he Human Development Report (HDR) of 2004 reported that the proportion of Trinidad and Tobago’s population below the poverty line, based on US$2 per day was 39%, and based on the US$1 per day, 12.4%. This led to:

1. Media reports that over 50% of Trinidad’s population lived on twelve or less TT dollars per day;¹ and

2. Refutation of these figures by Government representatives based on arguments that the government of Trinidad and Tobago had implemented many poverty eradication programs, and therefore could not have such a high proportion of persons living under the poverty line in the country.

This paper discusses some of the issues surrounding the use of the PPP$ per day as an indicator of poverty, and the likelihood that the reported statistic is a realistic measure of poverty in Trinidad & Tobago. It also briefly assesses (a) the response of the media and (b) the grounds for the rejection of the HDR poverty figure by the government. In this context, the basis for acceptance or rejection of the poverty figures is critically examined.

What is the PPP?

PPP (purchasing power parity) is “a rate of exchange that accounts for price differences across countries, [thereby] allowing international comparisons of real output and incomes. At the PPP US$ rate (as used in the Human Development Report), PPP US$1 has the same purchasing power in the domestic economy as $1 has in the United States.” (HDR 2004: 274).

Calculating Purchasing Power Parity

The simplest way to calculate purchasing power parity between two countries is to compare the price of a standard good that is in fact identical across countries. If ITEM_X costs TTS15.00 in Trinidad & Tobago and $2.00 in America then the PPP for ITEM_X between Trinidad & Tobago and the USA is 15.00/2.00. This means that for every dollar spent on ITEM_X in the USA, TTS 7.50 would have to be spent in Trinidad & Tobago to obtain the same quantity and quality. This is a simplification of the method, using only one item.

¹One US dollar is presently equivalent to 6.30 TT dollars.
The PPP exchange rate is in fact calculated from the relative value of a currency based on the amount of "a basket" of goods that the currency will buy in their nation of usage. Typically, the prices of many goods will be considered. The most common PPP exchange rate comes from comparing goods and services that are traded on the international market with the same or equivalent goods in the United States. The weighting of the goods are based on 'international consumption patterns' and the prices for these goods are usually obtained from the Consumer Price Index (CPI) in the local economy.

**Estimating Poverty**

The World Bank's method for estimating global poverty by calculating the purchasing power parity in each country and comparing it against an international poverty line is based on the PPP dollar. This basically involves three steps.

*In the first step, a poverty line is stipulated, which is defined in terms of the purchasing power of the currency of the United States dollar in a specific base year. Up to 1999, the Bank's chosen benchmark was an income of $1 per person per day in 1985. However, the Bank fully acknowledged that this $1 per day was a conservative definition but argued that one could hardly deny that the people in the world who are poor by the standards typical of the poorest countries in the world are not in fact poor (Ravallion 2002: 1). More recently, the Bank has, under the same $1/day label, increased the figure to about $1.08 due to inflation rates in the US of 34.3 percent in the 1985-93 period (Sillers 2004: 5).*

After establishing the poverty line, the second step involves, converting the poverty line to local currency using the latest available PPP exchange rates for consumption. (The PPP exchange rate for consumption is not necessarily the same as the market exchange rate. This will be discussed later in the paper in greater detail). This conversion results in an international poverty line for a particular base year in the specific country.

Finally, in the third step, the best consumer price index available is used to translate the international poverty line in the local currency (from step 2 above) into new poverty lines for other years.

Together, these three steps are supposed to yield mutually equivalent national-currency poverty lines for any country-year combination, which are then used to judge whether a given household in any particular country and year is poor or not.

**Criticism of the World Bank Estimates**

This World Bank method has been severely criticized by many academics and researchers, especially for the way data are collected and used to arrive at figures of poverty and inequality. Noted thinker and economist James K. Galbraith critiques the use of data by the World Bank to arrive at a single figure of inequality and says, "The result is just nonsense. It's not consistent across countries, it's not consistent through time - it fails every reasonable standard of reliability, it seems to me." 2

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Regarding the use of PPP dollar to arrive at an international poverty line, the most prominent critics of the World Bank have been philosopher, Thomas Pogge and Economist, Sanjay Reddy, both of Columbia University. In fact their criticism has spawned a debate between themselves and Martin Ravallion, Economist and Senior Advisor in the Development Research Group of the World Bank, who defends the World Bank method. Ravallion’s responses however, more often than not, acknowledges the validity of the critiques by Pogge and Reddy, while attempting to justify the approaches used, on the grounds of practicality, or on the grounds of the difficulty of implementing other suggested approaches.

For example, he concludes his reply to the criticisms of Pogge and Reddy by writing.

Reddy and Pogge begin their paper as follows: “How many poor people are there in the world? This simple question is surprisingly difficult to answer.” I [Ravillion] would argue instead that there is nothing simple about the question, and nothing surprising about how difficult it is to answer it. Reddy and Pogge have oversimplified the problem of measuring poverty in the world, and exaggerated the supposed faults in the Bank’s methods. That is not to deny that there are problems galore in the data and methods of measuring poverty — problems that the Bank has taken the lead in exposing and addressing. (Ravallion 2002: 6)

What then are Pogge’s and Reddy’s criticisms of the Bank’s estimation of poverty? According to them, “most readers, including many economists, take [the World Bank’s figures on poverty using the PPP] as clear-cut facts. But the method used to calculate them has serious flaws, which render the resulting estimates untrustworthy.” (Pogge and Reddy 2003:1) The flaws are both conceptual and methodological and include the following:

1. The World Bank uses an arbitrary international poverty line unrelated to any clear conception of poverty;

2. The Bank incorrectly extrapolates from limited data, creating an appearance of precision and

3. The calculation of purchasing power equivalence based on the basket of goods and on international consumption levels is flawed.

1. Arbitrary Conception of Poverty

Pogge and Reddy charge that the World Bank’s concept of poverty is arbitrary and flawed. They explain that the World Bank does not define absolute poverty in terms of access to a minimum set of basic needs that are needed to avoid being poor - such as nutritional capabilities or the commodities that can generate these basic needs. This is known as the capability approach. Although they acknowledge that too rigid a definition is as problematic as one that is arbitrary, they argue that a capability approach to the definition of poverty, once fixed offers a “feasible methodology for consistent poverty assessment across time and space.”

How can poverty be measured over time, if a basic definition of what it means to be poor does not exist? It cannot mean living on less than $1 or $2 PPP dollar(s) per day because depending on the type of economy, the strength of the social capital, and a host of other factors, some people may have access to a number of goods and services to which others living on PPP$5 per day in another country do not have access. The concept of poverty must have its
basis in the application of theory that defines what it means to be poor, what is needed to escape poverty and what are the outcomes of such poverty.

In response to the critique of its arbitrary establishment of one dollar per day as the international poverty line, Ravallion argues that the Bank does not claim that the popular $1/day line is the only line that can be used for international comparisons. “Indeed”, he explains, “the Bank has regularly produced estimates for a line set at twice this value — giving a poverty line more typical of middle-income countries” (Ravallion 2002: 2). This however, only underscores the arbitrary nature of the so-called poverty line created by the Bank. The same criticisms made of the PPP$1 per day, can just as well be made of the PPP$2/day line as well.

It is also interesting that the UNDP has instituted a US$4 poverty line for countries of the Eastern European and Central Asian countries since their emergence from the socialist economies, assuming them to be better off than countries in Latin America. Also, an $11 poverty line was instituted for the developed countries, based on the US poverty line, in acknowledgement that there were poor people in developed countries like the USA (Islam 2005: 7).

This merely underscores the point that a PPP dollar per day poverty line must have a sound theoretical basis that finds support in reality for its construction.

2. Extrapolating from Limited Data

This criticism that the Bank incorrectly extrapolates from limited data, creating an appearance of precision and masking the high probable error of the estimates being generated is supported by a plethora of publications highlighting the general dearth of household data that exists. According to one writer,

Whether WB takes credit for the success in reducing poverty the world over or not, the numbers on which such claims rest have been put in serious doubt, both in their construction and reliability while their validity has been seriously challenged. The WB estimates of poverty seem to be at odds with all national figures, meaning simply that the World Bank has no idea of the local conditions that prevail in each country. (Islam 2005: 6)

Boston Globe staff writer, Laura Secor correctly notes that there are serious problems with the availability of data, particularly data on income distribution, which she describes as being “frustratingly thin” within countries. As a result, “actual household income is systematically surveyed only by national governments, and those governments measure different things, differently, at different times and under different conditions” (Secor 2003).

3 Pogge and Reddy attempt to clarify the claim attributed to them that the Bank has in fact undercounted the poor using its $1 per day poverty line. What they are saying is that even if one uses the $1/day line, there is a possibility that one is undercounting the poor because the Bank uses a pattern of consumption that is not related to the consumption patterns of the poor. However they make it clear that the real figure will never be known until a more realistic concept of poverty is used.
This is also very true of the Caribbean. Research has shown that existing attempts to conduct household surveys in many Caribbean countries, with the exception of Jamaica, were found to be inadequate since countries either lacked adequate data sets, and/or the strong statistical capacity needed for the production of data and development of indicators. International organizations have therefore had to engage in sophisticated statistical extrapolations to fill missing data gaps and harmonize existing data. Pogge and Reddy, along with other thinkers, are basically saying that these manipulations have led to nonsensical results.

Angus Deaton also supports this skepticism of World Bank data when he noted that “two reports released less than two years apart by the World Bank reached apparently different conclusions on whether world poverty was going up or down” (Deaton 2002). In this context he questions whether the World Bank’s dream of a world free of poverty can be convincingly measured by its own numbers. “A lot depends on whether the scorecard is being credibly tallied, and the apparent discrepancies in the Bank’s numbers deserve serious scrutiny” (ibid.).

Apart from the validity and reliability of the data, Deaton’s findings point to flawed methodologies, an issue that has also been identified by Pogge and Reddy. “Chen and Ravallion of the World Bank (2001: 291) also admit that the change in methodology results in a drastic shift in the regional composition of the poor, so that even where the same data are employed (as in their estimates for 1993) the number of poor in South Asia falls significantly and that in Sub-Saharan Africa rises significantly” (Pogge and Reddy 2003: (ver. 4.5: 7).

This is another reason why Pogge and Reddy are recommending that “because of the deep and irremediable problems” attached to the present method of identifying the poor, the $1 per day concept should be abandoned.

3. Misleading and Flawed Calculation of Purchasing Power Equivalence

The concept of purchasing power equivalence is important to the development of the PPP dollar and the creation of an instrument that allows for international comparison of wealth and poverty across countries. According to Pogge and Reddy (2003) this calculation by the Bank results in “a misleading and inaccurate measure of purchasing power ‘equivalence’ that creates serious and irreparable difficulties for international and intertemporal comparisons of income poverty”. The main difficulty is that ‘equivalent’ purchasing power is an incomplete concept, with the critical missing question being: Equivalent purchasing power over what commodities? (Pogge and Reddy 2003, version 3.4: 2)

The process of calculating this equivalence is based on principles that are themselves flawed. For instance, the PPP values different currencies (in the base year) according to their purchasing power over a set of commodities, which are weighted in proportion to their shares in international consumption expenditure. One criticism of this principle is that there are many goods that are used locally that have not been assessed or valued because they do not have a share in the international consumption and have not been considered, even though they may be consumed a lot by some groups in the society. This is often the case for commodities consumed by the poor.
The principle of using the ‘best CPI’s (Consumer Price Index) available’ to create poverty lines for other years based on data in the base year can also be problematic since national CPI values a country’s currency in each year by assessing its purchasing power over a set of commodities, which are weighted in proportion to their shares in that country’s consumption expenditure. Once again a weighting of commodities that is in proportion to a country’s consumption expenditure might be vastly different from that commodity’s weight in the international consumption expenditure. Also, national consumption patterns differ greatly from one another (so there are consumption patterns associated with the poor, and patterns that are associated with the non-poor in a particular country. Therefore derived estimates have a great capacity for being flawed on both counts: that national consumption patterns may differ from the international consumption pattern and national consumption patterns may differ within a country by socio-economic groups.

In concrete terms although the prices of “tradables,” like food grains or cars, vary little between rich and poor countries when compared at market exchange rates; the prices of goods and especially services that are not easily traded across borders (‘nontradables’), can be much higher in rich countries than in poor ones when compared at market exchange rates. In order to reflect this diversity of price ratios, the World Bank roughly weights goods and services according to their share in international consumption expenditure to obtain equivalence. This sometimes causes the purchasing power parity of the local currency to rise in comparison to its market exchange rate. In fact, in Trinidad, the PPP conversion rate is valued higher than the market exchange rate. Although having a market exchange rate of US$1 to TT$6.3, PPP exchange rate was 3.2 in 1990 and 4.1 in 1997.4

According to Pogge and Reddy, (2002) since the consumption patterns of the poor do not mirror international consumption patterns, the purchasing parity equivalence is most likely to mirror the consumption patterns of the affluent in the local economy. They go further to suggest that since a much greater proportion of their income of the poor is spent on food, and that there is ample evidence that foodstuff and other basic necessities cost substantially more in poor countries than general consumption PPPs would suggest, then the World Bank may in fact be undercounting the poor by overestimating the purchasing power of the local currency.

Does the PPP Overestimate the Poor in Trinidad & Tobago?

This critique of the PPP equivalency is also relevant in the reverse, based primarily on the principle mentioned before, of the selection of goods traded on the international market, and also on the use of the CPI to calculate purchasing power equivalency. In this regard, just as the method may overestimate the purchasing power of the local currency, so too, it can underestimate it. Underestimation of the purchasing power of the local currency can occur due the overpricing of commodities on the international market for which lower-priced substitutable commodities are consumed domestically. This can be further aggravated by using a CPI that does not taken into account the consumption patterns of all

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4 www.worldbank.org/data/wdi2005/pdfs/Table2_5.pdf
groups in the society, and the likely sources of these items for some of the groups in the society.

Starting with the selection of commodities on the international market, it has been recognized that the commodities selected are not necessarily in keeping with consumption patterns of the poorest groups in the society, nor of consumption patterns that are related to cultural norms and habits.

For example, Trinidad and Tobago is a very small, open economy with ... imports to domestic consumption of 55 percent. Although domestic consumption of 45% may not always account for imported inputs that are a part of the domestically produced end-product, this statistic points to domestic production in the areas of manufacturing (which has increased its share in GDP), services, and agriculture among the rural community.

In this regard, a basket of internationally traded commodities may in fact not be comparable to the commodities used in domestic consumption and may in fact overprice the tradable commodities consumed, even if an attempt at substitution is made. Substitution bias resulting from ignorance of domestic consumption patterns across groups that are based on cultural norms, national, social and economic safety-net policies, and household practices related to obtaining goods and services for consumption (such as small-scale agricultural activities for household needs) can and have affected the accuracy and relevance of the international basket of goods that are used to calculate Purchasing Power Parities.

The new approach to the International Comparison Program (ICP), 2003-2006 round that is now being undertaken by the World Bank supports the perspective that there might be problems associated with the selection of internationally traded commodities. The ICP is a global statistical program established in 1968 by the United Nations and University of Pennsylvania to compare GDP and its components using Purchasing Power Parities (PPPs) rather than exchange rates. Some of the new initiatives included in this round of data collection are:

1. Structured Product Description (A new approach adopted to identify products to be priced in ICP surveys using a list of price-determining characteristics. The objective is to facilitate cross-country comparison of prices of 'like' products that are truly representative of the countries in question).

2. PPP for the Poor – research into strategies to generate poverty specific PPPs and incorporation of PPPs for poverty measurement into mainstream ICP work

These new initiatives seem to be geared towards taking account of the criticisms leveled against some of its conceptual approaches to estimating poverty (see http://www.worldbank.org/data/icp).

The use of CPI can also lead to problems with the calculation of purchase power

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5 This is in contrast to the example given in Bangladesh by Pogge and Reddy, in which they point to the likelihood of under pricing tradable commodities consumed by the poor (such as rice and flour), which in fact make up a large proportion of domestic food consumption.
equivalence. This is due primarily to the fact that CPI methodology and data coverage provides the basis for determining the expected value of national average prices. There are no separate indexes for demographic subgroups of the population. CPIs also can therefore overprice commodities as it relates to specific subgroups if the practices and commodity sources of these groups and long term socio-economic policies, such as subsidies, that are directed towards some of them are not taken into consideration.

What consideration has been given, for example, to the fact that in Trinidad and Tobago, particularly in rural areas, the consumption patterns of the poor, as it relates to food consumption, may consist primarily of agricultural produce and locally manufactured commodities and that this might in fact contribute to the underestimation of the purchasing power parity of the local currency?

The Consumer Price Index of Trinidad and Tobago shows the item weight of vegetables and fruits in domestic consumption compared to other selected food items in the CPI (see Table 1). Any calculation of PPP using this CPI may therefore very well underestimate the value of the dollar to the rural poor as opposed to the urban poor, if the fact of subsistence farming in rural Trinidad and Tobago, is not taken into account.

All of this suggests that present figures need to be taken on board rather cautiously, at best. Flawed methodology and glaringly imperfect data used in the calculation of the international poverty line based on the PPP dollar of any value (whether $1 per day or $2 per day), mean that the report of the proportion of persons below the poverty line of PPP 1 and 2 dollars per day in Trinidad and Tobago cannot be seen as precise, nor used as authoritatively as some would seek to use them.

<table>
<thead>
<tr>
<th>Item weight of Selected Commodities, Trinidad and Tobago</th>
<th>January 2003 to December 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Index of 1000</strong> of which</td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>180</td>
</tr>
<tr>
<td>Rice (packaged)</td>
<td>6.35</td>
</tr>
<tr>
<td>Flour (packaged)</td>
<td>6.82</td>
</tr>
<tr>
<td>Poultry (Fresh, Chilled or Frozen)</td>
<td>18.18</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
</tr>
<tr>
<td>Chicken Parts</td>
<td>1.37</td>
</tr>
<tr>
<td>Fish</td>
<td>11.37</td>
</tr>
<tr>
<td>Powdered Milk</td>
<td>7.04</td>
</tr>
<tr>
<td>Eggs</td>
<td>1.74</td>
</tr>
<tr>
<td>Cooking Oil (Corn)</td>
<td>0.43</td>
</tr>
<tr>
<td>Butter</td>
<td>0.82</td>
</tr>
<tr>
<td>Fruits</td>
<td>14.28</td>
</tr>
<tr>
<td>Vegetables</td>
<td>21.84</td>
</tr>
</tbody>
</table>

**Source:** Central Statistical Office.

Responses of the Media and Official Refutation of the Figures

I highlighted the response of the media to underscore the need for statistical literacy among the population in the Caribbean. This deficiency is partly responsible for reluctance on the part of the population to give information during surveys that is vital to the proper implementation

and monitoring of policies and programs that are meant to benefit our societies. It is also responsible for the design and implementation of programs and policies, by policy makers at the highest levels, unsupported by information that is necessary for proper targeting of beneficiaries, as well as for the monitoring and evaluation of the policies and programs to ensure efficacy. It is also responsible for incorrect analysis and reporting of data based on inadequate knowledge of the issues surrounding the statistics.

There is a need for the creation of programs aimed at improving the functional statistical literacy of the population at all levels. Journalists could be the target population of one such program; public sector workers could be another target population and media spots aimed at sensitizing the population in general to the use of data for monitoring and evaluating various social programs and policies meant to benefit them, can go a long way to create a society in which the importance of such information can be better understood. Such an effort, of course needs to be ongoing and not relegated to one week per year.

Related to this issue is the need for the collection of social data that can be used for the construction of indicators to monitor and evaluate policies and programs aimed at poverty reduction and human development. There are data gaps in important areas in Trinidad and Tobago – for example unlike Jamaica where there are time series data on Living Conditions in that country from 1990 to the present, Trinidad’s efforts have been extremely sporadic to say the least. As a result this country has no poverty figures that are based on robust time series data. Other important sources of social data for which gaps exist include up-to-date Reproductive and Health Surveys and Literacy surveys. Data gaps at the national level also include data on school attendance, drop out rates, anthropometric data that speak to the nutritional status of children and adults, and data on domestic violence, to name a few.

The effect of these data gaps is an absence of baseline data for the design of programs, targeting of beneficiaries and the setting up of structures for monitoring and evaluation of programs and policies. As a result there tends to be a very broad-brush approach to the design and implementation of policies and programs with the hope that the intended objectives are met.

Also, the general insensitivity to the need for data collection means that very often there is no attempt to collect data even while programs and policies are being implemented. Such data could at least be used to monitor and evaluate the programs and can form a basis for improvement on deliverables. This is evidence of the general absence of a culture of evidence-based social policy and program formulation in our society.

A concerted effort should be made to assess the statistical needs of our line ministries and agencies involved in social service delivery in order to design protocols and a framework for the collection of data that can be integrated into databases at the national level. No doubt this will call for lots of training and the provision of resources to do so, but the benefits will be immeasurable. Not least of all, our policy makers will have concrete information at their finger-tips, which can be used to analyze and therefore refute or accept statistics like the poverty figure that claims 39% of our population lives on less than two PPP dollars per day.
Bibliography


