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## The Wide Angle

# Who are the World's Consumers?

### Periodical

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#### Summary

- This is the first of a two-part series investigating long-term trends in global consumption. In this report, we have analyzed the changing profile of the world's consumer. We found that per capita incomes are witnessing two major trends – a convergence in incomes between countries and an increase in inequality within countries. However, the increase in inequality in developed countries is a very long term trend that started in the 1970s. Moreover, rising incomes of populous but poor countries imply that income distribution for humanity as a whole has improved from globalization.
- Despite the hype over China's luxury goods boom, the US still dominates the world's rich. The big story is still about the shift of poor and aspiring Asian consumers into the middle class. Some projections suggest that Asia could account for two-thirds of the world's middle class by 2030, displacing not just the West but also other emerging regions.
- Aging is rapidly changing the profile of the average consumer but the shift is faster in emerging markets, particularly in East Asia and Europe. After falling for half a century, the effective retirement age is now rising in the West as older workers continue to work. At the same time, the pipeline of children enrolled in the primary education system is drying up in many countries.
- Single person households are now the largest category of consumer units in advanced countries as the traditional nuclear family has gone into decline, although we are also witnessing an unexpected revival in multi-generational households. Meanwhile, the nuclear family has become the dominant household structure in emerging markets like India.



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## Introduction

We live in a time of rapid economic and social change. Not surprisingly, this has important implications for the patterns of consumption we see around the globe. This is the first of a two-part series that investigates the new landscape of consumption that is emerging. In this report we will focus on the fast changing profile of the world's consumers including their geographical distribution, the structure of households and demographics. In the next report we will focus on how the consumption basket is evolving. Together, we hope that the reports will give the readers a better sense of the trajectory of 21st century consumer behavior.

For the purposes of this report, we have defined the characteristics of a consumer in three frames of reference. The first is in terms of income and its distribution across countries and different income slabs. We are particularly interested in how purchasing power is shifting from advanced economies to emerging markets. The second is in terms of age profile. The decline in fertility rates and the increases in longevity are changing the age profile of consumers at a very rapid rate. We have also looked at how this is affecting the age of retirement as well the income cycle of aging populations. Finally, we have looked the characteristics of the household: how the average household has been affected by urbanization, the decline in the institution of marriage, education levels and so on. We are aware that defining the consumer in merely three frames of references runs the risk of oversimplification but we feel that it provides the optimal balance between detail and readability.

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## Income Profile of the World's Consumers

Over the last two decades, per capita incomes across the world have witnessed two broad mega-trends – one between countries and one within countries. The first relates to the convergence of per capita incomes between richest and poorest countries. The United States was one of the best performing developed economies between 1990s and 2011 with real dollar per capita income rising by 32.8% during the period (calculated in US dollar terms but using 2005 prices<sup>1</sup>). Most other advanced major economies, with the exception of the UK, showed only modest increases. Germany's per capita income actually fell in the early 1990s as it absorbed East Germany and only began rising again in 2000s. Japan saw real per capita incomes rise till the early 1990s but has witnessed stagnation since (the number being partly propped up by the fact that population growth has also stagnated). Middle-income countries too did not perform especially well if the whole period is taken into account. Brazil saw only a modest improvement in per capita income in the 1990s before enjoying acceleration in the 2000s. Russia experienced a severe decline in the 1990s as the economic framework of the Soviet Union dissolved. Although it enjoyed a recovery in the 2000s, the growth rate of per capita income would be low for the period as a whole.

In contrast, real dollar income per capita has gone up sharply in the world's poorest countries. The number for China has gone up more than six times during this period. India's performance is less spectacular but its per capita income has gone up almost two-and-a-half times. By 2011, at current prices and exchange rates, the per capita income for China and India stood at USD 5,351 and USD 1,525 respectively. This is still far below the American per capita income of USD 48,442 but China is now arguably becoming a middle-income country and India, although still very poor, is significantly better off than in 1990.

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<sup>1</sup> This measure of per capita income does not correct for purchasing power parity. Instead it measures variations in real purchasing power per capita of consumers from different countries in the international market (proxied by the US).

**Table 1: Per Capita GDP**

	At 2005 prices and exchange rates USD			At current prices and exchange rates USD
	1990	2000	2011	2011
1. Brazil	4,082	4,489	5,779	12,718
2. China	466	1,133	3,149	5,351
3. France	28,671	33,472	35,410	43,896
4. Germany	33,891	31,706	35,994	43,699
5. India	419	588	1,097	1,525
6. Indonesia	821	1,102	1,674	3,474
7. Japan	30,968	34,003	36,057	46,008
8. Mexico	NA	7,887	8,458	9,449
9. Russia	NA	3,876	6,599	12,174
10. South Africa	5,023	4,684	5,901	8,183
11. South Korea	8,404	14,427	21,214	22,447
12. Spain	NA	24,068	25,812	32,376
13. Turkey	4,908	6,014	8,200	10,351
14. United Kingdom	26,448	33,782	38,133	38,902
15. United States	32,157	39,752	42,733	48,442

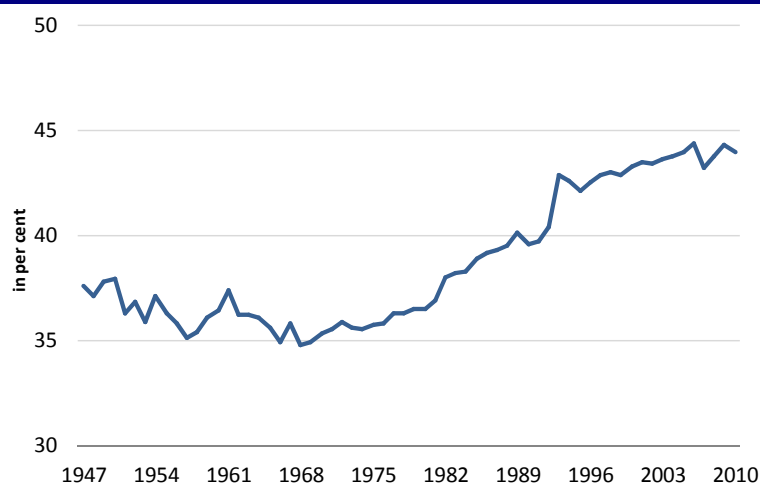
Source: Haver, Deutsche Bank estimates

Even as incomes were converging across countries, income distribution within many countries appears to have deteriorated. This has been the subject of numerous academic articles and newspaper columns. Inequality is often measured using the Gini coefficient where "0" stands for perfect income equality and "1" stands for perfect inequality (i.e. one person enjoys all the country's income). As shown in the table below, OECD estimates of income inequality suggest that income distribution has steadily deteriorated in most developed countries over the years. However, notice that this is not something that emerged in the 1990s but is a trend that started a generation ago. For the UK, for instance, the deterioration happened in the 1970s and 1980s. Some countries like Turkey even saw an improvement since the mid-1990s. A separate estimate by the US Census Bureau, using a different methodology, also shows how income distribution has been steadily deteriorating since 1968 – long before globalization related factors came into play (see Figure 1). If anything, the US Gini coefficient has been roughly stable since 2005.

**Table 2: Gini Co-efficients for OECD Countries**

	Mid 70s	Mid 80s	Around 1990	Mid 90s	Around 2000	Mid 2000s	Late 2000s
France	NA	0.30	0.29	0.28	0.29	0.29	0.29
Germany	NA	0.25	0.26	0.27	0.26	0.29	0.30
Japan	NA	0.30	NA	0.32	0.34	0.32	0.33
South Korea	NA	NA	NA	NA	NA	0.31	0.31
Spain	NA	0.37	0.34	0.34	0.34	0.32	0.32
Turkey	NA	0.43	NA	0.49	NA	0.43	0.41
United Kingdom	0.27	0.31	0.35	0.34	0.35	0.33	0.34
United States	0.32	0.34	0.35	0.36	0.36	0.38	0.38

Source: OECD

**Figure 1: Gini Coefficient for the United States**

Source: US Census Bureau

Globalization has been commonly blamed for worsening income inequality in recent years but it appears that the deterioration is a very long-term trend that goes back to the 1970s. Meanwhile, income-levels between rich and poor countries have converged significantly. As illustrated in Table 3, for the first time since the Industrial Revolution, the incomes of the poorest countries is converging to that of the richest. China's per capita income adjusted for purchasing power parity, for example, stands today at 17% of the United State compared to 8% in 1990 and 5% in 1950. This means that income distribution for humanity as a whole has improved. We could not find a time-series estimate of the Gini co-efficient for the world as a whole but it must have improved dramatically since the 1990s given the population weights of countries like China and India. In other words, globalization has helped in reducing income inequality if judged from a global standpoint rather than from a national standpoint. This is very different from what most commentators lead us to believe.

**Table 3: GDP per Capita (PPP adjusted) as percent of US**

	1500	1820	1950	1990	2011 (est)
Brazil	NA	NA	17%	21%	24%
China	150%	48%	5%	8%	17%
France	182%	98%	55%	78%	72%
Germany	169%	84%	41%	69%	78%
India	138%	42%	6%	6%	8%
Indonesia	NA	NA	NA	11%	10%
Japan	125%	53%	20%	81%	72%
Mexico	106%	60%	25%	26%	30%
Russia	125%	55%	30%	30%	35%
Spain	175%	85%	25%	53%	63%
United Kingdom	179%	136%	72%	71%	75%
United States	100%	100%	100%	100%	100%

Source: The Millennial Perspective - Angus Madison, International Monetary Fund, Deutsche Bank

Of course, despite the convergence in incomes, it remains the case that developed country consumers enjoy incomes far above those in countries like India or even China. However, the argument is often made, that some of the emerging markets have populations that are so large that they provide a large consumer base even if only a small proportion of their populations enjoys high income. In order to investigate this, we looked at data on the number of households per income slab across a range of countries (see Table 4). For purposes of analysis, we divided the households by disposable income slabs as follows: Poor (less than

USD5,000), Aspirants (USD5,000 to 15,000), Lower Middle Class (USD15,000 to 45,000), Upper Middle Class (USD45,000 to 150,000) and the Rich (more than 150,000). We used US dollars at 2011 prices and, in this case, did not adjust for purchasing power parity since we wanted to compare raw purchasing ability in the international market rather than the quality-of-life. Although there are some inconsistencies in the data, it provides a fascinating picture of how households around the world are distributed across the income spectrum.<sup>2</sup>

**Table 4: Households by Disposable Income Slabs in 2011**

In USD	Below 5,000	5,000 – 15,000	15,000 – 45,000	45,000 – 150,000	Above 150,000
Number of households in thousands	Poor	Aspirants	Lower Middle Class	Upper Middle Class	Rich
Brazil	5,819.5	18,249.5	23,786.5	7,627.5	1,017.0
China	164,042.6	172,383.7	51,635.7	7,546.8	1,588.8
France	0.0	192.1	7,656.0	17,946.3	1,646.4
Germany	200.0	1,920.3	14,122.4	21,643.7	2,120.4
India	104,394.2	106,918.1	15,142.9	2,294.4	688.3
Indonesia	30,332.4	35,080.7	4,535.7	708.7	212.6
Japan	204.2	1,685.0	13,428.8	31,095.7	4,646.5
Mexico	2,468.7	8,625.9	13,185.8	4,269.4	493.7
Russia	5,624.3	24,179.4	18,923.0	3,311.5	525.6
South Africa	5,534.6	4,388.1	3,142.4	962.5	127.4
South Korea	367.8	2,574.5	9,782.9	5,222.5	441.3
Spain	35.8	608.1	6,546.5	9,837.7	858.6
Turkey	454.5	4,715.0	10,944.9	2,499.5	321.9
United Kingdom	110.5	1,271.0	11,135.0	13,898.0	1,215.7
United States	3,085.7	9,375.9	30,976.0	56,017.9	19,226.5

*Source: Euromonitor & DB Research; Note: The data for France has some discrepancies and is probably somewhat overstated.*

It was estimated that China has 1.6 million households that can be classified as Rich on our income based approach (an asset based approach may give different estimates). This is more than that for the United Kingdom and roughly in line with France. Indeed, China may be already ahead of France if one allows for certain discrepancies in the French data. The rapid emergence of this class in China is responsible for the sharp increase in demand for various luxury goods. Nevertheless, note that the United States still has more than ten times the number of households with disposable incomes over USD 150,000. Even if one combined all the major emerging markets, one would not come close to the US in this category. In other words, the US is still king if one is thinking about consumers in the USD 150,000+ range. The advanced economies also continue to dominate in the Upper Middle Class.

As one goes down the income slabs, however, we see that different countries have a clustering of households as different levels. Brazil has a peak in the Lower Middle Class, China among the Aspirants and India among the Poor. This distribution has important implications for producers of consumer goods and investors. For instance, Brazil still has more households in the Lower-Middle Class bracket than India even though it has a much smaller population. Therefore, despite all the hype about luxury goods demand in China, if one wants to take really advantage of the sheer bulk of India and China, one still needs to look at the poorer households.

<sup>2</sup> Note that household size varies between countries and this affects the numbers. For instance, Chinese households are smaller than Indian households and consequently it has more households for a given population.

The above estimates relate to 2011 but, of course, these numbers are changing constantly. Given that emerging markets have a very large chunk of their population still in poverty, the future of global consumption demand will be strongly influenced by their transition into the middle class. It is not easy to forecast the evolution of the middle class in a globally consistent framework. There are problems with defining the middle class as it currently stands, not to mention with making long term projections of growth, income distribution, prices and exchange rates. Nevertheless, an OECD Working Paper by Homi Kharas does provide some guidance on the orders of magnitude<sup>3</sup>. Kharas defines the global middle class as those households that have daily expenditures between USD10 and USD100 per person in purchasing power parity (this is somewhat different from the income based definition we have used earlier in this report). His estimates suggest that advanced countries still dominated the middle class as recently as 2009 with North America and Europe accounting for 18% and 36% of the world's middle class. Asia-Pacific including Japan accounted for 28%. The estimates of spending by the middle class follow similar patterns except that North America has a disproportionately large share of 26%.

These estimates reinforce our own findings that advanced markets have dominated the middle class till now despite all the hype about China and India. However, Kharas' projects also show how the balance of power will shift in the next two decades with Asia-Pacific accounting for 54% of the world middle class by 2020 and 66% by 2030. Indeed, these projections suggest that the rise of Asia's middle class is so rapid that it not only eats into the shares of Europe and North America but also those of other emerging regions. Thus, the share of Latin America falls from today's 10% to 6% in 2030. Middle class spending is also projected to witness a similar shift. In other words, the reordering of the world's consumer landscape is really about the rise of Asia rather than more generally of emerging markets. This is in line with the conclusions reached in an earlier report in The Wide Angle series (see "Can Asian consumers replace the West?", 27th July 2011).

**Table 5: Projections of the Global Middle Class**

	2009		2020		2030	
	Millions	Share	Millions	Share	Millions	Share
North America	338	18%	333	10%	322	7%
Europe	664	36%	703	22%	680	14%
Central and South America	181	10%	251	8%	313	6%
Asia Pacific	525	28%	1,740	54%	3,228	66%
Sub-Saharan Africa	32	2%	57	2%	107	2%
Middle East and North Africa	105	6%	165	5%	234	5%
World	1,845	100%	3,249	100%	4,884	100%

Source: *The Emerging Middle Class in Developing Countries*, Homi Kharas, OECD Working Paper No 285, 2010

<sup>3</sup> "The Emerging Middle Class in Developing Countries", Homi Kharas, OECD Working Paper No 285, 2010

**Table 6: Projections of Spending by the Global Middle Class**

2005 prices, PPP	2009		2020		2030	
	USDbn	Share	USDbn	Share	USDbn	Share
North America	5,602	26%	5,863	17%	5,837	10%
Europe	8,138	38%	10,301	29%	11,337	20%
Central and South America	1,534	7%	2,315	7%	3,117	6%
Asia Pacific	4,952	23%	14,798	42%	32,596	59%
Sub-Saharan Africa	256	1%	448	1%	827	1%
Middle East and North Africa	796	4%	1,321	4%	1,966	4%
World	21,278	100%	35,045	100%	55,680	100%

Source: *The Emerging Middle Class in Developing Countries*, Homi Kharas, OECD Working Paper No 285, 2010. Note: the projections are in 2005 PPP dollars.

## Demographic Profile of the World's Consumers

One of the big changes that we are witnessing in the consumption landscape is the rapid increase in the age profile of the average consumer. This is not a new topic of discussion but the pace and scale of this transformation is still not fully appreciated, especially in the case of emerging economies. Moreover, it is not a linear process but one where a changing age structure is causing behavioral changes that, in turn, feeds back to the relative income streams of different age groups.

Over the last two decades, the median age of the United States and the United Kingdom have drifted up from 32.9 and 35.8 years respectively in 1990 to 36.9 and 39.8 in 2010. They are expected to rise to 39.1 and 41.3 by 2030 according to the UN Population Division. Note that the US and UK have aged relatively slowly compared to many other advanced countries. Japan, for instance, had a median age of 37.4 in 1990, not far from the US and UK, but will be much older at 51.4 years in 2030. Nevertheless, the swing is even faster in other countries of East Asia. China has gone from a median age of just 25.1 in 1990 to 34.5 in 2010 but will be older than the US and UK by 2030 with a median age of 42.5 years. Other emerging economies may be ageing more slowly than East Asia but many of them will be catching up with the West. As can be seen in the Table 7, Brazil and Russia will have a median age of 37.4 and 43.3 years by 2030. Of the major economies, India is an exception in that it will still be youthful at 31.5 in 2030.

**Table 7: Median age of the Total Population**

In years	1950	1970	1990	2010	2030
Brazil	19.2	18.6	22.6	29.1	37.4
China	23.8	19.7	25.1	34.5	42.5
France	34.5	32.4	34.8	39.9	42.4
Germany	35.4	34.3	37.6	44.3	48.8
India	21.3	19.2	21.1	25.1	31.2
Indonesia	20.0	18.6	21.3	27.8	35.1
Japan	22.3	28.9	37.4	44.7	51.4
Korea	15.9	21.8	26.2	32.9	36.7
Russia	25.0	30.6	33.3	37.9	43.3
United Kingdom	34.9	34.2	35.8	39.8	41.3
United States	30.0	28.2	32.9	36.9	39.1

Source: UN World Population Prospects: The 2010 Revision

The process of aging implies that the proportion of working-age adults (20-64 years) will decline in most major economies by 2030. As shown in Table 8, working age consumers will account for less than half of total population in Japan and Germany by that time. Emerging

countries like China and Russia will also witness very sharp declines in this category. India is again the exception in that it will see a significant increase. In Brazil, the share rises moderately although the sharply falling share of children in the total population suggests that the working age population will decline in the 2030s. These changes in the demographic landscape are even starker if one looks at the numbers at the two extremes of the age structure rather than percentage shares. For instance, the number of children in the age group 0-2 years has already declined by 15.8% in Japan since 1990 but the declines are almost catastrophic in China and South Korea at -43.3% and -32.2% respectively. A producer of baby-milk or diapers will need to take this into serious account even as the education system in these countries will have to prepare for a virtual collapse in the pipeline. In contrast, the number of infants has increased by 2.9% in the UK and by 3.7% in the US during the same period. At the other end of the scale, the number of persons older than 60 years of age has jumped up since 1990 by 133% and 119% in South Korea and China respectively. Yet again, it is clear that North-East Asia is in the midst of a demographic shift that will radically change the profile of future consumers in the region.

**Table 8: Population Distribution by Age**

Percent of total population	0-19 yrs	20-64 yrs	65+ yrs
<b>Brazil</b>			
2010	33.4%	58.2%	8.4%
2030	23.9%	59.9%	16.2%
<b>China</b>			
2010	26.9%	63.6%	9.4%
2030	19.7%	61.6%	18.7%
<b>Germany</b>			
2010	17.7%	58.1%	24.2%
2030	17.0%	49.6%	33.3%
<b>India</b>			
2010	40.1%	54.3%	5.6%
2030	31.6%	59.0%	9.4%
<b>Japan</b>			
2010	17.0%	55.7%	27.3%
2030	15.0%	46.8%	38.1%
<b>Russia</b>			
2010	20.2%	64.5%	15.3%
2030	21.2%	56.8%	22.0%
<b>United Kingdom</b>			
2010	22.6%	57.1%	20.3%
2030	21.9%	52.2%	25.8%
<b>United States</b>			
2010	26.1%	57.7%	16.2%
2030	24.3%	51.9%	23.9%

Source: UN Population Prospects



**Table 9: Population by Extreme Age Brackets**

In millions	1990	2011	Change (%)
<b>Brazil</b>			
0-2 years (1995)	9.93	8.62	-13.2
60+ years	9.78	16.81	71.9
<b>China</b>			
0-2 years	70.55	40.00	-43.3
60+ years	116.58	254.67	118.5
<b>France</b>			
0-2 years	2.26	2.38	5.5
60+ years	10.76	14.63	35.9
<b>Germany</b>			
0-2 years	2.67	1.97	-26.1
60+ years	11.79	16.75	42.0
<b>India</b>			
0-2 years	70.64	75.85	7.4
60+ years	74.75	140.83	88.4
<b>Indonesia</b>			
0-2 years	12.76	12.03	-5.7
60+ years	16.51	30.78	86.5
<b>Japan</b>			
0-2 years	3.79	3.19	-15.8
60+ years	14.93	29.63	98.4
<b>Korea</b>			
0-2 years	1.93	1.31	-32.2
60+ years	3.35	7.80	132.6
<b>Russia</b>			
0-2 years	6.89	5.25	-23.8
60+ years	27.62	31.35	13.5
<b>United Kingdom</b>			
0-2 years	2.31	2.38	2.9
60+ years	10.50	11.85	12.9
<b>United States</b>			
0-2 years	11.50	11.92	3.7
60+ years	31.25	38.22	22.3

Source: Euromonitor

How are societies changing behavior to cope with this rapid aging? In particular, are people taking advantage of greater longevity to work longer? The evidence suggests that, to contrary, the opposite had happened till 2000. Till the mid-20th century, most people worked as long as they were physically able to do so. Only civil servants and a few others had the luxury of living on a pension. This changed in the late 20th century and, as can be seen in Tables 10 and 11, the effective retirement age declined over the decades. The exceptions have been Japan, where the effective retirement age remained high, and South Korea where it rose. Nevertheless, OECD data suggests that the trend is reversing in a few advanced countries such as the United States and United Kingdom. For instance, the average American male retired at 65.5 years of age and the average female at 64.8 years in 2009 compared to 64.7 years and 63.5 years respectively in 2000. Germany and France also saw a small increase between 2000 and 2009. What is interesting is that older workers seem increasingly willing to go back to university to gain new skills as well as to take up junior roles and even

internships<sup>4</sup>. This flexibility, combined with their previous life experiences, could make the older worker formidably competitive in job market. Younger workers need to pull up their socks!

**Table 10: Effective and Official Retirement Ages in OECD Countries (Men)**

	Effective retirement age for men					Official retirement age for men
	1970	1980	1990	2000	2009	2009
France	67.6	63.5	60.0	58.8	59.1	60.0
Germany	NA	NA	NA	61.0	61.8	65.0
Japan	72.3	70.7	70.4	70.1	69.7	64.0
Mexico	NA	79.4	76.7	75.0	72.2	65.0
South Korea	65.7	68.4	70.0	67.1	70.3	60.0
Spain	69.4	64.8	62.9	61.7	61.8	65.0
Turkey	68.3	68.1	63.6	61.3	62.8	60.0
United Kingdom	67.7	66.0	62.8	62.4	64.3	65.0
United States	68.5	66.4	64.7	64.7	65.5	65.8

Source: OECD

**Table 11: Effective and Official Retirement Ages in OECD Countries (Women)**

	Effective retirement age for women					Official retirement age for women
	1970	1980	1990	2000	2009	2009
France	68.2	64.1	60.0	58.9	59.7	60.0
Germany	NA	NA	NA	60.2	60.5	65.0
Japan	68.1	66.6	66.4	66.2	67.3	62.0
Mexico	NA	82.9	77.3	69.8	69.5	65.0
South Korea	63.1	64.4	69.8	65.9	69.8	60.0
Spain	71.9	66.6	64.9	61.9	63.4	65.0
Turkey	56.7	66.6	61.2	60.6	68.3	58.0
United Kingdom	65.7	62.6	60.7	60.9	62.1	60.0
United States	68.0	66.3	64.9	63.5	64.8	65.8

Source: OECD

We next looked at whether or not aging is having an impact on the relative earnings of different age groups. In general, we found that lifecycle earnings of the average worker peaked in the thirties or early forties in emerging markets whereas it peaked in the forties or early fifties in most developed countries. This probably reflects the fact that a larger share of an emerging market's workforce derives income from manual labour. So, has the age distribution of income begun to change? Our findings can be summarized as follows. First, we found the age of peak earnings has not drifted significantly in any country over the last two decades. This came as a surprise given the big changes in demographics and levels of development experienced by countries like China. Second, the relative incomes earned by older workers have risen in the US and UK, probably reflecting the fact they are now retiring later. For instance, an American worker in the 60-64years age bracket earned 83% of peak earnings in 1990 but now earns 89%. The Japanese retire even later and are able to take home over 70% of peak earnings even after they cross 65years of age.

<sup>4</sup> "The 50-year old intern: Boomers go back to the Bottom", Maura Kelly, Fiscal Times, 29th March 2012

In an earlier report in the Wide Angle series, we had argued that it is inevitable that it will soon be routine to find people working into their seventies (see "The End of Population Growth", 13th May 2011). This means that the relative incomes of those in older age brackets will rise (although it is still unclear how much the peak age will shift). Again, this has important implications for investors as well as producers of consumer goods.

**Table 12: China – Incomes by Age Cohorts**

Average annual income in RMB		1990	2011
Age of peak income	Aged 30-34	2,107	30,435
Older workers' income	Aged 60-64	1,648	23,806
	Aged 65+	1,341	19,043
Old age income as % of peak income	Aged 60-64	78.2%	78.2%
	Aged 65+	63.6%	62.6%

Source: Euromonitor, Deutsche Bank estimates

**Table 13: Germany - Incomes by Age Cohorts**

Average annual income in EUR		1990	2011
Age of peak income	Aged 40-44	19,503	31,192
Older workers' income	Aged 60-64	17,932	28,921
	Aged 65+	16,265	26,268
Old age income as % of peak income	Aged 60-64	91.9%	92.7%
	Aged 65+	83.4%	84.2%

Source: Euromonitor, Deutsche Bank estimates

**Table 14: India - Incomes by Age Cohorts**

Average annual income in INR		1990	2011
Age of peak income	Aged 35-39	10,988	112,186
Older workers' income	Aged 60-64	8,105	82,868
	Aged 65+	6,534	65,874
Old age income as % of peak income	Aged 60-64	73.8%	73.9%
	Aged 65+	59.5%	58.7%

Source: Euromonitor, Deutsche Bank estimates

**Table 15: Japan - Incomes by Age Cohorts**

Average annual income in JPY		1990	2011
Age of peak income	Aged 40-44	4,507,665	4,457,009
Older workers' income	Aged 60-64	3,840,832	3,802,948
	Aged 65+	3,291,499	3,204,202
Old age income as % of peak income	Aged 60-64	85.2%	85.3%
	Aged 65+	73.0%	71.9%

Source: Euromonitor, Deutsche Bank estimates

**Table 16: United Kingdom - Incomes by Age Cohorts**

Average annual income in GBP		1990	2011
Age of peak income	Aged 45-49	14,007	32,972
Older workers' income	Aged 60-64	11,745	29,219
	Aged 65+	9,755	25,451
Old age income as % of peak income	Aged 60-64	83.9%	88.6%
	Aged 65+	69.6%	77.2%

Source: Euromonitor, Deutsche Bank estimates

**Table 17: United States - Incomes by Age Cohorts**

Average annual income in USD		1990	2011
Age of peak income	Aged 50-54	38,688	78,343
Older workers' income	Aged 60-64	32,174	70,408
	Aged 65+	21,261	45,708
Old age income as % of peak income	Aged 60-64	83.2%	89.9%
	Aged 65+	55.0%	58.3%

Source: Euromonitor, Deutsche Bank estimates

## The Changing Household

Even as demographics and per capita incomes have changed, the social landscape inhabited by the consumer has also changed radically. In this section we have restricted ourselves to only three characteristics – urbanization, household size and education.

Not surprisingly, the bulk of consumers in advanced countries were urban by 1990 but we found that this was also true of major emerging markets in Latin America and Eastern Europe. The level of urbanization is now even higher. However, it is China that experienced the biggest shift. In 1990, China was still overwhelmingly rural with only 26.4% of population living in urban areas. Today it is an urban majority country. India too urbanized over the last two decades but at a much slower pace and consequently still remains two-thirds rural. The urbanization rate will probably rise a bit more in advanced countries as well as Eastern Europe and Latin America, but the shift will be minor. China's urbanization still has some distance to run. However, it is India that will see the biggest shift looking ahead and we expect that it will be an urban majority country by the late 2030s (see discussion in "The Future of Our Cities", The Wide Angle series, published 11th August 2011).

**Table 18: Urbanisation Rates**

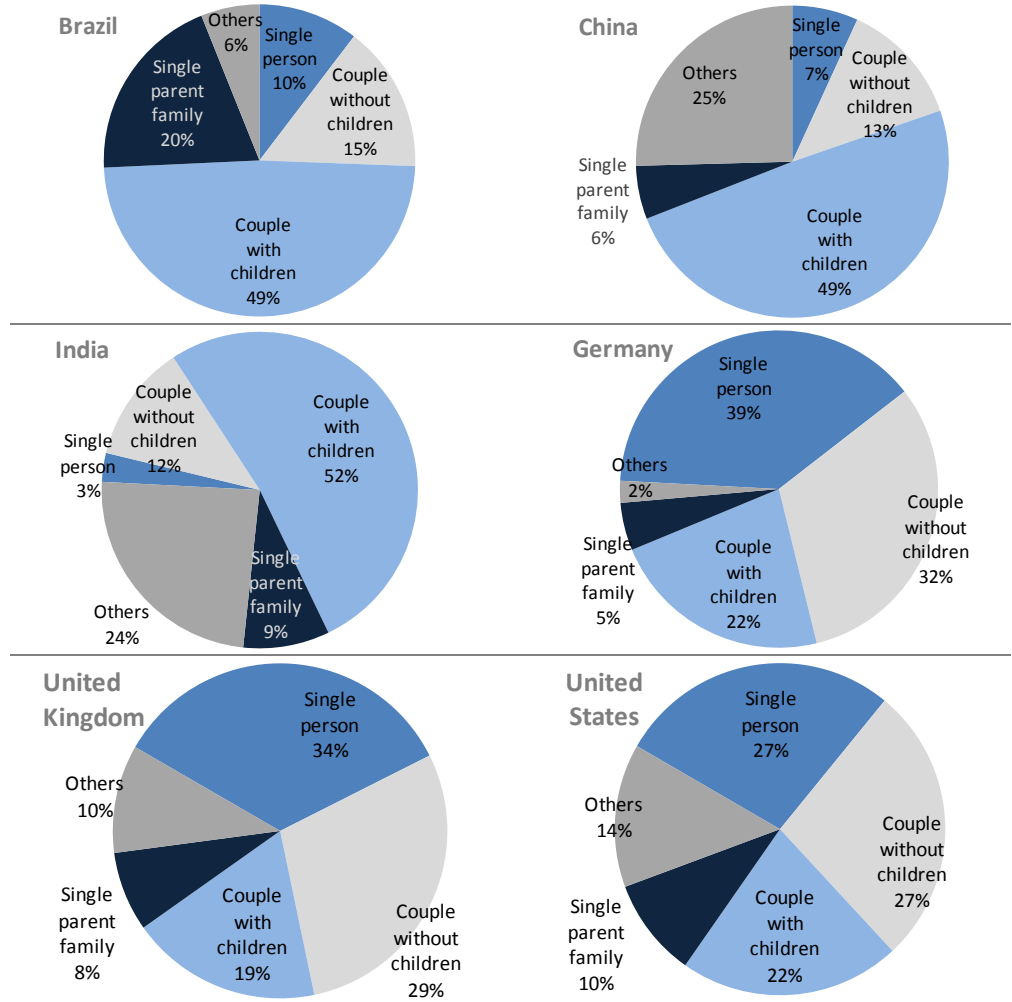
In per cent of total population	1990	2000	2010	2030
Brazil	73.9	81.2	84.3	85.2
China	26.4	35.9	49.2	62.7
France	74.1	76.9	85.2	85.4
Germany	73.1	73.1	73.8	74.4
India	25.5	27.7	31.9	45.7
Indonesia	30.6	42.0	49.9	58.9
Japan	77.3	78.6	90.5	91.0
Mexico	71.4	74.7	77.8	83.4
Russia	73.4	73.4	73.7	74.4
South Africa	52.0	56.9	61.5	69.5
South Korea	73.8	79.6	82.9	83.4
Spain	75.4	76.3	77.3	78.7
Turkey	59.2	64.7	70.5	74.3
United Kingdom	78.1	78.7	79.5	80.2
United States	75.3	79.1	82.1	83.6

Source: UN Urbanisation Prospects, DB estimates

The structure of households has been transformed as the institution of marriage has gone into decline and the number of children has fallen. Our mental image of the average consuming unit, the household, is still dominated by the standard nuclear family: mum, dad and a couple of kids. This kind of household, however, now accounts for only a small fraction of actual household in many developed countries. In the United States, for example, couples with children account for only 21.6% of households while couples without children account for another 27.2%. The single largest category is now that of single person with a 27.6%

share that is steadily rising. The single person household is even more widespread in other developed countries accounting for 34.3% in UK, 31.5% in Japan and 38.7% of households in Germany. The traditional nuclear family (with children) accounts for barely 18.5% of households in the UK. In other words, the largest consuming category in the developed world is now the lone individual.

**Figure 2: Households by Type in 2011**



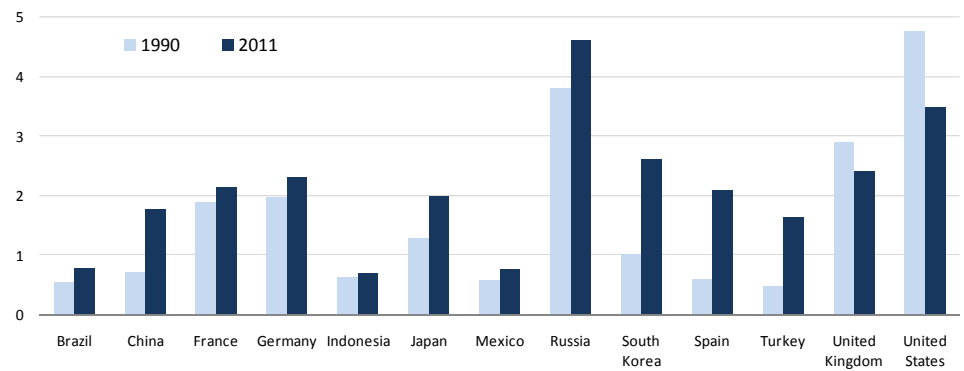
Source: Euromonitor

The decline of the nuclear family is often blamed on increases in divorce rates. This is indeed true for many countries in the last two decades (see Figure 3) but it is not the full story since divorce rates have stabilized or have even fallen in other instances. An equally important factor is that people are simply not getting married in the first place. As shown in Figure 4, the number of marriages per 1,000 inhabitants has fallen sharply since 1990. Even when people are getting married, they are delaying it by several years. The average age for British men getting married for the first time has gone up from 26 years in 1990 to 32 years in 2011<sup>5</sup>. That for British women has similarly jumped from 24 years to 30 years over the same period.

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

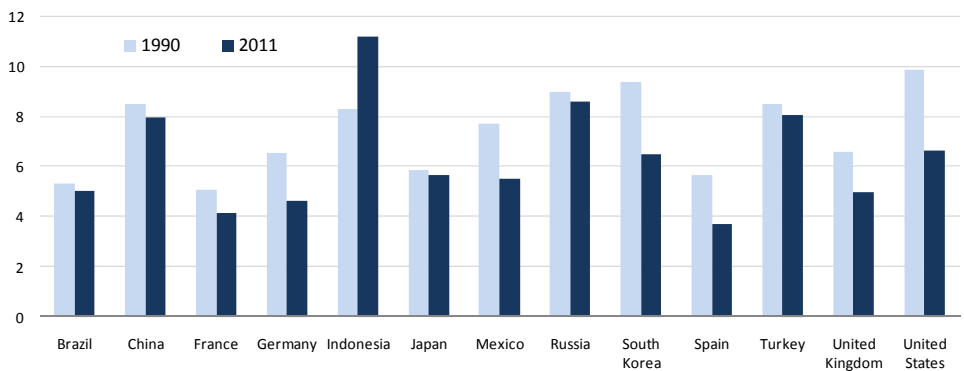
Nevertheless, the story is not all about one-way splintering towards atomistic individual consumers. In recent years we have also witnessed a revival of multigenerational families in the West. These households consist of adults from different generations living together. Such households were common across the world till the twentieth century but were steadily replaced by the nuclear family during the course of industrialization. However, we are now witnessing increased instances of grown children moving back with their parents either to save costs or to look after an ailing parent. Many of this group never left home but in many cases they are moving back after having stayed away for several years for work or college. Therefore, they have been dubbed the “Boomerang Generation”. According to Pew Research, the number of multigenerational households now account for 16% of US households compared to 12% a generation ago. Around 21.6% of adults in the 25-34years cohort live with their parents or relatives and there are signs that the phenomenon is steadily becoming common<sup>6</sup>. Britain too is witnessing a similar revival in the multigenerational family. Some commentators see this as a temporary blip caused by the economic cycle. However, in our view, there is no reason why the nuclear family should be considered a “normal” end-state and we may be witnessing the longer-term evolution where extended families again become an important part of the social structure. Indeed, we may already be witnessing the impact of this shift on consumer preferences with 47% of British adults on a survey by Age UK saying that they were going on holiday with their parents this year<sup>7</sup>!

**Figure 3: Divorce Rates (per thousand inhabitants)**



Source: Euromonitor

**Figure 4: Marriage Rates (per thousand inhabitants)**

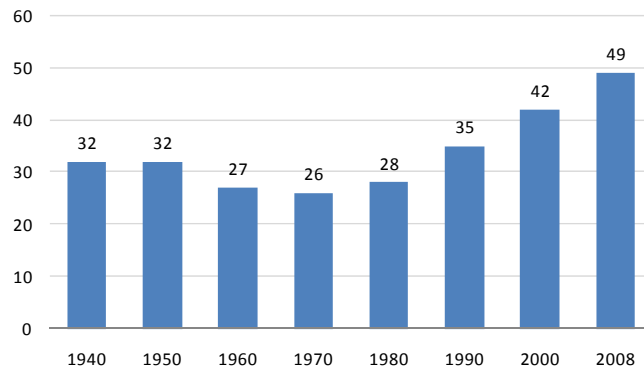


Source: Euromonitor

<sup>6</sup> “The Boomerang Generation: Feeling OK about living with Mom and Dad”, Kim Parker, Pew Social & Demographic Trends, 2012.

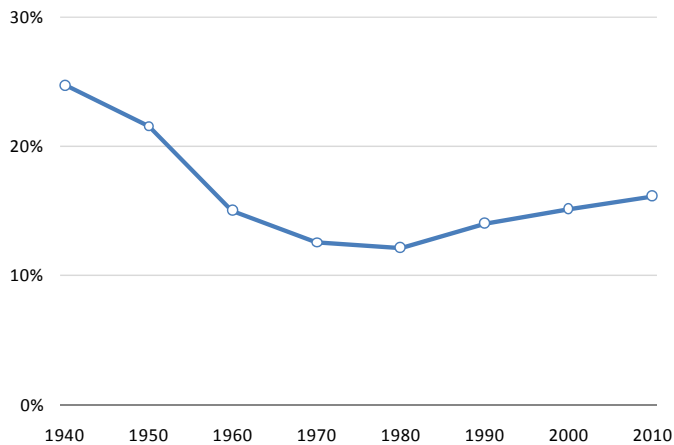
<sup>7</sup> <http://www.e-tid.com/age-uk-reveals-rise-of-multi-generation-holiday/>

**Figure 5: U.S. Population Living in Multi-Generational Family Households, 1940-2008**



Source: PEW, *The Return of the Multi-Generational Family Household*, March 2010

**Figure 6: Share of U.S. Population Living in Multi-Generational Family Households, 1940-2008**



Source: PEW, *The Return of the Multi-Generational Family Household*, March 2010

Meanwhile, trends in different emerging markets are very different. Eastern Europe has witnessed a transition away from the traditional nuclear family that is comparable to that in developed countries. Single individuals account for 24.8% of households in Russia and 33.4% in Ukraine. At the other end of the scale, single individuals account for merely 3% of households in India, 10.9% in Indonesia and 6.8% in China. However, these Asian countries are also going through big social changes. The multigenerational extended family was very common in India till recently but urbanization and modernization are changing the social structure and have made the nuclear family the norm. Couples with children account for 52% of households in India now while couples without children for another 12%. The traditional extended family accounts for less than a quarter of households and its share is falling fast. In other word, our mental image of a nuclear family unit needs to shift from American suburbia to the rapidly expanding cities of India. By the same token, our mental image of the multigenerational extended family (also called joint-family) should now include those in the West.

The educational background of consumers is also shifting and, in virtually all countries, people are becoming more educated. The number of students in higher education has gone up by 47.4% in the US and by 104.7% in the UK since 1990 but this pales in comparison to the 739% expansion witnessed in China during this period. However, demographics is beginning to impact this as well. Japan saw the number of students in enrolled in higher education rise from 2.7mn in 1990 to 4.1mn in 2006, but enrollment then fell to 3.7mn by 2011.

The impact of demographics is even clearer if one looks at primary and secondary education. The number of children in primary education in Japan is now down 26% since 1990. However, other East Asians are also experiencing similar trends with the number of children in primary education down 18% for China and a startling 33.2% for South Korea. Germany too has seen a 20% decline in the number of primary school enrollments since 1995. Given this pipeline, it is inevitable that the enrollment in higher education will see the same swing as Japan in about a decade's time. The student pipeline for the US, in contrast, is much more stable but Eastern Europe looks similar to East Asia. Yet again, India is at the other end of the scale with a 59% increase in primary enrollment since 1990, 98% in secondary enrollment and 299% in higher education. While this is not a comment on the quality of education but merely on the numerical pipeline, this will influence the human capital characteristics of the future consumers and workers.

**Table 19: Primary School Students**

In thousands	1990	2005	2011	Growth (1990-2011)
Brazil	12,943.6	18,661.1	16,541.5	27.8%
China	122,414.0	112,462.3	100,376.1	-18.0%
France	4,127.4	4,015.5	4,136.4	0.2%
Germany	NA	3,306.1	2,974.3	-20.2%*
India	96,265.1	138,788.0	152,885.7	58.8%
Indonesia	29,713.4	29,149.7	30,270.2	1.9%
Japan	9,606.6	7,231.9	7,120.1	-25.9%
Mexico	14,379.1	14,700.0	14,942.0	3.9%
Russia	NA	5,308.6	5,275.5	-32.8%*
South Africa	6,951.8	7,314.4	7,002.6	0.7%
South Korea	4,894.3	4,031.5	3,268.7	-33.2%
Spain	3,447.8	2,484.9	2,818.4	-18.3%
Turkey	6,977.9	6,678.3	6,292.3	-9.8%
United Kingdom	4,500.0	4,635.0	4,472.3	-0.6%
United States	22,173.8	24,454.6	24,987.7	12.7%

Source: Euromonitor

(\*) Growth has been calculated based on 1995 instead of 1990 due to non availability of figures for 1990.

**Table 20: Higher Education Students**

In thousands	1990	2005	2011	Growth (1990-2011)
Brazil	1,540	4,572	6,745	337.9%
China	3,925	20,601	32,935	739.2%
France	1,587	2,187	2,155	35.8%
Germany	NA	2,269	2,488	15.4%
India	4,780	11,777	19,083	299.2%
Indonesia	1,516	3,660	5,634	271.7%
Japan	2,683	4,038	3,720	38.7%
Mexico	1,314	2,385	2,848	116.8%
Russia	NA	9,003	9,271	105.3%
South Africa	439	735	883	101.2%
South Korea	1,630	3,210	3,410	109.1%
Spain	1,166	1,809	1,818	55.9%
Turkey	686	2,106	3,174	363.1%
United Kingdom	1,178	2,288	2,411	104.7%
United States	13,538	17,272	19,957	47.4%

Source: Euromonitor

(\*) Growth has been calculated based on 1995 instead of 1990 due to non availability of figures for 1990.



## Conclusion

We live at a time when the social and economic profile of the average consumer is undergoing a big shift. Our analysis found a number of important changes that both investors and companies need to take into account. First, per capita incomes are witnessing two major trends – the convergence of incomes between the richest and poorest countries, and the increase in inequality within countries. We found, however, that the increase in Gini coefficients in advanced countries is a very long term trend that started in the seventies, long before globalization took its current form. Moreover, the rising incomes of populous poor countries like China and India imply that income distribution has improved for humanity as a whole. Since globalization, by definition, should be judged at a global rather than national level, it should be taken to have been a success in terms of lowering income inequality. To propose protectionist policies on grounds of rising inequality, therefore, is factually and morally wrong.

Second, our study of households in different income brackets found that the US still dominates the category of rich consumers. The category may have seen rapid growth in China but the big story is still about the shift of poor and aspiring consumers into the middle class in China, India and other Asian countries. This could be such a big phenomenon according to some projections that two-thirds of the world's middle class could be based in Asia by 2030. In other words, Asian consumers are not just replacing the West but also eating into the shares of other emerging regions.

Third, a fall in birth rates and a rise in longevity is increasingly the age profile of the average consumer. While advanced countries have been experiencing this shift for some time, many people may not have realized that the transition has been much quicker in emerging markets, especially those in East Asia and Europe. We also found that societies are adapting to aging by extending the retirement age. The effective retirement age fell in the twentieth century but this trend is now beginning to reverse. Thus, in the future, the older consumer may no longer be a retiree living from a pension but an active worker who is willing to enhance his/her employability by returning to education or even accepting more junior roles. In the US, for instance, incomes in the 60-64 year age group were able to earn 89% of peak income in 2009 compared to 83% in 1990.

Fourth, the structure of families and households has undergone a transformation across the world. The decline in the institution of marriage in developed countries has meant that the largest consumer category is the single individual household. One person households now account for 38% of consuming units in Germany and 28% in the US. At the same time, emerging markets like India have seen both declines in household size combined with the nuclearisation of the family structure. Thus, our mental image of the average nuclear family needs to shift from American suburbia to the rapidly expanding cities of India. Nonetheless, the advanced countries are not only seeing a trend towards ever more atomized consumers. There has also been a steady revival in the multi-generational extended family. So, we also need to change our mental image of the average multi-generational household.

Finally, we found that the world has experienced a big expansion in higher education enrollments over the last two decades. While this foretells a big increase in the number of well-educated consumers and workers, we found that the future pipeline of human capital will be strongly impacted by demographics. China has already experienced an 18% decline in primary school enrollments since 1990 while South Korea has seen a 33% fall. As this cohort makes its way up the age structure, it will ultimately impact the supply of well-educated workers and consumers in a little over a decade's time. Japan has already begun to experience a downturn in college enrollments. At the other end of the scale, India has been witnessing a sharp increase in primary enrollment and could potentially benefit from this in future. The UK and the US have much smoother profiles than either extreme.

**Appendix A: Gross Income by Age in Current Prices****Table 21: Brazil**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (BRL)		2,211	4,544	4,960	5,377	5,878	6,483	7,173	7,987	9,158	10,011
Aged 20-24 (BRL)		4,642	9,508	10,365	11,205	12,250	13,510	14,948	16,504	18,664	20,422
Aged 25-29 (BRL)		5,892	12,042	13,114	14,154	15,473	17,065	18,882	20,709	23,246	25,408
Aged 30-34 (BRL)		6,446	13,154	14,315	15,434	16,872	18,608	20,589	22,467	25,116	27,395
Aged 35-39 (BRL)		6,677	13,627	14,830	15,989	17,479	19,277	21,330	23,275	26,019	28,380
Aged 40-44 (BRL)		6,669	13,600	14,794	15,942	17,428	19,221	21,267	23,136	25,821	28,206
Aged 45-49 (BRL)		6,477	13,198	14,351	15,456	16,897	18,635	20,619	22,363	24,917	27,259
Aged 50-54 (BRL)		6,127	12,484	13,575	14,621	15,983	17,627	19,504	21,154	23,569	25,785
Aged 55-59 (BRL)		5,731	11,678	12,698	13,678	14,953	16,491	18,247	19,785	22,080	24,235
Aged 60-64 (BRL)		5,276	10,752	11,692	12,596	13,770	15,186	16,803	18,215	20,361	22,421
Aged 65+ (BRL)		4,497	9,107	9,898	10,656	11,640	12,826	14,179	15,358	17,157	18,886
25-29 to peak		88.2%	88.4%	88.4%	88.5%	88.5%	88.5%	88.5%	89.0%	89.3%	89.5%
60-64 to peak		79.0%	78.9%	78.8%	78.8%	78.8%	78.8%	78.8%	78.3%	78.3%	79.0%
65+ to peak		67.4%	66.8%	66.7%	66.6%	66.6%	66.5%	66.5%	66.0%	65.9%	66.5%

Source: Euromonitor &amp; DB Research

**Table 22: China**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (RMB)	689	1,812	3,159	3,918	4,660	5,470	6,254	7,490	8,181	8,919	10,013
Aged 20-24 (RMB)	1,635	4,297	7,481	9,272	11,019	12,933	14,788	17,710	19,220	20,942	23,820
Aged 25-29 (RMB)	2,014	5,293	9,211	11,413	13,558	15,913	18,194	21,790	23,607	25,677	29,106
Aged 30-34 (RMB)	2,107	5,536	9,633	11,936	14,180	16,643	19,029	22,790	24,687	26,852	30,435
Aged 35-39 (RMB)	2,059	5,410	9,413	11,663	13,853	16,259	18,591	22,265	24,113	26,209	29,701
Aged 40-44 (RMB)	1,953	5,134	8,933	11,070	13,151	15,435	17,648	21,136	22,909	24,908	28,236
Aged 45-49 (RMB)	1,872	4,920	8,561	10,607	12,599	14,788	16,909	20,250	21,931	23,844	27,022
Aged 50-54 (RMB)	1,832	4,815	8,378	10,381	12,331	14,473	16,549	19,819	21,465	23,342	26,454
Aged 55-59 (RMB)	1,772	4,657	8,105	10,044	11,933	14,006	16,015	19,180	20,803	22,627	25,639
Aged 60-64 (RMB)	1,648	4,332	7,538	9,340	11,095	13,023	14,890	17,833	19,311	21,016	23,806
Aged 65+ (RMB)	1,341	3,519	6,094	7,531	8,922	10,471	11,954	14,290	15,482	16,804	19,043
25-29 to peak		95.6%	95.6%	95.6%	95.6%	95.6%	95.6%	95.6%	95.6%	95.6%	95.6%
60-64 to peak		78.2%	78.3%	78.3%	78.3%	78.2%	78.2%	78.2%	78.2%	78.3%	78.2%
65+ to peak		63.6%	63.6%	63.3%	63.1%	62.9%	62.9%	62.8%	62.7%	62.7%	62.6%

Source: Euromonitor &amp; DB Research

**Table 23: France**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (EUR)	11,705	13,485	17,159	17,738	18,249	19,398	20,050	20,491	20,387	20,663	21,125
Aged 20-24 (EUR)	17,478	20,066	25,052	25,816	26,480	27,754	28,371	28,995	28,884	29,212	29,846
Aged 25-29 (EUR)	20,925	23,979	29,631	30,485	31,225	32,429	32,982	33,708	33,622	34,000	34,718
Aged 30-34 (EUR)	22,690	26,007	32,186	33,134	33,955	34,994	36,047	36,841	36,734	37,148	37,942
Aged 35-39 (EUR)	23,541	27,009	33,609	34,636	35,533	36,710	38,011	38,848	38,771	39,250	40,124
Aged 40-44 (EUR)	24,480	28,100	35,058	36,148	37,100	38,386	39,831	40,709	40,642	41,134	42,032
Aged 45-49 (EUR)	25,136	28,864	36,081	37,216	38,209	39,576	41,130	42,036	41,978	42,496	43,432
Aged 50-54 (EUR)	25,204	28,971	36,422	37,609	38,654	40,094	41,958	42,882	42,831	43,389	44,356
Aged 55-59 (EUR)	24,860	28,566	35,845	37,000	38,020	39,399	41,153	42,060	42,005	42,602	43,581
Aged 60-64 (EUR)	23,800	27,353	34,363	35,479	36,468	37,743	39,560	40,432	40,368	40,969	41,906
Aged 65+ (EUR)	22,081	25,411	31,751	32,738	33,612	34,764	36,191	36,958	36,862	37,509	38,439

Source: Euromonitor &amp; DB Research

**Table 24: Germany**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (EUR)	8,837	10,780	12,144	12,230	12,456	12,844	13,304	13,842	13,588	14,223	14,490
Aged 20-24 (EUR)	14,376	17,531	19,722	19,851	20,195	20,823	21,570	22,443	21,946	22,843	23,357
Aged 25-29 (EUR)	17,363	21,169	23,787	23,935	24,323	25,079	25,979	27,029	26,393	27,247	28,017
Aged 30-34 (EUR)	18,737	22,838	25,633	25,784	26,174	26,988	27,956	29,087	28,354	29,047	30,051
Aged 35-39 (EUR)	19,231	23,438	26,292	26,444	26,829	27,663	28,656	29,814	29,050	29,628	30,775
Aged 40-44 (EUR)	19,503	23,769	26,658	26,812	27,198	28,043	29,049	30,224	29,444	29,989	31,192
Aged 45-49 (EUR)	19,447	23,701	26,584	26,738	27,124	27,967	28,970	30,142	29,370	29,924	31,114
Aged 50-54 (EUR)	19,076	23,249	26,082	26,235	26,617	27,444	28,429	29,578	28,834	29,397	30,549
Aged 55-59 (EUR)	18,670	22,755	25,531	25,683	26,059	26,870	27,833	28,959	28,246	28,805	29,940
Aged 60-64 (EUR)	17,932	21,859	24,542	24,695	25,068	25,848	26,775	27,858	27,236	27,817	28,921
Aged 65+ (EUR)	16,265	19,854	22,312	22,469	22,817	23,529	24,370	25,335	24,773	25,263	26,268
25-29 to peak	89.0%	89.1%	89.2%	89.3%	89.4%	89.4%	89.4%	89.4%	89.6%	90.9%	89.8%
60-64 to peak	91.9%	92.0%	92.1%	92.1%	92.2%	92.2%	92.2%	92.2%	92.5%	92.8%	92.7%
65+ to peak	83.4%	83.5%	83.7%	83.8%	83.9%	83.9%	83.9%	83.8%	84.1%	84.2%	84.2%

Source: Euromonitor &amp; DB Research

**Table 25: India**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (INR)	4,075	7,903	15,734	17,156	18,902	21,314	23,599	27,535	30,890	36,204	41,678
Aged 20-24 (INR)	8,329	16,154	32,158	35,062	38,625	43,554	48,224	56,268	63,095	73,912	85,053
Aged 25-29 (INR)	9,969	19,334	38,487	41,963	46,227	52,126	57,715	67,342	75,512	88,456	101,782
Aged 30-34 (INR)	10,744	20,838	41,481	45,227	49,822	56,180	62,204	72,579	81,384	95,332	109,692
Aged 35-39 (INR)	10,988	21,310	42,421	46,252	50,952	57,454	63,615	74,226	83,231	97,498	112,186
Aged 40-44 (INR)	10,744	20,838	41,481	45,226	49,822	56,180	62,204	72,579	81,385	95,334	109,696
Aged 45-49 (INR)	10,224	19,828	39,471	43,035	47,408	53,458	59,190	69,063	77,442	90,716	104,382
Aged 50-54 (INR)	9,659	18,733	37,291	40,658	44,788	50,504	55,919	65,247	73,157	85,694	98,603
Aged 55-59 (INR)	8,952	17,362	34,557	37,676	41,501	46,797	51,815	60,458	67,772	79,359	91,281
Aged 60-64 (INR)	8,105	15,719	31,296	34,125	37,596	42,394	46,939	54,769	61,444	72,004	82,868
Aged 65+ (INR)	6,534	12,668	25,133	27,381	30,135	33,943	37,536	43,740	48,981	57,307	65,874
25-29 to peak	90.7%	90.7%	90.7%	90.7%	90.7%	90.7%	90.7%	90.7%	90.7%	90.7%	90.7%
60-64 to peak	73.8%	73.8%	73.8%	73.8%	73.8%	73.8%	73.8%	73.8%	73.8%	73.9%	73.9%
65+ to peak	59.5%	59.4%	59.2%	59.2%	59.1%	59.1%	59.0%	58.9%	58.8%	58.8%	58.7%

Source: Euromonitor &amp; DB Research

**Table 26: Japan**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (JPY '000s)	1,758	1,931	1,777	1,770	1,780	1,804	1,813	1,813	1,777	1,803	1,784
Aged 20-24 (JPY '000s)	3,362	3,692	3,396	3,382	3,400	3,446	3,462	3,462	3,392	3,430	3,390
Aged 25-29 (JPY '000s)	4,005	4,397	4,042	4,024	4,043	4,098	4,117	4,117	4,028	4,058	4,010
Aged 30-34 (JPY '000s)	4,314	4,735	4,351	4,332	4,350	4,408	4,429	4,429	4,331	4,348	4,294
Aged 35-39 (JPY '000s)	4,454	4,889	4,491	4,471	4,488	4,549	4,570	4,570	4,468	4,475	4,422
Aged 40-44 (JPY '000s)	4,508	4,948	4,543	4,522	4,538	4,599	4,621	4,620	4,514	4,509	4,457
Aged 45-49 (JPY '000s)	4,509	4,949	4,544	4,522	4,538	4,599	4,621	4,620	4,514	4,502	4,452
Aged 50-54 (JPY '000s)	4,353	4,777	4,386	4,365	4,380	4,438	4,459	4,459	4,357	4,342	4,299
Aged 55-59 (JPY '000s)	4,145	4,550	4,177	4,158	4,172	4,228	4,248	4,247	4,153	4,139	4,104
Aged 60-64 (JPY '000s)	3,841	4,216	3,870	3,852	3,865	3,917	3,936	3,935	3,847	3,834	3,803
Aged 65+ (JPY '000s)	3,291	3,614	3,295	3,274	3,281	3,322	3,335	3,332	3,257	3,239	3,204
25-29 to peak	88.8%	88.9%	89.0%	89.0%	89.1%	89.1%	89.1%	89.1%	89.2%	90.0%	90.0%
60-64 to peak	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.0%	85.3%
65+ to peak	73.0%	73.1%	72.5%	72.4%	72.3%	72.2%	72.2%	72.1%	72.1%	71.8%	71.9%

Source: Euromonitor &amp; DB Research

**Table 27: Russia**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (RUB)	4,781	40,295	50,533	61,783	76,129	94,132	116,007	121,011	132,711	152,785	
Aged 20-24 (RUB)	8,682	73,113	91,647	111,984	137,987	170,619	210,267	218,568	239,322	274,829	
Aged 25-29 (RUB)	10,269	86,457	108,360	132,380	163,119	201,695	248,564	258,153	282,421	323,365	
Aged 30-34 (RUB)	11,348	95,571	119,801	146,386	180,378	223,035	274,864	285,770	312,871	357,697	
Aged 35-39 (RUB)	11,225	94,574	118,574	144,931	178,585	220,818	272,131	283,303	310,603	354,908	
Aged 40-44 (RUB)	10,835	91,350	114,568	140,102	172,635	213,461	263,064	274,496	301,529	344,520	
Aged 45-49 (RUB)	10,222	86,218	108,154	132,297	163,017	201,568	248,408	259,604	285,445	326,107	
Aged 50-54 (RUB)	9,569	80,743	101,307	123,957	152,741	188,863	232,750	243,616	268,123	306,284	
Aged 55-59 (RUB)	9,090	76,699	96,233	117,749	145,091	179,403	221,092	231,414	254,694	290,943	
Aged 60-64 (RUB)	8,648	72,977	91,563	112,034	138,050	170,696	210,362	220,183	242,333	276,823	
Aged 65+ (RUB)	8,029	67,641	84,886	103,878	127,939	158,093	194,499	203,193	223,227	254,573	
25-29 to peak		90.5%	90.5%	90.4%	90.4%	90.4%	90.4%	90.4%	90.3%	90.3%	90.4%
60-64 to peak		76.2%	76.4%	76.4%	76.5%	76.5%	76.5%	76.5%	77.0%	77.5%	77.4%
65+ to peak		70.8%	70.8%	70.9%	71.0%	70.9%	70.9%	70.8%	71.1%	71.3%	71.2%

Source: Euromonitor &amp; DB Research

**Table 28: United Kingdom**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (GBP)	4,757	6,334	9,211	9,589	10,090	10,520	10,673	11,143	11,427	11,628	11,952
Aged 20-24 (GBP)	8,582	11,412	16,472	17,101	17,954	18,627	18,970	19,676	19,891	20,302	20,854
Aged 25-29 (GBP)	11,111	14,762	21,218	21,988	23,053	23,871	24,347	25,143	25,171	25,752	26,426
Aged 30-34 (GBP)	12,598	16,730	23,990	24,829	26,008	26,932	27,486	28,280	28,104	28,817	29,552
Aged 35-39 (GBP)	13,492	17,915	25,670	26,556	27,813	28,789	29,405	30,219	29,939	30,778	31,570
Aged 40-44 (GBP)	13,908	18,466	26,462	27,372	28,667	29,678	30,330	31,157	30,822	31,714	32,534
Aged 45-49 (GBP)	14,007	18,603	26,697	27,625	28,942	29,985	30,664	31,520	31,200	32,123	32,972
Aged 50-54 (GBP)	13,482	17,917	25,797	26,715	28,013	29,070	29,761	30,645	30,400	31,322	32,184
Aged 55-59 (GBP)	12,545	16,683	24,107	24,991	26,233	27,262	27,932	28,838	28,701	29,614	30,483
Aged 60-64 (GBP)	11,745	15,638	22,742	23,610	24,818	25,889	26,591	27,527	27,461	28,361	29,219
Aged 65+ (GBP)	9,755	12,976	19,025	19,813	20,893	21,930	22,599	23,534	23,649	24,565	25,451
25-29 to peak		79.3%	79.4%	79.5%	79.6%	79.7%	79.6%	79.4%	79.8%	80.7%	80.1%
60-64 to peak		83.9%	84.1%	85.2%	85.5%	85.8%	86.3%	86.7%	87.3%	88.0%	88.6%
65+ to peak		69.6%	69.8%	71.3%	71.7%	72.2%	73.1%	73.7%	74.7%	75.8%	77.2%

Source: Euromonitor &amp; DB Research

**Table 29: United States**

	1990	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aged 15-19 (USD)	6,316	7,385	9,985	10,468	11,065	11,769	12,396	12,846	12,240	12,390	12,980
Aged 20-24 (USD)	16,624	19,387	25,810	27,016	28,529	30,039	31,264	32,086	31,141	31,669	32,438
Aged 25-29 (USD)	25,367	29,628	39,739	41,672	44,154	46,734	48,627	49,926	48,831	50,500	52,304
Aged 30-34 (USD)	30,735	35,919	48,334	50,720	53,783	57,032	59,408	61,114	59,791	61,935	64,430
Aged 35-39 (USD)	34,487	40,290	54,121	56,769	60,177	63,752	66,331	68,222	66,677	69,098	71,681
Aged 40-44 (USD)	36,659	42,812	57,398	60,183	63,748	67,477	70,144	72,118	70,441	72,724	75,540
Aged 45-49 (USD)	38,000	44,357	59,321	62,165	65,787	69,560	72,234	74,201	72,408	74,434	77,451
Aged 50-54 (USD)	38,688	45,157	60,371	63,268	66,938	70,708	73,481	75,518	73,719	75,582	78,343
Aged 55-59 (USD)	36,855	43,089	58,123	61,034	64,728	68,667	71,669	73,922	72,379	74,626	77,729
Aged 60-64 (USD)	32,174	37,682	51,322	53,973	57,349	61,160	64,174	66,532	64,837	67,222	70,408
Aged 65+ (USD)	21,261	24,601	32,910	34,616	36,770	39,236	41,241	42,908	41,936	43,565	45,708
25-29 to peak	65.6%	65.6%	65.8%	65.9%	66.0%	66.1%	66.2%	66.1%	66.2%	66.8%	66.8%
60-64 to peak	83.2%	83.4%	85.0%	85.3%	85.7%	86.5%	87.3%	88.1%	88.0%	88.9%	89.9%
65+ to peak	55.0%	54.5%	54.5%	54.7%	54.9%	55.5%	56.1%	56.8%	56.9%	57.6%	58.3%

Source: Euromonitor &amp; DB Research

# The Wide Angle Series

**Deutsche Bank**

**The Wide Angle**


**The End of Population Growth**

33 May 2011

**Author:** Benjamin Engel  
**Analyst:** Benjamin Engel

**Summary:**

- Latest census data from around the world suggest that human population will peak in approximately 15-20 years and then decline. This is a significant shift in our view of the world's future. The world's population will peak in the next 15-20 years and then decline. This is a significant shift in our view of the world's future. The world's population will peak in the next 15-20 years and then decline. This is a significant shift in our view of the world's future.



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**Deutsche Bank**

**The Wide Angle**


**Is Outsourcing History?**

26 June 2011

**Author:** Benjamin Engel  
**Analyst:** Benjamin Engel

**Summary:**

- The debate surrounding manufacturing and labor of services has been heated. The impact of global production... (text continues)



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**Deutsche Bank**

**The Wide Angle**

**Can Asian consumers replace the West?**

23 July 2011

**Author:** Benjamin Engel  
**Analyst:** Benjamin Engel

**Summary:**

- There are multiple views that developed countries' households... (text continues)



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**Deutsche Bank**

**The Wide Angle**


**The Future of Our Cities**

31 August 2011

**Author:** Benjamin Engel  
**Analyst:** Benjamin Engel

**Summary:**

- The global economy is already dominated by cities, and their importance is growing... (text continues)



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**Deutsche Bank**

**The Wide Angle**

**Are We Entering a Post Dollar World?**

3 November 2011

**Author:** Benjamin Engel  
**Analyst:** Benjamin Engel

**Summary:**

- The ongoing financial crisis and the global economic decline of the United States... (text continues)



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**The Wide Angle**

**Transportation versus Communications: What is Next?**

27 January 2012

**Author:** Benjamin Engel  
**Analyst:** Benjamin Engel

**Summary:**

- The history of the global economy can be seen as a race between transportation and communications... (text continues)



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**Deutsche Bank**

**The Wide Angle**

**Who are the World's Consumers?**

23 July 2012

**Author:** Benjamin Engel  
**Analyst:** Benjamin Engel

**Summary:**

- This is the first of a two-part series investigating long-term trends in global consumption... (text continues)



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# Appendix 1

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