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NEXT 4 BILLION

Author / organisation	World Resources Institute
Year recorded	2007
Region	Global
Category	Economic
Original source	wri.org
Archive page	kiwanja.net/mobile-database/next-4-billion/

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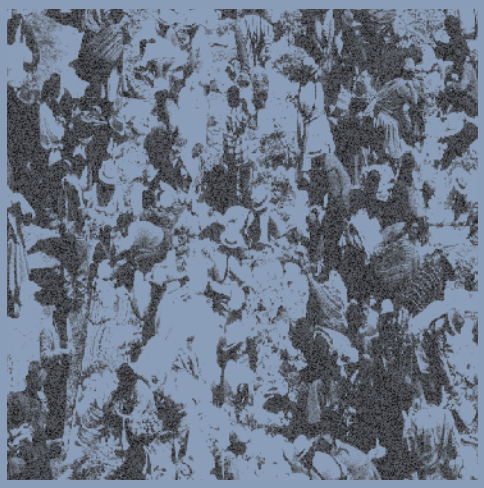
THE NEXT 4 BILLION

MARKET SIZE AND BUSINESS STRATEGY AT THE BASE OF THE PYRAMID

EXECUTIVE SUMMARY



Four billion low-income people, a majority of the world's population, constitute the base of the economic pyramid. New empirical measures of their behavior as consumers and their aggregate purchasing power suggest significant opportunities for market-based approaches to better meet their needs, increase their productivity and incomes, and empower their entry into the formal economy.

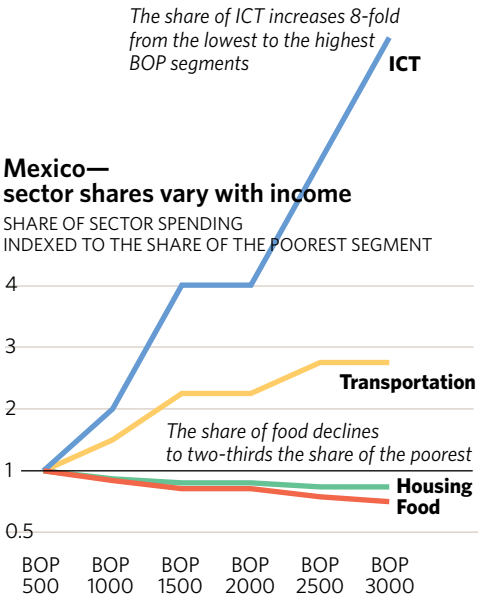
The 4 billion people at the base of the economic pyramid (BOP)—all those with incomes below $3,000 in local purchasing power—live in relative poverty. Their incomes in current U.S. dollars are less than $3.35 a day in Brazil, $2.11 in China, $1.89 in Ghana, and $1.56 in India.[1] Yet together they have substantial purchasing power: the BOP constitutes a $5 trillion global consumer market.

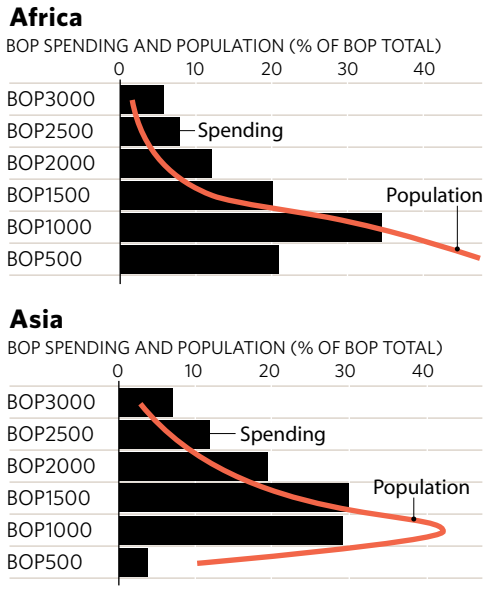
The wealthier mid-market population segment, the 1.4 billion people with per capita incomes between $3,000 and $20,000, represents a $12.5 trillion market globally. This market is largely urban, already relatively well served, and extremely competitive.

In contrast, BOP markets are often rural—especially in rapidly growing Asia—very poorly served, dominated by the informal economy, and, as a result, relatively inefficient and uncompetitive. Yet these markets represent a substantial share of the world's population. Data from national household surveys in 110 countries show that the BOP makes up 72% of the 5,575 million people recorded by the surveys and an overwhelming majority of the population in Africa, Asia, Eastern Europe, and Latin America and the Caribbean—home to nearly all the BOP.

Analysis of the survey data—the latest available on incomes, expenditures, and access to services—shows marked differences across countries in the composition of these BOP markets. Some, like Nigeria's, are concentrated in the lowest income segments of the BOP; others, like those in Ukraine, are concentrated in the upper income segments. Regional differences are also apparent. Rural areas dominate most BOP markets in

BOP market—$5 trillion
TOTAL BY INCOME SEGMENT





Africa and Asia; urban areas dominate most in Eastern Europe and Latin America.

Striking patterns also emerge in spending. Not surprisingly, food dominates BOP household budgets. As incomes rise, however, the share spent on food declines, while the share for housing remains relatively constant—and the shares for transportation and telecommunications grow rapidly. In all regions half of BOP household spending on health goes to pharmaceuticals. And in all except Eastern Europe the lower income segments of the BOP depend mainly on firewood as a cooking fuel, the higher segments on propane or other modern fuels.

That these substantial markets remain underserved is to the detriment of BOP households. Business is also missing out. But there is now enough information about these markets, and enough experience with viable business strategies, to justify far closer business attention to the opportunities they represent. Market-based approaches also warrant far more attention in the development community, for the potential benefits they offer in bringing more of the BOP into the formal economy and in improving the delivery of essential services to this large population segment.

A BOP Portrait

The development community has tended to focus on meeting the needs of the poorest of the poor—the 1 billion people with incomes below $1 a day in local purchasing power. But a much larger segment of the low-income population—the 4 billion people of the BOP, all with incomes well below any Western poverty line—both deserves attention and is the appropriate focus of a market-oriented approach.

The starting point for this argument is not the BOP's poverty. Instead, it is the fact that BOP population segments for the most part are not integrated into the global market economy and do not benefit from it. They also share other characteristics:

- **Significant unmet needs.** Most people in the BOP have no bank account and no access to modern financial services. Most do not own a phone. Many live in informal settlements, with no formal title to their dwelling. And many lack access to water and sanitation services, electricity, and basic health care.
- **Dependence on informal or subsistence livelihoods.** Most in the BOP lack good access to markets to sell their labor, handi-

crafts, or crops and have no choice but to sell to local employers or to middlemen who exploit them. As subsistence and small-scale farmers and fishermen, they are uniquely vulnerable to destruction of the natural resources they depend on but are powerless to protect (World Resources Institute and others 2005). In effect, informality and subsistence are poverty traps.

- **Impacted by a BOP penalty.** Many in the BOP, and perhaps most, pay higher prices for basic goods and services than do wealthier consumers—either in cash or in the effort they must expend to obtain them—and they often receive lower quality as well. This high cost of being poor is widely shared: it is not just the very poor who often pay more for the transportation to reach a distant hospital or clinic than for the treatment, or who face exorbitant fees for loans or for transfers of remittances from relatives abroad.

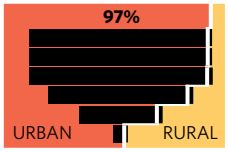
Addressing the unmet needs of the BOP is essential to raising welfare, productivity, and income—to enabling BOP households to find their own route out of poverty. Engaging the BOP in the formal economy must be a critical part of any wealth-generating and inclusive growth strategy. And eliminating BOP penalties will increase effective income for the BOP. Moreover, to the extent that unmet needs, informality traps, and BOP penalties arise from inefficient or monopolistic markets or lack of attention and investment, addressing these barriers may also create significant market opportunities for businesses.

Perhaps most important, it is the entire BOP and not just the very poor who constitute the low-income market—and it is the entire market that must be analyzed and addressed for private sector strategies to be effective, even if there are segments of that market for which market-based solutions are not available or not sufficient.

Taking a market-based approach to poverty reduction

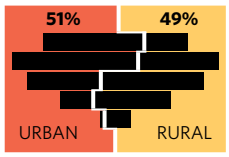
Analysis of BOP markets can help businesses and governments think more creatively about new products and services that meet BOP needs and about opportunities for market-based solutions to achieve them. For businesses, it is an important first step toward identifying business opportunities, considering business models, developing products, and expanding investment in BOP markets. For governments, it can help

Brazil



Total BOP ICT spending by income segment, urban and rural

India

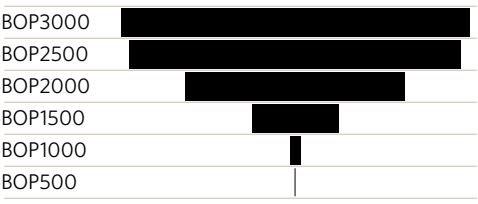


Nigeria

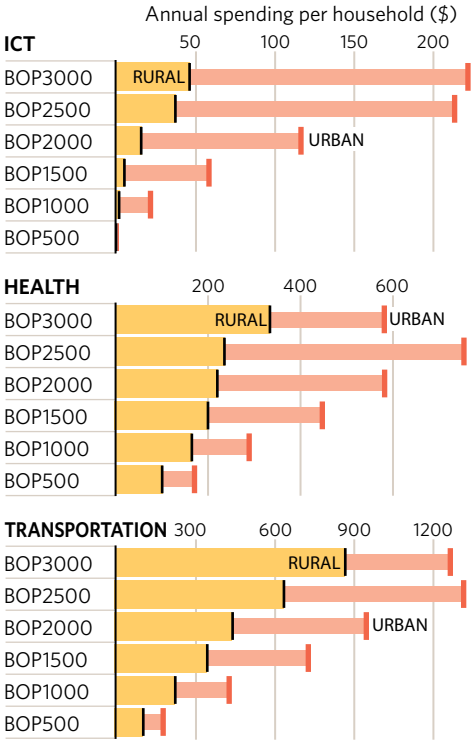
TOTAL SPENDING BY INCOME SEGMENT

Ukraine

TOTAL SPENDING BY INCOME SEGMENT



Urban and rural spending—Cameroon



focus attention on reforms needed in the business environment to allow a larger role for the private sector.

BOP market analysis, and the market-based approach to poverty reduction on which it is based, are equally important for the development community. This approach can help frame the debate on poverty reduction more in terms of enabling opportunity and less in terms of aid. A successful market-based approach would bring significant new private sector resources into play, allowing development assistance to be more targeted to the segments and sectors for which no viable market solutions can presently be found.

There are distinct differences between a market-based approach to poverty reduction and more traditional approaches. Traditional approaches often focus on the very poor, proceeding from the assumption that they are unable to help themselves and thus need charity or public assistance. A market-based approach starts from the recognition that being poor does not eliminate commerce and market processes: virtually all poor households trade cash or labor to meet much of their basic needs. A market-based approach thus focuses on people as consumers and producers and on solutions that can make markets more efficient, competitive, and inclusive—so that the BOP can benefit from them.

Traditional approaches tend to address unmet needs for health care, clean water, or other basic necessities by setting targets for meeting those needs through direct public investments, subsidies, or other handouts. The goals may be worthy, but the results have not been strikingly successful. A market-based approach recognizes that it is not just the very poor who have unmet needs—and asks about willingness to pay across market segments. It looks for solutions in the form of new products and new business models that can provide goods and services at affordable prices.

Those solutions may involve market development efforts with elements similar to traditional development tools—hybrid business strategies that incorporate consumer education; microloans, consumer finance, or cross-subsidies among different income groups; franchise or retail agent strategies that create jobs and raise incomes; partnerships with the public sector or with nongovernmental organizations (NGOs). Yet the solutions are ultimately market oriented and demand driven—and many successful companies are adopting such strategies.

Perhaps most important, traditional approaches do not point toward sustainable solutions—while a market-oriented approach recognizes that only sustainable solutions can scale to meet the needs of 4 billion people.

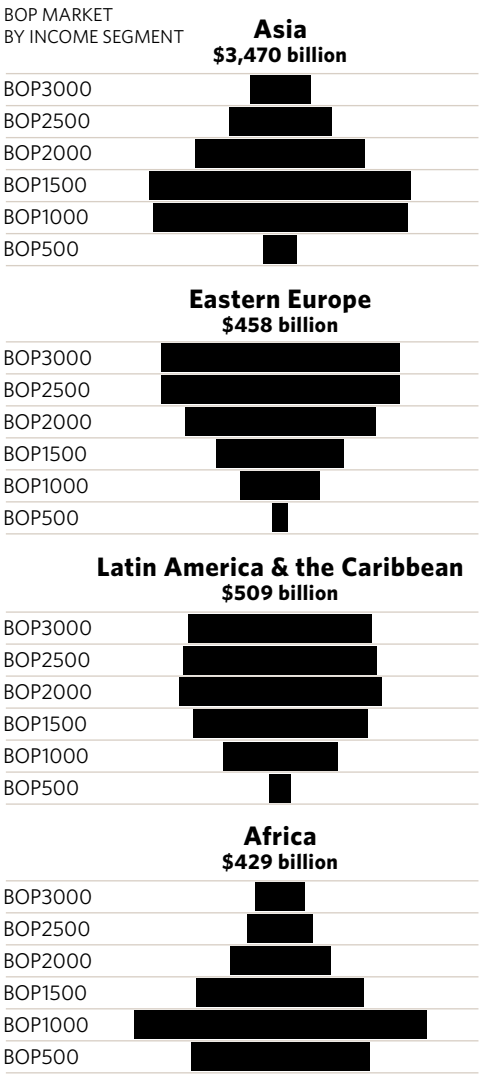
Growing interest, growing success in BOP markets

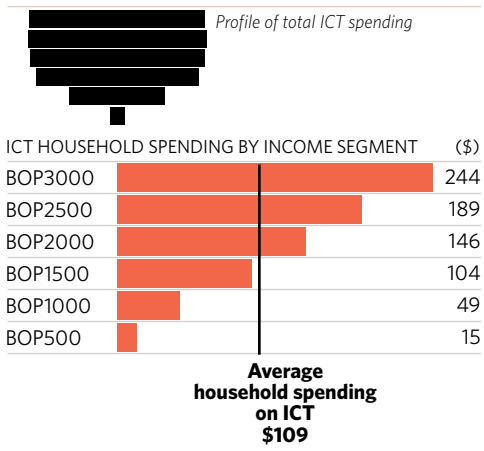
Business interest in BOP markets is rising. Multinational companies have been pioneers, especially in food and consumer products. Large national companies have proved to be among the most innovative in meeting the needs of BOP consumers and producers, especially in such sectors as housing, agriculture, consumer goods, and financial services. And small start-ups and social entrepreneurs focusing on BOP markets are rapidly growing in number. But perhaps the strongest and most dramatic BOP success story is mobile telephony.

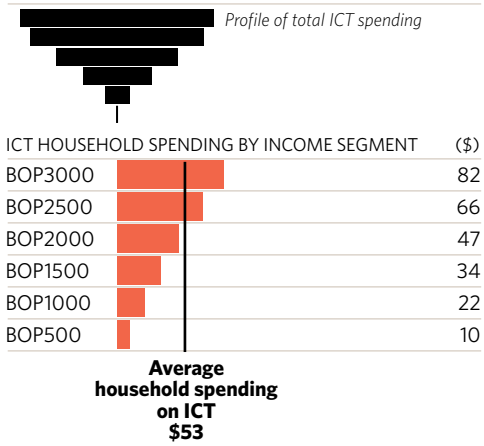
Between 2000 and 2005 the number of mobile subscribers in developing countries grew more than fivefold—to nearly 1.4 billion. Growth was rapid in all regions, but fastest in sub-Saharan Africa—Nigeria's subscriber base grew from 370,000 to 16.8 million in just four years (World Bank 2006b). Household surveys confirm substantial and growing mobile phone use in the BOP population, which has clearly benefited from the access mobile phones provide to jobs, to medical care, to market prices, to family members working away from home and the remittances they can send, and, increasingly, to financial services (Vodafone 2005).

A strong value proposition for low-income consumers has translated into financial success for mobile companies. Celtel, an entrepreneurial company operating in some of the poorest and least stable countries in Africa, went from start-up to telecom giant in just seven years. Acquired for US$3.4 billion in 2005, the company now has operations in 15 African countries and licenses covering more than 30% of the continent.

Not all sectors have found their footing in the BOP markets yet. The experience of private-sector municipal water systems has been mixed, with some notable successes in innovating to reach the poor, such as in Manila, but with political and financial setbacks elsewhere. The private energy sector has a better record in delivering grid-based rural services, but less success in affordable off-grid electricity. Nonetheless, new ventures and advances in technology are combining with BOP business models in ways that offer new encouragement for these sectors.







Moving toward a more hospitable environment for business

The operating and regulatory environments in developing countries can be challenging. Micro and small businesses especially face disadvantages. If they are informal, they cannot get investment finance, participate in value chains of larger companies, or sometimes even legally receive services from utilities. Condemned to remain small, they cannot generate wealth or many jobs. Nor do they contribute to the broader economy by paying taxes.

Most face barriers to joining the formal economy in the form of antiquated regulations and prohibitive requirements—dozens of steps, delays of many months, capital requirements beyond attainment for most of the BOP. In El Salvador, for example, starting a legitimate business used to take 115 days and many separate procedures—until recent reforms reduced the effort to 26 days and allowed registration with four separate agencies in a single visit. But even for legitimate small businesses, investment capital is generally unavailable and supporting services scarce.

Fortunately, there is growing recognition of the importance of removing barriers to small and medium-size businesses and a growing toolbox for moving firms into the formal economy and creating more efficient markets. And as the World Bank and International Finance Corporation (IFC) show, in their annual Doing Business reports, there is also mounting evidence that the tools work. In El Salvador five times as many businesses register annually since its reforms. Many countries, including China, have dropped minimum capital requirements. The pace of reform is accelerating, with more than 40 countries making changes in the most recent year surveyed.[2]

Coupled with reform is growing attention to enterprise development initiatives focusing on BOP markets and investment capital for small and medium-size businesses. Several international and bilateral development agencies are launching investment funds to support the growth of small and medium-size enterprises across the developing world. These efforts, and the growing private sector interest in investing in such enterprises in developing countries, explicitly recognize that an expanded private sector role and a bottom-up market approach are essential development strategies.

What BOP markets look like

Total household income of $5 trillion a year establishes the BOP as a potentially important global market. Within that market are large variations across regions, countries, and sectors in size and other characteristics.

Asia (including the Middle East) has by far the largest BOP market: 2.86 billion people with income of $3.47 trillion. This BOP market represents 83% of the region's population and 42% of the purchasing power—a significant share of Asia's rapidly growing consumer market.

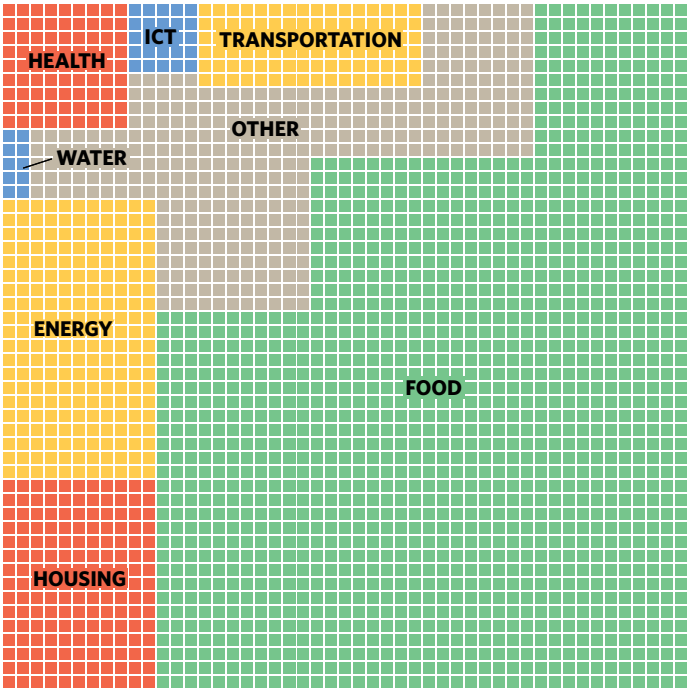
Eastern Europe's $458 billion BOP market includes 254 million people, 64% of the region's population, with 36% of the income.

In Latin America the BOP market of $509 billion includes 360 million people, representing 70% of the region's population but only 28% of total household income, a smaller share than in other developing regions.

Africa has a slightly smaller BOP market, at $429 billion. But the BOP is by far the region's dominant consumer market, with 71% of purchasing power. It includes 486 million people—95% of the surveyed population.

Estimated BOP market by sector

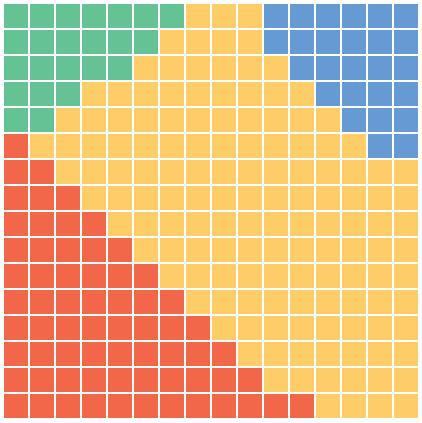
$5 trillion



Sector markets for the 4 billion BOP consumers range widely in size. Some are relatively small, such as water ($20 billion) and information and communication technology, or ICT ($51 billion as measured, but probably twice that now as a result of rapid growth). Some are medium scale, such as health ($158 billion), transportation ($179 billion), housing ($332 billion), and energy ($433 billion). And some are truly large, such as food ($2,895 billion).[3]

Evidence of BOP penalties emerges in several sectors. Wealthier mid-market households are seven times as likely as BOP households to have access to piped water. Some 24% of BOP households lack access to electricity, while only 1% of mid-market households do. Rural BOP households have significantly lower ICT spending and are significantly less likely to own a phone than rural mid-market households or even urban BOP households—consistent with the broad lack of access to ICT services in rural areas.

BOP spending on ICT
$51.4 billion



	$ billions (PPP)
Africa	4.4
Asia	28.3
Eastern Europe	5.3
Latin America	13.4

Each square represents approximately $200 million

BOP business strategies that work

Why are some enterprises succeeding in meeting BOP needs, and others are not? Successful enterprises operating in these markets use four broad strategies that appear to be critical:

- **Focusing on the BOP** with unique products, unique services, or unique technologies that are appropriate to BOP needs and that require completely reimagining the business, often through significant investment of money and management talent. Examples are found in such sectors as water (point-of-use systems), food (healthier products), finance (microfinance and low-cost remittance systems), housing, and energy.
- **Localizing value creation** through franchising, through agent strategies that involve building local ecosystems of vendors or suppliers, or by treating the community as the customer, all of which usually involve substantial investment in capacity building and training. Examples can be seen in health care (franchise and agent-based direct marketing), ICT (local phone entrepreneurs and resellers), food (agent-based distribution systems), water (community-based treatment systems), and energy (mini-hydropower systems).
- **Enabling access** to goods or services—financially (through single-use or other packaging strategies that lower purchase barriers, prepaid or other innovative business models that achieve the same result, or financing approaches) or physically (through novel distribution strategies or deployment of low-cost technologies). Examples occur in food, ICT, and consumer products (in packaging goods and services in small unit sizes, or "sachets") and in health care (such as cross-subsidies and community-based health insurance). And cutting across many sectors are financing strategies that range from microloans to mortgages.
- **Unconventional partnering** with governments, NGOs, or groups of multiple stakeholders to bring the necessary capabilities to the table. Examples are found in energy, transportation, health care, financial services, and food and consumer goods.

Enterprises may—and often do—use more than one of these strategies serially or in combination.

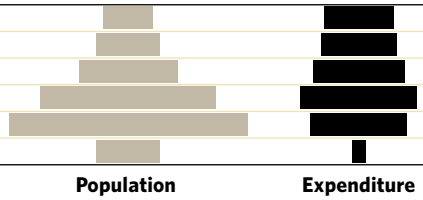
COUNTRY TABLE SAMPLE

GUATEMALA

Total national household market $23,549.0 million
Population 11.4 million
Households 1.8 million

Note: All dollar amounts in 2005 PPP

BOP segment	Population Total (millions)	Population Share (% of national)	Population Urban (% of segment)	Annual expenditure Total ($ millions)	Annual expenditure Share (% of national)	Annual expenditure Urban (% of segment)
BOP3000	0.7	5.8	69.8	2,057.8	8.7	70.2
BOP2500	0.9	7.8	58.2	2,245.2	9.5	58.3
BOP2000	1.4	12.3	44.8	2,727.4	11.6	44.7
BOP1500	2.5	21.8	29.5	3,459.9	14.7	30.0
BOP1000	3.4	29.7	14.8	2,874.6	12.2	15.8
BOP500	0.9	7.9	6.9	401.5	1.7	7.1
BOP total	9.7	85.2	29.8	13,766.3	58.5	39.9



BOP expenditure by sector

$ (**Boldface** numbers are millions)	Total BOP	BOP 500	BOP 1000	BOP 1500	BOP 2000	BOP 2500	BOP 3000	Urban / rural (% of BOP)
Food	**6,414.8**	**224.4**	**1,571.8**	**1,700.7**	**1,217.7**	**929.1**	**771.2**	34/66
Per capita	660	251	464	685	872	1044	1166	
Per household	3646	1875	3005	3681	4150	4639	4791	
Housing	**1,602.2**	**42.3**	**297.0**	**387.0**	**330.1**	**273.6**	**272.1**	48/52
Per capita	165	47	88	156	236	307	412	
Per household	911	353	568	838	1125	1366	1691	
Water	**43.4**	**0.5**	**4.0**	**9.4**	**8.9**	**11.6**	**9.0**	60/40
Per capita	4	1	1	4	6	13	14	
Per household	25	5	8	20	30	58	56	
Energy	**943.3**	**34.9**	**227.1**	**250.9**	**174.5**	**144.7**	**111.2**	40/60
Per capita	97	39	67	101	125	163	168	
Per household	536	292	434	543	595	722	691	
Household goods	**1,110.5**	**42.8**	**253.1**	**289.8**	**205.9**	**167.5**	**151.3**	36/64
Per capita	114	48	75	117	147	188	229	
Per household	631	358	484	627	702	837	940	
Health	**698.3**	**11.7**	**105.6**	**165.3**	**164.8**	**130.1**	**120.7**	36/64
Per capita	72	13	31	67	118	146	182	
Per household	397	98	202	358	562	650	750	
Transportation	**477.1**	**4.4**	**50.5**	**92.2**	**96.0**	**105.3**	**128.8**	44/56
Per capita	49	5	15	37	69	118	195	
Per household	271	37	97	200	327	526	800	
ICT	**129.2**	**0.0**	**7.2**	**20.0**	**24.2**	**39.5**	**38.2**	57/43
Per capita	13	0	2	8	17	44	58	
Per household	73	0	14	43	83	197	237	
Education	**118.7**	**0.7**	**8.9**	**21.9**	**27.7**	**31.4**	**28.3**	63/37
Per capita	12	1	3	9	20	35	43	
Per household	67	6	17	47	94	157	176	
Other	**2,228.7**	**39.7**	**349.4**	**522.5**	**477.6**	**412.5**	**427.1**	49/51
Per capita	229	44	103	210	342	463	646	
Per household	1267	332	668	1131	1628	2060	2654	
Total	**13,766.3**	**401.5**	**2,874.6**	**3,459.9**	**2,727.4**	**2,245.2**	**2,057.8**	40/60

Household expenditure by sector

	National ($ millions)	BOP (%)
Food	8,991.6	71.3
Housing	2,479.5	64.6
Water	107.1	40.6
Energy	1,303.9	72.3
Household goods	1,953.7	56.8
Health	1,365.7	51.1
Transportation	1,753.4	27.2
ICT	462.8	27.9
Education	439.1	27.0
Other	4,692.2	47.5
Total	23,549.0	58.5

Sector shares of household expenditure (%)

	National	BOP
Food	38.2	46.6
Housing	10.5	11.6
Water	0.5	0.3
Energy	5.5	6.9
Household goods	8.3	8.1
Health	5.8	5.1
Transportation	7.4	3.5
ICT	2.0	0.9
Education	1.9	0.9
Other	19.9	16.2
Total	100.0	100.0

Endnotes

1. In this report current U.S. dollars means 2005 dollars. Unless otherwise noted, however, market information is given in 2005 international dollars (adjusted for purchasing power parity); for convenience, BOP and mid-market income cutoffs are given in international dollars for 2002 (the base year to which household surveys used in the analysis for the report have been normalized). U.S. dollars are generally denoted by US$, international dollars by $.
2. The tools are available in the World Bank and IFC's annual Doing Business reports, along with country ratings of progress on reform. For the most recent results, see World Bank and IFC (2006).
3. The analysis of market size starts with household expenditure data from 36 countries for which recorded expenditures have been mapped into standard spending categories. (The underlying surveys may vary from country to country and across time, however, so that information collected may not be directly comparable.) The analysis estimates the size of sector markets in each region by extrapolating from these measured countries to a broader set of surveyed countries for which BOP income data exist. This approach assumes that the ratio of sector expenditure to total household expenditure will be similar in the two sets of countries within a region. It also assumes that total household income equals total household expenditure.

Like consumers everywhere, the poor are constantly looking for products and services that improve their quality of life at an affordable price. The poor are also vital producers and distributors of an immense range of goods. Companies that are smart enough to tailor their offerings to the needs of low-income consumers and entrepreneurs will thrive in the 21st century. As illustrated in this important volume, *The Next 4 Billion*, companies that provide affordable solutions in areas such as housing, sanitation, public transport, and connectivity will also make a vital contribution to human development.

Luis Alberto Moreno
President,
Inter-American Development Bank

C.K. Prahalad and Stuart Hart's ground-breaking work alerted private sector businesses to the importance of the market at the base of the pyramid. Now, for the first time, we can express that importance in hard numbers—a 5 trillion dollar, 4 billion person market. That represents a massive opportunity for private sector firms to engage in ways that improve poor peoples' lives.

Michael Klein
Vice President, Financial and Private Sector Development,
International Finance Corporation and World Bank Group
Chief Economist, International Finance Corporation

Global productivity, education, and the sciences have advanced at an increasingly fast pace due to information technology and access to the Internet. Yet, most of the world's population who inhabit the middle and bottom of the "economic pyramid" is being underserved in realizing the transforming benefits of IT. The IT industry can narrow this gap by helping local communities evaluate and pursue inventive approaches to realizing the benefits of technology, and through co-creation of new business endeavors with NGO and public sectors that focus specifically on the needs of middle- and bottom-of-pyramid customers.

Will Poole
Senior Vice President
Microsoft Corporation

It is very clear that the private sector has an important and constructive role to play in addressing the needs of the poor and disenfranchised. *The Next 4 Billion* lays the foundation for the empirical, market-based approach necessary for private enterprises to bring scale and sustainable solutions to heretofore intractable problems.

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ISBN: 1-56973-625-1

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