we seek to fulfill our own desires (Sen, 1983).

In this context the interplay between the instruments and targets of desired income takes on an interesting dimension. Once we admit that the real world is more imperfectly competitive than the Arrow and Debreu (1954) version of it suggests, one implication will be that prices cannot play the role of objective parametric forces that is expected of them. Being instruments linked to desired income targets we can assume that they depend on two factors: the presumed strength of desire for the commodities or services in question and the extent of competition in meeting the needs expressed.

Although these factors do contain elements of demand and supply forces, the implied relationship rests on different foundations. This means that in setting prices, established suppliers will assess the capacity of individuals to generate the income required for desired expenditure even as they assess the capacity of competitors to reduce their share of the market. So prices will be determined partly by what the market will bear and partly by how competitors are expected to react. Clearly, where the capacity to generate income is, on the average, weaker than expected and where competition poses a genuine threat there will be no tendency for prices to rise significantly. Producers will then hold on to their prevailing income levels until the tide changes.

On the other front (the individuals) the reality will be that once a certain price structure is proposed individuals find themselves in three (3) groups. One group will certainly be able to cope with the existing prices. Another group will be in a position to make quantity adjustments, partly because of its present mix of purchases, but will now be less secure about its capacity to cope in the future. However, there will be a third group, which will not be able to accommodate the price structure in place. If it happens that the subgroups that are able to live with the price structure have incomes large enough to realize the income expectations of the suppliers, there will obviously be no adjustment in prices. In these circumstances, the first group of households will be largely unaffected, the second group will experience a loss in income security and the third group is left exposed to poverty.

Our study will focus on the last two groups of households – the one with blatantly insufficient income as well as the group that now feels less secure about its capacity to continue coping with prevailing prices. Our assumption is that these groups constitute the vast majority of households and our main proposition is that both groups will seek to make an adjustment to their income. What is important for our purposes is that the inability to meet basic needs or to be comfortable about future purchasing power will naturally spawn a search for new sources of income.

Clearly the adjustments referred to will not be instantaneous and will not take place in a vacuum. We would expect that individuals and households will prioritize their needs and desires and we will also expect that sources of income other than the labor market will begin to feature in the welfare-seeking adjustments of these two groups of households.

**The quality-of-life: a microeconomic concern:** Given the narrowness of the resource base in the Caribbean (Demas, 1980), there is no question that the most central concern for the citizens and the policy makers of this region remains that of putting the quality of life of the people of this region on a more secure footing. The region
remains concerned that in spite of well-meaning and vigorous efforts to deal with problems of poverty, unemployment and mal-distribution of incomes, the social and economic security of many citizens of the region remains unacceptably fragile. All concerned stakeholders in the business of development of this region continue the search for answers to the major puzzles of development, partly by research and training in the theoretical and empirical areas of social science and partly by the technical and fiscal support provided to governments in the region. Within this context, there has been a recent spike in the concentration on poverty issues and in particular, the possible links between the behavior of the labor market and the persistence of poverty in the region.

There is need for significant work in documenting the reality which prevails in different parts of the region and due consideration needs to be given to improving our understanding of the processes at work in the loss of income security and the persistence of poverty itself. The present study is seen as a contribution to one aspect of this work. This is because the study makes the assumption that for many households in the region, economic behaviour is dominated by their efforts to access more secure income streams and to escape the poverty trap. In a sense, the microeconomics of countries like those in the Caribbean begins with a concern with income security and includes the concern for avoiding or escaping poverty. The Lewis (1954) dictum that good economics begins with a concern for the conditions under which people live becomes duly relevant.

The analysis that will be presented will focus on the behaviour of individuals or households, the assumption being that this behaviour significantly influences both the income status of households and the efficacy of policy to deal with income security and poverty. In other words, not only will household income levels depend on the attitudes and the behaviour of households, but the latter will also impact on the policies to deal with income security and poverty. This study therefore proposes to make use of attitudes and behaviours, not to determine the levels of desired consumption as is done in the traditional economic theory of individual behaviour, but to explain the determination of household incomes, directly and indirectly.

**Income security - A theoretical introduction:** For the purposes of this analysis, the basic assumption that we make is that individuals and households want a level of income that will assure them of a decent standard of living both now and in the future. It is this inter-temporal spectrum that reflects a concern with income security. When put in this way it becomes apparent that households will be concerned with consumption, as the standard theory tells us, but they will also be concerned with human capital development. Given the possibility of a trade-off between these latter two variables, households can therefore be characterised by the respective attitudes taken in respect of consumption and human capital development.

To be more explicit, we can assume that the standard of living now will depend on the level of consumption that is possible, and the standard of living in the future will depend on the level of human capital available to the household. Consistent with a suggestion by Douglass (1996) we can regard the household as one of the social institutions created to reduce the pervasive uncertainty that human beings find they must live with. The household knows that developing skills, which will be of use to others, will enhance its chances of earning income. So the household will see the production of human capital as a means of reducing its income insecurity and, in a context of pervasive income insufficiency, it is this activity, not consumption, which will more accurately characterize household behaviour.

Of course, we can admit that the human capital development in which households engage will also involve the inculcation of civic and moral values which redound to the benefit of the society as a whole. However, the drive to acquire more human capital is primarily motivated by the need to put the household in a more secure income position in the future. What this means is that the concept of household income is one that espouses both a current and a future dimension. In the modern credit-oriented society, this is a reasonable assumption to make. Households and individuals are therefore essentially inter-temporal economic agents.

To take the analysis forward, we will assume that the individual’s desired income is directly (but differently) related to both some desired level of consumption as well as some desired level of human capital. The more the household wishes to consume, the higher will be the level of desired income. However, it is also true that the more income the household wishes to attain in the future the more human capital it will need to generate. This is the space where attitudes have the potential to determine outcomes. Where, for example, the individual is the head of a household, the desired level of human capital may be therefore reflected in the amount of expenditure allocated to education, training and related activities, as opposed to consumption activities.

What this latter point suggests is that there is a closer affinity between the household and the firm than has been generally acknowledged. For just as the firm produces an item which it can sell in the goods market to generate an income called profit, so we can now conceive of the household as seeking to cultivate an item called human capital which it can sell in the labor market or employ in its own business (formal or informal) to earn an income. This production by the firm and human capital cultivation by the household are in fact both transformation processes...
whereby an agent uses the items with which it is endowed to create something else with market value.

**Elements of the theory of income security**: Our analysis of household behaviour begins with the assumption that each household is endowed with a supply of labour comprising two non-negative components: one that can be used to generate steady income immediately and one that has to be transformed by the acquisition of skills and inculcation of values in such a way as to be able to attract steady income in the future.

Since these two labour components differ only in the period when they are deemed to be remunerative, we can call the first component of household labour immediately remunerative and the other component, potentially remunerative.

The potentially remunerative labour supply, \( L_{PR} \), would be embodied in the unqualified or unskilled adults as well as in the younger members of the household. This component of the household labour supply represents future income possibilities, although the household may voluntarily or involuntarily press some or all of this labour into current income generation. In this sense, both the attitude of the household and the socioeconomic environment within which the household operates become important determinants of the household’s eventual income status.

The immediately remunerative labour supply of individuals, \( L_{IR} \), is the component that is already suited to current income generation. This labour supply is attractive and available to the labour market or the business sector because it has the capacity to be part of a planned or existing production arrangement.

**The transformation process**: Endowed with these two labor supply components, the household seeking a secure income will look to human capital and will see the opportunity to use up its endowment of potentially remunerative labor, together with other factors, in producing human capital. This human capital is then embodied in immediately remunerative labor capable of earning income either in the labor market or in the business sector of the economy.

For simplicity we can begin with a linear production function of the form,

\[
H = \beta L_{PR},
\]

where \( H \) is human capital and \( \beta \) is the human capital coefficient of labor, indicating the rate at which the transformation is taking place. Each household can be characterized by a skill ratio,

\[
\sigma = L_{IR}/L_{PR}
\]

Making \( L_{IR} \) the subject of the skill ratio expression and \( L_{PR} \) the subject of the production function we have,

\[
L_{IR} = \sigma L_{PR} \quad \text{and} \quad L_{PR} = H/\beta
\]

From these latter two expressions we get the labor supply result,

\[
L_{IR} = [\sigma / \beta] H
\]

**A simple result**: The labor supply expression, \( L_{IR} = [\sigma / \beta] H \), tells us that the immediately remunerative labor is a mapping of the human capital produced by the household where the link between them is itself a ratio of an input and an output coefficient. The result, which is a supply of skilled labor expression, simply states that the more human capital the household produces the more immediately remunerative labor it will have available. The derivation can be portrayed in a four-quadrant diagram as illustrated in Fig. 1.

Quadrant 1 shows the initial endowments of labor, with the skill ratio being the diagonal through the point of origin. Quadrant 2 shows three possible production functions with different types of human capital outcomes. The diagram uses the medium skill level. Quadrant 3 is a 45-degree line transferring human capital values from Quadrant 2 to Quadrant 4. Quadrant 4 shows the labor supply result seen earlier, that immediately remunerative labor is a positive function of human capital. This simple labor supply result in Quadrant 4 opens a door to the microeconomics of development.

**Options for building income security**: If it is known that the possibility of earning income is linked to human capital production why do all income-deficient households not concentrate on human capital production? We have seen that they have both motive (income deficiency) and opportunity (\( L_{PR} \) endowment). Households with insufficient income will certainly want to be better able to cope with the prices they currently face and prices they expect to face in the future. One option would be to allocate some of their income to building up their stock of human capital. Moreover, such households will ordinarily have some desired stock of human capital to which they will aspire. This means that if the labor market were the only source of income it would be normal for the household to be wholly engaged in a transformation process, which converts all potentially remunerative labor supply into immediately remunerative labor.

The reality is that households have many different ways of generating income and human capital production is but one. We assume that there are at least six (6) avenues of income generation available to the household:
The labor market where the human capital of households is deployed
Access to transfers or in-kind income from the government or some other source
The formal product market where physical and entrepreneurial capital are used to earn profits
The asset market where financial assets are traded for a positive return
The informal sector where the individual engages in selling certain goods and services needed by other individuals without being officially registered a seller, or where the individual engages in activities not consistent with the laws of the land, and
Personal inheritances or lotteries

The present discussion will exclude consideration of personal inheritances or lotteries.

In some societies, a substantial number of individuals earn their incomes, solely or mainly, from the asset market. This is certainly not true of Caribbean society. In this society and others like it, the vast majority of households are solely dependent on the labor market, with substantial numbers being dependent on transfers and on the informal sector (Trinidad and Tobago, Central Statistical Office, 2007). The present analysis will assume that these are the three sources of income - the labor market, transfers and the informal sector - that matter to most households.

We proceed to consider the implication of the assumption that these are the three relevant ways to earn income. The first point, which needs to be made is that attached to each mode of earning income there is both a transactions cost and an expected yield. The yield is simply the rate of return expected to be associated with the human capital deployed to access the income flows. The transactions cost, on the other hand, will include items like basic living costs and the cost of transportation associated with the deployment of human capital. This opens up an interesting set of possibilities. For individuals will choose different combinations of income sources depending on their assessment of the related costs and yields. In other words, it is the net yield of different sources that determines both the income of the individual or the household, and the deployment of human capital. We can certainly have a situation where one individual taps in to more than one source of income or where the household will require different members to become attached to different sources. In all cases it would be the combined net yields that would matter.

The situation is made even more interesting if we accept that different sources of income have different degrees of sustainability risk attached to them. All sources of income are not equally sustainable. In many situations, households will find that the ease of altering certain flows or the size of these flows is inversely related to the sustainability of these flows. Finally, we may add to the picture the fact that the different sources of income are
often interdependent. In other words, the way in which income is derived from one source may affect the possibility or the extent of accrual from another source.

One of the interesting implications of this characterization is that if, taking all relevant factors into consideration, enough individuals deem a particular source of income to be providing relatively high net yields, that source will become dominant regardless of its associated productivity or other social implications.

We will assume that in the Caribbean the source of income that has raised most concern in this regard, both from a productivity standpoint and a social point of view, is transfers. Mainly because of the chronic unemployment problem in the countries of the region, transfers have become a major source of income. Such income may be derived from:

- Government welfare grants
- Public works programmes
- Remittances or
- Illegal activity.

For the purposes of this study we will not examine either the case of illegal activity or remittances. However, given the role governments have traditionally played in the generation of household income, it is necessary to focus on the first two sources on the list above namely, government welfare grants and public works programmes. We can treat these income sources interchangeably since often enough the distinction between them becomes blurred.

We will use the term government transfer income, which is usually defined as unrequited income not linked to any service or meaningful work effort. Moreover, since according to the traditional model, work is a disutility, we would expect transfer income to possess a natural appeal to the individual. Transfers amount to an effortless movement of the individual’s budget constraint. For this reason it is safe to assume that the more easily transfers becomes available, the weaker will be the incentive to seek income from other sources. In the context of the present model we can characterize this appeal of transfer income by an induced reduction in the incentive to engage in the transformation process, which converts potentially remunerative to immediately remunerative labor. In other words, if the transfers are easily available and the expectation is that these transfers will last far enough into the future, there is likely to be a weakening of the household drive to accumulate human capital.

This is a dynamic which needs to be explored since it calls attention to a number of considerations which make household income acquisition a somewhat complex process and key to the economic outcomes which many households will experience. On the one hand, the household will consider:

- The time and the sacrifice it would take for potentially remunerative labor to become immediately remunerative,
- The expected yield of the immediately remunerative labor, and
- The risk attached to that yield.

On the other hand, the household will consider:

- The net yield of the transfer source of income as well as
- The risk attached to that source – particularly, how long it is expected to last.

What this means is that the household will have to make a judgment about the yields of the different sources of income and decide which source or sources it should accede to. These considerations raise the broader issues of:

- The rationality of household expectations,
- The capacity of households to make correct judgments and
- The values that guide the decision making of households. Reference can be made to the literature on behavioral economics for example, Prospect Theory which was put forward as a psychologically realistic alternative to expected utility theory (Kahneman and Tversky, 1979).

Situations of uncertainty like the one being analyzed have drawn unfavorable reactions from a number of economists. One memorable comment about uncertainty was made by Arrow (1951) who stated that, “No theory can be formulated in this case”. Robert Lucas (1981) thirty years later suggested that, “In cases of uncertainty, economic reasoning will be of little value”. The fact that in conditions of uncertainty decisions may be made on the basis of, “the widespread existence of myths, taboos, prejudices and simply half-baked ideas” is also crucial to understanding the choices that households are observed to make (North, 1996). What is important for our purposes is that households will make decisions, whether or not they are rationally and correctly made.

One option would be for our analysis to explore the implications of alternative decisions and to link these decisions to the economic outcomes that may be observed. Partly because of the multiplicity of possible nuances to any particular decision, we will not pursue that line at this time. Instead we will attempt to be explicit about the role of a relevant set of attributes in the
development of any society. The attributes we refer to are:

- personal responsibility
- sound judgement and
- social solidarity.

In highlighting the importance of the weighting of these attributes in the society, we are attempting to capture the economic motivation of households both as private entities and as social entities. The extent to which these attributes and their related values prevail is of course a matter that is testable. What we do know is that if, for example, two of these attributes, responsibility and solidarity, are regarded as mutually exclusive, then the role of transfers becomes obvious. They will be non-existent in the case where the former attribute is dominant and indispensable in the case where the latter attribute is the one that prevails. In places like the Caribbean where the development objectives aim to strike a balance between responsibility and solidarity (ECLAC, 2006) the situation becomes somewhat complex, with household behaviour sometimes even appearing to be inconsistent at times. This complexity is avoided in the traditional analysis by simply assuming specific rates of time preference on the part of households or by assuming that households are always correct in their expectations.

However, where income security is the driving force behind household behaviour we will not be able to eliminate the complexity by these means. The situation becomes even thornier if we assume that income deficient people are worse at making good judgements about the future than those with adequate incomes. This finding has been established by behavioral economists in the United States of America (Beaulier and Caplan, 2002). In other words, since the income deficient are faced with the need to make judgements about income acquisition they may never find the pathways out of their initial state.

It is worth recalling that at the core of our analysis is the assumption that where the labor market is the only source of income households will engage in a transformation process, converting all potentially remunerative labor into immediately remunerative labor, a process which produces human capital. Since the labor market is clearly not the only source of income, we are faced with the possibility of households not wanting to convert all potentially remunerative into immediately remunerative labor.

Since the household choice will now be in respect of its use of potentially remunerative labor, it therefore turns out that the income acquisition outcomes of households will actually depend on how they make use of their potentially remunerative labor.

This component of household labor can be used in two ways. It can be transformed into human capital or it can be used to secure transfers or informal income. Since there is a fixed supply of this labor component, use in one activity reduces availability for the other activity. Here is where the influence of the three attributes, responsibility, soundness of judgement and solidarity, becomes important.

A dominance of personal responsibility will imply a propensity to make sacrifices and will therefore suggest a bias in the use of potentially remunerative labor for conversion into immediately remunerative labor. Where households are prone to poor judgement the calculations of net yields will either ignore or underestimate the cost of the income foregone by not engaging in more labor transformation. This would skew the welfare impact of transfers or informal income and encourage households to cut back on human capital production. Finally, where social solidarity is a widely shared community value the attitude to transfers will make it virtually impossible to reduce them even if they are deemed to be inimical to human capital production.

It is therefore important to take a step back to consider the environmental or macro level influences on human capital generation since these are the influences, which will reflect the values and define the options which households consider as they make their “rational” decisions.

**Human capital: Macro level considerations**: It seems reasonable to suppose that although the development of human capital takes place at the level of the individual, the benefit from such development accrues beyond the individual and reaches out to the families and the communities to which the individual belongs, and even to the nation to which the individual owes civic allegiance (Bourne, 2004). It would therefore be no surprise if both families and communities on the one hand, and the government (representing the country) on the other, have an interest in and would normally make a contribution to human capital development. This is probably the basis of all the (implicit) social contracts that are made. In one sense this would be the natural outcome of the set of community values, which define the social contracts existing between:

- The individual and his or her family and community, on the one hand, and
- The individual and the government, on the other.

The nature of these contracts creates a situation whereby the support system constituting the social capital wielded by families and communities, and a similar system constituting the public capital wielded by the government, become important determinants of human
capital. In their quest to accumulate human capital, individuals make use of the opportunities presented to them by their families and friends, as well as those presented by the government. The nature of these opportunities and the response to them would be a reflection of the value systems in place. One implication of this statement, which is not explored here, is the implied absence of strict independence between the values espoused by the households and the opportunities they perceive. The sociological literature on poverty has repeatedly made this point.

It would therefore seem that human capital is at the heart of a looped relationship linking social capital and public capital with national income. These two forms of capital are, in turn, jointly influenced by the community values, which prevail, and the national income itself. We represent these relationships in the diagram below. Included in the diagram is the suggestion that human capital can itself be weakened by the two forms of capital that give it life: social capital can spawn nepotism coming from the very networking characteristic of this form of capital, and public capital can spawn a dependency syndrome which can arise from some public sector transfers. In these two ways, the development of human capital can be impeded. This means that the possible deleterious effects of social and public capital can weaken the national income through their negative effects on the very human capital they are meant to develop. For, as the social capital literature reminds us, there is a tendency for social capital to exclude persons not belonging to the family or the community (Putnam, 2000). In other words, nepotism and even corruption may be natural products of social capital. Where this is taken to an extreme, not only will exclusion lead to resource misallocation through discrimination, but it is also true that potential beneficiaries will not always see the need for taking their skill or competence to higher levels. Both of these occurrences will have productivity effects, which will culminate in a loss to the society (Nazario, 2007).

Similarly, in the case of public capital, the tendency for a culture of dependency to develop will be a risk that will always attend the distribution of public welfare benefits. The traditional analysis portrays this concern as a derived tendency for welfare benefits to induce withdrawals from the labor force. This risk becomes even more likely when the distribution of benefits is linked to overt electoral (or ethnic) support. In a sense the incumbent government becomes dependent on the beneficiaries and the beneficiaries become correspondingly dependent on transfers from the government.

What follows from this discussion is the recognition that the human capital development-taking place at the level of the household is subject to distortion by the very support systems on which the households necessarily depend. What is warranted therefore is a commitment by both public and private sources of household support that every effort will be made to control the possible negative influence of their respective forms of capital.

While not underemphasizing the importance of the social capital influences, it is important to recognize that because of the positive role that public sector transfers play in the distribution of income in society, it is probably even more important to keep in mind that if there is distortionary potential in public capital it should be carefully monitored and controlled. In particular, to the extent that reasons of equity will serve to maintain transfer levels even when deleterious effects are manifest, it will be important that the transfers take on a character of explicit support for human capital production, thereby neutralizing the dependency syndrome.

Consider the case of economies in the Caribbean. There is no question that even when there has been apparent robustness and verve on the economic front as is evident by the relatively high values of the GDP per capita (US$) measure in Caribbean countries such as Barbados and Trinidad and Tobago, the twin problems of unemployment and poverty have remained as can be observed from the Unemployment Rates and the Human Poverty Index (HPI-1) values as stated in Table 1. It should be noted that Barbados is generally known for its low poverty measures. From Table 1 can also be observed that GDP per capita increased substantially for all three (3) Caribbean countries between the years of 1980 and 2004. The GDP per capita measure more than doubled in both Barbados and Jamaica over the twenty four (24) year period and almost doubled in Trinidad and Tobago for the same period. However, despite the significant improvements in the GDP per capita figures for these countries, the unemployment rates exhibited almost negligible changes with the exception of Jamaica whose unemployment rate declined by more than 50% between 1980 and 2004.

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**Table 1: Selected Economic Indicators (2004): Barbados, Jamaica and Trinidad and Tobago**

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per capita (US$)</th>
<th>Unemployment rate (%)</th>
<th>Human poverty index (HPI-1) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbados</td>
<td>3,474</td>
<td>10,401</td>
<td>11.4</td>
</tr>
<tr>
<td>Jamaica</td>
<td>1,261</td>
<td>3,352</td>
<td>27.3</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>5,765</td>
<td>9,640</td>
<td>10</td>
</tr>
</tbody>
</table>

This is not to say that unemployment has not declined in some of these countries. However, partly because of the narrow base on which these economies lie, there remains a distinct sense of overall insecurity of income and a perceived tightness in the labor market which does not match the statistical decline in unemployment.

While in these countries there may be problems of measurement in respect of labor market changes - problems that need to be addressed - the important thing is that there remains a distinct unease amidst the population in respect of what appears to be very sticky unemployment levels. One view expressed from time to time, for example, is that the horrible crime situation the region is now facing, in this first decade of the twenty-first (21st) century, is partly linked with the extent of unemployment among the youth in the region (Pantin, 2005). Even if we are unwilling to subscribe to this position, it seems to take on additional significance when it is also suggested that the crime in the region is a reflection and a response to the high degree of inequality, which prevails in some countries. This means that it is not unemployment or poverty by itself, which might be fueling the crime, but when any one of these is combined with perceived glaring inequities, deviance may take on a frightening cloak of rationality.

The present study gives recognition to this perception of inequality and adopts the working hypothesis that in the countries of the region the persistence of unemployment and the persistence of poverty are deemed to be linked to the perception of economic injustice in the society. There is some available data, which shows that over time the measures of income distribution have been closely correlated with those of unemployment and poverty (Kairi, 2004). While such data does not tell us about a causal link, it presents enough of a prima facie case to fuel the perception that such a link exists, a perception which can have serious implications for the society as a whole. What the data does show is a steady increase in per capita incomes together with a widening of the gap between the haves and the have-nots. Reference can be made to the GDP per capita and Gini coefficient data for the Caribbean region from the United Nations Development Program’s (UNDPs) Human Development Reports, 2000 - 2005 (UNDP, 2007).

The concern of this study is for a better understanding of the process by which household decisions with respect to human capital production affect the manner in which employment and incomes are generated in the society. The point being made is that in the present context, any explanation of income and employment generation would most likely be linked to the pattern of economic justice in the society. In this context the golden egg of the social system to which all parties presumably aspire, would therefore be a combination of

![Diagram: Jobs and justice with multiple sources of income](image-url)

**Fig. 2: Jobs and justice with multiple sources of income**

job creation and economic justice. Social stability will require that the two go hand in hand. Does the model of income security being proposed tell a story of job creation and economic justice? To answer this we will need to explore in a little more detail how household choices are made.

**A little axe at work:** We begin with the assumption that all households in the society share the desire to get access to income. However, households are aware that there are different ways of acquiring income. We will assume that one subset of the households is wedded to the idea of steadily acquiring more and more income. Lewis (1954) made the point that a society needs to have a strong class of this kind if growth is to take place. These are the society’s accumulators of capital. They have ideas about how resources can be combined to make more and more income. On the other hand, there are some households in the society who spend their lives in the business of acquiring more and more goods and services engaging in more and more consumption. Income, both present and future income, is for the purpose of present consumption. Fig. 2 illustrates.

We assume that all income in the society flows through a channel of enterprise or through a channel of transfers. In the diagram we show one population subgroup, E, receiving income flows through the channel of enterprise. This is the flow, $T_1$, income. In so doing, this subgroup will generate a demand for labor. The other subgroup whose main interest is in consumption will then recognize two avenues for getting income. They can either supply the labor needed by the first subgroup and therefore enjoy some flows through the enterprise channel, the flow of wage income, or they can access the system of transfers, which exists. We designate this subgroup, C, and this group is the main focus of the present discussion.

These avenues present two choices to the subgroup, C. The first choice is linked to its willingness to supply labor. One the one hand, turning to the enterprise system will mean that the group will have to equip itself with education and training, which will postpone income
generation. On the other hand, such a link with the enterprise system will offer a steady flow of income, which will be expected to grow as the economy grows. The second choice is related to the nature of the transfer system which subgroup, C, accesses. This system offers immediate and possibly significant flows of income but because it is more a political than an economic channel, it is not sustainable over the long term, and in fact the lifetime mean of such flows would be generally much lower than flows from the enterprise system. The diagram below illustrates. The flow of transfers through time may be decidedly higher than labor market flows for a certain period. However, experience shows that, as with all transitory income, the expected value in the long term is always lower than that of permanent income streams. The labor market streams are more in the nature of permanent income streams (Fig. 3).

The household is therefore faced with settling for smaller flows now in the expectation of larger more steady flows in the future, or for larger flows now with the prospect of uneven and smaller flows in the future. Time preference rates and the risk profile of the household will certainly be crucial in the decisions that will be made. What the availability of transfers has done is to present households with an interesting set of options. Complicating this issue is the reality that human beings are not immune from erroneous judgements or self-control challenges. These matters have been extensively discussed in the behavioural economics literature (Beaulier and Caplan, 2002).

One additionally interesting aspect of the system of transfers is that it is usually attended with a rhetoric which directly addresses the economic justice question. What this means is that the attitude of some members of the society reflects a convoluted notion of jobs and economic justice. Employment is seen as a social right and eligibility for transfers is usually linked to employment status and even employability status. The weaker is either of these the more likely will be a beneficial connection with the transfer system. In the ideal case public policy may seek to change employability status even as transfer benefits are being enjoyed. The important point, however, is that as long as transfers are linked to economic justice they will continue to be seen as a legitimate, independent means of acquiring and distributing income, by the population and by the political managers of the economy.

It seems reasonable to suppose that what may begin as a simple notion - the link between jobs and justice - has the potential to become a major factor in the determination of income and employment in the society. Attitudes and preferences of individuals in the population can then be seen as the intangibles, which emerge, as the little axe with the potential to cut down the big trees of poverty and unemployment programmes. The implication here is that regardless of the mega projects which are brought to bear on these problems of poverty and unemployment, if the attitudes and preferences of the population lead to choices that do not increase their human capital endowments, reducing poverty and unemployment will always elude us.

As Sir Arthur Lewis (1992) in his Nobel Lecture stated, “economic development requires that enough people in the society must have an attitude which reflects a willingness to make sacrifices,”

sacrifices that are necessary for building up sufficient human capital. Building on Lewis’ (1992) statement, we now postulate that there are two sets of households in the society: those that are willing to make the sacrifices that are necessary for building up sufficient human capital and those that simply are not.

Extending the Lewis (1992) comment, we can say that households can generate income by making sacrifices or by a less demanding route. In the present context we can equate human capital production with making sacrifices. Assume an environment with two income streams, income from skilled labor, W, and income from transfers, T. So we have $Y = W + T$. If we assume that earning W requires human capital but, for the moment, accessing T does not, and if we also assume that W provides a secure income stream while T does not, we see the household’s options as low level and high-level income security. Low-level income security would come from addressing the consumption aspect of income deficiency without addressing the sustainability aspect.

The environment is assumed to be one where, $Y = W + T$. Since $T$ is usually politically determined, it can be treated like Friedman’s windfall income which would make $E(T) \rightarrow 0$. Moreover, since households with a dominant $T$ component will be households where $HK \rightarrow 0$, which would itself imply $E(W) \rightarrow 0$, the result will be $E(Y) \rightarrow 0$. This is the poverty bias, which was our initial concern.

On the question of attitudes and preferences we recall that the more people are willing to develop business enterprises to acquire income, the more will be the income earning opportunities in the enterprise system for other
persons in the society, and presumably the less their need to access the transfers system. What this also means is that the more developers of business in the society, the higher will be the long-term average income of the population.

Based on the framework being proposed, in every country we should be able to categorize households into the E and C groups identified. One possibility would be to use the information obtained from household surveys. Ideally such information would tell us:

- How households generate their incomes - from enterprise, transfers, or both;
- The level of income being enjoyed;
- The level of skill, education or training being embarked upon; and
- The level of skill, education or training successfully attained.

If we are able to access such information over a period of time we would be able to identify whether:

- Households regard the link to transfers as temporary or permanent;
- Programs to alleviate or eradicate poverty have been associated with human capital development and
- There is a tendency for incomes of transfers-dependent households to lag behind those of other households.

In other words, inter-temporal data will not only give us a clear picture of the role of attitudes and preferences among the population, but it will enable us to better monitor the programmes being adopted to address poverty and inequality. There is clearly room for a longitudinal research exercise to explore these issues.

Having already explored the environmental influences on household choices and having seen the possible developmental impact of these choices it will be useful now to examine the microeconomic behaviour of households as producers of human capital within a transfers environment. We will weave the discussion around the notion of individual equilibrium.

Transfers: bane of development? Even as we consider the impact of transfers on household’s income generation, it is somewhat puzzling that transfers have come to be regarded as not good for the economy. Almost every journal commentary, article or book on the welfare state seems to highlight the negative consequences of transfers on the economy. Atkinson (1995) is typical. This is puzzling not only because of the equity role which transfers play in the social system but also because in the familiar picture of a budget constraint and an indifference map, transfers are unambiguously a source of increased welfare. The concern usually expressed is in relation to the labor supply withdrawal effect, which transfers might have. This is especially worrisome when transfers approximate or exceed labor market reward levels. When seen as a possible component of the income generation portfolio, the question that arises is whether transfers are really a negative force on development or whether they can perform a valuable economic function. In the latter case, transfers may be shown to have a positive role in addressing the problems of poverty and unemployment.

Before developing the argument it may be useful to point out that the traditional reservations about transfers are based on a fundamental assumption of the neoclassical model, namely that work is a disutility. Transfers are found to be harmful to the supply of labor because they provide a source of income without incurring the disutility of work. Since work is deemed to be a disutility it would means that work only takes place because people can be bribed to give up their leisure. However, this assumption makes sense only in a world where people do not have to work in order to survive. In this latter case, work certainly has utility. The neo-Keynesian proposition that labor is supplied to the market because people have consumption needs seems to be a more appropriate foundation on which to initiate any discussion on transfers. Once we give up the notion of work being a disutility, the possible instrumentality of transfers can be examined in an unprejudiced manner.

Our analysis begins with the question, what do households do when they come up against an expenditure constraint, which threatens their welfare-maximizing quest? From our earlier discussion, the answer to this question would be that they initiate some form of income adjustment. Let us assume that generating income through human capital production is one of the options being considered. As it seeks to produce human capital the household is assumed to make use of two sets of inputs: one containing its potentially remunerative labor supply and another comprising inputs such education, training and other as are available.

In order to simplify the analysis, we will maintain our focus on income-strapped households, making the assumption that for these households there is no asset income or enterprise income. We will also assume that these households are currently without labor market income and will initially look to transfers and informal sector income to meet their short-term expenditure gap. In other words, self-preservation will motivate households to make use of coping mechanisms, which will include loans from family or friends, or funds from government sources. It will be a case of any port in a storm. They may alternatively participate in informal business activities. However, these households, in order to maintain their self respect and with an eye on the future, will know that if they are to avoid an indefinite
continuation of their present circumstances, they will have to become capable of generating a more stable, a more predictable income flow. In other words, they will target a flow of labor market income, W. This means that they will have to build up the human capital endowment of the family. In other words, they know that filling the long-term gap will require activation of the transformation process by which their human capital status will be improved.

The combination of self-preservation and self-respect points to a multi-period focus of the household. What makes this even more interesting is the fact that filling both the short-term and the long-term expenditure gaps will require the use of the same household resource - the potentially remunerative labor supply endowment of the household, $L_{PR}$. In the case of the short-term gap, if informal sector activities dominate, we would expect a heavy use of this common resource in order to generate income from this informal source. It may also be true that where the household relies on government transfers, the specific form of the transfers may call for significant use of the household’s unskilled labor. It may be argued that some of the “employment” undertaken in some public works type programs is in fact transfers since no real value is generated by such “employment.” With respect to the long-term gap, we have already referred to the transformation process by which households, accessing training and education are converting the potentially remunerative labor they possess into immediately remunerative labor.

In other words, faced with bridging both the short term and long term gaps the household will have to decide on the best allocation of its potentially remunerative labor, $L_{PR}$. It will secure more income to meet its short-term deficit, the more $L_{PR}$ it uses up, but it will get more of the long term income boost, the more $L_{PR}$ it can convert into human capital to take to the labor market. It is in respect of this need to put more $L_{PR}$ into the transformation process that the character of the household will become evident. For the dilemma of the household is that the more short-term expenditure it becomes capable of carrying out, the weaker will be its long-term income boost. Yet the pull of short term spending power remains a very strong one.

In his Nobel Lecture, Arthur Lewis (1992) reminded us of the very old principle: the more we wish to have in the future, the more we have to sacrifice in the present. This is precisely the economic development dilemma, which households now face.

The diagram below shows the impact of transfers on human capital production and on the use of potentially remunerative labor, $L_{PR}$. In the diagram, isoquants of human capital are shown as $H_1$ and $H_2$. The household’s initial resource constraint is shown as $AA’$. In this context we recognize two forms of transfers: lump sum cash transfers and transfers arising from the provision of social services like education and health. The latter category of transfers can be seen as reducing the total cost of these services to the household. For purposes of the diagram we assume the presence of this latter kind of transfers, reducing the cost of the factor education and training input, ETO. In this case, with normal-shaped isoquants, an increase in transfers will cause the point of tangency move from $E_1$ to $E_2$, with the household using up more of its labor supply as it seeks to capture more of the education and training input. In the diagram the use of potentially remunerative labor changes from from $L_{PR1}$ to $L_{PR2}$.

What this discussion demonstrates is that if transfers are used as a cost reduction instrument then more potentially remunerative labor is released for transformation into immediately remunerative labor (Fig. 4).

One interesting implication of this discussion is that not only would households be behaving rationally in their pursuit of transfers as the preferred means of filling the short term expenditure gap, but if a training-oriented approach is taken to transfers, these can be seen as having a vital and productive role in dealing with the welfare dimension of the problems of poverty and unemployment.

The analysis of the above point is one means of breaking the cycle of persistent poverty. The process begins with a social programme, which takes into consideration the attitudes, and a preference of the population and which makes employability the main target of the transfer system. Households must be not encouraged to avoid making substantial sacrifices in the present if they look forward to major income improvement in the future. In this sense transfers need to be made conditional on human capital production. Reference can be made to the cases of Brazil, Mexico and Jamaica (Handa and Davis, 2006). Continued flows will
depend on households demonstrating that they are in fact building up their human capital. The temptation to structure social programmes so that they rely more and more heavily on unconditional transfers must be resisted for the simple reason that such reliance will work against the accumulation of human capital by the households.

In suggesting that the population be encouraged to adopt a more self-reliant posture it is not being suggested that the countries of the Caribbean should move away from the brother’s keeper social philosophy they have clearly espoused (Bourne, 2005). In a region where income inequalities are so evident such a philosophy is necessary and important both for economic and political stability. However caring and self-reliance must not be seen as mutually exclusive attributes. They are the necessary pillars upon which the platform for progress can be built.

The importance of attitudes: One of the main conclusions that can be drawn from the discussion above is that the income status of the household, and by extension, the income security of households, depends on both environmental conditions, including the stance of public policy, as well as the attitudes of households when exercising their income generation options. It may be misleading to portray transfers as being a cause of persistent poverty. What matters is the way the transfers are structured and the attitude of the population to these transfers. This link between attitudes and outcomes has always been an important one for development economists (Lewis, 1992). In the diagram below we portray the scenarios generated by the possible combinations of household attitudes and preferences with different public policy approaches to transfers.

In the columns we portray the public policy treatment of transfers. Social programmes will either have no links with human capital production thereby fostering a consumption bias among households, P = 0, or they will emphasize human capital production, P = 1. In the rows we portray the possible household attitudes: a bias toward immediate gratification or an unwillingness to make sacrifices, A=0, or a bias to delayed gratification, A = 1.

In the cells of Table 2 shows all the possible combinations of public and household attitudes with the development implication of each combination.

Income deficient households throughout the society will be distributed among the four scenarios given in Table 2. Empirically the obvious task is to identify this distribution for each country in the region. The model predicts that the extent of income deficiency will be related to the distribution unveiled. The analysis also presents an instrument for identifying cases where poverty reduction programmes may be fostering poverty over time.

Table 2: Development scenarios: household and public policy biases

<table>
<thead>
<tr>
<th>HH Attitudes</th>
<th>Public Policy Biases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate income bias</td>
<td>Main focus on consumption aspect of income deficiency</td>
</tr>
<tr>
<td>Attitude, A = 0</td>
<td>Policy, P = 0</td>
</tr>
<tr>
<td>Immediate income bias</td>
<td>Main focus on Human capital potential of transfers</td>
</tr>
<tr>
<td>Attitude, A = 1</td>
<td>Policy, P = 1</td>
</tr>
<tr>
<td>Delayed income bias</td>
<td>Worst case</td>
</tr>
<tr>
<td>Delayed income bias</td>
<td>Hopeful Case</td>
</tr>
<tr>
<td>Delayed income bias</td>
<td>Best Case</td>
</tr>
</tbody>
</table>

Since in the real world we would expect some social programmes to lean heavily in the direction of unconditional transfers what would determine the quality of public policy would be the ratio of conditional to unconditional transfers in the system. Where conditional transfers dominate policy will support human capital development in households.

Where the transfer’s ratio and household attitudes are important there would seem to be two components of the required public policy. In the first place, as we have argued, there needs to be a bias in the transfer environment towards human capital development that is, maximization of the ratio of conditional to unconditional transfers. Second, however, is the requirement that social programmes should seek to foster the making of better choices by households. Sometimes this would mean limiting the range of choices given but it would also require using methods usually adopted by brand name companies in getting certain basic messages across to the population.

CONCLUSION

In summary, a positive impact on development seems to suggest that public policy must encourage households to respond to income insecurity and not merely to income deficiency. If the problems of chronic unemployment and persistent poverty are to be significantly reduced within the Caribbean region policy will need to be reshaped accordingly.

The more we consider phenomena like unemployment and poverty the more we are faced in the socio-economic sphere with a possible hierarchical linkage connecting culture, choices and consequences. It is not difficult to identify the role of each of these phenomena in the determination of household human capital production. For economists this should be an interesting linkage because the discipline has always resisted the attractive suggestion that although choices emanate from a utility maximizing framework, utility theory might be actually grounded in psychology (Deosaran, 2000). According to one writer, the profession seems to be more comfortable projecting utility theory as
having a tautological basis rather than as having any real content – if that content happens to be psychological (George, 1993).

In spite of this, however, it may be argued that culture and cultural norms are constituent elements of personal psychology. One interesting corollary of this would be the implication that the link between culture and the choices made by individuals, on the one hand, and the efficacy of social policy, on the other, maybe more important than is generally assumed. In other words, the impact of social policy responses is only partially determined by the quality of effort put in by policy makers. An important determinant of efficacy is likely to be the attitudes and preferences of policy beneficiaries and other stakeholders. The old adage of taking the horse to water is pertinent.

In closing it can be noted that one of the challenges for economic analysis has been the need to explain the persistence of phenomena like poverty and unemployment in the face of all attempts to reverse or terminate prevailing trends. The methodological tendency has been to couch explanations in terms of system failures or structural weaknesses or inadequacies.

In other words, the explanatory variables selected would be systems and structures. The conventional wisdom is very simply that if the economy is not growing as it should, poverty will result.

The suggestion being put forward in the present study is that the explanations for the persistence of social phenomena will always be mis-specified if we keep choices out of the picture. This does not mean that the blame for poverty and unemployment lies squarely at the doorsteps of the poor and the unemployed. What it means is that if we do not admit the influence of attitudes and preferences on income generation, social policy to deal with these problems will not be as effective as it can be. It is important to understand that what culture brings to the analysis is the recognition that opportunities do not exist in a vacuum. Moreover, economic opportunities are not simply environmental phenomena or products of social policy. This is because opportunities are always refracted through culture. In fact the dynamic that the inclusion of choices and culture brings to economic analysis would certainly enrich the explanatory power of our hypotheses since it admits the possibility of neutralizing or counterbalancing adjustments in the face of systemic or structural innovations – a possibility that contains the germs of any explanation of persistence.

Since poverty, by which we mean inadequacy of income, is usually linked to unemployment and underemployment, it is tempting to simplify the attempt to understand poverty and unemployment by restricting our focus to the labor market. The problem with this approach stems from the reality that the labor market is but one source of income. This is the market where the human asset, which might be denoted as time or skill, is used to generate household income. However, we have seen that for any household or individual, apart from the other types of assets available, potentially remunerative labor or potential human capital can be used to generate income outside of the labor market. In fact, income generation itself becomes a two edged sword since there is room here for culture and choices to influence human capital acquisition.

Perhaps the main implication of the present study is the need to strengthen the natural tendency of households to build up human capital. We have seen that there is no necessary connection between supporting households through transfers and household underachievement. It all depends on the institutional framework governing the transfers and the way in which culture and incentives affect household choices.

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