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# The Wide Angle What does the World Consume?

# Summary

- This is the second in a two-part series investigating long-term trends in global consumption. In this report, we look at how consumption patterns are changing around the world.
- We found that traditional measures of consumer spending no longer reflect the path of consumption in the Digital Age. People today routinely multitask, switch technologies and pay for products with "eye-balls". This is causing lifestyle changes that may have fundamentally shifted the trajectory of consumer behavior. Young Americans, for instance, seem much less inclined to own a car than their parents. These changes have important implications for the producers of virtually every product ranging from automobiles to real estate. Moreover, this shift is not limited to the youngest consumers but is often just as strong among those in their 30s and 40s.
- For some things, the trajectory of consumer behavior in emerging markets follows the past experience of developed countries. The declining importance of food in the consumption basket and the rising penetration of household durables follow fairly predictable paths, even if the shift has been often much quicker in the case of emerging markets.
- Nevertheless, we need to be very careful when extrapolating developed country experiences to today's emerging markets. Local factors like culture and government policy can have a big impact on what people buy. More importantly, we show how emerging markets can often leapfrog technologies. It is likely that they will also leapfrog lifestyles and aspirations.



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## Background

Social, economic and technological change is transforming the basket of goods and services that the world consumes. This report is the second in a two-part series that investigates the new landscape of consumption. In the first report, we profiled the world's consumers including their demographic, income and geographic distribution (see "*Who are the World's Consumers*", The Wide Angle series, published 23rd July 2012). In this report we will look at how the consumption basket is evolving. Together we hope to give the readers a better sense of the trajectory of 21st century consumer behavior.

As we proceeded with our research, we were deluged with all kinds of data on consumption behavior that were often partial, inconsistent and not comparable across countries or time. What looked like a trend in one data set was often contradicted by another data set. Factors that were important in one social, economic or technological context were often not applicable to another. Mobile phones, for instance, were rare even in rich countries in the early nineties but were common in poor developing countries just a decade later. A simple analysis of penetration rates based on per capita incomes in 1990 would never have predicted the subsequent success of this product. Similarly, the communications revolution of the last two decades has changed consumer lifestyles so fundamentally that traditional measures of consumption no longer tell the story. Shifting technologies and aspirations mean that emerging market consumers will often leapfrog lifestyles. Thus, one had to be very careful while drawing inferences and trying to predict future trends.

## A Brief History of the Consumption Basket

As one would expect, food and other basic necessities dominate the consumption basket at low levels of per capita income. This is true for many developing countries and was true for many developed countries well into the 20th century. Britain was the first country to begin industrializing the 18th century and consequently it was also the first country to witness the transformation of the consumption basket. Thanks to pioneers like William Petty (1623-87) and Gregory King (1648-1712) we have a good idea of the consumption basket as it looked in pre-industrial England and Wales. As shown in the table below, food and beverages accounted for 47% of the private consumption expenditure in 1688 and was the single largest category. By pre-modern standards, nevertheless, this was a low proportion and left a significant surplus to be spent on other things. This reflects the fact that by the end of the 17<sup>th</sup> century, Britain already had one of the highest per capita incomes in the world: roughly a guarter higher than France, a third higher than Germany and double that of China and India.<sup>1</sup>

| Table 1: The British Consumption Basket, Then and Now |      |      |  |  |  |  |  |
|---|------|------|--|--|--|--|--|
|   | 1688 | 2011 |  |  |  |  |  |
| Food and beverages                                    | 47%  | 13%  |  |  |  |  |  |
| Clothing and footwear                                 | 23%  | 6%   |  |  |  |  |  |
| Housing and utilities                                 | 8%   | 24%  |  |  |  |  |  |
| Furnishings and durable household equipment           | 15%  | 5%   |  |  |  |  |  |
| Healthcare  | 1%   | 2%   |  |  |  |  |  |
| Transportation and communications                     | 1%   | 17%  |  |  |  |  |  |
| Recreation, culture and education                     | 3%   | 12%  |  |  |  |  |  |
| Restaurants and hotels                                | 0%   | 10%  |  |  |  |  |  |
| Other goods and services                              | 2%   | 12%  |  |  |  |  |  |
| Private consumption expenditure as % of GDP           | 84%  | 61%  |  |  |  |  |  |

Source: "The World Economy", Angus Maddison, OECD 2003; Haver Analytics and Deutsche Bank estimates

The United States replaced Britain as the world's leading economy by the end of the 19th century and has retained this position since. At the eve of the First World War, per capita income for the US was 8% higher than that of UK, 45% higher than Germany, eight times

<sup>1</sup> "The World Economy: A Millennial Perspective", Angus Maddison, OECD 2001

that of India and nearly ten times China's per capita income. It was on the verge of becoming what we would recognize today as a "developed" society. The transformation of the American consumption basket over the course of the twentieth century, therefore, provides an interesting insight into how spending patterns changed as economies evolved from the industrial to the post-industrial.

The average family income in the United States was USD 750 in 1901 and it would increase threefold to USD 2,282 (expressed in 1901 dollars) over the next century<sup>2</sup>. Some cities did even better with real incomes rising by a factor of 4.5 in New York and by fourfold in Boston. As incomes rose, the consumption basket changed dramatically. In 1901, the average American family devoted almost 80% of its spending on necessities such as food, clothing and shelter but, by 2002-03, this share had fallen to 50%. Spending on food alone dropped from 42.5% of expenditure in 1901 to 24.3% in 1960-61 and further to 13.1% in 2002-03<sup>3</sup>. Moreover, an increasing proportion of this food-related spending was away from home in restaurants, cafes and so on. By 1970, 27% of food spending was away from home and this proportion rose to 42% by the beginning of the 21st century. In other words, the convenience and recreational aspect of eating became more important than the nutritional value of the meal.



Source: 100 Years of U.S. Consumer Spending, Bureau of Labour Statistics

Expenditure on clothing rose briefly from 14% of expenditure in 1901 to 16% by 1918-19 but then declined to 4% over the rest of the 20th century. However, housing-related expenditure showed a different trend. In 1901, the average US family spent 23.3% of expenditure on housing (including home, utilities, furnishings and so on) according to data from the Bureau of Labor Statistics (BLS). The category saw its share rise steadily to 31% by 1972-73 before stabilizing and it accounted for a third of household expenditure by 2002-03. The estimates and categorization of the Bureau of Economic Analysis (BEA) are somewhat different but they also confirm that housing related spending has been broadly stable for decades (see Table 3 below). In the US experience at least, therefore, spending on shelter did not decline as incomes rose. This may partly reflect the fact that home ownership jumped from 19% in

<sup>&</sup>lt;sup>2</sup> "100 Years of US Consumer Spending", Eleaine Chao & Kathleen Utgoff, US Department of Labour, May 2006. Note that per capita incomes rose faster than family incomes since family size also became smaller.

<sup>&</sup>lt;sup>3</sup> We have used Bureau of Labour Statistics here and the numbers may not match other sources such as those from Bureau of Economic Analysis & the Haver database. Part of the difference is due to definitions and categorization.

1901 to 67% a century later (perhaps expenditure on home improvements/upgrades were increasingly seen as investment and encouraged people to keep spending on it).

Meanwhile, the share of discretionary spending on "non-essentials" jumped from 20% to 50% over the course of the 20th century. In particular, the "Transportation" category saw a steady increase as people moved to the suburbs, bought cars and began to routinely use airlines. From a very small share in 1901, its share rose to 8% by the 1930s and jumped sharply in the 1950s and 1960s before leveling off in the 1980s. It now accounts for 19% of household spending. The category has a much smaller share in BEA data but also suggests that the share of transportation has been roughly stable in recent decades.

In contrast, spending on entertainment and recreation went through a cycle - from a tiny 1.6% share in 1901, it rose to a peak of 7.4% in 1970s. Contrary to what we intuitively expected, however, it declined to 5.1% by the beginning of the 21st century. It appears that as they became richer, American households were willing to spend on restaurants but not more on entertainment (perhaps this trend was also influenced by the relative fall in the prices if leisure-related electronics).

| Table 2: United States Consumption Basket as per Bureau of Labor Statistics |                          |                        |        |         |         |         |  |  |  |  |  |  |
|---|--------------------------|------------------------|--------|---------|---------|---------|--|--|--|--|--|--|
| Figures are average<br>per family   | 1901                     | 1934-36                | 1950   | 1972-73 | 1996-97 | 2002-03 |  |  |  |  |  |  |
| Food  | 42.5%                    | 33.6%                  | 27.2%  | 16.8%   | 13.8%   | 13.1%   |  |  |  |  |  |  |
| Alcoholic beverages   | 1.6%                     | 0.0%                   | 1.6%   | 1.2%    | 0.9%    | 0.9%    |  |  |  |  |  |  |
| Housing   | 23.3%                    | 32.1%                  | 24.9%  | 26.8%   | 32.1%   | 32.8%   |  |  |  |  |  |  |
| Clothing  | 14.0%                    | 10.6%                  | 10.5%  | 6.8%    | 5.1%    | 4.2%    |  |  |  |  |  |  |
| Transportation  | 0.0%                     | 8.3%                   | 12.3%  | 16.8%   | 18.7%   | 19.1%   |  |  |  |  |  |  |
| Healthcare, insurance<br>and pensions                                       | 5.2%                     | 3.9%                   | 9.0%   | 13.3%   | 14.4%   | 15.6%   |  |  |  |  |  |  |
| Entertainment   | 1.6%                     | 5.4%                   | 4.0%   | 7.4%    | 5.3%    | 5.1%    |  |  |  |  |  |  |
| Personal care products<br>and services                                      | 0.0%                     | 2.0%                   | 2.0%   | 1.7%    | 1.5%    | 1.3%    |  |  |  |  |  |  |
| Reading and education   | 1.0%                     | 0.5%                   | 1.4%   | 1.6%    | 2.1%    | 2.2%    |  |  |  |  |  |  |
| Tobacco   | 1.4%                     | 0.0%                   | 1.6%   | 1.4%    | 0.8%    | 0.7%    |  |  |  |  |  |  |
| Miscellaneous   | 9.4%                     | 3.7%                   | 5.3%   | 6.2%    | 5.3%    | 5.0%    |  |  |  |  |  |  |
| Total   | 100.0%                   | 100.0%                 | 100.0% | 100.0%  | 100.0%  | 100.0%  |  |  |  |  |  |  |
| Source: Report of The Bureau of Labo  | ur Statistics: 100 Years | s of U.S. Consumer Spe | ndina  |         |         |         |  |  |  |  |  |  |

| <b>Table 3: United State</b>                      | es Consumptio | n Basket as p | er Bureau of E | conomic Analy | vsis   |
|---|---------------|---------------|----------------|---------------|--------|
| National averages                                 | 1960          | 1970          | 1990           | 2000          | 2011   |
| Food and beverages                                | 18.8%         | 16.0%         | 10.2%          | 7.9%          | 7.6%   |
| Clothing and footwear                             | 7.8%          | 7.0%          | 5.1%           | 4.1%          | 3.3%   |
| Housing and utilities                             | 17.1%         | 16.9%         | 18.2%          | 17.5%         | 18.0%  |
| Furnishings and<br>durable household<br>equipment | 4.6%          | 4.3%          | 3.2%           | 3.0%          | 2.3%   |
| Healthcare  | 4.8%          | 7.4%          | 13.2%          | 13.4%         | 16.3%  |
| Transportation and communications                 | 7.5%          | 7.1%          | 6.5%           | 6.6%          | 6.8%   |
| Recreation, culture and education                 | 3.9%          | 4.9%          | 5.9%           | 7.2%          | 6.8%   |
| Restaurants and hotels                            | 6.2%          | 6.4%          | 6.9%           | 6.0%          | 6.3%   |
| Other goods and services                          | 29.2%         | 30.0%         | 30.9%          | 34.2%         | 32.6%  |
| Total   | 100.0%        | 100.0%        | 100.0%         | 100.0%        | 100.0% |

Source: Haver Analytics and Bureau of Economic Analysis (BEA)

We would expect that as people became richer they would spend more on education and health. We found that over the course of a century, spending on "Education & Reading" rose from 1.1% to 2.1% of expenditure. This is a surprisingly small increase given the big change in incomes and human capital requirements although it is partly explained by the fact that the government bears a significant part of the cost of education. The combined share of healthcare and insurance (including pension related contributions), in contrast, jumped from 5.2% in 1901 to 15.7% in 2002-03. We were unable to strip out the non-health related contributions from the Bureau of Labor Statistics data, but one can see that the overall category jumped very sharply. Yet again, the BEA estimate is somewhat different but shows a similar jump in health related spending by US households.

### Can We Extrapolate the US Experience to Emerging Markets?

In our first report of this two-part series, we had argued that the future trajectory of world consumption will be strongly influenced by the rising middle-classes of emerging markets, particularly those in Asia. The question is: can we extrapolate future trends in emerging markets from the evolution of the consumption basket in the United States over the last century? This is trickier than appears at first glance.

First of all, we found that the data is not always comparable across countries due to differences in definition, categorization, the quality of data and so on. This should not be surprising given that we found such large differences in estimates for even a well documented country like the United States. Second, the experience of the US and other developed countries reflects social, cultural and technological contexts that are very different from those prevailing today and in the future in developing countries. For instance, India skipped the fixed line telephone stage and jumped directly to mobile telephones. Over 41% of Indian households had a mobile phone in 2011 (an underestimate in my view) compared to 17.4% who had a fixed line phone. It is obvious that India did not follow the developed country experience in this case. In other words, one should be very careful when making universal generalizations about the trajectory of consumer behavior.



Source: World Consumer Lifestyles Databook 2012; Euromonitor

While keeping the above caveats in mind, we did find it instructive to compare the experiences of developing and developed countries (see Table 4). We found it to be universally true that the share of food in household spending declines as countries become richer. The category still accounts for a very large percentage in India and China, so these countries should reasonably expect a continued decline over time even if recent food inflation adds friction to the transition (note that the food basket itself evolves over time and interested readers may refer to Appendix A for details). The share of the other necessity – clothing – also declines in most cases as per capita incomes rise. However, as one can see in Table 4, the proportion spent on clothing has gone up in recent years in both India and China. In our view, it is likely that these countries were so poor till recently that it made sense for impoverished consumers to initially increases spending on clothing (recall that this also happened in the US between 1901 and 1918). If our hunch is right, we should expect this category to revert to the normal trajectory and decline over time.

| Table 4: The   | Evolution of          | Consun                   | nption B                 | askets a              | around t   | he Worl                        | d                            |                           |                             |
|----------------|-----------------------|--------------------------|--------------------------|-----------------------|------------|--------------------------------|------------------------------|---------------------------|-----------------------------|
|                | Food and<br>beverages | Clothing and<br>footwear | Housing and<br>utilities | Household<br>durables | Healthcare | Transport and<br>communication | Recreation, and<br>education | Restaurants and<br>hotels | Other goods and<br>services |
| United States  |                       |                          |                          |                       |            |                                |                              |                           |                             |
| 1970           | 16.0%                 | 7.0%                     | 16.9%                    | 4.3%                  | 7.4%       | 7.1%                           | 4.9%                         | 6.4%                      | 30.0%                       |
| 1990           | 10.2%                 | 5.1%                     | 18.2%                    | 3.2%                  | 13.2%      | 6.5%                           | 5.9%                         | 6.9%                      | 30.9%                       |
| 2011           | 7.6%                  | 3.3%                     | 18.0%                    | 2.3%                  | 16.3%      | 6.8%                           | 6.8%                         | 6.3%                      | 32.6%                       |
| United Kingdom |                       |                          |                          |                       |            |                                |                              |                           |                             |
| 1970           | 28.7%                 | 9.5%                     | 14.8%                    | 7.2%                  | 0.9%       | 12.5%                          | 9.1%                         | 10.2%                     | 7.0%                        |
| 1990           | 16.6%                 | 6.2%                     | 17.1%                    | 5.8%                  | 1.3%       | 17.0%                          | 11.3%                        | 11.9%                     | 12.7%                       |
| 2011           | 12.8%                 | 6.0%                     | 24.1%                    | 5.1%                  | 1.8%       | 16.5%                          | 12.3%                        | 10.0%                     | 11.5%                       |
| Germany        |                       |                          |                          |                       |            |                                |                              |                           |                             |
| 1970           | 24.5%                 | 9.7%                     | 17.6%                    | 9.4%                  | 2.2%       | 12.5%                          | 9.9%                         | 4.9%                      | 9.3%                        |
| 1990           | 17.6%                 | 8.1%                     | 20.3%                    | 8.3%                  | 3.0%       | 15.3%                          | 9.8%                         | 5.7%                      | 12.0%                       |
| 2011           | 14.2%                 | 5.0%                     | 24.1%                    | 6.2%                  | 5.1%       | 16.8%                          | 10.0%                        | 5.9%                      | 12.7%                       |
| Japan          |                       |                          |                          |                       |            |                                |                              |                           |                             |
| 1980           | 26.1%                 | 8.7%                     | 18.8%                    | 5.3%                  | 3.8%       | 10.8%                          | 9.8%                         | 7.0%                      | 9.8%                        |
| 1990           | 20.1%                 | 7.7%                     | 18.8%                    | 5.4%                  | 3.2%       | 12.5%                          | 14.0%                        | 6.2%                      | 12.2%                       |
| 2010           | 16.2%                 | 3.3%                     | 25.4%                    | 3.9%                  | 4.5%       | 14.1%                          | 12.5%                        | 6.6%                      | 13.6%                       |
| India          |                       |                          |                          |                       |            |                                |                              |                           |                             |
| 1970           | 59.8%                 | 5.5%                     | 18.0%                    | 2.8%                  | 2.9%       | 4.6%                           | 1.6%                         | 0.8%                      | 4.0%                        |
| 1990           | 51.0%                 | 7.8%                     | 16.6%                    | 2.8%                  | 2.9%       | 11.0%                          | 1.9%                         | 1.1%                      | 4.8%                        |
| 2010           | 30.0%                 | 8.0%                     | 11.1%                    | 4.6%                  | 4.8%       | 20.4%                          | 2.9%                         | 2.1%                      | 16.2%                       |
| Thailand       |                       |                          |                          |                       |            |                                |                              |                           |                             |
| 1993           | 30.0%                 | 10.2%                    | 8.5%                     | 7.6%                  | 6.0%       | 16.5%                          | 6.3%                         | 8.3%                      | 6.5%                        |
| 2000           | 31.4%                 | 9.0%                     | 10.2%                    | 7.8%                  | 5.5%       | 15.4%                          | 6.9%                         | 7.8%                      | 6.0%                        |
| 2009           | 30.8%                 | 6.5%                     | 10.1%                    | 7.9%                  | 6.5%       | 17.2%                          | 6.6%                         | 8.3%                      | 6.2%                        |
| South Korea    |                       |                          |                          |                       |            |                                |                              |                           |                             |
| 1970           | 39.1%                 | 6.5%                     | 20.7%                    | 1.6%                  | 1.9%       | 6.0%                           | 9.4%                         | 11.7%                     | 3.0%                        |
| 1990           | 28.1%                 | 5.4%                     | 14.9%                    | 4.1%                  | 4.3%       | 13.2%                          | 12.0%                        | 8.8%                      | 9.2%                        |
| 2011           | 14.7%                 | 4.9%                     | 16.6%                    | 3.3%                  | 6.8%       | 16.9%                          | 15.3%                        | 7.9%                      | 13.6%                       |
| China          |                       |                          |                          |                       |            |                                |                              |                           |                             |
| 2004           | 36.2%                 | 7.3%                     | 15.0%                    | 4.6%                  | 8.1%       | 9.5%                           | 11.8%                        | 4.7%                      | 2.8%                        |
| 2009           | 32.1%                 | 7.8%                     | 17.4%                    | 5.2%                  | 9.3%       | 10.9%                          | 9.5%                         | 3.6%                      | 4.3%                        |

Source: Haver Analytics, Bereau of Economic Analysis and CEIC

Cross country comparisons of housing-related spending make it very difficult to make generalizations. We saw how spending on housing and utilities in the US initially rose and then stabilized, but the experience of other developed countries has been very different. Germany, UK and Japan are currently spending more on housing and utilities than they did in 1970 or 1990. The trends for developing countries are even more perplexing – China and Thailand witnessed an increase while India experienced a decline. South Korea first saw a decline and then an increase. We could not find a robust and easily testable explanation for these diverse trends. The data for India, for instance, confounds what we would have expected in a country where real estate prices have risen sharply in the last two decades and extended families have been increasingly replaced by nuclear families. It is possible that the data in this case is biased by the fact that prices and rents are commonly underreported in the Indian property sector.

The proportion of spending on recreation and education went up in developed countries between 1970 and 2011, but by relatively modest amounts. The sub-category for education may have been held down by public provision of education services for a significant portion of the population but consumers in rich countries appear to be surprisingly restrained on recreational spending. The experience of developing countries varies widely. Recreation and education now accounts over 15% of expenditure in South Korea whereas the proportion has already turned down in China (possibly reflecting the relative impact of public spending). Again, it is difficult to generalize except to say that the category could be expected to expand in a country like India that is currently very poor and is still seeing the transition to literacy.

The data shows that spending on healthcare rises almost everywhere. The United States experienced the largest increase with the share of medical spending jumping from 7.4% of household expenditure in 1970 to 16.3% in 2011. One can see that the national framework of healthcare provision makes a very big difference with countries like UK and Germany witnessing much smaller increases. In contrast, the share spent on healthcare is already 4.5% in India and 9.3% in China – ratios that are higher than some developed countries.

Meanwhile, developed country consumers have reduced the proportion of expenditure devoted to furnishings and household durables since 1970. This should not be surprising since penetration rates for these goods were already very high in 1970 and the relative prices of these items have declined with time. South Korea is a very interesting case study since it went from being a poor country in 1970 to becoming a developed country. This is reflected in a sharp increase in durables-related spending between 1970 and 1990 followed by a decline. The share is still rising in China and India as penetration levels for many household durables are still low. Nonetheless, saturation for many durable goods is being attained much sooner by developing countries than were achieved by developed countries at a comparable stage in their economic journey. The globalization of lifestyles and aspirations has combined with improved affordability to speed up the process. As shown in Table 5, the penetration of durables in South Korea is now comparable to that in developed countries even though its per capita income in current US dollars is still less than half the US level.

In 1990, barely 14.4% of Chinese households had a fridge, 23.6% had a colour television and 27.4% owned a washing machine<sup>4</sup>. Over the following two decades, all these goods became commonplace. The penetration rate for television sets, for instance, reached 97% of Chinese households by 2011 while that for refrigerators and washing machines rose to 73.5% and 74.8% respectively. In other words, penetration levels for many durables will likely reach developed country levels by the end of the decade even though China will still be a middle-income country.

The pace of transformation for other developing countries has been slower than China but still very rapid. As one can see from Table 5, penetration rates for goods like television sets and refrigerators have crossed 95% in Brazil. India remains a great untapped market for household durables although penetration rates are rising here as well. The country is a good illustration of how local conditions impact the purchase of different products. Almost 66% of Indian households had a television by 2011 but only 20% had a fridge. This reflects the fact that Indians suffer erratic power supply – a TV set can easily run on back-up batteries but not a fridge.

<sup>&</sup>lt;sup>4</sup> "World Consumer Lifestyles Databook 2012", Euromoniter, 11th Edition.

| Table 5: Househol | d Dura | bles P | enetra | tion Ra | ates |      |      |      |      |      |      |
|-------------------|--------|--------|--------|---------|------|------|------|------|------|------|------|
| % of households   | 1990   | 1995   | 2003   | 2004    | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
| United States     |        |        |        |         |      |      |      |      |      |      |      |
| Colour TV Set     | 93.5   | 96.3   | 97.7   | 98.3    | 98.5 | 98.6 | 98.8 | 98.9 | 99.0 | 99.1 | 99.2 |
| Dishwasher        | 47.6   | 53.7   | 57.7   | 58.7    | 60.5 | 61.4 | 61.8 | 62.5 | 63.3 | 64.1 | 64.7 |
| Freezer           | 32.8   | 32.9   | 32.2   | 33.2    | 35.1 | 35.3 | 35.2 | 34.6 | 34.3 | 34.3 | 34.3 |
| Microwave Oven    | 67.8   | 82.9   | 92.7   | 93.7    | 94.4 | 94.7 | 95.3 | 95.8 | 96.2 | 96.6 | 97.1 |
| Personal Computer | 16.0   | 26.0   | 64.0   | 68.0    | 73.0 | 78.0 | 81.2 | 84.1 | 86.2 | 88.0 | 89.5 |
| Refrigerator      | 98.7   | 98.8   | 99.0   | 99.5    | 99.8 | 99.9 | 99.9 | 99.9 | 99.9 | 99.9 | 99.9 |
| Telephone         | 93.3   | 93.9   | 94.7   | 93.5    | 92.9 | 93.4 | 94.6 | 94.8 | 94.8 | 94.8 | 94.9 |
| Tumble Drier      | 67.2   | 71.4   | 76.7   | 80.1    | 81.2 | 82.1 | 83.1 | 84.0 | 84.8 | 85.5 | 86.2 |
| Vacuum Cleaner    | 94.8   | 96.1   | 97.7   | 97.8    | 98.0 | 98.1 | 98.2 | 98.4 | 98.5 | 98.6 | 98.7 |
| Washing Machine   | 74.2   | 76.3   | 79.6   | 82.7    | 82.0 | 83.3 | 84.3 | 85.0 | 85.8 | 86.4 | 87.0 |
| United Kingdom    |        |        |        |         |      |      |      |      |      |      |      |
| Colour TV Set     | 94.2   | 97.0   | 99.0   | 99.0    | 99.0 | 99.0 | 99.0 | 99.0 | 99.0 | 99.0 | 99.0 |
| Dishwasher        | 13.1   | 20.0   | 31.0   | 33.3    | 34.7 | 36.8 | 37.4 | 37.0 | 39.0 | 41.0 | 42.7 |
| Freezer           | 81.3   | 89.0   | 96.0   | 96.7    | 97.2 | 97.2 | 97.5 | 97.7 | 97.8 | 98.0 | 98.2 |
| Microwave Oven    | 51.2   | 67.0   | 89.4   | 89.9    | 90.9 | 91.1 | 91.3 | 92.0 | 93.0 | 93.6 | 94.0 |
| Personal Computer | 20.4   | 25.0   | 58.0   | 62.2    | 64.5 | 66.8 | 69.7 | 72.0 | 75.0 | 77.5 | 79.5 |
| Refrigerator      | 97.2   | 98.1   | 99.2   | 99.2    | 99.3 | 99.3 | 99.4 | 99.4 | 99.5 | 99.5 | 99.6 |
| Telephone         | 87.0   | 91.0   | 92.5   | 92.6    | 91.7 | 91.0 | 89.4 | 90.0 | 88.0 | 87.2 | 86.7 |
| Tumble Drier      | 46.8   | 51.0   | 56.5   | 57.7    | 57.8 | 57.9 | 58.1 | 58.4 | 58.7 | 59.0 | 59.2 |
| Vacuum Cleaner    | 89.7   | 91.8   | 94.7   | 95.0    | 95.2 | 95.4 | 95.6 | 95.7 | 95.9 | 96.0 | 96.1 |
| Washing Machine   | 86.0   | 90.0   | 94.1   | 94.6    | 95.2 | 95.8 | 95.8 | 96.0 | 96.0 | 96.1 | 96.1 |
| Germany           |        |        |        |         |      |      |      |      |      |      |      |
| Colour TV Set     | 87.3   | 94.3   | 94.4   | 95.0    | 95.1 | 95.2 | 95.9 | 94.1 | 95.9 | 97.6 | 98.6 |
| Dishwasher        | 23.2   | 35.3   | 54.9   | 56.7    | 59.1 | 61.6 | 62.4 | 62.5 | 64.8 | 66.0 | 66.7 |
| Freezer           | 68.1   | 75.8   | 66.0   | 73.9    | 72.5 | 72.3 | 73.6 | 75.0 | 76.5 | 77.8 | 78.9 |
| Microwave Oven    | 25.6   | 42.6   | 60.5   | 62.3    | 67.0 | 68.0 | 68.7 | 69.6 | 71.9 | 73.0 | 73.8 |
| Personal Computer | 13.9   | 27.9   | 61.0   | 63.6    | 68.6 | 71.6 | 72.8 | 75.4 | 78.8 | 82.0 | 84.7 |
| Refrigerator      | 93.8   | 97.3   | 98.8   | 98.9    | 99.1 | 98.9 | 99.4 | 98.6 | 98.7 | 98.8 | 98.9 |
| Telephone         | 85.9   | 88.5   | 94.5   | 95.1    | 95.9 | 95.2 | 95.4 | 89.7 | 91.5 | 93.0 | 94.2 |
| Tumble Drier      | 13.9   | 23.2   | 35.4   | 36.8    | 39.3 | 41.4 | 43.4 | 44.9 | 46.2 | 47.3 | 48.2 |
| Vacuum Cleaner    | 90.3   | 92.0   | 94.2   | 94.5    | 94.7 | 95.0 | 95.2 | 95.5 | 95.7 | 95.9 | 96.1 |
| Washing Machine   | 86.8   | 90.2   | 96.5   | 95.5    | 95.5 | 95.6 | 95.7 | 95.8 | 96.0 | 96.1 | 96.2 |
| Japan             |        |        |        |         |      |      |      |      |      |      |      |
| Colour TV Set     | 99.4   | 98.9   | 99.4   | 99.0    | 99.4 | 99.5 | 99.7 | 99.4 | 99.4 | 99.4 | 99.5 |
| Dishwasher        | 3.2    | 7.4    | 19.8   | 22.2    | 24.4 | 25.8 | 27.4 | 28.8 | 26.9 | 27.3 | 28.1 |
| Freezer           | 13.5   | 18.8   | 31.7   | 33.5    | 35.0 | 36.2 | 37.1 | 37.9 | 38.6 | 39.1 | 39.5 |
| Microwave Oven    | 69.7   | 87.2   | 95.8   | 96.5    | 96.8 | 97.0 | 97.2 | 97.3 | 97.5 | 97.5 | 97.6 |
| Personal Computer | 10.6   | 15.6   | 78.2   | 77.5    | 80.5 | 74.1 | 85.0 | 85.9 | 86.5 | 87.0 | 87.7 |
| Refrigerator      | 98.2   | 97.8   | 98.9   | 98.4    | 98.1 | 98.2 | 98.4 | 98.5 | 98.7 | 98.8 | 98.8 |
| Telephone         | 39.6   | 58.3   | 96.3   | 95.3    | 94.8 | 94.8 | 94.9 | 95.0 | 95.2 | 95.3 | 95.4 |
| Tumble Drier      | 14.9   | 19.4   | 22.7   | 23.2    | 23.7 | 24.1 | 24.5 | 24.8 | 25.2 | 25.6 | 25.9 |
| Vacuum Cleaner    | 98.8   | 98.3   | 98.1   | 98.1    | 98.2 | 98.2 | 98.3 | 98.5 | 98.8 | 98.9 | 99.0 |
| Washing Machine   | 99.5   | 99.0   | 99.6   | 99.0    | 98.9 | 99.0 | 99.1 | 99.3 | 99.5 | 99.6 | 99.6 |
| Brazil            |        |        |        |         |      |      |      |      |      |      |      |
| Colour TV Set     |        | 60.9   | 90.0   | 90.3    | 91.4 | 93.0 | 94.5 | 95.1 | 95.3 | 95.4 | 95.6 |
| Dishwasher        |        | 0.2    | 3.5    | 4.4     | 5.1  | 5.7  | 6.2  | 6.7  | 7.1  | 7.4  | 7.8  |
| Freezer           |        | 15.4   | 17.7   | 17.1    | 16.7 | 16.4 | 16.3 | 16.0 | 15.2 | 14.8 | 14.4 |
| Microwave Oven    |        | 10.7   | 25.0   | 27.0    | 28.8 | 30.4 | 32.1 | 33.5 | 35.0 | 36.3 | 37.4 |
| Personal Computer |        | 1.9    | 15.3   | 16.6    | 18.5 | 22.1 | 26.5 | 31.2 | 35.5 | 39.3 | 42.8 |
| Refrigerator      |        | 74.8   | 87.3   | 87.4    | 88.0 | 89.2 | 90.8 | 92.1 | 93.4 | 94.5 | 95.3 |
| Telephone         |        | 22.4   | 50.8   | 49.6    | 48.1 | 46.7 | 45.8 | 45.2 | 44.6 | 44.0 | 43.4 |

| Table 5: Household Durables Penetration Rates |      |      |      |      | ates | (cont' | d)   |      |      |      |      |
|---|------|------|------|------|------|--------|------|------|------|------|------|
| % of households                               | 1990 | 1995 | 2003 | 2004 | 2005 | 2006   | 2007 | 2008 | 2009 | 2010 | 2011 |
| Tumble Drier                                  |      | 1.6  | 2.1  | 2.2  | 2.2  | 2.3    | 2.4  | 2.4  | 2.5  | 2.6  | 2.6  |
| Vacuum Cleaner                                |      | 11.2 | 24.8 | 26.4 | 28.1 | 29.9   | 31.5 | 33.0 | 34.6 | 36.0 | 37.3 |
| Washing Machine                               |      | 26.6 | 34.4 | 34.5 | 35.8 | 37.5   | 39.5 | 41.5 | 44.3 | 46.2 | 47.6 |
| Mexico  |      |      |      |      |      |        |      |      |      |      |      |
| Colour TV Set                                 | 43.4 | 73.1 | 92.3 | 91.7 | 92.8 | 93.4   | 93.3 | 93.2 | 93.3 | 93.5 | 93.8 |
| Dishwasher                                    | 0.5  | 1.8  | 5.3  | 5.8  | 6.3  | 6.9    | 7.5  | 8.1  | 8.6  | 9.2  | 9.8  |
| Freezer                                       | 6.6  | 9.4  | 13.6 | 14.1 | 14.5 | 14.9   | 15.2 | 15.5 | 15.8 | 16.0 | 16.2 |
| Vicrowave Oven                                | 1.5  | 5.7  | 18.6 | 20.6 | 22.3 | 23.9   | 25.4 | 26.8 | 28.2 | 29.5 | 30.8 |
| Personal Computer                             | 0.4  | 1.9  | 16.6 | 18.0 | 19.6 | 20.6   | 22.1 | 25.6 | 27.5 | 29.4 | 31.2 |
| Refrigerator                                  | 57.8 | 62.4 | 74.7 | 77.0 | 79.0 | 80.2   | 81.0 | 81.6 | 81.9 | 82.1 | 82.3 |
| Telephone                                     | 23.6 | 34.0 | 46.0 | 47.9 | 48.8 | 48.3   | 53.0 | 52.6 | 49.2 | 43.2 | 41.2 |
| Tumble Drier                                  | 4.3  | 4.5  | 4.9  | 4.9  | 5.0  | 5.0    | 5.1  | 5.1  | 5.2  | 5.2  | 5.2  |
| /acuum Cleaner                                | 4.5  | 7.9  | 19.7 | 21.8 | 24.0 | 26.2   | 28.4 | 31.0 | 33.5 | 35.9 | 38.2 |
| Washing Machine                               | 20.4 | 32.8 | 60.5 | 61.7 | 62.7 | 63.6   | 64.4 | 65.2 | 65.8 | 66.4 | 67.0 |
| Russia  |      |      |      |      |      |        |      |      |      |      |      |
| Colour TV Set                                 | 41.4 | 61.7 | 88.4 | 90.7 | 92.0 | 93.9   | 95.1 | 96.1 | 96.8 | 97.3 | 97.6 |
| Dishwasher                                    | 0.0  | 0.1  | 1.3  | 1.6  | 1.7  | 1.9    | 2.0  | 2.0  | 2.1  | 2.3  | 2.4  |
| Freezer                                       | 4.8  | 9.7  | 21.4 | 22.7 | 24.0 | 25.1   | 26.1 | 26.9 | 27.6 | 28.3 | 28.8 |
| Vicrowave Oven                                | 1.1  | 4.1  | 24.2 | 27.5 | 30.9 | 34.6   | 39.0 | 45.0 | 48.0 | 49.7 | 50.9 |
| Personal Computer                             | 0.1  | 1.0  | 13.8 | 20.0 | 26.0 | 32.5   | 35.0 | 40.0 | 45.2 | 49.5 | 52.9 |
| Refrigerator                                  | 90.9 | 92.5 | 95.0 | 95.3 | 95.6 | 95.9   | 96.1 | 96.3 | 96.5 | 96.7 | 96.8 |
| Telephone                                     | 29.4 | 39.9 | 56.1 | 56.9 | 57.6 | 58.3   | 58.8 | 59.3 | 59.6 | 60.0 | 60.3 |
| Tumble Drier                                  | 0.0  | 0.0  | 0.5  | 0.6  | 0.7  | 0.9    | 1.0  | 1.1  | 1.2  | 1.3  | 1.4  |
| Vacuum Cleaner                                | 63.5 | 77.0 | 85.3 | 87.1 | 89.0 | 91.0   | 88.0 | 89.0 | 92.0 | 93.4 | 94.3 |
| Washing Machine                               | 88.9 | 92.5 | 93.3 | 94.0 | 94.7 | 95.3   | 95.8 | 96.3 | 96.6 | 96.9 | 97.1 |
| South Korea                                   |      |      |      |      |      |        |      |      |      |      |      |
| Colour TV Set                                 | 88.0 | 91.3 | 96.0 | 96.3 | 96.4 | 96.5   | 96.5 | 96.6 | 96.6 | 96.7 | 96.7 |
| Dishwasher                                    | 0.1  | 2.6  | 5.7  | 5.9  | 6.1  | 6.4    | 6.6  | 6.8  | 7.0  | 7.2  | 7.3  |
| Freezer                                       | 7.0  | 13.0 | 26.6 | 28.1 | 29.8 | 30.8   | 31.7 | 32.5 | 33.2 | 33.7 | 34.2 |
| Microwave Oven                                | 20.5 | 43.4 | 81.7 | 84.2 | 86.6 | 88.4   | 89.9 | 91.3 | 92.4 | 93.4 | 94.3 |
| Personal Computer                             | 7.2  | 23.5 | 77.9 | 87.3 | 93.2 | 96.3   | 97.0 | 96.8 | 96.6 | 98.7 | 98.7 |
| Refrigerator                                  | 97.4 | 98.2 | 99.4 | 99.5 | 99.5 | 99.6   | 99.6 | 99.6 | 99.7 | 99.7 | 99.7 |
| Telephone                                     | 83.4 | 88.1 | 92.6 | 93.0 | 93.3 | 93.6   | 94.0 | 94.3 | 94.6 | 94.8 | 95.1 |
| Tumble Drier                                  | 0.3  | 0.9  | 2.7  | 2.8  | 3.0  | 3.0    | 3.1  | 3.2  | 3.2  | 3.2  | 3.3  |
| Vacuum Cleaner                                | 18.7 | 50.9 | 76.0 | 78.0 | 79.7 | 81.6   | 83.5 | 84.8 | 86.4 | 88.0 | 89.4 |
| Washing Machine                               | 78.3 | 92.7 | 97.2 | 97.6 | 97.9 | 98.1   | 98.4 | 98.5 | 98.7 | 98.8 | 98.9 |
| ndia  |      |      |      |      |      |        |      |      |      |      |      |
| Colour TV Set                                 | 2.5  | 11.7 | 37.3 | 40.8 | 44.7 | 45.9   | 50.2 | 55.0 | 60.2 | 63.6 | 65.9 |
| Dishwasher                                    | 0.0  | 0.0  | 0.1  | 0.2  | 0.2  | 0.3    | 0.4  | 0.4  | 0.5  | 0.6  | 0.7  |
| Freezer                                       | 0.4  | 1.0  | 5.1  | 6.1  | 7.3  | 8.5    | 9.5  | 10.5 | 11.6 | 12.7 | 13.7 |
| Vicrowave Oven                                | 0.7  | 2.8  | 10.1 | 11.1 | 12.0 | 13.1   | 14.1 | 15.0 | 16.2 | 17.1 | 18.1 |
| Personal Computer                             | 0.0  | 0.1  | 1.5  | 2.2  | 3.0  | 3.7    | 4.4  | 5.3  | 6.3  | 7.7  | 9.1  |
| Refrigerator                                  | 2.2  | 6.2  | 11.9 | 13.4 | 15.3 | 16.4   | 17.3 | 18.1 | 18.8 | 19.4 | 20.1 |
| Telephone                                     | 2.6  | 5.6  | 12.7 | 13.4 | 14.0 | 14.6   | 15.2 | 15.8 | 16.3 | 16.9 | 17.4 |
| Tumble Drier                                  | 0.4  | 0.7  | 1.1  | 1.2  | 1.2  | 1.2    | 1.3  | 1.3  | 1.4  | 1.4  | 1.4  |
| /acuum Cleaner                                | 2.5  | 6.6  | 20.7 | 22.8 | 25.0 | 26.8   | 28.6 | 30.2 | 31.6 | 33.1 | 34.3 |
| Washing Machine                               | 0.9  | 1.8  | 4.2  | 4.6  | 4.9  | 5.3    | 5.7  | 6.1  | 6.5  | 6.9  | 7.3  |
| China   |      |      |      |      |      |        |      |      |      |      |      |
| Colour TV Set                                 | 23.6 | 42.1 | 80.1 | 84.6 | 90.1 | 93.2   | 95.3 | 96.1 | 96.5 | 96.6 | 96.8 |
| Dishwasher                                    | 0.0  | 0.0  | 0.2  | 0.2  | 0.3  | 0.3    | 0.2  | 0.3  | 0.3  | 0.4  | 0.4  |
| Freezer                                       | 0.2  | 1.1  | 3.4  | 3.6  | 3.8  | 3.9    | 4.0  | 4.2  | 4.3  | 4.4  | 4.5  |
|   |      |      |      |      |      |        |      |      |      |      |      |

| Table 5: Househo  | old Dura | bles P | enetra | tion Ra | ates | (cont' | ont'd) |      |      |      |      |  |  |
|-------------------|----------|--------|--------|---------|------|--------|--------|------|------|------|------|--|--|
| % of households   | 1990     | 1995   | 2003   | 2004    | 2005 | 2006   | 2007   | 2008 | 2009 | 2010 | 2011 |  |  |
| Microwave Oven    | 0.7      | 1.8    | 15.8   | 18.5    | 21.4 | 24.0   | 25.9   | 27.6 | 29.0 | 30.7 | 32.2 |  |  |
| Personal Computer | 0.0      | 0.4    | 12.0   | 14.6    | 18.5 | 21.5   | 25.0   | 29.0 | 31.8 | 33.3 | 34.6 |  |  |
| Refrigerator      | 14.4     | 26.9   | 50.8   | 53.4    | 55.6 | 58.0   | 62.0   | 63.7 | 68.3 | 71.3 | 73.5 |  |  |
| Telephone         | 4.1      | 10.2   | 57.8   | 66.0    | 71.6 | 76.4   | 77.8   | 79.9 | 81.2 | 82.2 | 82.8 |  |  |
| Tumble Drier      | 0.4      | 0.7    | 1.7    | 1.7     | 1.8  | 2.0    | 2.0    | 2.2  | 2.2  | 2.4  | 2.5  |  |  |
| Vacuum Cleaner    | 1.3      | 3.1    | 15.7   | 17.8    | 20.0 | 22.1   | 24.2   | 26.2 | 28.2 | 30.3 | 32.1 |  |  |
| Washing Machine   | 27.4     | 37.8   | 58.6   | 61.2    | 63.4 | 65.7   | 67.5   | 69.5 | 71.4 | 73.1 | 74.8 |  |  |
| Thailand          |          |        |        |         |      |        |        |      |      |      |      |  |  |
| Colour TV Set     | 35.8     | 65.5   | 89.2   | 90.6    | 91.5 | 92.0   | 92.1   | 92.3 | 92.5 | 92.7 | 92.9 |  |  |
| Dishwasher        | 0.1      | 0.3    | 1.0    | 1.1     | 1.2  | 1.3    | 1.5    | 1.6  | 1.7  | 1.9  | 2.0  |  |  |
| Freezer           | 1.1      | 3.8    | 12.8   | 14.2    | 15.5 | 16.6   | 17.7   | 18.6 | 19.4 | 19.9 | 20.4 |  |  |
| Microwave Oven    | 0.9      | 2.2    | 41.5   | 47.3    | 51.8 | 55.2   | 57.8   | 59.6 | 61.0 | 62.1 | 62.9 |  |  |
| Personal Computer | 0.1      | 0.8    | 9.6    | 11.8    | 15.5 | 16.2   | 17.0   | 19.6 | 22.5 | 25.1 | 27.2 |  |  |
| Refrigerator      | 31.6     | 52.7   | 78.3   | 79.7    | 82.1 | 83.6   | 85.0   | 86.2 | 87.3 | 88.3 | 89.2 |  |  |
| Telephone         | 5.8      | 11.8   | 24.7   | 25.8    | 26.8 | 26.6   | 25.3   | 23.9 | 22.1 | 21.5 | 21.1 |  |  |
| Tumble Drier      | 1.5      | 2.0    | 2.3    | 2.3     | 2.4  | 2.4    | 2.4    | 2.4  | 2.5  | 2.5  | 2.5  |  |  |
| Vacuum Cleaner    | 4.2      | 4.7    | 7.8    | 8.5     | 9.2  | 9.9    | 10.6   | 11.3 | 12.0 | 12.7 | 13.4 |  |  |
| Washing Machine   | 4.3      | 12.3   | 32.9   | 36.3    | 40.0 | 43.1   | 46.2   | 48.4 | 50.8 | 52.7 | 54.4 |  |  |

One would expect that spending on transportation and communications would follow a path very similar to what we found for durables. There are indeed some similarities but we found that spending patterns can be heavily influenced by exogenous factors. For instance, spending on transportation is heavily influenced by government policy, taxation, provision of public transportation and so on. Thus, households in Singapore and Hong Kong, two of the most prosperous cities in the world, have car ownership rates of 40% and 21% respectively compared to 89% for the US and 78% for the UK. As illustrated in Table 6 and 7, this has much to do with the fact that the two cities tax their cars heavily but provide cheap public transport. Other factors such as fuel cost and urban design also have a big impact on transport related spending. Even cultural factors play a role with Asians generally appearing to have a preference for motor-cycles.

| Per 100 households | Motor cycle | Passenger car |
|--------------------|-------------|---------------|
| Brazil             | 8.6         | 36.5          |
| China              | 40.9        | 5.5           |
| Germany            | 10.8        | 76.6          |
| Hong Kong          | 32.4        | 21.6          |
| India              | 25.3        | 4.1           |
| Japan              | 19.6        | 87.0          |
| Mexico             | 1.7         | 45.0          |
| Russia             | 17.2        | 51.0          |
| Singapore          | 7.0         | 40.6          |
| South Korea        | 39.1        | 68.4          |
| Thailand           | 71.6        | 14.3          |
| United Kingdom     | 9.4         | 78.3          |
| United States      | 5.2         | 88.6          |

| Table 7: Car Prices |                  |
|---------------------|------------------|
| In USD              | Mercedes SLK 350 |
| Australia           | 87,000           |
| Canada              | 50,543           |
| France              | 65,600           |
| Hong Kong           | 86,000           |
| Singapore           | 160,000          |
| South Africa        | 60,000           |
| United Kingdom      | 52,113           |
| United States       | 51,000           |

Source: The Random Walk: Mapping the World's Prices, DB estimates

| Table 8: Cost  | of Public Transport |   |
|----------------|---------------------|---|
| Countries      | Cities              | Min fare for single rides in rail (USD) |
| Brazil         | Rio de Janeiro      | 1.47                                    |
| China          | Beijing             | 0.30                                    |
| China          | Shanghai            | 0.45                                    |
| Germany        | Berlin              | 1.78                                    |
| Hong Kong      | Hong Kong           | 0.44                                    |
| India          | New Delhi           | 0.20                                    |
| Japan          | Tokyo               | 1.93                                    |
| Mexico         | Mexico City         | 0.24                                    |
| Russia         | Moscow              | 0.84                                    |
| Singapore      | Singapore           | 1.04                                    |
| United Kingdom | London              | 2.90                                    |
| United States  | Chicago             | 2.25                                    |
| United States  | New York City       | 2.50                                    |
| United States  | San Francisco       | 2.00                                    |

Source: The Random Walk: Mapping the World's Prices, DB estimates

Spending on communications too is affected by many exogenous factors ranging from technological innovation to the falling prices of devices and connections. As already pointed out earlier, India has leapfrogged from fixed line to mobile technologies while broadband penetration in China has jumped from 1.3% in 2003 to 26.1% in 2011. Nevertheless, one should not forget how rapidly things have changed even in developed markets. As recently as 2003, less than 10% of German and French households had broadband access<sup>5</sup>. Given the fluidity of this category, therefore, it is very difficult to make long term projections of the trajectory. Moreover, there is an even bigger issue about how we account for our growing consumption of on-line services. So far we have used broadband and mobile telephone penetration as proxy for the consumption of on-line services but these are enabling infrastructure and not really the final product. In the next section we have attempted to explore this new universe.

<sup>&</sup>lt;sup>5</sup> "World Consumer Lifestyles Databook 2012", Euromonitor, 11th Edition.

| Table 9: Commun    | ication | Techn | ology | Penet | ration I | Rates |      |      |      |      |      |
|--------------------|---------|-------|-------|-------|----------|-------|------|------|------|------|------|
| % of households    | 1990    | 1995  | 2003  | 2004  | 2005     | 2006  | 2007 | 2008 | 2009 | 2010 | 2011 |
| United States      |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 19.9  | 35.9  | 35.0     | 44.5  | 50.8 | 57.1 | 63.5 | 69.5 | 74.7 |
| Mobile Telephone   | 8.6     | 24.4  | 68.8  | 77.3  | 84.8     | 90.5  | 94.1 | 96.1 | 97.3 | 97.8 | 98.1 |
| United Kingdom     |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 10.7  | 15.8  | 31.5     | 43.9  | 56.7 | 61.5 | 69.5 | 73.0 | 76.4 |
| Mobile Telephone   | 0.8     | 8.6   | 75.9  | 77.6  | 78.8     | 79.2  | 78.4 | 79.0 | 81.0 | 82.5 | 83.8 |
| Germany            |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 9.3   | 18.0  | 23.2     | 33.5  | 49.6 | 54.9 | 64.6 | 69.8 | 74.3 |
| Mobile Telephone   | 1.2     | 10.9  | 71.7  | 74.3  | 75.5     | 79.5  | 82.2 | 85.0 | 87.3 | 89.2 | 90.8 |
| Japan              |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 27.8  | 36.3  | 44.6     | 50.0  | 54.8 | 58.5 | 60.0 | 62.7 | 66.7 |
| Mobile Telephone   | 3.6     | 30.4  | 83.3  | 85.1  | 85.3     | 88.0  | 90.5 | 90.2 | 92.7 | 94.4 | 95.6 |
| Brazil             |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 5.9   | 6.5   | 7.5      | 10.6  | 13.8 | 17.0 | 20.5 | 24.3 | 28.5 |
| Mobile Telephone   | NA      | 2.0   | 13.0  | 16.8  | 21.2     | 26.2  | 31.7 | 37.6 | 41.2 | 44.5 | 47.7 |
| Mexico             |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 1.0   | 1.8   | 2.3      | 4.1   | 6.1  | 9.6  | 13.8 | 21.0 | 24.5 |
| Mobile Telephone   | 0.1     | 2.4   | 28.2  | 35.3  | 42.0     | 47.0  | 55.2 | 58.5 | 61.9 | 65.1 | 68.0 |
| Russia             |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 0.2   | 0.6   | 2.0      | 6.0   | 12.0 | 18.0 | 24.0 | 29.0 | 33.8 |
| Mobile Telephone   | 0.0     | 2.7   | 45.4  | 55.0  | 63.0     | 71.9  | 80.4 | 86.6 | 90.9 | 93.9 | 96.1 |
| South Korea        |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 66.0  | 85.7  | 90.8     | 94.0  | 94.1 | 94.3 | 95.9 | 97.6 | 98.2 |
| Mobile Telephone   | 1.7     | 11.9  | 91.6  | 94.8  | 96.3     | 97.2  | 97.7 | 98.1 | 98.4 | 98.8 | 99.1 |
| India              |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 0.1   | 0.2   | 0.3      | 0.6   | 1.2  | 2.0  | 3.5  | 4.7  | 5.9  |
| Mobile Telephone   | 0.0     | 0.0   | 7.8   | 12.3  | 17.6     | 21.9  | 26.3 | 30.2 | 33.6 | 37.3 | 41.1 |
| China              |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 1.3   | 2.5   | 6.6      | 13.0  | 14.4 | 16.7 | 19.9 | 23.0 | 26.1 |
| Mobile Telephone   | NA      | 0.1   | 40.8  | 51.8  | 64.6     | 73.8  | 80.5 | 84.9 | 87.8 | 89.8 | 91.2 |
| Thailand           |         |       |       |       |          |       |      |      |      |      |      |
| Broadband Internet | NA      | 0.0   | 0.7   | 1.2   | 1.7      | 3.0   | 6.0  | 7.0  | 8.4  | 9.8  | 11.3 |
| Mobile Telephone   | 0.0     | 2.9   | 46.0  | 58.6  | 66.0     | 70.7  | 74.2 | 77.2 | 80.0 | 82.0 | 83.8 |

# **Consumption in the Digital Age**

Consumers around the world are spending more and more time on-line. The problem is that it is very difficult to capture it in the conventional consumption basket. For instance, I may use Google, Youtube, Facebook and Twitter all day but it will not show up as consumption because I have not "spent" any money on it in the conventional sense. The small sum that I pay for the broadband or mobile connection does not reflect my use of these services because I pay for these services by providing time and "eyeballs" that do not get captured by traditional expenditure statistics. However, one can hardly ignore these activities given that several large businesses derive their success directly from these new forms of consumer behavior. A study by the Boston Consulting Group provides a glimpse of this rapidly evolving landscape<sup>6</sup>. As shown in Figure 3, the report found there are both similarities and differences in how consumers in China, Japan and the US use the internet. In all countries, the internet is widely used for news, search and email. However, activities like instant messaging, music downloads and micro-blogging are far more popular with Chinese users than with the Japanese. In contrast 85% of US internet-users and 74% of Japanese users engaged in e-commerce in 2011 compared to 36% in China (although the category is growing fast in China too). The report also found that the difference between Chinese internet users and their developed country counterparts is more clearly visible when looking at their behavior when accessing the internet from mobile devices. As illustrated in Figure 4, Chinese mobile users seem far more active in virtually every category. In our view, this reflects a form of technological leapfrogging by a late entrant developing country where consumers moved directly to the new medium.



#### Source: China's Digital Generations 3.0; Boston Consulting Group

<sup>&</sup>lt;sup>6</sup> "China's Digital Generation 3.0", David Michael et al, The Boston Consulting Group, April 2012



Source: China's Digital Generations 3.0; Boston Consulting Group

So, what can we say about consumption patterns in this ever changing landscape? Data from Nielsen provides some useful insights into how new products are adopted by consumers . As shown in Figure 5, the penetration of smart phones has dramatically gone up since 2010 at the expense of the old feature phones. The Nielsen study found that two factors increased the likelihood that that a US consumer would adopt the new technology. First, higher income increased adoption rates. As shown in Figure 6, those earning more than USD 100,000 were more likely than poorer consumers to switch to a smart phone irrespective of age. This probably not surprisingly since richer consumers can better bear the high cost of the new devices as well as the risk of experimentation. Second, the 25-34 year age cohort is the most likely to adopt the new product and not the youngest group. Indeed, consumers in the 35-44 year cohort were usually just as likely to switch to a smart phone as consumers in the 18-24 year cohort. The results were confirmed with data for the adoption of Apps. The 18-24 year olds accounted for 19% of high App users compared to 34% of the 25-34 year cohort and 25% for 35-44 year cohort. In all cases, adoption rates declined from the age of 45 years.

#### Figure 5: How Consumers switched to the Smart Phone



Source: Courting Today's Mobile Consumer, July 18, 2012; Nielsen



# How are Changing Lifestyles affecting Consumption?

In our previous report ("*Who are the World's Consumers?*" The Wide Angle series, 23<sup>rd</sup> July 2012), we had seen how the profile of the global consumer is rapidly changing due to aging, falling birth rates, the decline of the institution of marriage and so on. In another earlier report, we had also discussed how US suburbs are likely to steadily give way to denser urban forms (see "*The Future of Our Cities*", The Wide Angle series, 31<sup>st</sup> August, 2011). Moreover, these changes are taking place at a time the internet and other communications technologies are fundamentally changing how we lead our lives. All of these factors will obviously affect consumer lifestyles and consequently the consumption patterns but most analysts persist with the old paradigm.

The sales of automobiles in the US peaked in 2005 and it was surpassed by China in 2009 as the world's largest market for cars. The conventional wisdom is that this is merely a cyclical downturn caused by the current recession and that automobile sales will revert to some longterm trajectory when the economy revives. However, one wonders if there is a structural break caused by changing lifestyles and that US car sales may never quite revert to the old sales trajectory? What if the next generation of US consumers does not see the automobile as a symbol of status and freedom as was the case with their parents and grandparents? Unlikely as this may seem at first glance, there is growing evidence that this in indeed what is happening. The proportion of 17-year olds with a US driving license has dropped from 69% in 1983 to 50% in 2008 according to a study by the Transport Research Institute, University of Michigan. The proportion for 20-24 year olds similarly dropped from 93% to 83% during the same period. Note that decline happened before the Great Recession and cannot be explained away as a cyclical deviation. Instead, the study found evidence that rising internet penetration increased the likelihood of not having a driver's license. These trends have been confirmed by Federal Highway Administration data as well as by data from other major developed countries like UK, Japan, South Korea and even Germany<sup>7</sup>.

In order to understand these lifestyle changes, we looked into how people spend their time. We had expected to see big changes in how the average American lived his/her life between 2003 and 2011. After all, we did not have iPads, Angry Birds and Facebook to while away time in 2003 and internet shopping was still in its infancy. The data, to our initial surprise, showed that little had changed. As shown in Table 9, the average American seems to spend

<sup>&</sup>lt;sup>7</sup> "Recent Changes in the Age Composition of Drivers in 15 Countries", Michael Sivak and Brandon Schoettle, Transport Research Institute, University of Michigan, October 2011. Note that the number of young drivers did go up in a few small countries but the overall trend is clear for developed countries. The study also found that the number of drivers of older age cohorts was going up in some countries but this is mostly a reflection of older generations making their way up the age structure.

roughly the same time in different activities today as in 2003. Even the time spent watching TV had remained roughly the same and, if anything, has gone up!

|   | 2        | 2003                     | 2011     |                          |  |
|---|----------|--------------------------|----------|--------------------------|--|
| In hours  | Weekdays | Weekends and<br>holidays | Weekdays | Weekends and<br>holidays |  |
| Total, all activities                           | 24.00    | 24.00                    | 24.00    | 24.00                    |  |
| Personal care activities (including sleeping)   | 9.04     | 10.04                    | 9.24     | 10.08                    |  |
| Eating and drinking                             | 1.16     | 1.32                     | 1.19     | 1.37                     |  |
| Household activities                            | 1.69     | 2.18                     | 1.63     | 2.12                     |  |
| Purchasing goods and services                   | 0.76     | 0.95                     | 0.69     | 0.81                     |  |
| Caring for and helping household members        | 0.59     | 0.46                     | 0.54     | 0.42                     |  |
| Caring for and helping non-household members    | 0.28     | 0.30                     | 0.20     | 0.23                     |  |
| Working and work-related activities             | 4.68     | 1.33                     | 4.49     | 1.38                     |  |
| Educational activities                          | 0.61     | 0.14                     | 0.60     | 0.18                     |  |
| Organizational, civic, and religious activities | 0.22     | 0.55                     | 0.25     | 0.61                     |  |
| Leisure and sports                              | 4.59     | 6.35                     | 4.73     | 6.34                     |  |
| Includes: Watching television                   | 2.39     | 3.01                     | 2.57     | 3.19                     |  |
| Telephone calls, mail and e-mail                | 0.20     | 0.16                     | 0.16     | 0.15                     |  |
| Other activities, not elsewhere classified      | 0.18     | 0.22                     | 0.28     | 0.31                     |  |

Source: Time Usage Survey; Bureau of Labour Statistics

At first, the above time-use data made no sense since we know from personal experience that lifestyles has indeed changed. On further investigation we found that the data says something very interesting about how we now live our lives. First, we found that people are now multi-tasking all the time. For instance, people watching television are probably also using their laptops, tablets or smart phones but this behavior was not being captured by the old style time-use data. As shown in Figure 7, the average consumer was probably checking his email, surfing the web or shopping on-line during the time that the time-use data classifies as watching TV. We may be spending the same amount of time in front of the television but we are probably paying only intermittent attention.



Second, the American consumer may be spending the same amount of time shopping, chatting with friends, doing work and other activities but there has been a big shift in how they go about it. Again, the time-use data does not reflect this change. For example, people increasingly shop on-line instead of visiting the hyper-market or chat on-line with friends rather than meet them face-to-face. In other words, the pattern of consumer behavior has radically changed even if broad time allocation has remained roughly the same. We have data suggesting that this is happening in other developed countries as well. In Britain, for example, the number of trips made per person per year has declined sharply by 10% since the late nineties (see Figure 8). We interpret this as substitution from a transport-based lifestyle to a communications based lifestyle. It is a long term trend that cannot be explained away by the current recession. In an earlier report, "*Transportation versus Communications: What is Next?*" (The Wide Angle report, 27<sup>th</sup> January 2012) we had delved into the impact of this shift on supply-chains and production systems. Here we can see how it is directly affecting the lifestyles of consumers.



# Conclusions

In this two-part series about global consumption trends, we investigated a landscape that is changing very rapidly. For developed countries, the world of stable nuclear families living in suburbia has given way to one with diverse household arrangements, often involving just a single individual. The emerging mental image is that of a hyper-connected, multitasking consumer who can operate complex gadgets but will be uncomfortable with a lawnmower and perhaps does even not like to drive. Note that this is not just about the youngest consumers. As we saw, consumers in their 30s and 40s can be just as enthusiastic about new technologies and it is possible that as this cohort ages, they will take their enthusiasm to ever higher age brackets. In turn, these changing tastes and lifestyles have important implications for the producers of virtually every product ranging from cars and household gadgets to entertainment and real estate.

Given the above trends in developed countries, what should we expect from the rising middle-class consumers of emerging markets? As pointed out in previous Wide Angle reports, lifestyles in these countries are being rapidly transformed by rising incomes, urbanization and changing family structures. In some ways, the resulting consumer behavior follows the experience of today's developed countries during their period of industrialization. The declining importance of food in the consumption basket and the rising penetration of household durables follow fairly predictable paths, even if the shift is often much quicker in the case of emerging markets. However, we need to be very careful when extrapolating developed country experiences to today's emerging markets. Local factors like culture and government policy can have a big impact on what people buy. More importantly, we have seen how emerging markets can often leapfrog technologies. It is quite possible that they will also leapfrog lifestyles. The hyper-urban societies of Singapore and Hong Kong show how quickly an emerging market can move to the frontiers of technological, social and economic experience.

# Appendix A: Food Consumption Basket for Selected Countries

| Table A1: Brazil   |                       |           |          |           |          |         |         |         |         |         |
|--|-----------------------|-----------|----------|-----------|----------|---------|---------|---------|---------|---------|
| In BRL   | 1995                  | 2003      | 2004     | 2005      | 2006     | 2007    | 2008    | 2009    | 2010    | 2011    |
| Food per capita consur   | ner expen             | diture by | category | /         |          |         |         |         |         |         |
| Food consumer<br>expenditure   | 378.5                 | 836.2     | 929.2    | 984.9     | 1,038.3  | 1,126.1 | 1,237.4 | 1,352.5 | 1,512.2 | 1,656.0 |
| Bread and cereals  | 83.8                  | 250.1     | 274.3    | 277.9     | 288.0    | 300.3   | 355.7   | 361.4   | 390.7   | 421.3   |
| Meat   | 97.5                  | 230.2     | 265.4    | 289.3     | 276.6    | 267.1   | 318.1   | 360.1   | 394.9   | 424.0   |
| Fish and seafood   | 9.6                   | 16.7      | 19.4     | 22.0      | 24.0     | 24.6    | 24.0    | 27.8    | 32.4    | 36.9    |
| Milk, cheese and eggs  | 73.7                  | 161.0     | 184.2    | 202.6     | 209.9    | 248.6   | 246.7   | 270.1   | 308.9   | 345.8   |
| Oils and fats  | 11.0                  | 35.5      | 40.0     | 36.9      | 36.0     | 39.0    | 45.7    | 43.5    | 47.7    | 49.9    |
| Fruit  | 34.3                  | 34.4      | 33.0     | 31.4      | 50.3     | 75.5    | 78.5    | 86.8    | 101.0   | 112.0   |
| Vegetables   | 28.3                  | 35.3      | 39.2     | 40.7      | 49.6     | 69.1    | 74.1    | 87.6    | 102.2   | 113.7   |
| Sugar and confectionery  | 28.4                  | 52.6      | 50.4     | 58.1      | 73.1     | 66.8    | 60.3    | 76.0    | 89.1    | 102.1   |
| Other foods  | 12.0                  | 20.5      | 23.4     | 26.0      | 30.8     | 35.1    | 34.3    | 39.2    | 45.4    | 50.5    |
| Alcoholic beverages' pe  | er capita o           | onsume    | expendi  | ture by c | ategory  |         |         |         |         |         |
| Alcoholic beverages'<br>consumer expenditure                                   | 12.4                  | 63.2      | 77.5     | 74.0      | 83.1     | 92.1    | 94.9    | 95.9    | 103.9   | 108.6   |
| Beer   | 6.4                   | 32.7      | 40.6     | 39.1      | 45.4     | 53.6    | 58.3    | 58.3    | 64.2    | 67.8    |
| Spirits  | 3.9                   | 17.6      | 19.0     | 17.6      | 19.1     | 19.7    | 19.4    | 17.7    | 18.4    | 18.6    |
| Wine   | 2.1                   | 13.0      | 18.0     | 17.3      | 18.5     | 18.8    | 17.1    | 19.9    | 21.2    | 22.2    |
| Non-alcoholic beverage   | es' per cap           | oita cons | umer exp | enditure  | by categ | ory     |         |         |         |         |
| Non-alcoholic<br>beverages' consumer<br>expenditure                            | 57.8                  | 134.7     | 151.5    | 166.4     | 187.3    | 210.5   | 241.4   | 276.0   | 316.7   | 355.3   |
| Coffee, tea and cocoa  | 8.5                   | 21.2      | 25.0     | 27.0      | 29.5     | 33.1    | 37.4    | 42.1    | 48.9    | 54.8    |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices                  | 49.3                  | 113.5     | 126.5    | 139.4     | 157.8    | 177.3   | 204.0   | 233.8   | 267.8   | 300.6   |
| Tobacco per capita<br>consumer expenditure<br>Source: World Consumer Lifestyle | 58.5<br>s Databook 20 | 64.9      | 68.3     | 59.1      | 64.8     | 72.7    | 75.9    | 71.0    | 76.0    | 78.1    |

| Table A2: China                              |           |         |          |         |          |         |         |         |         |         |         |
|--|-----------|---------|----------|---------|----------|---------|---------|---------|---------|---------|---------|
| In RMB                                       | 1990      | 1995    | 2003     | 2004    | 2005     | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    |
| Food per capita consur                       | ner expe  | nditure | by cates | gory    |          |         |         |         |         |         |         |
| Food consumer<br>expenditure                 | 349.5     | 937.3   | 1,144.6  | 1,294.7 | 1,348.9  | 1,417.9 | 1,663.9 | 1,952.4 | 2,041.2 | 2,164.1 | 2,342.3 |
| Bread and cereals                            | 87.6      | 202.0   | 160.1    | 197.8   | 202.5    | 207.8   | 231.4   | 269.2   | 267.9   | 277.2   | 290.1   |
| Meat   | 94.0      | 267.1   | 312.1    | 355.7   | 376.3    | 367.3   | 467.8   | 587.1   | 616.3   | 656.7   | 713.9   |
| Fish and seafood                             | 25.5      | 77.4    | 112.3    | 120.2   | 125.8    | 136.6   | 162.1   | 183.5   | 192.7   | 208.9   | 227.8   |
| Milk, cheese and eggs                        | 25.4      | 64.8    | 122.5    | 135.4   | 140.0    | 146.6   | 162.7   | 184.3   | 198.5   | 205.4   | 223.8   |
| Oils and fats                                | 15.6      | 46.8    | 51.8     | 60.3    | 56.9     | 58.6    | 78.0    | 107.8   | 111.3   | 119.4   | 130.0   |
| Fruit  | 30.9      | 85.5    | 115.4    | 128.0   | 137.4    | 161.7   | 181.1   | 192.1   | 207.3   | 220.3   | 239.6   |
| Vegetables                                   | 44.8      | 121.8   | 156.0    | 173.2   | 183.5    | 201.0   | 231.9   | 267.9   | 277.5   | 297.3   | 322.8   |
| Sugar and confectionery                      | 15.0      | 39.3    | 52.8     | 57.8    | 60.2     | 65.6    | 72.2    | 78.0    | 82.0    | 86.6    | 93.5    |
| Other foods                                  | 10.6      | 32.6    | 61.7     | 66.4    | 66.4     | 72.7    | 76.8    | 82.6    | 87.7    | 92.4    | 100.9   |
| Alcoholic beverages' p                       | er capita | consun  | ner expe | nditure | by categ | ory     |         |         |         |         |         |
| Alcoholic beverages'<br>consumer expenditure | 12.3      | 19.9    | 30.9     | 31.3    | 33.5     | 37.7    | 42.2    | 47.4    | 44.7    | 46.6    | 49.5    |
| Beer   | 0.5       | 3.3     | 13.3     | 13.2    | 14.3     | 16.6    | 19.3    | 21.6    | 20.8    | 22.4    | 24.5    |
| Spirits                                      | 11.7      | 15.9    | 14.4     | 14.8    | 15.7     | 17.4    | 18.7    | 20.7    | 19.0    | 18.9    | 19.1    |
| Wine   | 0.1       | 0.8     | 3.3      | 3.3     | 3.4      | 3.8     | 4.3     | 5.1     | 4.9     | 5.3     | 5.8     |

| Table A2: China   | (cont      | ′d)      |         |         |           |         |       |       |       |       |       |
|---|------------|----------|---------|---------|-----------|---------|-------|-------|-------|-------|-------|
| In RMB  | 1990       | 1995     | 2003    | 2004    | 2005      | 2006    | 2007  | 2008  | 2009  | 2010  | 2011  |
| Non-alcoholic beverage  | es' per ca | pita con | sumer e | xpendit | ure by ca | ategory |       |       |       |       |       |
| Non-alcoholic<br>beverages' consumer<br>expenditure           | 9.2        | 21.1     | 34.4    | 36.7    | 38.9      | 43.3    | 49.8  | 53.4  | 59.0  | 60.8  | 65.9  |
| Coffee, tea and cocoa   | 2.6        | 5.5      | 6.4     | 6.4     | 6.6       | 7.1     | 7.7   | 7.6   | 7.9   | 8.0   | 8.4   |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices | 6.6        | 15.7     | 28.1    | 30.3    | 32.3      | 36.2    | 42.2  | 45.7  | 51.1  | 52.8  | 57.5  |
| Tobacco per capita  | 27.4       | 58.1     | 94.5    | 105.8   | 114.6     | 129.8   | 149.7 | 166.5 | 167.6 | 179.7 | 194.7 |

consumer expenditure Source: World Consumer Lifestyles Databook 2012; Euromonitor

| n EUR   | 1990      | 1995     | 2003     | 2004     | 2005      | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    |
|---|-----------|----------|----------|----------|-----------|---------|---------|---------|---------|---------|---------|
| Food per capita consu   | mer exp   | enditure | by categ | gory     |           |         |         |         |         |         |         |
| Food consumer<br>expenditure                                  | 1,250.9   | 1,343.5  | 1,427.3  | 1,440.0  | 1,444.8   | 1,482.2 | 1,539.5 | 1,596.4 | 1,574.7 | 1,599.0 | 1,659.2 |
| Bread and cereals   | 247.9     | 279.7    | 321.2    | 324.3    | 325.7     | 329.5   | 341.1   | 343.4   | 346.2   | 355.2   | 372.4   |
| Meat  | 359.2     | 366.0    | 332.3    | 334.6    | 340.8     | 344.4   | 354.2   | 360.8   | 364.6   | 376.6   | 379.3   |
| Fish and seafood  | 34.9      | 41.6     | 47.0     | 47.4     | 49.7      | 53.5    | 56.1    | 55.8    | 54.7    | 58.5    | 60.6    |
| Vilk, cheese and eggs   | 161.6     | 179.1    | 200.4    | 205.2    | 205.3     | 208.6   | 219.2   | 236.9   | 217.3   | 218.8   | 224.7   |
| Oils and fats   | 40.4      | 40.0     | 41.0     | 40.7     | 39.6      | 40.3    | 44.1    | 50.7    | 45.7    | 49.5    | 50.0    |
| <sup>=</sup> ruit   | 101.5     | 101.5    | 115.6    | 116.3    | 117.4     | 120.0   | 119.4   | 120.5   | 116.3   | 121.4   | 126.9   |
| /egetables  | 107.7     | 123.8    | 136.9    | 134.5    | 132.1     | 146.8   | 159.8   | 183.1   | 180.5   | 162.0   | 181.9   |
| Sugar and confectionery                                       | 137.5     | 143.3    | 148.4    | 150.5    | 148.0     | 151.2   | 155.0   | 151.7   | 156.0   | 159.9   | 163.3   |
| Other foods   | 60.2      | 68.8     | 84.7     | 86.7     | 86.3      | 87.8    | 90.6    | 93.5    | 93.4    | 97.0    | 100.0   |
| Alcoholic beverages' p  | er capita | a consun | ner expe | nditure  | by categ  | ory     |         |         |         |         |         |
| Alcoholic beverages'<br>consumer expenditure                  | 234.1     | 245.2    | 237.6    | 239.0    | 235.8     | 237.1   | 239.3   | 245.2   | 245.1   | 239.9   | 244.8   |
| Beer  | 76.6      | 90.7     | 91.9     | 91.2     | 91.1      | 89.9    | 92.5    | 97.33   | 97.25   | 94.66   | 95.84   |
| Spirits   | 87.2      | 83.7     | 68.7     | 68.8     | 66.1      | 66.1    | 63.1    | 59.33   | 58.36   | 57.37   | 57.27   |
| Wine  | 70.3      | 70.8     | 77.0     | 79.0     | 78.7      | 81.1    | 83.7    | 88.53   | 89.48   | 87.81   | 91.72   |
| Non-alcoholic beverag   | es' per c | apita co | nsumer   | expendit | ture by c | ategory |         |         |         |         |         |
| Non-alcoholic<br>beverages' consumer<br>expenditure           | 131.7     | 187.3    | 210.3    | 207.7    | 208.6     | 215.8   | 216.0   | 222.0   | 218.7   | 225.2   | 230.9   |
| Coffee, tea and cocoa   | 50.6      | 60.3     | 51.8     | 51.3     | 57.3      | 59.2    | 60.5    | 61.8    | 61.5    | 64.0    | 66.36   |
| Vineral waters, soft<br>drinks, fruit and<br>vegetable juices | 81.1      | 127.0    | 158.5    | 156.4    | 151.3     | 156.54  | 155.51  | 160.19  | 157.16  | 161.19  | 164.58  |
|   | 210.2     | 222.0    | 277.8    | 274.6    | 288.1     | 0 777 0 | 277 /   | 260.1   | 274.0   | 270.0   | 295.6   |

Tobacco per capita consumer expenditure

| Table A4: India   |            |          |          |         |           |         |         |         |         |              |              |
|---|------------|----------|----------|---------|-----------|---------|---------|---------|---------|--------------|--------------|
| In INR  | 1990       | 1995     | 2003     | 2004    | 2005      | 2006    | 2007    | 2008    | 2009    | 2010         | 2011         |
| Food per capita consu   | imer exp   | enditure | by cate  | gory    |           |         |         |         |         |              |              |
| Food consumer<br>expenditure                                  | 2,246.4    | 3,921.4  | 6,062.4  | 5,955.7 | 6,494.8   | 6,997.3 | 7,757.0 | 8,244.5 | 9,182.9 | 10,065.<br>2 | 11,154.<br>0 |
| Bread and cereals   | 677.0      | 1,148.4  | 1,634.9  | 1,487.5 | 1,632.7   | 1,817.8 | 1,973.0 | 2,105.2 | 2,394.0 | 2,767.3      | 3,180.7      |
| Meat  | 116.4      | 212.8    | 386.7    | 402.0   | 437.7     | 494.6   | 548.0   | 594.7   | 652.2   | 708.7        | 796.1        |
| Fish and seafood  | 49.9       | 91.2     | 165.7    | 172.3   | 187.6     | 212.0   | 234.9   | 254.9   | 279.5   | 303.7        | 341.2        |
| Milk, cheese and eggs   | 327.7      | 629.2    | 1,193.2  | 1,283.4 | 1,356.8   | 1,456.8 | 1,585.5 | 1,708.1 | 1,974.8 | 2,183.6      | 2,457.0      |
| Oils and fats   | 160.0      | 223.5    | 329.0    | 347.7   | 304.6     | 281.8   | 353.7   | 424.3   | 447.1   | 511.5        | 552.0        |
| Fruit   | 226.9      | 427.4    | 688.5    | 702.2   | 804.7     | 837.1   | 959.4   | 1,065.0 | 1,098.6 | 1,046.1      | 1,159.3      |
| Vegetables  | 410.3      | 689.2    | 1,010.6  | 1,007.7 | 1,161.6   | 1,248.1 | 1,455.9 | 1,546.1 | 1,646.1 | 1,718.4      | 1,875.5      |
| Sugar and confectionery                                       | 143.5      | 238.8    | 264.9    | 297.9   | 327.0     | 338.8   | 333.9   | 235.8   | 299.1   | 379.5        | 395.6        |
| Other foods   | 134.8      | 260.9    | 388.8    | 255.1   | 282.4     | 310.5   | 312.6   | 310.5   | 391.5   | 446.3        | 396.8        |
| Alcoholic beverages'  | per capita | a consur | ner expe | nditure | by categ  | ory     |         |         |         |              |              |
| Alcoholic beverages' consumer expenditure                     | 4.7        | 30.8     | 77.6     | 101.6   | 119.3     | 155.1   | 202.0   | 257.7   | 259.7   | 295.3        | 358.4        |
| Beer  | 0.5        | 3.7      | 10.4     | 13.2    | 15.5      | 22.0    | 30.4    | 41.7    | 40.6    | 47.1         | 58.1         |
| Spirits   | 4.2        | 27.0     | 66.9     | 88.1    | 103.3     | 132.3   | 170.4   | 214.5   | 217.5   | 246.6        | 298.1        |
| Wine  | 0.0        | 0.0      | 0.2      | 0.4     | 0.5       | 0.8     | 1.2     | 1.5     | 1.6     | 1.7          | 2.2          |
| Non-alcoholic beverag   | ges' per o | apita co | nsumer   | expendi | ture by o | ategory |         |         |         |              |              |
| Non-alcoholic<br>beverages' consumer<br>expenditure           | 49.2       | 90.6     | 146.2    | 147.9   | 173.7     | 226.7   | 295.9   | 377.6   | 343.4   | 415.3        | 540.4        |
| Coffee, tea and cocoa   | 36.1       | 72.3     | 62.0     | 60.5    | 58.8      | 58.5    | 51.8    | 51.6    | 61.5    | 82.6         | 82.6         |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices | 13.1       | 18.3     | 84.2     | 87.4    | 115.0     | 168.2   | 244.2   | 326.1   | 282.0   | 332.8        | 457.9        |
| Tobacco per capita  | 161.2      | 247.8    | 356.1    | 462.1   | 503.9     | 528.2   | 543.7   | 604.0   | 789.0   | 919.5        | 1,031.8      |

| Table A5: Japan                           |           |         |          |           |          |       |        |        |        |        |        |
|---|-----------|---------|----------|-----------|----------|-------|--------|--------|--------|--------|--------|
| In thousands of JPY                       | 1990      | 1995    | 2003     | 2004      | 2005     | 2006  | 2007   | 2008   | 2009   | 2010   | 2011   |
| Food per capita consur                    | ner expe  | nditure | by categ | ory       |          |       |        |        |        |        |        |
| Food consumer<br>expenditure              | 297.4     | 330.7   | 313.8    | 313.1     | 299.9    | 302.1 | 308.4  | 306.8  | 304.2  | 301.4  | 299.5  |
| Bread and cereals                         | 35.6      | 37.6    | 33.1     | 33.3      | 28.5     | 28.38 | 28.90  | 29.73  | 30.05  | 30.11  | 29.98  |
| Meat                                      | 30.5      | 31.4    | 28.1     | 28.2      | 25.3     | 25.7  | 26.6   | 27.49  | 25.94  | 27.54  | 27.39  |
| Fish and seafood                          | 42.7      | 45.0    | 37.2     | 35.9      | 32.3     | 32.54 | 32.86  | 31.48  | 31.01  | 30.93  | 30.65  |
| Milk, cheese and eggs                     | 14.3      | 16.2    | 16.0     | 15.6      | 14.5     | 14.4  | 14.3   | 14.1   | 14.4   | 14.4   | 14.31  |
| Oils and fats                             | 12.2      | 14.2    | 14.8     | 14.8      | 13.4     | 13.57 | 13.91  | 14.32  | 13.84  | 14.35  | 14.27  |
| Fruit                                     | 16.9      | 17.7    | 15.0     | 15.2      | 14.3     | 14.0  | 14.7   | 14.03  | 13.82  | 13.73  | 13.64  |
| Vegetables                                | 40.1      | 44.2    | 40.7     | 40.9      | 36.5     | 37.1  | 37.3   | 36.59  | 35.67  | 36.28  | 36.00  |
| Sugar and confectionery                   | 26.3      | 29.1    | 29.0     | 28.7      | 27.1     | 27.9  | 28.6   | 29.0   | 29.0   | 28.3   | 28.19  |
| Other foods                               | 78.8      | 95.2    | 100.0    | 100.4     | 108.2    | 108.6 | 111.35 | 110.05 | 110.48 | 105.76 | 105.05 |
| Alcoholic beverages' p                    | er capita | consum  | er exper | nditure b | y catego | ory   |        |        |        |        |        |
| Alcoholic beverages' consumer expenditure | 47.4      | 55.9    | 53.8     | 54.6      | 50.7     | 50.2  | 50.1   | 47.9   | 48.2   | 45.7   | 46.1   |
| Beer                                      | 28.9      | 34.3    | 26.2     | 26.59     | 25.99    | 25.37 | 25.83  | 24.37  | 23.51  | 22.89  | 23.35  |
| Spirits                                   | 17.3      | 20.1    | 23.9     | 24.11     | 21.77    | 22.20 | 21.33  | 21.03  | 21.74  | 20.43  | 20.32  |
| Wine                                      | 1.2       | 1.5     | 3.7      | 3.88      | 2.91     | 2.65  | 2.94   | 2.53   | 2.91   | 2.39   | 2.41   |

| Table A5: Japan   | (coi       | nt'd)     |          |         |           |         |       |       |       |       |       |
|---|------------|-----------|----------|---------|-----------|---------|-------|-------|-------|-------|-------|
| In thousands of JPY   | 1990       | 1995      | 2003     | 2004    | 2005      | 2006    | 2007  | 2008  | 2009  | 2010  | 2011  |
| Non-alcoholic beverage  | es' per ca | apita con | isumer e | xpendit | ure by ca | ategory |       |       |       |       |       |
| Non-alcoholic<br>beverages' consumer<br>expenditure           | 12.4       | 15.1      | 17.2     | 17.8    | 18.5      | 18.8    | 19.5  | 18.5  | 20.5  | 15.3  | 15.4  |
| Coffee, tea and cocoa   | 4.6        | 6.8       | 8.2      | 8.3     | 8.81      | 9.03    | 9.30  | 8.98  | 10.22 | 6.62  | 6.70  |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices | 7.8        | 8.3       | 9.0      | 9.5     | 9.6       | 9.8     | 10.2  | 9.6   | 10.3  | 8.6   | 8.69  |
|   |            |           |          |         |           |         |       |       |       |       |       |
| Tobacco per capita<br>consumer expenditure                    | 14.7       | 15.22     | 18.83    | 17.92   | 18.89     | 18.99   | 18.62 | 17.40 | 17.42 | 15.34 | 15.50 |

| Table A6: Mexico  |            |          |          |           |           |         |        |        |        |        |        |
|---|------------|----------|----------|-----------|-----------|---------|--------|--------|--------|--------|--------|
| In MXN  | 1990       | 1995     | 2003     | 2004      | 2005      | 2006    | 2007   | 2008   | 2009   | 2010   | 2011   |
| Food per capita consur  | ner expe   | nditure  | by categ | jory      |           |         |        |        |        |        |        |
| Food consumer<br>expenditure                                  | 1,495      | 2,858    | 10,029   | 11,440    | 12,037    | 12,746  | 14,095 | 14,960 | 14,358 | 15,755 | 16,774 |
| Bread and cereals   | 273        | 532      | 1,994    | 2,268     | 2,396     | 2,548   | 2,823  | 3,005  | 2,886  | 3,175  | 3,389  |
| Meat  | 396        | 753      | 2,598    | 2,872     | 3,025     | 3,207   | 3,511  | 3,718  | 3,567  | 3,914  | 4,169  |
| Fish and seafood  | 41         | 79       | 285      | 327       | 346       | 368     | 409    | 435    | 418    | 459    | 489    |
| Milk, cheese and eggs   | 301        | 562      | 1,810    | 2,071     | 2,139     | 2,223   | 2,429  | 2,542  | 2,436  | 2,671  | 2,843  |
| Oils and fats   | 45         | 78       | 176      | 197       | 196       | 195     | 205    | 207    | 196    | 211    | 220    |
| Fruit   | 98         | 178      | 499      | 520       | 580       | 648     | 722    | 790    | 757    | 828    | 879    |
| Vegetables  | 212        | 411      | 1,499    | 1,697     | 1,800     | 1,921   | 2,131  | 2,273  | 2,183  | 2,399  | 2,558  |
| Sugar and confectionery                                       | 27         | 49       | 148      | 159       | 175       | 193     | 216    | 235    | 225    | 247    | 264    |
| Other foods   | 103        | 216      | 1,021    | 1,327     | 1,379     | 1,442   | 1,650  | 1,755  | 1,692  | 1,851  | 1,963  |
| Alcoholic beverages' po                                       | er capita  | consum   | ner expe | nditure l | by categ  | ory     |        |        |        |        |        |
| Alcoholic beverages' consumer expenditure                     | 140        | 267      | 829      | 914       | 974       | 1,135   | 1,201  | 1,298  | 1,308  | 1,406  | 1,510  |
| Beer  | 96         | 190      | 628      | 688       | 708       | 832     | 905    | 977    | 983    | 1,058  | 1,137  |
| Spirits   | 35         | 61       | 151      | 175       | 210       | 238     | 231    | 250    | 253    | 271    | 291    |
| Wine  | 9          | 16       | 51       | 51        | 56        | 64      | 66     | 71     | 71     | 77     | 82     |
| Non-alcoholic beverage  | es' per ca | apita co | nsumer e | expendit  | ture by c | ategory |        |        |        |        |        |
| Non-alcoholic<br>beverages' consumer<br>expenditure           | 112        | 333      | 1,449    | 1,564     | 1,676     | 1,749   | 1,858  | 1,951  | 1,895  | 2,117  | 2,271  |
| Coffee, tea and cocoa   | 17         | 51       | 208      | 213       | 225       | 231     | 237    | 244    | 236    | 263    | 282    |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices | 94         | 282      | 1,241    | 1,351     | 1,451     | 1,519   | 1,621  | 1,707  | 1,658  | 1,854  | 1,989  |
| Tobacco per capita<br>consumer expenditure                    | 30         | 92       | 277      | 303       | 331       | 354     | 378    | 402    | 415    | 416    | 425    |

| Table A7: Russia   |          |            |           |                       |            |           |           |          |           |          |          |  |  |
|--|----------|------------|-----------|-----------------------|------------|-----------|-----------|----------|-----------|----------|----------|--|--|
| In RUB   | 1990     | 1995       | 2003      | 2004                  | 2005       | 2006      | 2007      | 2008     | 2009      | 2010     | 2011     |  |  |
| Food per capita consu  | mer ex   | penditur   | e by cat  | egory                 |            |           |           |          |           |          |          |  |  |
| Food consumer<br>expenditure                                     |          | 1,940.3 1  | 3,765.3   | 16,820.2 <sup>-</sup> | 19,894.1 : | 24,145.9  | 28,929.0  | 36,877.3 | 39,974.2  | 46,854.5 | 53,426.8 |  |  |
| Bread and cereals  |          | 272.2      | 2,002.3   | 2,610.3               | 2,716.1    | 3,387.8   | 4,153.6   | 5,596.8  | 5,817.8   | 7,083.4  | 8,034.8  |  |  |
| Meat   |          | 492.1      | 3,830.8   | 4,736.7               | 6,431.2    | 7,905.3   | 8,895.1   | 11,145.5 | 12,259.2  | 14,314.6 | 16,552.2 |  |  |
| Fish and seafood   |          | 82.6       | 742.8     | 953.4                 | 1,125.2    | 1,405.7   | 1,661.3   | 1,977.9  | 2,284.4   | 2,535.5  | 2,939.7  |  |  |
| Milk, cheese and eggs  |          | 330.3      | 2,091.4   | 2,684.5               | 3,053.1    | 3,518.1   | 4,445.3   | 5,926.2  | 6,310.4   | 7,482.7  | 8,596.0  |  |  |
| Oils and fats  |          | 101.5      | 630.4     | 724.0                 | 804.9      | 875.5     | 1,149.8   | 1,807.9  | 1,722.6   | 2,031.2  | 2,210.7  |  |  |
| Fruit  |          | 175.3      | 1,303.4   | 1,603.3               | 1,879.2    | 2,255.5   | 2,780.5   | 3,297.8  | 3,591.3   | 4,160.4  | 4,875.3  |  |  |
| Vegetables   |          | 217.7      | 1,629.2   | 1,812.5               | 2,135.4    | 2,577.8   | 3,197.6   | 3,769.0  | 4,081.0   | 4,912.6  | 5,662.8  |  |  |
| Sugar and<br>confectionery                                       |          | 237.6      | 1,213.8   | 1,328.9               | 1,324.9    | 1,567.2   | 2,035.2   | 2,550.8  | 3,070.2   | 3,393.9  | 3,487.4  |  |  |
| Other foods  |          | 31.1       | 321.3     | 366.6                 | 424.0      | 653.0     | 610.6     | 805.5    | 837.3     | 940.2    | 1,067.8  |  |  |
| Alcoholic beverages' per capita consumer expenditure by category |          |            |           |                       |            |           |           |          |           |          |          |  |  |
| Alcoholic beverages'<br>consumer<br>expenditure                  |          | 391.       | 6 3,164.  | 3,843.6               | 6 4,730.1  | 5,860.2   | 7,068.3   | 8,430.5  | 9,289.5   | 9,087.9  | 10,201.5 |  |  |
| Beer   |          | 47.        | 9 1,040.4 | 4 1,341.9             | 5 1,740.8  | 3 2,232.6 | 6 2,920.9 | 3,544.9  | 4,106.2   | 4,140.3  | 4,743.9  |  |  |
| Spirits  |          | 269.       | 2 1,557.  | 5 1,792.5             | 5 2,094.7  | 2,569.3   | 2,861.8   | 3,318.7  | 3,501.6   | 3,301.4  | 3,611.7  |  |  |
| Wine   |          | 74.        | 5 566.    | 0 709.6               | 6 894.6    | 6 1,058.3 | 1,285.7   | 1,566.9  | 1,681.6   | 1,646.1  | 1,845.9  |  |  |
| Non-alcoholic beverag  | jes' per | · capita c | onsume    | r expend              | iture by   | category  | /         |          |           |          |          |  |  |
| Non-alcoholic<br>beverages' consumer<br>expenditure              |          | 62.        | 0 762.8   | 3 924.3               | 3 1,029.3  | 3 1,304.7 | 7 1,690.1 | 2,433.9  | 3,003.3   | 3,346.1  | 3,793.1  |  |  |
| Coffee, tea and cocoa  |          | 27.        | 5 314.    | 2 363.4               | 403.1      | 496.4     | 623.6     | 891.3    | 1,284.4   | 1,361.4  | 1,517.5  |  |  |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices    |          | 34.        | 5 448.    | 560.9                 | 9 626.3    | 808.3     | 3 1,066.5 | 1,542.6  | 5 1,718.9 | 1,984.7  | 2,275.6  |  |  |
| Tobacco per capita<br>consumer<br>expenditure                    |          | 96.        | 4 921.    | 7 1,055.7             | 7 1,304.1  | 1,506.8   | 3 1,961.9 | 2,207.8  | 2,289.7   | 2,466.1  | 2,863.6  |  |  |

| Table A8: South K            | orea     |         |          |         |         |         |         |         |         |         |         |
|------------------------------|----------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| In thousands of KRW          | 1990     | 1995    | 2003     | 2004    | 2005    | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    |
| Food per capita consun       | ner expe | nditure | by cates | gory    |         |         |         |         |         |         |         |
| Food consumer<br>expenditure | 510.1    | 713.2   | 1,032.6  | 1,088.8 | 1,132.2 | 1,169.8 | 1,232.6 | 1,343.2 | 1,404.5 | 1,524.0 | 1,576.6 |
| Bread and cereals            | 136.5    | 187.0   | 258.0    | 270.1   | 278.9   | 265.9   | 275.2   | 315.5   | 326.5   | 332.8   | 340.5   |
| Meat                         | 100.4    | 143.7   | 211.6    | 222.6   | 231.0   | 246.1   | 261.8   | 288.7   | 314.1   | 343.8   | 358.0   |
| Fish and seafood             | 80.4     | 111.9   | 161.6    | 169.0   | 174.3   | 186.3   | 195.5   | 204.3   | 206.3   | 215.9   | 223.6   |
| Milk, cheese and eggs        | 47.4     | 68.5    | 110.7    | 121.4   | 131.0   | 131.3   | 135.0   | 154.9   | 173.3   | 181.1   | 188.0   |
| Oils and fats                | 3.2      | 4.7     | 9.5      | 10.9    | 12.3    | 12.9    | 13.2    | 15.7    | 17.0    | 17.1    | 17.1    |
| Fruit                        | 31.4     | 44.1    | 67.0     | 74.9    | 75.9    | 80.4    | 87.6    | 86.8    | 86.1    | 108.1   | 112.5   |
| Vegetables                   | 54.8     | 74.2    | 95.2     | 92.7    | 94.8    | 100.2   | 106.0   | 104.8   | 103.4   | 128.7   | 132.7   |
| Sugar and<br>confectionery   | 40.3     | 56.8    | 84.0     | 89.6    | 94.1    | 101.1   | 108.6   | 119.4   | 125.5   | 136.8   | 142.0   |
| Other foods                  | 15.6     | 22.1    | 34.9     | 37.7    | 40.1    | 45.7    | 49.7    | 53.1    | 52.5    | 59.6    | 62.2    |

| Table A8: South K   | (cor       | nťd)     |          |           |           |         |       |       |       |       |       |
|---|------------|----------|----------|-----------|-----------|---------|-------|-------|-------|-------|-------|
| In thousands of KRW   | 1990       | 1995     | 2003     | 2004      | 2005      | 2006    | 2007  | 2008  | 2009  | 2010  | 2011  |
| Alcoholic beverages' pe                                       | er capita  | consum   | er exper | nditure b | y catego  | ory     |       |       |       |       |       |
| Alcoholic beverages'<br>consumer expenditure                  | 23.7       | 41.2     | 94.6     | 99.4      | 106.5     | 110.2   | 119.5 | 127.0 | 120.9 | 124.1 | 133.3 |
| Beer  | 16.3       | 27.0     | 54.1     | 55.5      | 56.5      | 57.5    | 60.6  | 63.5  | 61.7  | 63.9  | 69.0  |
| Spirits   | 6.1        | 11.4     | 27.3     | 28.0      | 31.1      | 32.2    | 35.9  | 40.0  | 37.3  | 38.0  | 40.8  |
| Wine  | 1.3        | 2.7      | 13.2     | 16.0      | 18.9      | 20.5    | 22.9  | 23.4  | 21.8  | 22.2  | 23.6  |
| Non-alcoholic beverage  | es' per ca | pita con | sumer e  | xpendit   | ure by ca | ategory |       |       |       |       |       |
| Non-alcoholic<br>beverages' consumer<br>expenditure           | 13.7       | 34.4     | 71.9     | 76.1      | 76.6      | 75.5    | 80.5  | 92.0  | 95.9  | 103.2 | 108.1 |
| Coffee, tea and cocoa   | 2.4        | 6.6      | 14.8     | 15.9      | 16.8      | 17.6    | 18.6  | 21.5  | 22.7  | 24.6  | 26.0  |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices | 11.3       | 27.8     | 57.1     | 60.3      | 59.8      | 57.9    | 61.8  | 70.6  | 73.2  | 78.6  | 82.2  |
|   |            |          |          |           |           |         |       |       |       |       |       |

 Tobacco per capita
 59.7
 74.0
 134.9
 142.0
 150.5
 160.4
 168.1
 172.9
 169.5
 165.1
 169.1

 consumer expenditure

Source: World Consumer Lifestyles Databook 2012; Euromonitor

| Table A9: Thailan   | d          |          |          |           |          |         |        |        |        |        |        |
|---|------------|----------|----------|-----------|----------|---------|--------|--------|--------|--------|--------|
| In THB  | 1990       | 1995     | 2003     | 2004      | 2005     | 2006    | 2007   | 2008   | 2009   | 2010   | 2011   |
| Food per capita consur  | ner expe   | nditure  | by categ | jory      |          |         |        |        |        |        |        |
| Food consumer<br>expenditure                                  | 4,938      | 7,652    | 11,782   | 13,051    | 14,796   | 16,657  | 18,075 | 21,171 | 21,288 | 22,948 | 24,821 |
| Bread and cereals   | 1,282      | 1,706    | 2,658    | 2,851     | 2,847    | 3,049   | 3,311  | 4,141  | 4,245  | 4,461  | 4,651  |
| Meat  | 1,016      | 1,456    | 1,602    | 1,534     | 1,904    | 2,058   | 2,122  | 2,486  | 2,620  | 2,821  | 3,097  |
| Fish and seafood  | 276        | 612      | 1,398    | 1,560     | 1,806    | 1,931   | 1,903  | 1,972  | 1,981  | 2,294  | 2,471  |
| Milk, cheese and eggs   | 374        | 715      | 1,163    | 1,330     | 1,425    | 1,411   | 1,534  | 1,630  | 1,782  | 1,973  | 2,239  |
| Oils and fats   | 205        | 307      | 486      | 525       | 543      | 558     | 635    | 900    | 852    | 892    | 953    |
| Fruit   | 502        | 788      | 1,157    | 1,378     | 1,470    | 1,803   | 2,008  | 2,255  | 2,280  | 2,488  | 2,709  |
| Vegetables  | 645        | 1,265    | 2,196    | 2,714     | 3,609    | 4,519   | 5,130  | 6,238  | 5,933  | 6,478  | 7,023  |
| Sugar and confectionery                                       | 225        | 297      | 389      | 396       | 409      | 471     | 482    | 535    | 545    | 564    | 604    |
| Other foods   | 413        | 507      | 733      | 761       | 782      | 859     | 952    | 1,015  | 1,051  | 977    | 1,076  |
| Alcoholic beverages' p  | er capita  | consun   | ner expe | nditure l | oy categ | ory     |        |        |        |        |        |
| Alcoholic beverages'<br>consumer expenditure                  | 934        | 1,463    | 2,224    | 2,291     | 2,401    | 2,692   | 2,802  | 2,831  | 2,797  | 2,977  | 3,190  |
| Beer  | 177        | 321      | 944      | 1,048     | 1,093    | 1,327   | 1,464  | 1,432  | 1,308  | 1,322  | 1,408  |
| Spirits   | 752        | 1,131    | 1,235    | 1,193     | 1,251    | 1,302   | 1,271  | 1,324  | 1,413  | 1,570  | 1,689  |
| Wine  | 5          | 11       | 45       | 51        | 57       | 64      | 67     | 75     | 76     | 85     | 93     |
| Non-alcoholic beverage  | es' per ca | apita co | nsumer   | expendit  | ure by c | ategory |        |        |        |        |        |
| Non-alcoholic<br>beverages' consumer<br>expenditure           | 778        | 1,250    | 1,894    | 2,117     | 2,272    | 2,605   | 2,785  | 2,941  | 3,079  | 3,245  | 3,424  |
| Coffee, tea and cocoa   | 108        | 207      | 336      | 375       | 429      | 524     | 601    | 675    | 729    | 778    | 819    |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices | 671        | 1,043    | 1,558    | 1,742     | 1,843    | 2,081   | 2,184  | 2,266  | 2,350  | 2,467  | 2,605  |
| Tobacco per capita<br>consumer expenditure                    | 472        | 713      | 868      | 892       | 923      | 893     | 914    | 970    | 996    | 949    | 1,025  |

| Table A10: United   | l Kingd    | om       |          |           |          |         |         |         |         |         |         |
|---|------------|----------|----------|-----------|----------|---------|---------|---------|---------|---------|---------|
| In GBP  | 1990       | 1995     | 2003     | 2004      | 2005     | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    |
| Food per capita consur  | ner expe   | nditure  | by categ | ory       |          |         |         |         |         |         |         |
| Food consumer<br>expenditure                                  | 659.9      | 764.1    | 933.8    | 955.5     | 979.4    | 1,007.1 | 1,070.8 | 1,142.2 | 1,175.4 | 1,230.1 | 1,254.7 |
| Bread and cereals   | 102.7      | 121.1    | 156.6    | 160.3     | 163.6    | 169.5   | 179.2   | 188.8   | 191.2   | 199.4   | 205.6   |
| Meat  | 172.1      | 186.2    | 220.8    | 227.8     | 229.1    | 231.8   | 243.1   | 257.3   | 259.1   | 268.5   | 275.2   |
| Fish and seafood  | 27.9       | 30.9     | 40.3     | 38.9      | 41.1     | 45.5    | 49.1    | 50.6    | 49.2    | 56.5    | 55.3    |
| Milk, cheese and eggs   | 101.2      | 114.2    | 128.8    | 132.3     | 138.1    | 143.4   | 155.5   | 168.2   | 175.6   | 181.2   | 186.1   |
| Oils and fats   | 19.0       | 19.2     | 20.3     | 19.9      | 20.5     | 21.7    | 22.8    | 24.8    | 24.1    | 28.1    | 26.8    |
| Fruit   | 47.4       | 54.1     | 79.9     | 83.5      | 90.9     | 96.0    | 98.9    | 107.2   | 120.4   | 126.7   | 130.3   |
| Vegetables  | 94.2       | 123.5    | 144.6    | 144.3     | 148.0    | 152.1   | 166.0   | 178.1   | 182.7   | 187.5   | 191.3   |
| Sugar and confectionery                                       | 79.9       | 96.0     | 116.9    | 120.5     | 119.6    | 118.1   | 124.4   | 131.0   | 138.1   | 145.5   | 146.3   |
| Other foods   | 15.6       | 19.0     | 25.5     | 28.2      | 28.5     | 29.1    | 32.0    | 36.2    | 35.1    | 36.8    | 37.8    |
| Alcoholic beverages' p  | er capita  | consum   | er exper | nditure b | y categ  | ory     |         |         |         |         |         |
| Alcoholic beverages'<br>consumer expenditure                  | 106.8      | 125.2    | 202.3    | 222.3     | 224.4    | 225.7   | 232.5   | 235.9   | 237.3   | 247.5   | 249.1   |
| Beer  | 29.9       | 37.1     | 52.6     | 55.8      | 54.5     | 56.6    | 54.9    | 55.3    | 59.0    | 66.7    | 64.1    |
| Spirits   | 34.2       | 38.5     | 53.5     | 60.6      | 61.8     | 60.8    | 63.0    | 66.2    | 64.3    | 65.6    | 66.7    |
| Wine  | 42.7       | 49.7     | 96.3     | 105.9     | 108.0    | 108.3   | 114.7   | 114.4   | 113.9   | 115.2   | 118.2   |
| Non-alcoholic beverage  | es' per ca | pita con | sumer e  | xpendit   | ure by c | ategory |         |         |         |         |         |
| Non-alcoholic<br>beverages' consumer<br>expenditure           | 79.9       | 93.6     | 129.0    | 135.6     | 138.5    | 145.4   | 149.0   | 150.4   | 160.1   | 173.8   | 173.6   |
| Coffee, tea and cocoa   | 24.0       | 26.7     | 31.5     | 34.9      | 35.0     | 35.1    | 37.4    | 38.3    | 42.9    | 45.7    | 43.3    |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices | 56.0       | 66.9     | 97.5     | 100.7     | 103.5    | 110.4   | 111.6   | 112.0   | 117.2   | 128.1   | 130.3   |
| Tobacco per capita  | 151.3      | 198.8    | 256.8    | 256.3     | 256.0    | 259.0   | 257.5   | 251.9   | 260.7   | 279.0   | 281.4   |

Tobacco per capita consumer expenditure

| Table A11: Unite                                 | d State    | s of A   | merica   |         |          |         |         |         |         |         |         |  |
|--|------------|----------|----------|---------|----------|---------|---------|---------|---------|---------|---------|--|
| In USD   | 1990       | 1995     | 2003     | 2004    | 2005     | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    |  |
| Food per capita consumer expenditure by category |            |          |          |         |          |         |         |         |         |         |         |  |
| Food consumer<br>expenditure                     | 1,176.7    | 1,264.7  | 1,532.1  | 1,589.2 | 1,657.8  | 1,706.6 | 1,787.4 | 1,868.7 | 1,850.3 | 1,878.0 | 1,989.7 |  |
| Bread and cereals                                | 204.2      | 230.2    | 312.6    | 312.5   | 321.0    | 329.0   | 340.0   | 359.9   | 359.3   | 359.4   | 377.5   |  |
| Meat   | 296.9      | 308.1    | 342.2    | 366.4   | 385.1    | 389.2   | 406.4   | 422.8   | 421.8   | 430.2   | 454.1   |  |
| Fish and seafood                                 | 32.0       | 28.4     | 32.6     | 34.9    | 36.7     | 37.1    | 38.8    | 40.3    | 40.2    | 41.0    | 43.3    |  |
| Milk, cheese and eggs                            | 145.5      | 143.1    | 163.8    | 171.4   | 173.4    | 175.5   | 186.1   | 197.4   | 186.8   | 189.5   | 199.7   |  |
| Oils and fats                                    | 36.6       | 36.0     | 35.4     | 37.3    | 40.0     | 43.0    | 46.3    | 48.8    | 48.9    | 48.6    | 51.3    |  |
| Fruit  | 75.3       | 75.2     | 89.1     | 92.2    | 98.7     | 102.5   | 108.2   | 113.5   | 113.5   | 116.0   | 122.3   |  |
| Vegetables                                       | 97.1       | 102.0    | 145.4    | 150.5   | 161.0    | 167.3   | 176.5   | 185.2   | 185.2   | 189.3   | 199.5   |  |
| Sugar and confectionery                          | 93.0       | 101.2    | 110.8    | 113.1   | 115.8    | 119.3   | 122.8   | 123.7   | 120.0   | 124.7   | 137.3   |  |
| Other foods                                      | 196.1      | 240.5    | 300.1    | 310.8   | 326.2    | 343.7   | 362.4   | 377.1   | 374.6   | 379.2   | 404.6   |  |
| Alcoholic beverages' p                           | per capita | a consun | ner expe | nditure | by categ | ory     |         |         |         |         |         |  |
| Alcoholic beverages'<br>consumer expenditure     | 197.5      | 206.6    | 275.5    | 283.4   | 291.5    | 307.0   | 318.5   | 324.5   | 327.4   | 344.8   | 363.2   |  |
| Beer   | 118.6      | 122.5    | 147.2    | 148.4   | 149.3    | 153.9   | 157.3   | 159.1   | 160.5   | 170.0   | 179.4   |  |
| Spirits  | 43.7       | 42.8     | 67.7     | 71.9    | 76.0     | 82.6    | 87.7    | 89.8    | 90.6    | 94.7    | 99.5    |  |
| Wine   | 35.2       | 41.2     | 60.7     | 63.2    | 66.2     | 70.5    | 73.5    | 75.6    | 76.4    | 80.1    | 84.3    |  |

| Table A11: United States of America                                  |       |       | (cont′d) |       |       |       |       |       |       |       |       |
|--|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| In USD   | 1990  | 1995  | 2003     | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  |
| Non-alcoholic beverages' per capita consumer expenditure by category |       |       |          |       |       |       |       |       |       |       |       |
| Non-alcoholic<br>beverages' consumer<br>expenditure                  | 192.9 | 195.3 | 217.6    | 224.5 | 235.5 | 245.9 | 255.1 | 261.3 | 254.2 | 254.5 | 268.6 |
| Coffee, tea and cocoa  | 25.8  | 24.3  | 26.4     | 27.9  | 29.9  | 32.1  | 34.5  | 36.4  | 36.5  | 36.3  | 38.3  |
| Mineral waters, soft<br>drinks, fruit and<br>vegetable juices        | 167.1 | 171.0 | 191.2    | 196.6 | 205.6 | 213.8 | 220.5 | 224.9 | 217.8 | 218.2 | 230.3 |
|  |       |       |          |       |       |       |       |       |       |       |       |
| Tobacco per capita   | 164.2 | 184.8 | 240.3    | 241.0 | 240.9 | 242.2 | 244.7 | 249.0 | 286.6 | 305.0 | 307.6 |

consumer expenditure

# The Wide Angle Series



# **Appendix 1**

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