Working Paper Number 160

Poverty Reduction for Profit?
A critical examination of business opportunities at the Bottom of the Pyramid

Jean-Louis Warnholz[1]*

Leading management thinker C.K. Prahalad argues that selling consumer goods to four billion poor people at the bottom of the economic pyramid (BoP) both generates sizeable profits for large businesses and eliminates poverty. A welcome, innovative and influential perspective, but an opportunity missed, I argue here. First, selling to the poor may do little to eradicate poverty, but potentially hurts small businesses and threatens local jobs and incomes. Second, a more precise analysis using household surveys shows a much smaller BoP market size, less than 5% of previous estimates. Third, virtually everyone in developing countries is classified as a 'poor' consumer in much of the BoP literature. The focus and the bulk of Prahalad's new purchasing power rests with the emerging middle class in India, China and Brazil, while the 2 billion people below $2 a day, especially those in Sub-Saharan Africa, are marginalised in this debate. Data for consumer prices confirms that the true challenge is to serve the latter group, those that are completely cut off from the global marketplace. This paper concludes that big businesses have a central role in shaping and expanding these future markets by generating employment and incomes.

October 2007

*Queen Elizabeth House, University of Oxford.

[1]Jean-Louis.Warnholz@qeh.ox.ac.uk. I am indebted to James Copestake for his invaluable advice and enthusiasm as a supervisor and to Andy McKay for his detailed feedback. Shaohua Chen kindly shared her expertise on Povcal. Felix Dresewski, Ruth Goodwin-Groen, Susan Johnson, Deepak Row and Samantha Vanderslott provided helpful comments on various drafts. Finally, I would like to thank academics, development professionals and students for taking the time to gather detailed price data in their respective countries.

1. Introduction

"I have no doubt that the elimination of poverty and deprivation is possible by 2020." – C.K. Prahalad (2005:112)

In his acclaimed and influential book 'The Fortune at the Bottom of the Pyramid' management thinker C.K Prahalad presents a novel solution to end global poverty. He envisions new market opportunities estimated at $13 trillion at the Bottom of the Pyramid (BoP), the four-five billion poor consumers at the lower end of the global income distribution. Businesses, he argues, should not be concerned with corporate social responsibility or charity programs in aid of the poor, but instead do what they do best: make a profit. Prahalad suggests a win-win situation. Leading multinationals can dramatically raise their sales while the poor have access to higher quality goods at a lower price. This, he asserts, will make a dent on poverty. A welcome, innovative perspective, but an opportunity missed, I argue in this paper. First, selling to the poor may do little to eradicate poverty, but potentially hurts small businesses and threatens local jobs and incomes. Second, a more precise analysis using household surveys shows a much smaller market size, less than 5% of previous estimates. Third, virtually everyone in developing countries is classified as a 'poor' consumer in much of the BoP literature. The focus and the bulk of Prahalad's new purchasing power rests with the emerging middle class in India, China and Brazil, while the 2 billion people below $2 a day, especially those in Sub-Saharan Africa, are marginalised in this debate. Data for consumer prices confirms that the true challenge is to serve the latter group, those that are completely cut off from the global marketplace. This paper concludes that big businesses have a central role in shaping and expanding these future markets by generating employment and incomes.

Prahalad's thinking has been highly influential and triggered a wave of enthusiasm and a growing community of scholars. The Harvard Business School now offers BoP courses on their MBA program and holds regular symposia, Unilever and Procter & Gamble discuss best practice and international aid agencies increasingly call for private sector led development. Prahalad (2005) portrays the poor as an opportunity, not a burden, and sets out to challenge both the way big corporations think about business in emerging markets and the way governments and international aid agencies approach poverty reduction. Prahalad (ibid:17) calls on multinationals to devise innovative solutions to unlock the potential at the BoP and "create the capacity to consume". This would require single serving sachets that fit the small budgets of the poor, new distribution schemes in remote rural areas and substantial jumps in price performance through use of advanced technology and economies of scale.

Prahalad's proposal is partly rooted in a scepticism of traditional development solutions. His ideas present a stark departure from state-led initiatives and a move towards an increased role of the private sector. In an earlier article in the Harvard Business Review Hammond and Prahalad (2002) put forward a bleak and a bright vision of the future. The good state of the world would depend "primarily on one factor: the willingness of multinationals to enter and invest in the world's poorest markets" (ibid:48). In this scenario, governments and donors become mere catalysts of business activity.

Central to the BoP hypothesis is the belief that "the development of markets and effective business models […] can transform the poverty alleviation task from one of constant struggle with subsidies and aid to entrepreneurship and the generation of wealth" (Prahalad, 2005:99). In support of his thesis, Prahalad draws mainly on success stories. Hindustan Lever PLC, for example, uses advanced technology to impregnate iodine into salt so it can withstand heat, transportation, storage and cooking. Their product promises to dramatically lower the risks of iodine deficiency. These accounts serve to inspire confidence in the poverty reducing qualities of innovative entrepreneurship at the bottom of the economic pyramid. While fundamental to its appeal, the BoP literature offers surprisingly little systematic assessment of the links between selling to the poor and lifting them out of poverty[2]. Case studies continually form the backbone of the argument[3]. While vivid, intuitive and easy to communicate, these examples offer only micro-level snapshots of the wider and more intricate challenges of addressing poverty and deprivation through corporate enterprise.

2. Markets, development and the Bottom of the Pyramid

Prahalad claims that selling to the poor could eliminate poverty in less than 15 years. This bold and attractive proposition has not yet been sufficiently backed up by a more systematic analysis of how this could work in practice. This section draws on insights from development economics to investigate the likely poverty impacts of enhanced supply and demand at the BoP.

A potential supply side mechanism works via increased competition at the BoP. Consumer goods are often undersupplied with only a single provider at times. This translates to higher prices, the so-called *poverty penalty*, lack of choice and lower quality products[4]. Standard microeconomic theory informs us that the entry of additional firms into the market lowers the price and raises the quality (e.g. Aghion, 2004). The result is a higher consumer surplus and enhanced welfare of the poor. The money incomes at the BoP don't change, yet $2 a day can buy more and better goods. As poor people are already struggling to meet most basic needs, the extra purchasing power can potentially

[2] A point also made by Walsh et al (2005).
[3] See selection of case studies at www.NextBillion.net, a BoP forum specifically launched by the World Resource Institute (2007).
[4] The specific term poverty penalty has first been introduced by Hammond and Prahalad (2002).

make a difference to their intake of nutrition or to their well-being. For example, as part of their marketing strategy for Lifebuoy soap, Hindustan Lever Ltd (2007) educated villagers about the benefits of regularly cleaning their hands. Such health interventions can have positive spillover effects on the economy. While the human capital literature is complex, most studies suggest a positive correlation between health and education outcomes and productivity levels (e.g. Hanushek and Kimko, 2000; Strauss and Thomas, 1998). Ultimately, a healthier and more educated workforce contributes to economic growth, which in turn has proven effective in reducing poverty.

These potential dynamics need to be unpacked further. There are three main caveats. First, prior to Hammond and Prahalad's (2002) analysis of Mumbai, the poverty penalty has mainly been studied in urban areas in the United States (e.g. Kunreuther, 1973). The empirical literature for developing countries is sparse and not conclusive. Rao (2000) finds that the poor pay more for food in South India, yet this is attributed to purchases of smaller quantities. This provides evidence against the benefits of single serving sachets, a central pillar of the BoP strategy.

The second issue touches on inherently contested views on the very nature of development. For Hammond and Prahalad (2004:36), "lack of choice is what being poor is all about". This normative proposition receives qualified support in the wider literature, most prominently from Sen (2001). Several studies, however, highlight that a much larger share of the poor's income could be spent on essential nutrition or education, but is instead dedicated to alcoholic beverages, tabacco or festivals (Deaton and Subramanian,1996; Banerjee and Duflo, 2006). These seemingly anomalous choices are in no way confined to the BoP alone (Max Neef, 1991; Jackson, 2005). Specific to poorer consumers is the limited information available about the advantages and disadvantages of certain goods. Nestle's infant milk formula is a prime example. Used inappropriately with contaminated water and in insufficient quantities it may contribute to higher child mortality rates in developing countries. This alleged link triggered a scandal for the company in the 1970s, yet more recently, the product has been promoted by the United Nations as an essential substitute for mothers with HIV/Aids[5]. Introducing new consumer brands that effectively replace long-established goods and practices may have both desired and undesired consequences. This highlights the complexities of estimating the welfare effects of increased consumption choices.

A BoP strategy will not only impact on consumption patterns, but also affect employment prospects, which introduces a third caveat. The increased presence of big business at the BoP is likely to create pecuniary external effects on the labour market. Multinationals may establish entry barriers and monopolistic market structures, effectively pushing out smaller entrepreneurs. This could not only diminish gains in consumer welfare, but potentially threatens local jobs and incomes if labour-intensive production sites are closed. For example, the move of British American Tobacco into India's incense sticks market displaced many women homeworkers, who had previously made these by hand (Jenkins, 2005). This is partially offset by direct and indirect job creation resulting from the establishment of new plants. The net impact on employment and real incomes

[5] Newton (1999) provides a detailed chronology of the scandal.

ultimately depends on the significance and direction of each of these supply side effects and how they intersect with the demand side.

There are essentially three possible demand side mechanisms. First, the FDI of these big businesses may simply create local multiplier effects. Second, better quality products and services at the BoP may raise the marginal propensity to consume (mpc). The conventional view, however, is that the poor already have a mpc close to unity (Srinivasan and Wallack, 2004). Finally, increased demand for goods and services may hold substantial gains for both MNCs and domestic firms and this in turn contributes to the growth of the economy. Prahalad points towards a completely new and unexploited market and it is this novelty which has attracted considerable interest in his thinking. A more detailed investigation of the third channel is therefore of particular relevance to this debate.

Rosenstein-Rodan's (1943) seminal paper on the *big push* investigates the role of market size and consumer demand in the process of economic development. He offers an example of a shoe factory wishing to expand. The current market is too small to make an expansion profitable, yet when other industries expand alongside, the extra employment and income generated raises demand enough to make all the investments viable. His classic contribution is most commonly cited as an example of potential coordination failures, but is referred to here primarily as an insightful illustration of the significance of increased demand. A larger market allows for economies of scale and increasing returns production technology. Murphy et al (1989) extend this model. They present evidence on the importance of market size for industrialisation and argue that generating domestic demand is crucial for economic growth to take off. The existence of international trade has often been advanced as a criticism of Murphy et al's theory. However, if trade is costly and industries are unable to compete internationally, their revenue growth has to come from domestic sales. Matsuyama's (2002:1035) work on the factors giving rise to "mass consumption societies" adds further insights to this analysis. He establishes the existence of virtuous circles: gains in productivity reduce the price of consumer goods and make them affordable to a larger number of households. This generates bigger markets for these goods, which again raises productivity via economies of scale.

These three theories demonstrate the crucial role of domestic consumer demand in the process of economic development and seem to unequivocally support Prahalad's argument. However, there is a critical caveat. In his book he (2005) focuses primarily on the supply side and what business can do to create the capacity to consume at the BoP. He (ibid:21) portrays the BoP as an "underserved" market, that has "remained invisible for too long" (p.6). This suggests that a sizable market exists, but has not been adequately discovered and captured. Thus simply unlocking this hidden source of demand with innovative business models would dramatically raise domestic purchasing power and allow for the scenarios outlined above to take place.

Prahalad's core assumption of a hitherto invisible market needs to be qualified. Harriss-White's (2003) detailed portray of India's non-metropolitan and non-corporate sector, home to 88% of the population, unravels a rural and informal economy which is "far

from unsophisticated" (p.5) and "certainly not outside the ambit of market exchange or capitalist accumulation" (p.6). Yunus (1998) highlights the entrepreneurial spirit among the poor, where the majority often make their living through small scale self-employment. These informal arrangements are often marginalized and seen as inferior. Maloney's (2004) research on Latin America questions this widely-held belief. He shows that voluntary microentrepreneurs form the core of this sector, who choose informality over a salaried formal job according to their individual preferences. There may be a lack of penetration by goods and services of big business at the BoP, yet this does not imply that these markets are necessarily underserved. It follows that if big businesses are to successfully capture these markets, they will have to compete with and outperform current small scale suppliers, which potentially threatens the livelihood basis of poor people and undermines the very purchasing power the BoP argument hinges upon. This highlights the need for a general equilibrium perspective and a focus on both supply and demand side dynamics.

These channels merit further attention in this literature, but a more thorough investigation is outside the scope of this paper. Among other factors, their validity depends on both the size of the BoP market and the likelihood of big businesses to locate a profit and enter. This is the subject of the following section.

3. Measuring up

3.1 The claims so far

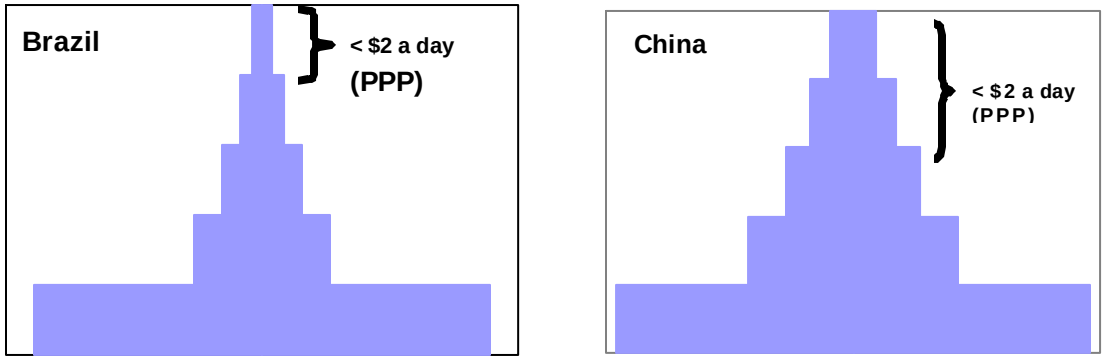
The power of the ideas presented in Prahalad's *The Fortune at the Bottom of the Pyramid* hinges on the size of the potential market. Without an attractive, sizable market, the argument looses its force. A key starting challenge for much of the BoP literature is to better define the object, or in this case, the subject of discussion – 'poor people' and their purchasing power. Prahalad (2005) estimates an underserved market of four billion people living below $2 a day. He arrives at a combined annual market size of over $13 trillion (PPP)[6]. Hammond and Prahalad (2004) earlier define the poor as living in households with incomes below $6.000 a year with the 18 largest emerging and transition economies comprising 680 million such households with an annual income of $1.7 trillion. Rangan et al (2007) have subsequently moved the discussion to those four billion people having less than $5 a day in disposable income. In sum, there exists a degree of confusion.

For Prahalad (2006), the exact figures are less important than the overall direction of the argument. Certainly, a large segment of the world's population are poor and are not served by big business. Challenging market size does not necessarily undermine the central thrust of his approach. However, the order of magnitude does matter and there is need for greater clarity. Better capturing the space under consideration is important for

[6] Prahalad (2005) does not state how he arrives at these figures. A graph (p.4) indicates that four billion people have incomes below $1,500 in purchasing power parity terms. He then (ibid) refers to the poor as those below $2 a day and asserts (p.21) a BoP market potential of over $13 trillion (PPP).

two reasons: First, business solutions serving those below $1 a day are likely to be different from models for the segment earning more than eight times this amount. A degree of disaggregation is important as those spaces are likely to vary widely. Second, there is a danger in using variable and very crude definitions and measurements of "*the poor*". It presents a potential departure from the 1.2 billion people below a dollar a day, who are usually classified as poor (World Bank, 2007a). It may imply that we silently move away from the true bottom of the pyramid by opting for a more lucrative middle income grouping. Graph 1 highlights the economic pyramid for Brazil and China according to the share of total income held, from the richest quintile at the bottom to the poorest at the top. This dramatically reverses Prahalad's proposition that most of the income in developing countries is accounted for by the poorest and motivates a more thorough investigation.

Graph 1: Income shares by quintile - the pyramid reversed[7]



A variety of definitions of poverty exist, ranging from a basic needs approach, to human capabilities and concepts of well-being. All exhibit certain advantages and limitations. This paper adopts an income-based definition of poverty, as purchasing power derived from income is the principle object of inquiry here. This study estimates the market size for four groupings, those below $1, $2, $5 and $8 dollars a day in PPP terms[8]. The first two categories are those commonly employed by governments, donors or NGOs in debates on poverty. The two broader categories feature strongly in the BoP literature and are thus included. The paper relies on survey data for the 45 most populous low, lower and upper middle income countries according to the World Bank categorization. Most of the surveys have been conducted between 2001 and 2004, the oldest dates back to 1997. Countries with a population below ten million have not been considered and several

[7] Author's presentation based on data from the Word Development Indicators (World Bank, 2006). Shares are given for the year 2003 for Brazil and 2001 for China.

[8] To ensure consistency with standard international poverty lines, the exact figures are $1.08, $2.15, $5.38 and $8.61 respectively (adjusted from 1985 to 1993 PPP dollars).

countries have been excluded due to lack of reliable data[9]. The results are presented for the year 2005. I assume that the percentage of the population at the BoP and their average distance to the poverty line remained constant since the date of the latest household survey. Particularly in India and China, this may not hold for the below $1/day category, but it is a reasonable assumption for those below $2/day and higher (Chen and Ravallion, 2007). CPIs are taken from the IMF's World Economic Outlook April 2007 edition, 2005 population figures and all other additional data is from the World Development Indicators September 2006 edition (World Bank, 2006). The analysis covers 73% of the world's population and the vast majority of the global poor.

This paper uses the Povcal software developed by the World Bank (2007b). The tool automatically does parametric curve fitting to interpolate a Lorenz curve. Povcal is widely used and performs well on estimates from household surveys (Reddy and Minuio, 2006)[10]. There have been major advances in recent years both in the frequency and quality of surveys, yet several limitations to the data have to be borne in mind[11]. Poverty lines are adjusted to international dollars using purchasing power parity (PPP) conversions. This takes account of price differentials and allows for comparisons of living standards across countries. Benchmark surveys carried out by the International Comparison Programme (ICP) are available for 2002 for OECD members states, but date back to 1993 for the developing countries in the sample (World Bank, 2006). China, for example, has never participated in the ICP and estimated PPP factors in the literature are wide ranging (Reddy and Minuio, 2006). Deaton (2006) notes a further drawback. PPP surveys are conducted on an aggregate national level. They do not allow for urban-rural differences or specific expenditure patterns of the poor. Changes in the PPP conversion factor applied can dramatically change the number of people at the BoP.

When determining market size, it is important to bear in mind the differences in average income of the poor across countries, which for those below $2/day ranges from 76 cents a day in Nigeria to 1.74$ in Poland. Average incomes of the poor are not widely quoted, but can easily be computed from the Poverty Gap Index, which is produced by Povcal. The Poverty Gap Index (Foster, Greer and Thorbecke, 1984) gives the average per capita income shortfall, expressed as a percentage of the poverty line[12]. To obtain the LCU and US$ exchange rate equivalent in 2005, the average income y_{Av} needs to be multiplied by the 1993 PPP rate and adjusted to the price level prevailing at 2005, using the consumer price index[13]. This is done with the following formulae (adapted from Chen, 2007):

(1) $$Y_{Av}(LCU) = Y_{av} \times PPP1993 \times (CPI2005 / CPI1993)$$

(2) $$Y_{Av}(US\$) = Y_{av}(LCU) / OfficialUS\$ExchangeRate2005$$

[9] Namely Afghanistan , Algeria , Angola, Argentina, Burma, Congo, Iraq , North Korea , Senegal, Sudan, Syria and Zimbabwe.

[10] The figures produced by Povcal are identical to the headcount index published in WDI 2006 for those below $1 and $2 a day (PPP).

[11] For a full discussion see Chen and Ravallion (2007)

[12] See Warnholz (2007) for further detail.

[13] This is the best available method, yet again suffers from the fact that the CPI is a broad measure and does not account for specific goods baskets of the poor.

A central question in this analysis is whether to use purchasing power parity rates or official $US exchange rates. PPP conversions are preferable to undertake international comparisons in, say, living standards and to estimate the number of consumers at the BoP. But when determining the size of a market, particularly from the point of view of a potential international investor, they suffer from several shortcomings. First of all, non-tradables, such as local foodstuffs, rent, shoes produced for the domestic market or a haircut account for a large part of the PPP basket of goods and services. Non-tradables contribute disproportionately to the difference in purchasing power between two countries and primarily cause the large variation between the BoP market size in PPP terms and in U.S. dollar. Since much of the BoP literature focuses on tradable, fast-moving or durable consumer goods, PPPs are not an adequate measure. In addition to these theoretical limitations, PPPs are also not a helpful guide for multinational companies. MNCs often expatriate their profits and hence actual exchange rate figures are more important when considering business strategy. Similarly, a Nigerian company may rely on cheaper labour inputs and pays relatively less for the construction of a new warehouse, yet still buys advanced production technology or certain intermediate inputs in international markets, largely at U.S. dollar prices. Hanohan (2001:799) finds that PPPs provide a "poor basis for ranking economies by total size". The same applies to measuring market size. The World Bank (2007d) thus relies on PPP measures in its poverty comparisons, but favours the Atlas method to compute the size of a market or an economy. This method smoothes exchange rate fluctuations by using a three year moving average, price-adjusted conversion factor. This is the most accurate measure to determine the size of the BoP market in U.S. dollars.

3.3 Results

Table 1 shows the size of the market for the four income categories. The BoP market for each of the 45 countries is calculated and aggregated to obtain the totals. Tables 6-9 at the end of the appendix give the market size for each country. The results are given both in international dollars (PPP) and in US dollars (atlas method). International dollars are converted to US dollars using both equations (5) and (6) above as well as PPP conversion factors from the WDI (World Bank, 2006). The CPI adjustment consistently gives a slightly larger market size. While the difference is only marginal across the whole sample, the WDI deflators give more plausible and consistent results for individual countries and are thus chosen here[14].

[14] For Ecuador, WDI conversion factors are not credible and the adjustment is instead done with CPIs.

Table 1: the BoP Market

Cut-off	BoP Consumers (Billions)	Market size (Billions per annum)	
Below:		**PPP $**	**Atlas (US$)**
$1/day	0.94	272	75
$2/day	2.47	1,128	313
$5/day	3.87	2,853	866
$8/day	4.31	3,936	1,244
Between:			
$0-1/day	0.94	272	75
$1-2/day	1.52	856	238
$2-5/day	1.40	1,726	553
$5-8/day	0.44	1,083	378

Evident are the changes in buying power as we reach from consumers below $1 to those below $8. The size of the market expands roughly by a factor of 15. The difference between the two methods used is also striking. Choosing the preferred and more accurate Atlas versus PPP has far-reaching implications for the power of Prahalad's business case. The more precise analysis of the purchasing power at the BoP presented above paints a much more conservative picture and significantly deviates from previous estimates.

The US$ 1.2 trillion computed here for those below $8/day implicitly assumes that the poor spend their entire annual income on typical products of big business such as Colgate toothpaste, Coca-Cola or Lux soap. However, certain essential subsistence needs, e.g. home grown produce such as rice, wheat, housing and services are likely to account for a large share in a typical goods basket. It is unlikely that big corporations will find this basic needs market viable. India's latest consumption expenditure survey (National Sample Survey, 2006), shows that on average, the rural (urban) population spent 80% (68%) on food, fuel, light, clothing, education and medical expenses. Among the foodstuffs, which constitute over two thirds of basic needs expenditure, cereals, vegetables and dairy products are the largest items and only five percent go to processed food, beverages and refreshments. This ratio differs widely across countries, however, most studies agree that the poor allocate over 50% of their income to food and most basic needs (e.g. Banerjee and Duflo, 2006). To apply a common ratio to the 45 sample countries always suffers from a degree of arbitrariness, but in the absence of more precise data a conservative ratio of 55% is chosen for those below $1 and $2 and 45% for people below $5 and $8. This also takes account of the fact that not only will richer households spend a smaller proportion of total income on food, they may also substitute towards processed meals. Table 2 gives the remaining disposable income once these deductions have been made. This most adequately captures the size of the BoP market.

Table 2: Disposable income for non-food consumer goods

Cut-off	Market size
Below:	**Billions US$**
$1/day	34
$2/day	141
$5/day	476
$8/day	684
Between:	
$0-1/day	34
$1-2/day	107
$2-5/day	335
$5-8/day	208

This considerably reduces the market at the bottom of the pyramid. In 2005 US dollar terms, the 2.47 billion people below $2/day have an aggregate purchasing power of $141 billion, while the 4.31 billion consumers below $8/day have a disposable income of $684 billion.

3.4 How much soap for $1 a day?

After a more thorough estimation of market size, a remaining issue of interest is the affordability of leading brands for BoP consumers. To investigate this question, this paper uses current retail prices of specific products for different regions in eight of the sample countries. The data has been gathered by key informants in the respective countries. Prices are from March-April 2007, while incomes are estimated for 2005. Inflation in the six countries has been in the low-single digits in 2006 and so the marginal difference in the price level does not greatly affect the overall picture. A total of 13 locations have been surveyed. Where two or more observations exist per country, smaller regional outlets have been chosen over the urban supermarket (see appendix). This provides accurate snapshots of certain locations, rather than a systematic country wide assessment. For example, urban-rural differences in prices have not been captured here. Tables 3a and 3b give an overview, listing products as well as the disposable average monthly income in LCU. Sizes vary across countries and have been standardized to allow for comparison. Prices are expressed as a percentage of monthly disposable income both for people below $1/day and between $5-8/day.

Table 3a: Affordability for people on $1 a day[15]

Product (% of monthly disposable income)	South Africa	Brazil	Mexico	India	Vietnam	Philippines
Lux/Dove soap (100g)	7	7	14	13	6	12
Pantene/Sunsilk shampoo (200ml)	50	37	35	73	25	28
Colgate toothpaste (50ml)	11	9	9	11	2	10
Ariel/Omo (500g)	41	21	11	46	10	92
Lysol/Domestos disinfectant (500ml)	23	20	8	55		
Carefree/Always/Tampax (10 pads)	37	25	20	51	6	21
Duracell AAs (2 pieces)	35	35	0	45		
Marlboro (20 pieces)	52	23	24	92		15
Nestle milk power (500g)	85	57	48		76	
Snickers/Mars (60g)	16	14				
Pepsi/Coca Cola (1l)	14	13	24	32	7	
Rice (1kg)	13	9	11	1	8	15
Disposable monthly average income (LCU)	**34**	**13**	**92**	**109**	**94,449**	**157**

Table 3b: Affordability for people on $5-8 a day

Product (% of monthly disposable income)	South Africa	Brazil	Mexico	India	Vietnam	Philippines
Lux/Dove soap (100g)	0.8	0.6	1.5	1.4	1.6	1.3
Pantene/Sunsilk shampoo (200ml)	5.5	3.5	3.6	7.9	6.4	3.0
Colgate toothpaste (50ml)	1.2	0.8	0.9	1.2	0.6	1.1
Ariel/Omo (500g)	4.5	2.0	1.2	4.9	2.4	9.8
Lysol/Domestos disinfectant (500ml)	2.5	1.9	0.8	5.9		
Carefree/Always/Tampax (10 pads)	4.0	2.4	2.0	5.5	1.5	2.2
Duracell AAs (2 pieces)	3.8	3.4	0.0	4.8		
Marlboro (20 pieces)	5.7	2.2	2.6	9.9		1.6
Nestle milk power (500g)	9.3	5.5	5.0		19.7	
Snickers/Mars (60g)	1.7	1.3				
Pepsi/Coca Cola (1l)	1.6	1.3	2.6	3.5	1.8	
Rice (1kg)	1.4	0.9	1.2	0.1	2.0	1.6
Disposable monthly average income (LCU)	**311**	**136**	**880**	**1,014**	**367,483**	**1,464**

The price data suggests that most of the products are currently not affordable for poor people below $1 and $2/day. In India, a bar of soap, a bottle of shampoo and a small tube of toothpaste already use up the entire monthly budget available to the poorest. As we move up the income categories this changes markedly. For customers between $5-8/day, whose budget is about ten times bigger, these brands are likely to already be among a

[15] For Vietnam, the survey does not report any individuals below $1 a day and the average disposable income is thus given for people below $2 a day.

monthly choice of goods. The table above indicates that for several products their percentage share of a monthly budget is largely similar across countries (e.g. Colgate, Duracell), yet for others there is a wide disparity. However, non-comparability of locations, a fairly small sample and the fact that sizes have been standardized make it impossible to derive general patterns from this. The data highlights a further issue central to the role of multinationals at the BoP: local brands still have a significant price advantage (see table 5 in the appendix). Comparable soaps and laundry detergents, for example, are often 50% cheaper than the global brands. Quality differences have not been assessed, yet it is likely that BoP consumers will first and foremost focus on a lower price.

4. Discussion

4.1 A more accurate and disaggregated picture of the BoP

The estimated BoP market size of $34-$684 billion (US$), ranging from a narrow to a broad definition of income poverty, differs dramatically from previous much quoted figures. Prahalad (2006) acknowledges that he provides a rough overview rather than a precise analysis. The only other systematic assessment has recently been released by the World Bank (IFC) and the World Resource Institute (WRI) in a high-profile study on the BoP (IFC/WRI, 2007)[16]. The study uses a cut-off point of individuals below $3,000 PPP annually (around $8 PPP a day). Its main findings are four billion consumers and a $5 trillion market. The substantial difference in results is largely due to their choice of exchange rate.

IFC/WRI (2007) includes additional countries, yet these comprise very small developing states and advanced economies with a negligible number of BoP consumers and should thus not dramatically change the outcome. Key findings for 40 major countries are published in a table (A.2). A closer look shows several striking inconsistencies. The BoP of Bangladesh and China have about the same size in PPP terms, so do Indonesia and Nepal. In the Philippines, apparently only 30% live below $8 a day compared to 75-80% in Mexico, Thailand or Malaysia, where mean incomes are much higher. The seven largest Eastern European countries in the table make up only 45% of the total market size of this region. It is not clear how the likes of Albania, Armenia or Montenegro can contribute the outstanding $256 billion. The same is true for the other four regions. The IFC/WRI (2007) market size of roughly 1.3 trillion in US$ terms for those below $8/day is almost identical to the figure produced in Table 1 above, but before allowance was made for food, housing and basic services. This suggests a discrepancy in the PPP measures used. They use standardized 2002 rates, while I rely on the consumption PPP figures estimated by the World Bank Data Group, based on the actual 1993 ICP benchmark surveys. For the two lower income categories, the headcount and poverty gap index I estimate here match the WDI 2006 data. Average incomes, e.g. for China and

[16] Jenkins (2005) and Karnani (2006) question Prahalad's estimates, but do not investigate household survey data to arrive at a more robust figure.

India, are identical to those published elsewhere (e.g. Chen and Ravallion, 2004). This lends additional support to the more conservative estimate of $4 trillion PPP, though the lack of more recent and poverty specific PPP surveys remains a severe limitation. This needs to be borne in mind when interpreting any such analysis. The study briefly mentions that market size in exchange rate figures is of primary interest to international business, who are still the main audience of Prahalad's argument. However, press release and Executive Summary state the much higher $5 billion figure only. This is misleading and questions the overall reliability of their results.

Notwithstanding these technical measurement issues, the results present a robust case for a more disaggregated picture. Definitions of poverty are wide-ranging. The BoP discussion started with a focus on those below $2/day (Hammond and Prahalad, 2002; Prahalad, 2005). This has now been expanded to the equivalent of $8/day (IFC/WRI, 2007). The above analysis clearly shows that customers with incomes between $5-8/day are already relatively well catered for by big business, while the poorest are likely to remain underserved. In fact, given the yawning gap between their monthly budgets and consumer goods currently on offer, they are marginalized in the present discussion. Those below $1/day, still the most widely used definition of poverty (UN, 2005), have a share of less than 6% in the total BoP market, if the broadest $8/day measure is used. Long-term projections of the World Bank (2007a) highlight a marked expansion of the middle class in developing countries. These middle income groups, rather than the true BoP, are likely to attract business attention. A regional disparity emerges as well. As we move up the four income categories, the BoP size only marginally changes for the 15 countries in Sub-Saharan Africa. Accordingly, their relative share in the global market becomes smaller and smaller as the definition of income poverty is broadened. This may imply a shifting focus to Asia.

The difference between $1 and $8/day opens up a wide space. Virtually everyone in Bangladesh lives below $8/day, yet there are still considerable intra-country differences both in the quality of life and in purchasing power. The upper quintiles of the income distribution may already be well served by leading brands, while the lower quintiles are completely cut off from big business. Possible consumption bundles starkly diverge between a university lecturer in Dhaka and a farmer in Nurulapur, just as they do between a gardener in Hackney and a Goldman Sachs banker in Canary Wharf. Both are unlikely to share the same consumer profile. Drawing on his own experience with the Grameen Bank, Mohammed Yunus (1998:48) cautions against overly broad definitions of "the poor" and argues that there is no "room for conceptual vagueness" if poverty alleviation efforts are to be effective. A few success stories of new business initiatives targeting an emerging middle class are unlikely to have a lasting impact on the prospects of the destitute[17]. In most of the countries studied here, at least 95% of the population fall below the IFC/WRI (2007) BoP cut-off. Seen in this light, the BoP argument could simply be restated as a call for big businesses to sell their products in low and middle-income countries. This is neither a novel nor a particularly provocative idea.

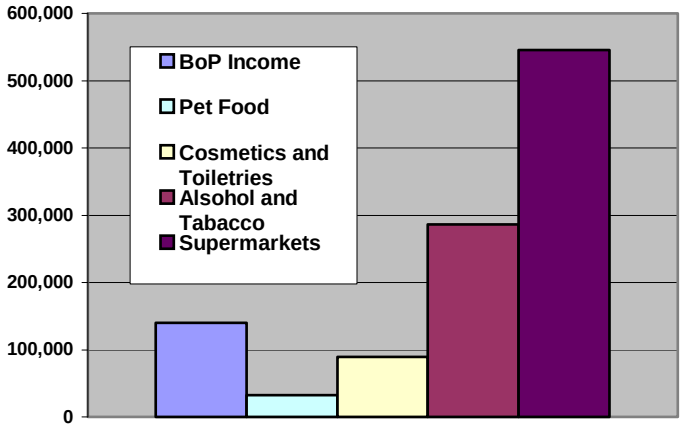
[17] Jenkins (2005) notes that some of the examples in Prahalad's book actually target the middle class.

4.2 The BoP as an opportunity for big business

From a business perspective, market size does not depend on aggregate incomes, but on the number of households that can afford your product. Tables 3a and 3b above indicate how dramatic the affordability gap presently is and casts doubt on Prahalad's (2005) proposition that firms will be able to lower costs sufficiently to compete. A few companies already have a strong presence in developing countries. Unilever recorded revenues of roughly $13 billion (26% of global revenue) in Asia and Africa, Nestle S.A around $11 billion (15%) (Marketline,2007). Leading companies for household appliances, such as Whirlpool or AB Electrolux have virtually no presence in Africa, but make a small percentage of their revenue in Asia and Latin America. Several of these companies have operated in these low and middle income economies for many years. In most cases they have not extended their consumer base to the poor, which may be taken as an indicator of a lack of profitable opportunities.

A comparison of the BoP market with other markets shows that it is relatively small. I here use the $141 billion (U.S.) of those below $2 as a reference figure. This is much narrower than $8, but wider than the poverty line used in the Millennium Development Goals (UN, 2005). Graph 2 shows selected combined markets for Germany, France, the UK and the US as well as BoP disposable income (Euromonitor International, 2007). This puts the size of the BoP market in perspective. Supermarket shoppers in the four advanced economies spend four times the amount that the 2.5 billion poor have at their disposal[18]. The market for alcohol and tobacco is more than twice as big. Firms internal cost margins are highly sensitive information and a more rigorous assessment of profitability is thus outside the scope of this paper.

Graph 2: Retail Values (millions 2005 US$)



[18] Retail value of supermarkets only. This excludes discounters, hypermarkets, drug stores etc.

5. Towards a dynamic perspective

The present figures dampen the aspirations of the philanthropic entrepreneur, who wishes to combine high returns with an act of doing good. Previous claims are shown to be highly inflated, however, this does not suggest that the BoP market is trivial. The investigation of household surveys and the assessment of potential supply and demand mechanisms at the BoP extend the theoretical and empirical foundations of previous studies, which question the validity of Prahalad's argument (e.g. Karnani, 2006; Jenkins, 2005). This final section offers initial suggestions on how this market may be expanded to enable both high returns and poverty reduction in the future. This more encouraging long-run perspective presents a departure from the position taken by earlier critics.

Development is a dynamic process. Emerging markets have been on an expansionary path in past years. The World Bank (2007a) has made a recent effort to project the shape of the global economy in 2030. In their base scenario developing countries would triple their output between 2005 and 2030. According to the World Bank (2007a:42) "market opportunities for both developed and developing countries will increase dramatically", largely spurred by the growth of a very significant middle and upper class likely to rival the purchasing power of today's high income consumer. The recent experience of countries such as China or Vietnam suggest that there exists scope for a rapid rise in consumption expenditure levels along with an unparalleled reduction in poverty[19].

For Prahalad (2006:2), "shaping the world requires a point of view". He argues that generating the capacity to consume can create new and profitable markets at the BoP. The discussion above highlights that the success of his proposition ultimately depends on the extent to which big businesses succeed in expanding demand by raising the incomes of poor people. Prahalad (2005) portrays the poor as potential consumers, while Karnani (2006:22) views them "primarily as producers". These accounts fail to address linkages between production and consumption and between demand and supply-side mechanisms, both of which are critical to this debate. In 1914 Henry Ford famously captured these interlinkages: "If we can distribute high wages, then that money is going to be spent and it will serve to make storekeepers and distributors and manufacturers in other lines more prosperous and their prosperity will be reflected in our sales" (Ford, 1924:124). In sum, big businesses have a central role in creating the fortune at the BoP, which forms the basis of their future profits.

There is a vast literature on forward and backward linkages created by MNCs and their role in economic development (e.g. Rodriguez-Clare, 1996; Markusen and Venables, 1999). However, the impact of MNCs on the incomes of the poor in host countries has not been studied systematically. A first attempt by Jenkins (2005) indicates that presently effects are likely to be small and may even be negative. UNCTAD (1999) estimated that foreign affiliates of MNCs only employed 19 million people in developing countries in 1998. The most recent estimate for China alone is 6,5 million employees in 2001 (UNCTAD, 2006). There are opportunities at the BoP, yet to achieve the stated aim of

[19] See Davis' (2000) account of the Chinese consumer revolution.

eliminating poverty and deprivation by 2020, Prahalad's argument needs to be qualified and elaborated further. For Matsuyama's (2002) virtuous cycle of expanding consumer markets and raising productivity to occur, goods have to be produced locally and generate employment and incomes. The previous discussion of supply and demand side mechanism highlights, how BoP strategies could positively impact on poverty levels, but cautions that a good state does not necessarily occur if the downside risks are not sufficiently addressed.

Ultimately, developing the potential at the BoP is likely to require a big push. As with Rosenstein-Rodan's shoe-factory, investments by one firm alone may not generate sufficient added demand to raise profits, yet the employment generated by several new entrants may lift the incomes of the poor enough to bridge the affordability gap. Seen in this light, Prahalad's advocacy may contribute to overcoming this coordination failure and triggers the concerted effort needed by a host of MNCs to build profitable long-run opportunities at the BoP.

6. Conclusion

This paper provided a more systematic examination of big business opportunities at the BoP. Four central points emerge from this analysis. First, the size of the market is much smaller than previous estimates suggest. Household surveys indicate that it is in the order of US$141 billion for consumers below $2/day. Second, the size of the market is highly sensitive to the definition of income poverty used, ranging from US$34-684 billion. It has been argued here that overly broad definitions of poverty in much of the BoP literature weaken the analytical power. To classify the vast majority in low and middle income countries as poor is unlikely to provide tangible insights. A much narrower focus is required to understand both the opportunities and constraints in this market. Third, typical fast moving consumer goods are presently not affordable for most poor people. The disparity between monthly incomes and current prices is substantial and possible reductions in firms' cost structures are not likely to bridge this gap. The success of big business thus requires supplementary strategies to expand consumer demand by generating employment and incomes. Finally, this paper makes an initial attempt to explore possible linkages between a BoP big business strategy and poverty reduction by highlighting demand and supply side mechanisms. These spillover effects are still weakly explained in this literature and merit greater attention in the future.

Presently, evidence is presented in the form of success stories and cross-country studies. There is a gap to undertake more specific country-level analysis, which aims to both investigate the dynamics operating at the macro-level and provide richer portrays of needs and possibilities at the bottom of the pyramid. Prahalad's argument created a wave of enthusiasm and a rapidly emerging community of scholars, business leaders, policy makers and development practitioners. The study of this community and its effects on policy and business practice provides an additional avenue for further research. The BoP proposition opened up a space for debate and challenges conventional perceptions of poor people and their purchasing power. This public discourse invites contributions from those that highlight exploitative business practices, just as it offers a forum for inspiring

success stories. Ultimately, it provides another platform for exchange to take place, another form of "learning network", which may induce corporate change (Ruggie, 2002:27). It is in this spirit, that several questions have been raised here, which have not yet been properly addressed in the BoP debate.

References

Aghion, P., & Schankerman, M. (2004). On the welfare effects and political economy of competition-enhancing policies. *Economic Journal, 114*(498), 800-824.

Banerjee, A. V., & Duflo, E. (2007). The Economic Lives of the Poor. *Journal of Economic Perspectives, 21*(1), 141-167.

Chen,S. (Schen@worldbank.org), 11 April 2007. *Re: Your recent paper*. Email to J-L Warnholz (ec3jlw@bath.ac.uk).

Chen, S., & Ravallion, M. (2004). How Have the World's Poorest Fared since the Early 1980s? *World Bank Research Observer, 19*, 141-169.

Chen, S. & Ravallion, M. (2007). Absolute Poverty Measures for the Developing World, 1981-2004. Washington D.C.: World Bank, Development Research Group.

Davis, D (eds.). (2000). The Consumer Revolution in Urban China. Berkeley: University of California Press.

Deaton, A. (2006). Purchasing power parity exchange rates for the poor, *Research Program in Development Studies*. Princeton: Princeton University.

Euromonitor International (2007). Global Markets Information Database [online]. London: Euromonitor International. Available from: www.euromonitor.com/gmid/ [Accessed 5 April 2007]

Ford, H. (1924). *My life and work*. London: Wyman & Sons , Ltd.

Foster, J., Greer, J., & Thorbecke, E. (1984). A Class of Decomposable Poverty Measures. *Econometrica, 52*(3), 761-766.

Hammond, A.L & Prahalad, C.K. (2002). Serving the world's poor, profitably. *Harvard Business Review*, 80(9), 48-57.

Hammond, A. L., & Prahalad, C. K. (2004). Selling to the Poor. *Foreign Policy*, 142, 30-37.

Hanushek, E. A., & Kimko, D. D. (2000). Schooling, Labor-Force Quality, and the Growth of Nations. *American Economic Review, 90*(5), 1184-1208.

Harriss-White, B. (2003). *India working: Essays on society and economy*. Cambridge: Cambridge University Press.

Hindustan Lever Ltd. (2007). Heritage – present stature [online]. Available from: www.hll.com [Accessed 13 April 2007].

Honohan, P. (2001). Does PPP-adjusted data exaggerate the relative size of poor economies? *Applied Economics Letters, 8*(12), 799-802.

IFC and WRI (2007). *The next four billion: market size and business strategy at the base of the pyramid*. Washington DC: International Finance Corporation and World Resource Institute.

IMF (2007). *World economic outlook 2007*. Washington, D.C.: International Monetary Fund.

Jackson, T. (2005). Live Better by Consuming Less?: Is There a "Double Dividend" in Sustainable Consumption? *Journal of Industrial Ecology, 9*(1-2), 19-36.

Jenkins, R. (2005). Globalization, Corporate Social Responsibility and poverty. *International Affairs, 81*(3), 525-540.

Karnani, A. (2006). The Fortune at the Bottom of the Pyramid: A Mirage. *Ross School of Business Working paper Series No. 1035*. Ann Arbor: Ross School of Business.

Kunreuther, H. (1973). Why the Poor May Pay More for Food: Theoretical and Empirical Evidence. *Journal of Business, 46*(3), 368-383.

Maloney, W. F. (2004). Informality Revisited. *World Development, 32*(7), 1159-1178.

Market Line (2007). Marketline Business Information Center [online]. London: MarketLine Europe. Available from: dbic.datamonitor.com [Accessed 13 April 2007]

Markusen, J., & Venables, A. (1999). Foreign direct investment as a catalyst for economic development. *European Economic Review, 43*, 335-356.

Matsuyama, K. (2002). The Rise of Mass Consumption Societies. *Journal of Political Economy, 110*(5), 1035-1070.

Max Neef, M. (1991). *Human-scale development-Conception, application and further reflection*. Lodnon: Apex Press.

Murphy, K. M., Shleifer, A., & Vishny, R. W. (1989). Industrialization and the Big Push. *Journal of Political Economy, 97*(5), 1003.

National Sample Survey (2006). Level and Pattern of Consumer Expenditure, 2004-05. Delhi: Ministry of Statistics and Program Implementation.

Newton, L. H. (1999). Truth is the daughter of time: The real story of the Nestle case. *Business & Society Review (00453609), 104*(4), 367.

Prahalad, C. K. (2005). *The Fortune at the Bottom of the Pyramid: A Mirage*. London: Pearson Education.

Prahalad, C. K. (2006). A response to Aneel Karnani [online]. Ann Arbor: Ross School of Business. Available from: nextbillion.net [Accessed 13 January 2007].

Prahalad, C. K., & Hammond, A. (2002). Serving the World's Poor, Profitably. *Harvard Business Review, 80*(9), 48-57.

Rangan, K., Quelch, J., Herrero, G., & Barton, B. (Eds.). (2007). *Business Solutions for the Global Poor: Creating Social and Economic Value*. Hoboken: John Wiley & Sons, Inc.

Rao, V. (2000). Price Heterogeneity and 'Real' Inequality: a Case Study of Prices and Poverty in Rural South India. *Review of Income & Wealth, 46*(2), 201-211.

Reddy, S., & Minuio, C. (2006). Chinese Poverty: Assessing the impact of alternative assumptions. *IPC Working Paper No. 25*. Brasilia: UNDP International Poverty Centre.

Rodrígeuz-Clare, A. (1996). Multinationals, Linkages, and Economic Development. *American Economic Review, 86*(4), 852-873.

Rosenstein-Rodan, P. (1943). The problem of industrialization of eastern and south-eastern Europe. *The Economic Journal, 53*, 2002-2211.

Ruggie, J.G. (2002). The Theory and Practice of Leaning Networks: Corporate Social

responsibility and the Global Compact. *Journal of Corporate Citizenship*, 5, pp.27-36.

Sen, A. (2001). *Development as Freedom*. Oxford: Oxford University Press.

Srinivasan, T.N. and Wallack, J.S. (2004). Globalization, Growth and the Poor. *De Economist*, 152(2), 251-272.

Strauss, J., & Thomas, D. (1998). Health, nutrition, and economic development. *Journal of Economic Literature, 36*(2), 766.

Subramanian, S., & Deaton, A. (1996). The demand for food and calories. *Journal of Political Economy, 104(1),* 133-162.

UNCTAD. (1999). World Investment Report 1999. New York: United Nations.

UNCTAD. (2006). *World Investment Report 2006*. New York: United Nations.

United Nations (2005). *The Millennium Development Goals Report*. New York: United Nations.

Walsh, J.P., Kress, J.C. & Beyerchen, K.W. (2005). Book Review Essay: Promises and Perils at the Bottom of the Pyramid/The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits. *Administrative Science Quarterly*, 50(3), 473-482.

World Bank (2006). *World development indicators 2006*. Washington, D.C.: World Bank.

World Bank (2007a). *Global economic prospects 2007*. Washington, D.C.: World Bank.

World Bank (2007b). PovcalNet [online]. Washington D.C: World Bank. Available from: http://iresearch.worldbank.org/PovcalNet/jsp/index.jsp [Accessed 3 April 2007].

World Bank (2007c). International Comparison Program 2003-2006 Handbook. Washington D.C: World Bank.

World Bank (2007d). Data & Statistics: Measuring the size of economies [online]. Washington D.C.: World Bank. Available from: www.worldbank.org/data. [Accessed 5 April 2007].

World Resource Institute (2007). Nextbillion.net [online]. Washington: World Resource Institute. Available from: http://www.nextbillion.net [Accessed 5 April 2007].

Yunus, M. (1998). Poverty Alleviation: Is Economics Any Help? Lessons from the Grameen Bank Experience. *Journal of International Affairs, 52*(1), 47-63.

Appendix: Table 4 – Surveys used for estimating BoP market size

Bangladesh, 2000	
Household Income and Expenditure Survey (HIES 2000)	
Brazil, 2004	
Pesquisa Nacional por Amostra de Domicilios (PNAD 2004)	
Burkina Faso, 2003	
Enquête burkinabé sur les conditions de vie des ménages (EBCVM)	
Cambodia, 1997	
Cambodia Socio-Economic Survey (CSES)	
Cameroon, 2001	
Enquête Camerounaise Auprès des Ménages II (ECAM 2)	
Chile, 2000	
Caracterizacion Socioeconomica Nacional (CASEN)	
Colombia, 2003	
Encuesta Nacional de Calidad de Vida (ECV)	
Côte d'Ivoire, 2002	
Enquête niveau de vie des ménages (ENV)	
Ecuador, 1998	
Encuesta de Condiciones de Vida (ECV) 3rd Round	
Egypt, Arab Rep., 1999	
Household Expenditure and Consumption Survey (HECS)	
Ethiopia, 2000	
Welfare Monitoring/Income, Consumption and Expenditure Survey	
Ghana, 1998	
Ghana Living Standards Survey 4 (GLSSIV)	
Guatemala, 2002	
Encuesta Nacional de Ingresos y Gastos Familiares (ENIGFAM)	
India rural, 1999/2000	
National Sample Survey	
India urban, 1999/2000	
National Sample Survey	
Indonesia, 2002	
SUSENAS: Socio-Economic Survey (SUSENAS)	
Iran, Islamic Rep., 1998	
Socio-Economic Characteristics of Households	
Kazakhstan, 2003	
Household Budget Survey (HBS)	
Kenya, 1997	
Welfare Monitoring Survey III (WMSIII)	
Madagascar, 2001	
Enquête prioritaire auprès des ménages (EPM)	
Malawi, 2004	
Second Integrated Household Survey (IHS-2)	
Malaysia, 1997	
Household Income/Basic Amenities Survey	
Mali, 2001	
Enquête Malienne de conjoncture économique et sociale	
Mexico, 2002	
Encuesta Nacional de Empleo urbano (ENEU)	
Morocco, 1998	
Enquête nationale sur les niveaux de vie des ménages	
Mozambique, 1997	
National household survey (NHS)	
Nepal, 2003	
Living Standards Survey II	
Nigeria, 2003	
Nigeria Living Standards Survey (NLSS)	
Pakistan, 1997	
Integrated Household Survey (Round 2)	
Peru, 2002	
Enquesta Nacional de Hogares - 4th Quarter (ENAHO)	
Philippines, 2000	
Family Income and Expenditure Survey (FIES)	
Poland, 2002	
Household Budget Survey (HBS)	
Romania, 2003	
Family Budget Survey	
Russian Federation, 2002	
Household Budget Survey	
South Africa, 2000	
October Household Survey/Income & Expenditure	
Sri Lanka, 2002	
Household Income and Expenditure Survey	
Tanzania, 2000	
Household Income and Expenditure Survey	
Thailand, 2002	
Thailand Socio-Economic Survey	
Turkey, 2003	
Household Consumption and Income Survey (HCIS)	
Uganda, 2002	
Household Budget Survey	
Ukraine, 2003	
Household Budget Survey	
Venezuela, RB, 2000	
Encuesta de Hogares por Muestreo (EHM)	
Viet Nam, 2004	
Household Living Standards Surveys (VHLSS)	
Yemen, 1998	
Household Budget Survey	
Zambia, 2002	
Living Conditions Monitoring Survey III (LCMS III)	

Table 5: Prices of selected consumer products (as of April 2007)

Product and Price in LCU	India		Philippines		Nigeria		South Africa		Brazil		Vietnam		Mexico	
	Size*/Price		Size/Price		Size/Price		Size/Price		Size/Price		Size/Price		Size/Price	
Lux soap	100 g	14					125g	2.99	90g	0.79	85g	5000		
Local brand	75 g	10												
Dove soap			180g	35			125g	7.65			100g	9200	100g	13
Local brand			180g	13									100g	2.5
Imperial Leather					10*80g	320								
Local brand					6*80g	150								
Pantene shampoo	7.5 ml	3									400ml	47000	200ml	32
Local brand	7 ml	1									350ml	25000	200ml	20
Sunsilk Shampoo			220ml	49			200ml	17						
Colgate	25ml	6	250ml	79			50ml	3.75	90ml	1.99	130g	6000	100ml	16
Local brand	100ml	15	280ml	43									100ml	13
Duracell AA	2	49					4	23.9	2	4.6				
Local brand	1	20												
Ariel	20g	2	150g	43	500g	150							680g	14
Local brand			150g	25	300g	58							400g	5.5
Omo							1kg	27.8	1kg	5.35	4.5kg	81000		
Local brand							1kg	17.7			3kg	56000		
Domestos							750ml	11.5						
Local brand							750ml	6.79						
Lysol	200ml	24							500ml	2.59				
Local brand	100ml	6							2l	3.8				
Flash													1l	14
Local brand													950ml	7.5
Pepsi/Coca Cola	200ml	7					2000ml	9.69	2000ml	3.5	1.5l	10000	355ml	8
Carefree	10	56	8	26							20	10800		
Local brand			8	13										
Always					8	80			8	2.59				
Local brand					8	8			8	1.59				
Tampax/Kotex							12	15					10	18
Local brand													10	9.5
Marlboro/Camel	1	5	20	23			20	17.6					200	225
Local brand	2	2					20	12.7						
Nestle Milk Power							900g	52	400g	5.95	900g	130000	400g	35
Local brand											900g	76000	1800g	95
Snickers					24*60g	2000			3*60g	5.49				
Mars					24*60	1700	50g	4.49						
Rice	1kg	1	1kg	24	50kg	5400	2kg	8.95	1kg	1.2	1kg	7500	900g	9.5

Locations:
India - small shop/outskirts of Chennai
Philippines- supermarket/outskirts of Manila
Nigeria - local market/Kano in Northern Nigeria
South Africa - supermarket/ Grahamstown (Makana)
Brazil - small shop and local market/Brasilia
Vietnam - supermarket/Hue in central Vietnam
Mexico - supermarket/Tulum in Yucatan

*****No. of pieces when size not indicated in g or ml

Tables 6-9:BoP Market by Country

	Category below $1/day (PPP)					Category below $2/day (PPP)					
	Consumers (Millions)		Average $/day	BoP Income (Millions)		Consumers (Millions)		Average $/day (PPP)		BoP Income (Millions)	
	Total	Percent	PPP	PPP	Atlas (US$)	Total	Percent	<$2	$1<i<$2	PPP	Atlas (US$)
Asia/Pacific	**698.8**			**211,856**	**49,259**	**1,913.1**				**888,770**	**217,304**
Bangladesh	51.10	36.0	0.84	15,615	3,329	117.46	82.8	1.21	1.49	51,741	11,032
Cambodia	4.80	34.1	0.77	1,353	206	10.93	77.7	1.20	1.53	4,774	728
China rural	205.95	26.5	0.82	62,002	16,267	551.62	71.0	1.28	1.55	257,047	67,439
China urban	1.74	0.3	0.79	499	131	34.15	6.5	1.73	1.78	21,589	5,664
India rural	326.07	41.8	0.82	97,217	20,740	689.98	88.4	1.16	1.46	291,525	62,194
India urban	60.50	19.3	0.86	19,046	4,063	190.18	60.5	1.35	1.58	93,828	20,017
Indonesia	16.56	7.5	0.95	5,738	1,932	115.62	52.4	1.51	1.60	63,539	21,387
Malaysia	0.04	0.2	0.95	15	7	2.34	9.3	1.69	1.70	1,442	696
Nepal	6.86	25.3	0.84	2,090	370	17.71	65.3	1.27	1.54	8,198	1,449
Pakistan	10.62	6.8	0.92	3,580	1,042	114.62	73.6	1.39	1.44	58,058	16,898
Philippines	12.86	15.5	0.87	4,093	1,000	39.43	47.5	1.34	1.57	19,338	4,727
Sri Lanka	1.13	5.8	0.96	394	101	8.11	41.4	1.52	1.61	4,512	1,161
Thailand	0.58	0.9	1.02	215	70	16.61	25.9	1.63	1.65	9,880	3,223
Vietnam	0.00	0.0	0.00	0	0	4.32	5.2	2.09	2.09	3,301	688
Europe/Central Asia	**3.8**			**1,168**	**578**	**41.6**				**24,582**	**11,093**
Kazakhstan	0.13	0.9	0.92	44	17	2.59	17.1	1.66	1.70	1,568	594
Poland	0.00	0.0	0.00	0	0	0.56	1.5	1.74	1.74	359	189
Romania	0.24	1.1	0.75	65	28	2.74	12.7	1.66	1.74	1,659	711
Russia	1.05	0.7	0.92	350	147	19.30	13.5	1.65	1.70	11,649	4,888
Turkey	2.30	3.2	0.81	681	381	14.09	19.4	1.52	1.66	7,809	4,364
Ukraine	0.10	0.2	0.77	28	6	2.36	5.0	1.79	1.83	1,538	347
North Africa/Middle East	**4.8**			**1,546**	**701**	**45.8**				**26,907**	**9,166**
Egypt	2.29	3.1	0.93	776	228	32.49	43.9	1.59	1.65	18,916	5,552
Iran	0.18	0.3	0.91	59	20	4.84	7.2	1.71	1.74	3,023	1,039
Morocco	0.17	0.6	0.93	57	23	4.32	14.3	1.68	1.72	2,659	1,056
Yemen	2.14	10.2	0.84	654	430	4.18	19.9	1.52	2.23	2,309	1,520

	Category below $1/day (PPP)					Category below $2/day (PPP)					
	Consumers (Millions)		Average/day	BoP Income (Millions)		Consumers (Millions)		Average/day (PPP)		BoP Income (Millions)	
	Total	Percent	PPP	PPP	Atlas (US$)	Total	Percent	<$2	$1<i<$2	PPP	Atlas (US$)
Latin America/Caribbean	**32.0**			**8,934**	**4,157**	**98.2**				**48,183**	**23,940**
Brazil	14.15	7.6	0.79	4,056	1,707	40.51	21.7	1.33	1.63	19,719	8,298
Chile	0.16	1.0	0.88	51	26	1.56	9.6	1.59	1.67	907	464
Colombia	3.48	7.6	0.72	919	284	8.86	19.4	1.26	1.60	4,069	1,257
Ecuador	2.09	15.8	0.65	493	0	4.92	37.2	1.24	1.67	2,222	0
Guatemala	1.76	14.0	0.68	438	238	4.11	32.6	1.23	1.65	1,850	1,005
Mexico	4.44	4.3	0.86	1,398	997	21.84	21.2	1.47	1.62	11,698	8,341
Peru	3.59	12.8	0.71	934	418	8.98	32.1	1.24	1.60	4,074	1,826
Venezuela	2.36	8.9	0.75	646	487	7.39	27.8	1.35	1.63	3,646	2,749
Sub-Saharan Africa	**204.2**			**46,794**	**20,112**	**367.4**				**139,222**	**50,954**
Burkina Faso	3.79	28.7	0.79	1,097	356	9.44	71.3	1.24	1.54	4,275	1,389
Cameroon	2.79	17.1	0.82	837	393	8.27	50.6	1.33	1.59	4,008	1,882
Cote D'Ivoire	2.85	15.7	0.80	829	470	8.79	48.4	1.33	1.58	4,258	2,416
Ethiopia	16.37	23.0	0.85	5,098	797	55.39	77.7	1.33	1.53	26,908	4,204
Ghana	8.96	40.5	0.68	2,218	423	16.59	75.0	1.07	1.53	6,485	1,237
Kenya	6.90	20.1	0.82	2,065	932	19.21	56.1	1.30	1.58	9,148	4,128
Madagascar	11.36	61.0	0.59	2,430	795	15.83	85.1	0.84	1.49	4,868	1,593
Malawi	2.74	21.3	0.83	834	206	8.19	63.6	1.31	1.56	3,930	969
Mali	4.91	36.4	0.73	1,305	493	9.83	72.7	1.13	1.53	4,058	1,533
Mozambique	7.49	37.9	0.74	2,015	491	15.52	78.4	1.14	1.52	6,468	1,576
Nigeria	93.44	71.0	0.56	18,956	10,289	121.38	92.3	0.76	1.45	33,773	18,331
South Africa	4.84	10.7	0.90	1,598	654	15.40	34.1	1.36	1.56	7,618	3,117
Tanzania	21.84	57.0	0.69	5,492	2,510	34.55	90.2	0.97	1.46	12,257	5,601
Uganda	7.02	24.4	0.79	2,020	363	17.97	62.4	1.26	1.55	8,231	1,480
Zambia	8.92	76.4	0.57	1,845	941	11.01	94.4	0.73	1.43	2,938	1,498
Total	**943.6394**			**272,143**	**74,807**	**2,466**				**1,127,665**	**312,457**

	Category below $5/day (PPP)						Category below $8/day (PPP)					
	Consumers (Millions)		Average $/day (PPP)		BoP Income (Millions)		Consumers (Millions)		Average $/day (PPP)		BoP Income (Millions)	
	Total	Percent	<$5	$2<i<$5	PPP	Atlas (US$)	Total	Percent	<$8	$5<i<$8	PPP	Atlas (US$)
Asia/Pacific	**2,838**				**1,991,526**	**502,862**	**3,078**				**2,578,328**	**658,507**
Bangladesh	139.3	98.2	1.49	3.00	75,667	16,133	141.1	99.5	1.55	6.49	79,865	17,028
Cambodia	13.7	97.6	1.57	3.04	7,867	1,199	14.0	99.3	1.66	6.55	8,458	1,290
China rural	748.5	96.3	1.75	3.07	477,870	125,374	767.8	98.8	1.87	6.53	523,979	137,471
China urban	275.6	52.3	3.52	3.78	354,352	92,968	426.0	80.8	4.66	6.74	724,422	190,060
India rural	774.7	99.3	1.35	2.95	382,677	81,640	780.3	100.0	1.39	6.09	394,992	84,268
India urban	296.3	94.3	2.00	3.17	216,466	46,181	309.7	98.6	2.20	6.55	248,399	52,993
Indonesia	205.2	93.1	2.22	3.15	166,617	56,084	215.5	97.7	2.43	6.54	191,084	64,319
Malaysia	10.3	40.5	3.27	3.74	12,255	5,916	15.7	62.0	4.52	6.86	25,938	12,522
Nepal	25.3	93.2	1.85	3.20	17,028	3,011	26.4	97.5	2.06	6.63	19,853	3,510
Pakistan	153.2	98.4	1.56	2.08	87,362	25,427	155.0	99.5	1.62	6.40	91,584	26,656
Philippines	70.4	84.8	2.23	3.35	57,279	14,000	77.7	93.5	2.64	6.65	74,849	18,295
Sri Lanka	16.9	86.5	2.45	3.31	15,162	3,902	18.6	94.9	2.82	6.62	19,147	4,928
Thailand	47.8	74.4	2.83	3.47	49,419	16,124	57.3	89.1	3.47	6.67	72,444	23,636
Vietnam	60.3	72.7	3.25	3.34	71,506	14,902	73.4	88.5	3.86	6.66	103,313	21,531
Europe/Central Asia	**198.5**				**236,655**	**100,310**	**277.1**				**429,942**	**183,610**
Kazakhstan	10.7	70.7	3.14	3.62	12,278	4,653	13.6	89.9	3.90	6.66	19,369	7,340
Poland	12.6	33.0	3.86	3.96	17,762	9,364	24.5	64.2	5.34	6.91	47,801	25,199
Romania	15.3	70.7	3.29	3.65	18,355	7,872	20.0	92.4	4.07	6.62	29,694	12,735
Russia	83.1	58.0	3.21	3.69	97,460	40,894	115.5	80.7	4.21	6.75	177,449	74,457
Turkey	46.9	64.6	2.99	3.62	51,178	28,596	61.3	84.4	3.86	6.73	86,391	48,273
Ukraine	29.9	63.5	3.63	3.79	39,623	8,931	42.2	89.6	4.49	6.60	69,238	15,606
North Africa/Middle East	**128.8**				**131,620**	**48,455**	**159.1**				**206,389**	**77,516**
Egypt	68.2	92.2	2.42	3.17	60,303	17,698	72.2	97.5	2.65	6.52	69,694	20,454
Iran	26.8	39.6	3.38	3.75	33,089	11,370	42.8	63.3	4.68	6.87	73,231	25,163
Morocco	18.9	62.8	3.20	3.64	22,103	8,775	25.3	84.0	4.09	6.72	37,794	15,004
Yemen	14.7	70.3	3.00	3.58	16,125	10,612	18.7	89.1	3.76	6.61	25,671	16,894

	Category below $5/day (PPP)						Category below $8/day (PPP)					
	Consumers (Millions)		Average $/day (PPP)		BoP Income (Millions)		Consumers (Millions)		Average $/day (PPP)		BoP Income (Millions)	
	Total	Percent	<$5	$2<i<$5	PPP	Atlas (US$)	Total	Percent	<$8	$5<i<$8	PPP	Atlas (US$)
Latin America/Caribbean	**241.9**				**241,859**	**123,356**	**317.9**				**430,677**	**217,947**
Brazil	94.1	50.5	2.75	3.82	94,439	39,744	127.1	68.2	3.81	6.83	176,825	74,415
Chile	6.3	38.5	3.17	3.69	7,254	3,711	9.5	58.3	4.42	6.87	15,330	7,842
Colombia	21.9	48.0	2.73	3.73	21,831	6,745	30.0	65.7	3.84	6.85	42,011	12,981
Ecuador	9.8	74.3	2.37	3.50	8,481	0	11.6	87.5	3.02	6.73	12,769	0
Guatemala	8.7	68.7	2.45	3.54	7,731	4,198	10.6	83.8	3.22	6.76	12,406	6,737
Mexico	63.0	61.1	2.88	3.62	66,136	47,158	82.4	80.0	3.79	6.76	114,068	81,336
Peru	19.3	69.0	2.48	3.55	17,448	7,820	23.6	84.2	3.25	6.74	27,944	12,523
Venezuela	18.8	70.8	2.70	3.57	18,538	13,979	23.2	87.4	3.46	6.70	29,324	22,113
Sub-Saharan Africa	**464.3**				**251,619**	**91,364**	**480.4**				**290,725**	**106,579**
Burkina Faso	12.7	95.9	1.72	3.10	7,949	2,583	13.0	98.6	1.85	6.57	8,786	2,855
Cameroon	14.4	88.3	2.17	3.30	11,410	5,358	15.6	95.4	2.50	6.63	14,228	6,681
Cote D'Ivoire	15.8	87.2	2.21	3.32	12,784	7,252	17.2	95.0	2.58	6.64	16,218	9,201
Ethiopia	70.0	98.2	1.66	2.91	42,411	6,626	70.9	99.4	1.72	6.41	44,444	6,944
Ghana	21.4	96.6	1.54	3.15	11,976	2,285	22.0	99.4	1.68	6.60	13,494	2,574
Kenya	31.3	91.4	2.05	3.23	23,416	10,567	33.2	96.8	2.31	6.61	27,914	12,597
Madagascar	18.1	97.3	1.13	3.17	7,497	2,454	18.4	99.1	1.23	6.64	8,305	2,718
Malawi	12.2	94.6	1.91	3.12	8,488	2,093	12.6	98.1	2.07	6.58	9,565	2,359
Mali	13.0	95.9	1.62	3.15	7,669	2,897	13.4	99.0	1.77	6.62	8,665	3,273
Mozambique	19.3	97.4	1.51	3.02	10,610	2,585	19.6	99.1	1.60	6.61	11,432	2,785
Nigeria	130.2	99.0	0.92	3.06	43,676	23,706	131.2	99.7	0.96	6.44	45,870	24,897
South Africa	29.5	65.3	2.37	3.48	25,549	10,455	35.3	78.0	3.09	6.79	39,777	16,278
Tanzania	38.0	99.3	1.16	3.01	16,092	7,353	38.3	100.0	1.20	6.39	16,735	7,647
Uganda	26.8	93.1	1.89	3.19	18,521	3,330	28.1	97.5	2.11	6.59	21,582	3,880
Zambia	11.6	99.2	0.84	3.05	3,570	1,820	11.6	99.7	0.87	6.60	3,710	1,892
Total	**3,871**				**2,853,279**	**866,346**	**4,313**				**3,936,061**	**1,244,160**