# **CONSUMPTION GROWTH: INVESTING IN TODAY'S EMERGING MARKETS**

MIRAE ASSET

#### **CONSUMPTION GROWTH: INVESTING IN TODAY'S EMERGING MARKETS** ABOUT MIRAE ASSET GLOBAL INVESTMENTS

Mirae Asset Global Investments manages investment strategies for clients across the globe. With approximately \$59 billion in total assets under management (as of January 2014), and more than 550 employees, including 122 dedicated investment professionals, Mirae Asset offers a breadth of emerging markets expertise. Mirae Asset's offices are located in Australia, Brazil, Canada, China, Colombia, Hong Kong, India, Korea, Taiwan, the U.K., the U.S. and Vietnam.

We focus on actively managed emerging market-focused portfolios through a bottom-up investment process rooted in on-the-ground research. Mirae Asset Global Investments is recognized as one of the world's largest emerging market equity investment managers1 and has one of the largest teams of investment professionals dedicated to emerging markets. Our worldwide team of portfolio managers, analysts and strategists maintains proximity to the investment opportunities that we research, allowing a deep understanding of companies and the cultures in which they operate.

#### INTRODUCTION

Our intent is to demonstrate how rising numbers of consumers in the emerging markets are set to transform the global economic landscape over the coming decades, and that this presents a unique investment opportunity.

Consumers in the U.S. and in other major developed economies have been a key source of global demand and an important driver of global growth over the last 50 years.<sup>2</sup> The headwinds these economies are currently facing though are putting into question whether these economies can continue to lead global growth as they have done in the past. As the challenges in the developed world increase, however the emerging world is exhibiting a range of conditions that we believe will likely drive global growth in the coming decades. We are all familiar with the Chinese growth story and with the increasing popularity of the emerging markets with investors but the questions we will seek to answer in this paper concern whether the rise of the emerging market consumer is a sustainable investment theme and where do the specific opportunities lie? There is one statistic that we believe places into context the scale of the changes currently happening globally. Our research reveals that the number of middle class consumers in emerging markets will reach 960 million by 2020; compare this with 77 million Baby Boomers in the U.S. — a generation widely acknowledged to have had a profound and lasting impact on both economic output and domestic consumption in the developed world.3

In this white paper we will go beneath the surface to examine the drivers behind this emerging middle class and how increasing urbanization and positive demographics are all pointing to significant income growth potential.

We will also explore the impact this income growth will have on global consumption levels and spending patterns. According to the McKinsey Global Institute, annual con-

<sup>&</sup>lt;sup>1</sup> Investment and Pensions Europe, January 2013

<sup>&</sup>lt;sup>2</sup> According to the International Monetary Fund (IMF), the major advanced economies (G7) comprise seven countries: Canada, France, Germany, Italy, Japan, the United Kingdom and the United States

<sup>&</sup>lt;sup>3</sup> U.S. Census Bureau; United Nations Department of Economic and Social Affairs; The World Bank, Global Economic Prospects 2007; Mirae Asset projections

sumption in emerging markets will rise from \$12 trillion in 2010 to \$30 trillion by 2025 and during the same period, the emerging markets' share of world consumption will increase from 32% to 47%.4 As investors, we need to understand the key factors that are influencing an investment landscape that is fundamentally different from that which we have previously seen. In addition, we need to know who the winners will be from this potentially exponential growth in consumption. In this paper we will outline the key pillars supporting the expansion of the middle class in the emerging markets and discuss how this will translate into the emerging market consumer becoming the dominant force in the global economy in the coming decades.

#### FOUR FACTORS OF CONSUMPTION GROWTH

There are strong fundamental factors supporting the expansion of the middle class in the emerging markets. These factors are enabling this important and growing segment of the population to become a dominant force in the global economy in the coming decades. We believe the four key factors supporting this trend are 1) urbanization; 2) income growth; 3) favorable demographics; and 4) economic growth powered by domestic spending.

#### URBANIZATION

Mirae Asset sees urbanization within emerging markets as one of the most important drivers of consumption growth. As people shift from rural areas to urban districts and seek new professions, higher wages and a better quality of life,

### PERCENTAGE OF POPULATION RESIDING **IN URBAN AREAS**

MAJOR AREA OR COUNTRY	2010	2025	2050
Developed Countries	77.5	81.1	85.9
Germany	73.8	76.3	81.8
Japan	90.5	96.3	97.6
UK	79.5	81.8	85.9
US	82.1	85.2	88.9
Emerging Countries	46.0	53.6	64.1
Brazil	84.3	87.7	90.7
China	49.2	65.4	77.3
India	30.9	37.2	51.7
Indonesia	49.9	60.3	72.1
Mexico	77.8	81.6	86.1
Thailand	33.7	40.8	55.7
Turkey	70.5	81.2	87.3
South Africa	61.5	67.9	78.8
South Korea	82.9	86.3	89.6

Source: UN Department of Economic and Social Affairs, World Urbanization Prospects: The 2011 Revision

they have access to a larger number of socio-economic opportunities. With greater job prospects and higher wages, the rural farmer becomes the new middle-class consumer. According to the World Bank, "middle-class" is defined as people earning between \$10 and \$50 per day (or \$3,520 to \$17,600 per annum), adjusted for purchasing power parity.

Historical data shows that the process of increasing urbanization significantly contributes toward economic growth. Every five-percentage-point increase in the share of citizens living in urban areas generates a 10% increase in per-capita economic activity.<sup>5</sup> Countries with high urbanization levels have the highest per capita Gross Domestic Product (GDP)<sup>6</sup> and higher individual incomes in absolute terms relative to peers. Through the process of urbanization, cities increase their levels of economic activity which in turn results in greater consumption.

The current urbanization gap between emerging countries and developed countries is still sizable, but is reducing rapidly. As the table at left shows, urbanization in developed countries is fairly saturated with 77.5% of the population living in cities as of 2010. And, although the process of urbanization in developed countries will continue to take place, it will occur at a much slower pace. The United Nations projects that by 2050, the population living in cit-

<sup>&</sup>lt;sup>4</sup> McKinsey Global Institute, "Winning the 30 Trillion Decathlon," August 2012

<sup>&</sup>lt;sup>5</sup> Credit Suisse, Emerging Market Research Institute, April 2012

<sup>&</sup>lt;sup>6</sup> Gross Domestic Product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period

<sup>&</sup>lt;sup>7</sup> UN-HABITAT, "Urban Trends: Urbanization and Economic Growth", March 2010

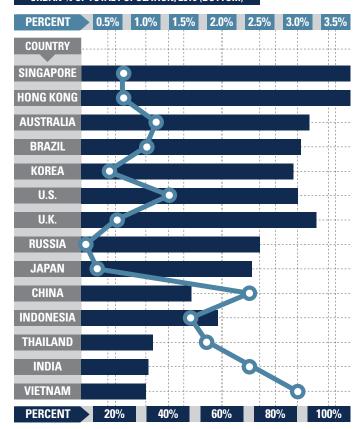
### **INVESTING IN TODAY'S EMERGING MARKET**

ies in developed countries will reach 85.9%. In emerging economies, however, this trend is still in its nascent stage, with only 46.0% of the population living in cities as of 2010. The urban population in these emerging economies is expected to increase to 64.1% by 2050.

In terms of total population numbers, the absolute number of city dwellers in emerging countries already far exceeds the urban population of developed countries, totaling 2.6 billion in 2010, or about 2.8 times larger than that of developed countries. According to the United Nations, the urban population in emerging markets is expected to rise to 3.6 billion by 2025. By 2030, city populations in emerging markets are expected to reach 4.0 billion people, or about four

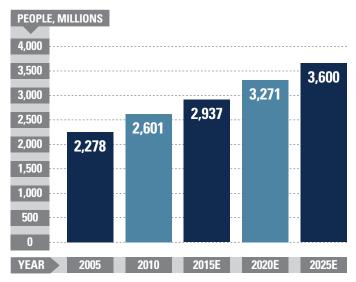
#### **URBANIZATION RATE OF SELECT COUNTRIES**





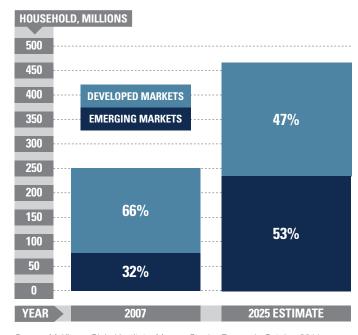
Source: World Bank, CLSA Asia-Pacific Markets

#### **URBAN POPULATION OF EMERGING MARKETS**



Source: United Nations, March 2012

#### NUMBER OF URBAN HOUSEHOLDS WITH **ANNUAL INCOMES > US\$20,000 IN PPP8** (PURCHASING POWER PARITY) TERMS



Source: McKinsey Global Institute, Morgan Stanley Research, October 2011.

Estimates and forecasts are only projections and not guarantees

<sup>&</sup>lt;sup>8</sup> Purchasing Power Parity (PPP) is the rate at which the currency of one country would have to be converted into that of another country to buy the same amount of goods and services in each country

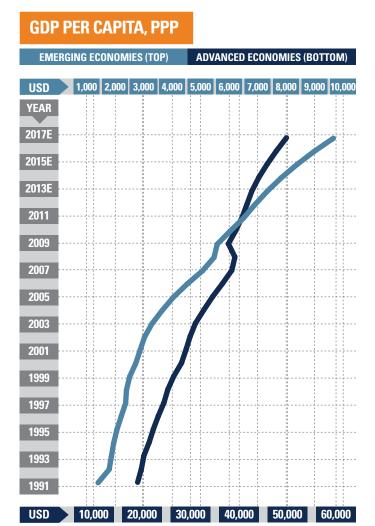
times larger than those in developed countries. It is this growth in urbanization in the emerging markets that we believe is setting the stage for a multi-decade consumption boom. The global distribution of urban household wealth is already tilting towards the emerging markets, and with private consumption growing at a rate of 11% per year, emerging market cities will account for 30% of global private consumption by 2015.9 The process of urbanization that has historically driven the growth in the developed market economies is now happening in the emerging markets, but on a far greater scale, creating a whole new middle-class of consumer.

#### **INCOME GROWTH**

With the emergence of a new class of consumers, driven by urbanization, income growth is a key determining factor of the overall consumption level of emerging markets. Historically, populations in the emerging markets have spent most, if not all, of their income on basic necessities such as food and housing. As incomes rise, however, the proportion of income spent on basic necessities gradually decreases, while the proportion spent on discretionary items, such as cars, clothing and appliances, increases. In other words, rising incomes in the emerging markets are transitioning a significant proportion of the population out of poverty and into middle class status.

Over the last ten years, incomes have risen steadily in the emerging markets at an average annual rate of 7.3%.<sup>10</sup> In 2011, emerging economies generated \$6,600 of GDP per capita, a significant increase from \$1,900 and \$3,200 just 20 and 10 years ago, respectively. 11 GDP is expected to rise to around \$9,000 by 2017, according to estimates from the International Monetary Fund (IMF).

We are already seeing the effects of this increasing middle-class on disposable income levels. The five year compounded annual growth rate of household disposable income in China was approximately 20% (in USD terms) in 2011, compared with a rate below 5% in the U.S. and a negative rate in the U.K.<sup>12</sup> As occurred first in developed countries, and now in emerging countries, as disposable income rises consumer tastes become more sophisticated and brand awareness increases, leading to more spending on discretionary items.



Source: IMF, World Economic Outlook, October 2012

Estimates and forecasts are only projections and not guarantees

<sup>&</sup>lt;sup>9</sup> Boston Consulting Group, 2010

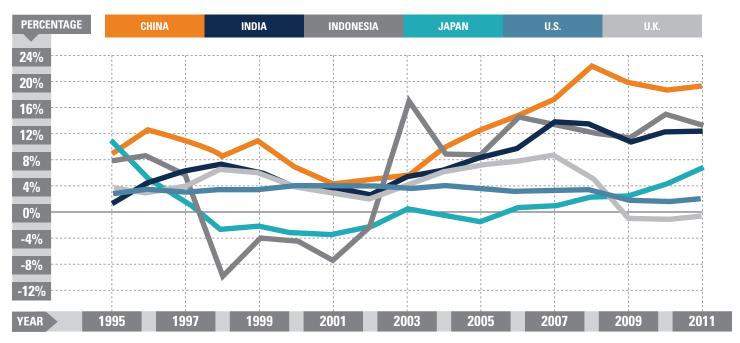
<sup>&</sup>lt;sup>10</sup> World Bank, 2011

<sup>&</sup>lt;sup>11</sup> According to IMF, per capita income is calculated from readily-available GDP and population estimates

<sup>&</sup>lt;sup>12</sup> Based on the "Emerging Consumer Survey 2012," Credit Suisse

Rising income levels combined with a growing, newly minted consumer class strongly points towards the emerging markets being the natural driver behind global consumption. Companies with operations in the emerging markets have already been beneficiaries of this income growth yet we believe we are still in the early stages of this phenomenon.

#### **INCREASING INCOME IN ASIA**



Source: Euromonitor, July 2012

#### **FAVORABLE DEMOGRAPHICS**

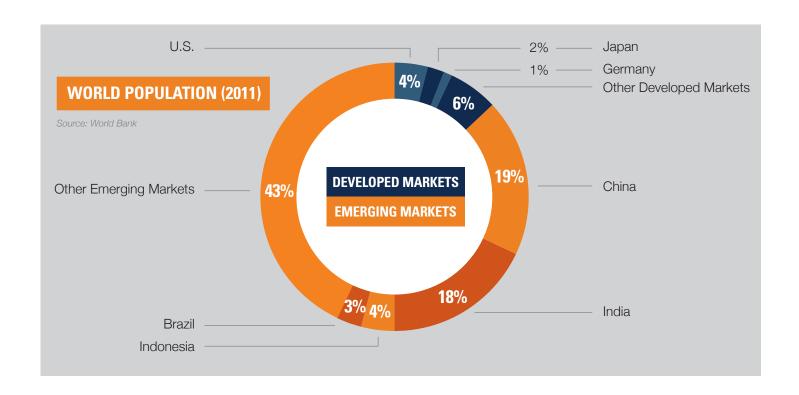
If the phrase "people are our greatest asset" is correct, then the emerging markets are indeed rich. In 2011, the population in emerging markets accounted for more than 85% of the world's population. India and China alone accounted for a total of 2.5 billion people, or 37% of the world's population. According to estimates from the United Nations, the world will have more than nine billion people by 2025, up from seven billion in 2011. A significant portion of this increase will come from the emerging markets.

The absolute population numbers of the emerging markets, however, are not the key factor in our belief that positive demographics will drive economic growth and consumption. Rather, we are focused on two key demographic commonalities that appear across many emerging market countries: that the populations in these countries tend to

be younger than their developed market counterparts and that they have increasing levels of education.

The populations in many developed countries, such as Japan, the U.K. and the U.S. are aging, with the situation most pronounced in Japan. In the U.S., the Baby Boomers who were once drivers of population growth are now entering retirement and exiting the labor force. The percentage of the population under the age of 25 is 42% in Brazil and 50% in India compared with 33% in the United States and only 22% in Japan. Positive demographics such as these are evident across the emerging markets. As an example, in Indonesia, the percentage of the population aged 15 to 29 is 27% with only 5.2% of the population aged 65 or over. This is far lower than the comparable percentage in developed countries.<sup>13</sup>

<sup>&</sup>lt;sup>13</sup> ASEAN Annual Report 2011-2012



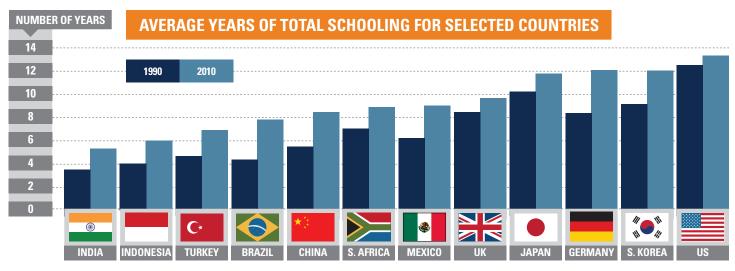
# PERCENT OF POPULATION **UNDER THE AGE OF 25 (2010) 134 MILLION** 65 MILLION 322 MILLION **1.367 BILLION** 198 MILLION **1.233 BILLION** PERCENT 0% 10% 40%

Source: United Nations, Department of Economic and Social Affairs, Population Division, 2011

Moreover, the workforce in the emerging markets is not only large and young, it is attaining higher levels of education. Although developed countries still have the highest average number of years of education per person, greater emphasis is being placed on education within emerging markets. As the chart on the next page illustrates, the average number of years of education in emerging economies is rising. Emerging economies are also experiencing a rise in the percentage of their populations who are pursuing higher education. For example, 40% of the population of South Korea enrolled in post-secondary education in 2010, up from just 18.8% in 1990.14

A younger, more educated workforce tends to be more innovative and is better at leveraging technology, both of which are vital in boosting productivity and generating growth for an economy. In addition to being a powerful force in the labor market, these younger populations will also play a significant role as consumers going forward. With more of the young population entering into the peak of their earnings cycle over the coming decades, backed by the two key factors of youth and education as described above, we are almost certain to see a corresponding rise in consumer spending.

<sup>14</sup> Robert J. Barro and Jong-Wha Lee, "A New Data Set of Educational Attainment in the World, 1950-2010," The National Bureau of Economic Research, 2010



Source: Robert J. Barro and Jong-Wha Lee, "A New Data Set of Educational Attainment in the World, 1950-2010," April 2010

#### CONSUMPTION-LED ECONOMIC GROWTH

In the past decade, a number of emerging economies have enjoyed rapid economic growth, supported by exports and investment. As international trade proliferated in the late 1990s and early 2000s, emerging market countries positioned themselves as labor-intensive destinations because of their low labor costs and abundant workforces, which provided the competitive advantage to become successful export-led economies. The subsequent high level of accumulated capital derived from exports was invested into infrastructure improvements, spurring greater industrialization and increased productivity for these emerging economies.

China is the typical example of this export-led growth model, a model that has successfully contributed to an average annual GDP growth rate in China of 10% over the last decade, but that is now being impacted by the difficulties facing the global economy. 15 Since the financial crisis and European debt crisis, consumer demand from developed economies has substantially weakened and within the context of a sluggish global economy there has been a downward sequential impact to exporters in the emerging markets. This reliance by economies on consumer demand in the developed markets and the inherent vulnerability to any slump in developed economies are why emerging economies are seeking to shift away from an export and investment-led growth model to one focusing on domestic spending. Policy makers in the emerging markets are well aware that the conventional export-led growth model utilized by Asian economies in the past is unlikely to be sustainable over the longer-term and that economic growth increasingly needs to come from domestic consumption.

The weight of the contribution of private consumption contribution to the GDPs of emerging countries is still quite low in relative terms. For example, China's household consumption accounts for merely 34% of its GDP, while household consumption in the U.S., U.K., Germany and Japan accounts for a substantive 71%, 64%, 57% and 59% of GDP, respectively.<sup>16</sup> Although policy makers in the emerging markets have already taken steps to adjust their growth models toward more domestic consumption-centric economies, we believe that this is a multi-decade process that will likely continue to drive consumption growth in the emerging markets.

<sup>&</sup>lt;sup>16</sup> World Bank, 2011 final household consumption data. The figures for the U.S. and Japan are as of 2010



## **GLOBAL OUTLOOK FOR GROWTH OF GDP (%), 1996-2013**

	1996	-2005	2006	5-2012	20	12	2	2013
	GDP GROWTH	CONTRIBUTION TO WORLD GDP GROWTH	PROJECTED GDP Growth	CONTRIBUTION TO WORLD GDP GROWTH	PROJECTED GDP GROWTH	CONTRIBUTION TO WORLD GDP GROWTH	PROJECTED GDP Growth	CONTRIBUTION TO WORLD GDP GROWTH
U.S.	3.3	0.7	1.0	0.2	2.1	0.4	1.8	0.3
Europe*	2.5	0.6	0.9	0.2	-0.2	0.0	0.3	0.1
of which: Euro Area	2.2	_	0.7	_	-0.6	_	0.2	_
Japan	1.0	0.1	0.4	0.0	2.0	0.1	1.6	0.1
Other Advanced**	4.0	0.3	3.0	0.2	2.4	0.2	2.4	0.2
Advanced Economies	2.8	1.7	1.2	0.7	1.2	0.6	1.3	0.7
China	8.1	0.6	10.4	1.3	7.8	1.2	6.9	1.1
India	6.5	0.3	7.8	0.4	5.5	0.3	4.7	0.3
Other Developing Asia	3.9	0.2	5.0	0.2	5.3	0.3	5.0	0.3
Latin America	2.8	0.2	3.7	0.3	3.1	0.2	2.9	0.2
Middle East	4.6	0.1	4.3	0.2	5.5	0.2	2.3	0.1
Africa	4.6	0.1	4.7	0.1	3.8	0.1	3.7	0.1
Russia, Central Asia and Southeast Europe***	4.0	0.2	4.0	0.2	3.6	0.2	2.9	0.2
Emerging and								
Developing Economies	5.0	1.8	6.5	2.8	5.5	2.6	7.4	2.3
World Total		3.6		3.5		3.2		3.0

<sup>\*</sup>Europe includes all 27 current members of the European Union, as well as Switzerland and Norway

Source: The Conference Board Global Economic Outlook, November 2012

<sup>\*\*</sup>Other advanced includes Canada, Israel, Iceland, Korea, Australia, Taiwan, Province of China, Hong Kong, Singapore, and New Zealand

<sup>\*\*\*</sup>Southeast Europe includes Albania, Bosnia and Herzegovina, Croatia, Macedonia, Serbia and Montenegro, and Turkey

#### "GREAT CONSUMER" — DEFINED

On the previous pages we have documented the four factors that we believe are driving the rise of the middle class in the emerging markets, as well as our insight on why this is a long-term, sustainable trend that will likely lead to rapid income growth and a resultant exponential increase in consumer spending. In our view, this uptick in emerging market consumption will have profound, extensive, and positive spillover effects across a wide array of sectors in emerging economies.

In response to this phenomenon, Mirae Asset has developed a unique investment strategy designed specifically to take advantage of the long-term consumption growth trends in and beyond the traditional consumer sectors. "Great Consumer®" is what we call this investment strategy. Our belief is that there will be direct and indirect winners in the rise of the emerging market consumer and we seek to look beyond the obvious winners to identify the wide-ranging beneficiaries of this economic growth phenomenon.

Companies that operate in the consumer sectors, such as auto makers, apparel companies, luxury brands and retailers, are the obvious recipients of increasing consumer spending in the emerging markets and already we are seeing this play out. The luxury goods industry specifically has benefitted from the emerging market consumption theme, and yet future growth potential is still high. Our analysis is leading us to anticipate growth of the global luxury segment at 2.2 times the growth of global GDP through 2025. Jewelry retailing has been another early beneficiary, with compound annual growth rates in Hong Kong and China at 18.5% and 27%, respectively, in the last five years.

History has shown that, for consumers in the early stages of wealth accumulation, luxury apparel, jewelry and automotives are the most in-demand goods. But over time, tastes and needs broaden to include a wider range of services such as travel, education and health, and it is here where we see the most attractive investment opportunities. These sectors are already showing strong growth, but we believe they are still in the nascent stage.

It is not enough, though, to merely highlight the industries where we feel there will be growth. The key component of the Great Consumer® investment strategy is to fully understand the emerging market consumers: what drives their tastes and requirements and then what effect these drivers will have on the companies seeking to enter the market.

Global companies naturally face greater challenges with regards to local knowledge, local channels and local tastes, all of which are significant entry barriers. We believe that correct local adaptation in products and services will be a key success factor. In sectors that are more regionally varied and nuanced, winners will often be the local companies, as they are better positioned to quickly exploit consumption trends. A further characteristic of local brands is that they generally appeal to the lower-income mass market, as emerging consumers are content to stick with local brands for essential goods and services because the brand power of essential items is not as strong as that of discretionary items. 17

When we also factor in additional barriers to entry such as governmental protection for domestic companies and the imposition of tariffs on global companies, it is clear that picking winners among peers is a complex task that requires in-depth understanding of the local markets. At Mirae Asset, our on-the-ground research and local knowhow gives us a unique perspective and expert insight into the complex nature of investing in emerging markets.

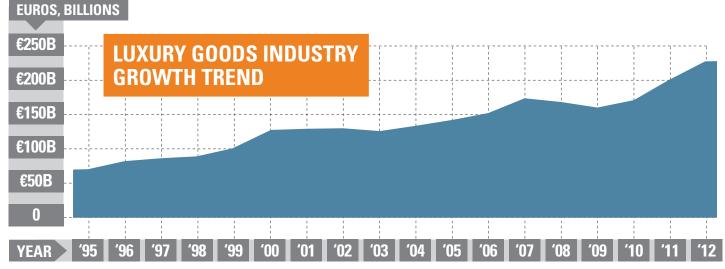
There can be no guarantee that any strategy (risk management or otherwise) will be successful. All investing involves risk, including the potential loss of principal.

<sup>17</sup> Credit Suisse, Emerging Market Research Institute, "Emerging Market Consumer Survey," 2012

# **EMERGING MARKET REPORT: LUXURY GOODS**

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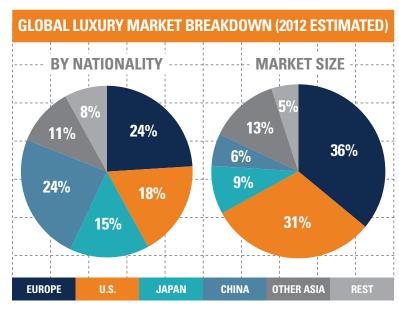
Amid sluggish economic growth, the luxury goods industry has posted double-digit growth for three consecutive years since the financial crisis. According to Goldman Sachs, the market is anticipated to continue this trend at 2.2 times GDP1 growth and reach US\$ 1 trillion by 2025. The driving force behind this growth is the rising demand for luxury goods in emerging markets, particularly in China.



Source: Bain & Co., as of December 2012

As of 2012, Greater China (including Hong Kong, Macau and Taiwan) has become the second largest luxury market, bypassing Japan. According to studies, Chinese consumers account for over half of the luxury purchases in Asia and nearly one third of those in Europe. Yet, analysts believe the current Chinese luxury market to be at a nascent stage with much growth potential.

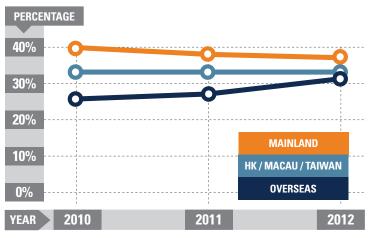
Chinese luxury consumers are young. According to a survey by the World Luxury Association, the average Chinese luxury consumer is 25 years old. That's 15 and 25 years younger than comparable consumers in Europe and the U.S., respectively. This exposure to luxury goods at such a young age is creating a new generation of sophisticated, high-end brand



Source: Bain & Co., as of December 2012

<sup>1</sup> GDP: Gross Domestic Product: The monetary value of all the finished goods and services produced within a country's borders in a specific time period, though GDP is usually calculated on an annual basis. It includes all of private and public consumption, government outlays, investments and exports less imports that occur within a defined territory

### TOTAL MAINLAND CHINESE LUXURY SPENDING, **MAINLAND VS. OVERSEAS**



Source: Bain & Co., as of December 2012

buyers. Studies also show that the retail market has been transitioning toward luxury every year. True high-end brands are outperforming more accessible products by 2 to 4 percent annually, and that statistic is rising steadily.

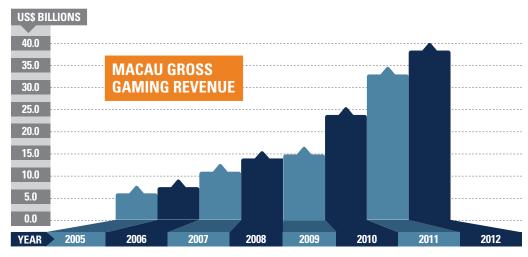
Another important factor is that approximately two thirds of Chinese luxury purchases occurred outside of China. Due to multiple layers of taxation on luxury consumption, the retail prices are much higher in the mainland. Thus, consumers have flocked overseas to destinations like Hong Kong, Macau and Europe (particularly France) for luxury purchases. Not surprisingly, in 2012, Chinese travelers became the world's top tourism spenders with US\$ 102 billion. Considering that tourism activities have become a common trend in China, the impact of outbound tourism on luxury consumption is likely to increase.

Nevertheless, such overseas sales should not be a factor in undermining the importance of local presence. According to Roland Berger's luxury survey, over 70% of consumers who bought luxury goods overseas had previously purchased the same brand inside Mainland China. This is statistical proof that there is spending consistency, purchase loyalty within the country, and a promising investment opportunity in China's luxury goods market.

# **EMERGING MARKET REPORT: GAMING**



Since 2002, Macau has become the gaming hub of Asia. In 2011, Macau's total gross gaming revenue (US\$33.6bn) surpassed Las Vegas (US\$6.0bn) fivefold, making it the number 1 gaming destination in the world. Today it has over 35 luxury casinos. And over the next 10 years, this emerging market is expected to gross \$US100 billion in gaming revenue.



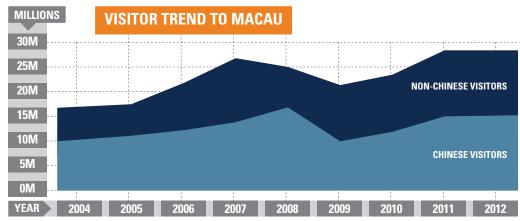
The growth story of Macau gaming is expected to continue given the robust influx of Chinese tourists, improvements in revenue structure and capacity expansion through multiple projects in development over the next decade. We anticipate Macau's gaming industry will post 13% Compound Annual Growth Rate (CAGR)1 growth throughout 2012-2020 and reach US\$100bn in gross revenue by 2020.

Source: Bloomberg, as of December 2012

#### THE SECULAR GROWTH STORY

Macau is now the second most visited travel destination in China. In 2012, over 28 million tourists visited Macau, and the number of Chinese overseas travelers is expected to reach 100 million by 2015. And according to the World Tourism

Organization, 83 million Chinese traveled overseas in 2012. Moreover, the Chinese government plans to foster this growth by transforming Macau into a global tourist destination. The government is investing billions in a high-speed railway network linking Macau to the mainland, a Zhuhai-Macau-Hong Kong bridge, as well as a potential Macau airport expansion over the next few years.



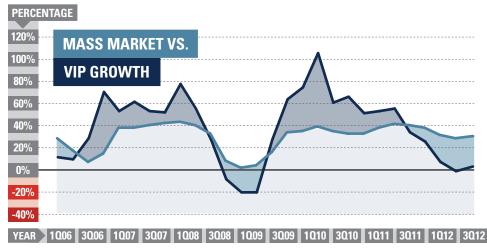
Source: Bloomberg, as of December 2012

Macau is the only market experiencing structural change and accelerated growth in mass market than in the volatile VIP segment. In 2012, the VIP segment increased only by 7%, while the mass market grew 32%. Growth in mass market

<sup>1</sup> Compound Annual Growth Rate (CAGR): The year-over-year growth rate of an investment over a specified period of time

is important because its higher margins benefit the casino operators' earnings. Due to reliance on junkets, the margin of Chinese VIP customers in Macau is only 10%, while it's 40% in mass market. Thus, a continuous product mix shift through securing the stable/stickier mass market would improve the blended margin of casino operators.

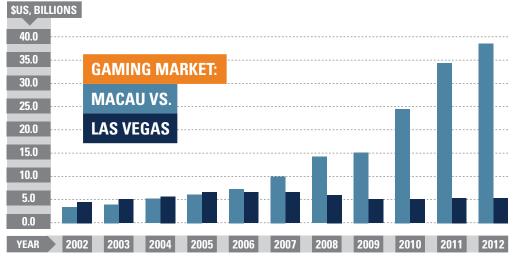
Despite high growth rates, the mass market remains underpenetrated at 2% with only five million out of the 250-300 million Chinese middle



Source: Macau Gaming Inspection Bureau, Deutsche Bank, as of March 2013

class visiting Macau. Therefore, we believe there is a high ceiling in the mass market, and we anticipate a robust 15-20% growth potential rate over the long-term.

The revenue mix of Macau's gaming operators is highly reliant on gaming (96%) compared to that of Las Vegas (38%) or Singapore (83%), where non-gaming refers to hotel and shopping mall income. The longer the visitors stay, the more they spend, which leads to higher revenue. Currently, more than 50% of the visitors are day-trippers, while those who do



Source: Bloomberg, as of December 2012

stay only spend an average of 1.4 nights compared to 3.3 nights in Las Vegas. One of the reasons for the short stays is the shortage of rooms available in Macau. Thus, planned capacity expansion (US\$ 25-30 billion in investment pipeline) in the area of Cotai will increase the number of non-gaming facilities from 28,000 to 40,000 by 2020. In addition, the Chinese government plans to transform Hengqin Island, which is connected to Macau by the Lotus Bridge, into an entertainment destination equivalent to Orlando

(Disney World, Universal Studios, Sea World, etc.). This may broaden the appeal of Macau as a tourist destination and improve the revenue mix of casino operators in Macau.

Another contributor to the growth of Macau is the rising price point. Over the past three years, the average minimum bet in Macau grew from Hong Kong \$200 to Hong Kong \$1,000. By raising the price point, casinos can target wealthier consumers, increase spending at tables and fuel the prosperity of the market.

#### THE GAMING BUSINESS MODEL

The business model of the gaming industry is rather simple — companies make money, while gaming clients lose money to casinos. And due to the nature of gambling, the price sensitivity tends to be lower than in other forms of spending. This offers more pricing power to operators and enables casinos to optimize the yield of each table. For example, the average minimum bet at the mass tables in Macau has risen from HK\$ 200 to HK\$ 1,000 over the past three years. By raising the price point, operators have successfully targeted better quality customers, which has led to the emergence of a premium mass segment dedicated gamers with more aggressive spending behavior. As a result, there is much a higher return per table. Given the pricing advantage and the efficiency in operation, we believe that the gaming industry is likely to surpass other consumer segments in terms of profit per square meter (sqm), Return on Invested Capital (ROIC)<sup>2</sup>, Free Cash Flow Yield (FCFY)<sup>3</sup>, Dividend Yield (DY)<sup>4</sup> and Operating Cash Flow Margin (OCFM)<sup>5</sup>. This rapid growth in the Macau gaming market has no signs of stopping, creating an unprecedented opportunity for investors.

The result: gaming revenue surpassed Las Vegas fivefold, solidifying Macau's prominence and propelling it well in the black. This rapid growth in the Macau gaming market has no signs of stopping, creating an unprecedented opportunity for investors.

### PROFITABILITY COMPARISON: GAMING VS. OTHER CONSUMER INDUSTRIES

GAMING	per sqm Profit (US\$K) 12'	ROIC 12'	FCF Yield 13E	DIVIDEND YIELD 13E	OCF MARGIN 13E	CAPEX/OCF% 13E
Macau	28.9	39%	11%	6.0%	28%	29%
Singapore	45.5	24%	9%	0.9%	41%	21%
Las Vegas	38.9	17%	5%	1.4%	20%	36%
Malaysia	25.5	20%	9%	2.0%	25%	28%
Korea	11.5	15%	9%	2.5%	25%	20%
Philippines	8.9	25%	8%	1.5%	25%	24%

OTHER CONSUMER	per sqm Profit (US\$K) 12′	ROIC 12'	FCF Yield 13E	<b>DIVIDEND YIELD 13E</b>	OCF MARGIN 13E	CAPEX/OCF% 13E
Jewelry, Watch	7.1	16%	3%	3.2%	1%	78%
Auto Dealer	3.8	7%	1%	0.3%	3%	115%
Luxury	3.6	23%	4%	1.9%	20%	29%
Branded Retailer	2.5	15%	6%	3.8%	13%	42%
QSR	1.0	20%	3%	1.9%	12%	29%
Education	0.7	20%	20%	2.0%	21%	20%
HK Landlord	0.5	5%	2%	2.9%	47%	46%
Department Store	0.2	12%	4%	3.3%	38%	75%
Budget Hotel	0.1	18%	5%	0.0%	20%	82%
Hypermarket	0.1	15%	4%	2.3%	7%	66%

Source: Bloomberg, Company data. Estimates of Mirae Asset Global Investments, as of December 2012

<sup>&</sup>lt;sup>2</sup> Return on Invested Capital (ROIC): A calculation used to assess a company's efficiency at allocating the capital under its control to profitable investments

<sup>&</sup>lt;sup>3</sup> Free Cash Flow Yield (FCFY): An overall return evaluation ratio of a stock, which standardizes the free cash flow per share a company is expected to earn against its market price per share

<sup>&</sup>lt;sup>4</sup> Dividend Yield (DY): A financial ratio that shows how much a company pays out in dividends each year relative to its share price

<sup>&</sup>lt;sup>6</sup> Operating Cash Flow Margin (OCFM): Measure of the money a company generates from its core operations per dollar of sales

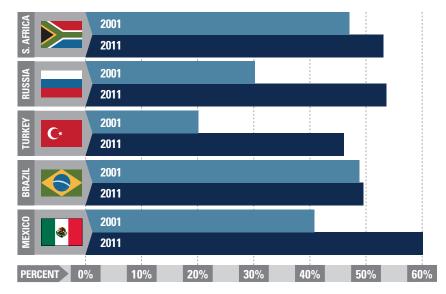
# **EMERGING MARKET REPORT: FOOD RETAIL**

## MIRAE ASSET

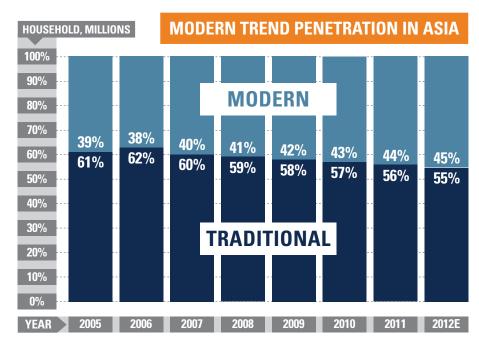
Dietary habits are one of the major aspects in everyday life that is directly impacted by rising wealth. More and more consumers are substituting basic staples such as rice, maize, milk and pork for more expensive products such as cereal, beef, juice and yogurt. Fresh produce, baked goods and prepared foods are also increasing in importance. While such change in dietary habits can fuel growth in the overall food retail industry, we find formal food retail as the most attractive among all segments.

Food retail in many emerging markets consists predominantly of "traditional" channels, which include informal markets and independent mom and pop stores. In the traditional channels, prices of goods are often high as these retailers have little bargaining power with suppliers. Also, product quality may be inconsistent given the lack of controls, while product selection is often limited or intermittent.

#### FORMAL FOOD RETAIL IN SELECT **EMERGING MARKET COUNTRIES**



Source: Bank of America Merrill Lynch, Mirae Asset Global Investments

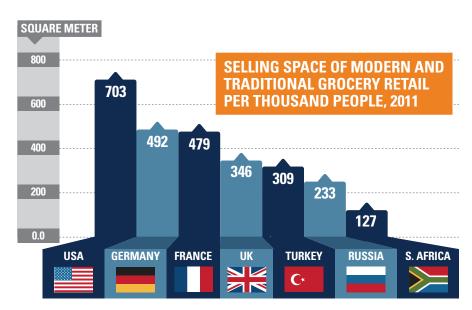


Source: Euromonitor. E=Euromonitor Estimate

Meanwhile, as emerging market consumers become wealthier, they spend less time shopping for food, become more conscious of quality consumed and buy more packaged produced food. Thus, the traditional channel no longer corresponds to their changing lifestyles. Rather, formal food retailers are ideally positioned to benefit. They offer convenience through a one-stop shopping experience, a variety of products, reliability of supply and quality and, most importantly, more competitive pricing.

Accordingly, to meet increased demand from consumers, formal food retailers have been expanding their footprint, formats, and product selection to reach wide swaths of the population. Improvements to infrastructure, bottlenecks and logistical constraints have helped formal retail stores develop a more efficient operations model.

Despite the growth of formal food retail in emerging markets over the past decade, the level of formalization in emerging markets still remains below the developed markets. For example, only half of packaged grocery products are sold through modern retail in Asia. Companies with the developed distribution networks most in Indonesia sell roughly 20% or less of their products through modern channels, and in India the numbers are less than 10%. Even in Korea, some Multi-national Corporations (MNCs) still have difficulties in product distribution as mom and pop stores still account for 30% of the market. But consumer spending habits are rising too rapidly for these stats to remain intact for long.



Source: Euromonitor, UBS, Mirae Asset Global Investments

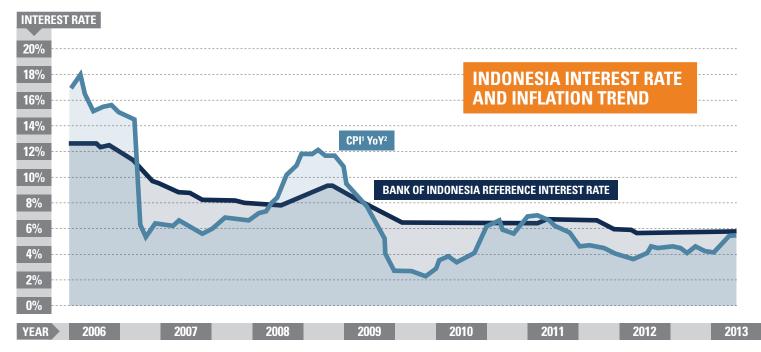
# **EMERGING MARKET REPORT: PROPERTY**



Property may not be the first sector that comes to mind when thinking of the "Great Consumer." However, it's impossible to deny the significance of home ownership to the middle class, which symbolizes both security and success in both the developed and the emerging markets.

On the macro level, a favorable monetary policy, a high urbanization rate and stable income growth is driving property prosperity in emerging markets. On the household level, an increase in accumulated wealth and lower mortgage rates are making home ownership more affordable. Among the emerging market countries that are experiencing a low interest rate environment and rising income, Indonesia stands out as the market with the most potential for expedited growth.

Indonesia's urbanization has progressed at a rapid pace, from 42% in 2000 to 51% in 2011, along with average incomes growing at 13% per annum over the past seven years. Monetary policy has turned favorable as well. Historically, Indonesia suffered from an environment of high interest rates due to high inflation and a volatile currency. However, over the past five years, Indonesia's economy has significantly stabilized, backed by the commodity boom and rising manufacturing activity. Accordingly, inflation and interest rates have declined leading to lower mortgage rates.



Source: Bloomberg, as of March 2013

<sup>&</sup>lt;sup>1</sup> Consumer Price Index (CPI): A measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care

<sup>&</sup>lt;sup>2</sup> Year on Year (Year on Year): A method of evaluating two or more measured events to compare the results at one time period with those from another time period (or series of time periods), on an annualized basis

Housing affordability has improved dramatically. According to Deutsche Bank, it has grown by 23% per annum over the past seven years as a result of competitive mortgage plans. The average housing affordability is near 20%, below the banking threshold of 30% of monthly household income.

### **INDONESIAN BANK'S MORTGAGE RATE**

BANK	RATE (%)	TERMS
BCA	9.00%	Fixed for 60 months
NISP	8.75 - 9.50%	Fixed for 2 years (8.75%), 3 years (9.25%), and 5 years (9.5%)
BRI	8.00%	Fixed for 2 years
BTN	8.00%	Fixed for 2 years
ANZ	8.00%	Fixed for 2 years
Bank Mandiri	7.50 - 9.50%	Fixed for 1-2 years (7.5%) and 3 years (9.5%)
Panin	7.90 - 8.90%	Fixed for 1 year (7.9%), 2 years (8.3%), and 3 years (8.9%)
Danamon	8.50%	Fixed for 1 year
CIMB Niaga	8.75 - 12.88%	Fixed for 1 year (8.75%), 2 years (10.25%), 5 years (11.88%) and 10 years (12.88%)
Bank Permata	8.00 - 8.50%	Fixed for 1 year (8%) and 2 years (8.5%)
BNI	8.25 - 11.00%	Fixed for 1 year (8.25%), 2 years (8.5%), 3 years (9.75%), and 5 years (11%)
Bukopin	10.90%	Fixed for 2 years
UOB	7.00 - 9.00%	Fixed for 1 year (7%), 2 years (8%) and 3 years (9%)
BII	Floating	Bl rate + 3.5%

Source: Deutsche Bank, as of November 2012

Meanwhile, even though property development is concentrated in Greater Jakarta, Indonesia's capital and the nation's largest city, the area's housing market is currently under-penetrated. In 2011, it had a 79% penetration rate and a home ownership rate of 45%. Regional peers have close to 100% housing penetration and more than 60% home ownership. This presents a tremendous opportunity for even more growth in this fertile emerging market.



Source: PLN, BPS, Deutsche Bank, Mirae Asset Global Investments

### **HOUSE OWNERSHIP IN AP REGION**

COUNTRY	HOME OWNERSHIP
China - Rural	95%
Singapore	87%
China - Urban	85%
Macau	73%
Philippines	70%
Australia	69%
New Zealand	67%
Korea	54%
Hong Kong	53%
Jakarta	45%

Source: PLN, BPS, Deutsche Bank, Mirae Asset Global Investments

# EMERGING MARKET REPORT: **HEALTH CARE**



According to a study conducted by the United Nations, the senior population in the emerging markets will double over the next thirty years, rising from 7% of the population to 16%. This statistic, coupled with rising income rates, will lead to increased spending on health care products and services, especially in India and Indonesia.



Source: UN Population Prospects: The 2010 Revision, Mirae Asset Global Investments, as of December 2012

However, emerging market countries, in particular the Association of Southeast Asian Nations (ASEAN) and India are under-served and under-supplied in terms of health care-related workforce and infrastructure. Density of physicians (the number

of physicians per 10,000 people) in ASEAN and India are well below the world median of 16.0, with Indonesia ranking the lowest. In India and Indonesia, the number of hospital beds per 10,000 people is well short of the world average of 26.

To meet these workforce shortages, emerging market governments are increasing their spending on the health care sector. India plans to double their spending over the next 5 years. And instead of cutting hospital reimbursement rates and increasing taxes, emerging market governments are gaining private capital though investment incentives:

- India is accelerating the depreciation of hospitals to reduce taxable income
- Thailand is increasing coverage for civil servants to receive inpatient procedures in private hospitals
- Malaysian governments are promoting medical tourism and liberalization of procedures
- Indonesia is introducing universal social health coverage, as well as reimbursement for public and private inpatient procedures

### **HEALTH WORKFORCE AND INFRASTRUCTURE**

COUNTRY	PHYSICIANS PER 10K 2006-2010 AVG	HOSPITAL BEDS PER 10K 2005-2010 AVG
Australia	29.9	38
Canada	19.8	32
Japan	21.4	137
UK	27.4	33
US	24.7	30
Median	16	26
Brazil	17.6	24
China	14.2	42
India	6.5	9
Indonesia	2.9	6
Korea	20.2	103
Malaysia	9.4	18
Thailand	N/A	21

Source: WHO "World Health Statistics 2012"

Apart from the growth potential of the health care sector alone, higher profitability of emerging Asian health care companies adds greater appeal. In the U.S., private hospitals are required to admit and treat any patient who comes in with an ailment, regardless of their ability to pay. Hospitals are then saddled with bad debt, which can be as high as 20% of revenues. Furthermore, hospitals are required to accept Medicare as payment, which holds a discounted rate for services rendered, thus forcing hospital income to be highly dependent on privately insured patients. Accordingly, U.S. hospitals have low operating margins compared to that of the emerging Asian countries. In emerging Asia, approximately 75% of payments received are in cash, which minimizes bad debt and days of sales outstanding. Moreover, private hospitals are not legally required to treat patients who cannot pay for services rendered, which may reduce charity care write-offs and bad debt. Cash payments for medical expenses will create an environment that is preparing Asia for a period rapid growth in the near future.

## **EBITDA¹ MARGIN COMPARISON**

COUNTRY	2011	2010	2009	2008	2007	2006	2005
Germany	13.6	12.2	12.3	12.4	12.3	11.5	14.7
U.S.	14.3	14.8	14.0	13.5	13.2	13.3	15.5
India	19.3	20.4	15.4	14.6	9.1	13.1	12.6
Malaysia	11.8	11.5	12.3	12.3	11.6	15.6	14.2
Singapore	21.7	22.8	22.9	18.7	10.1	18.5	19.8
Thailand	25.9	24.9	24.1	24.4	24.3	25.3	23.2

Note: The figures are the mean of publicly listed companies in the respective markets Source: Bloomberg, Company data, as of December 2012

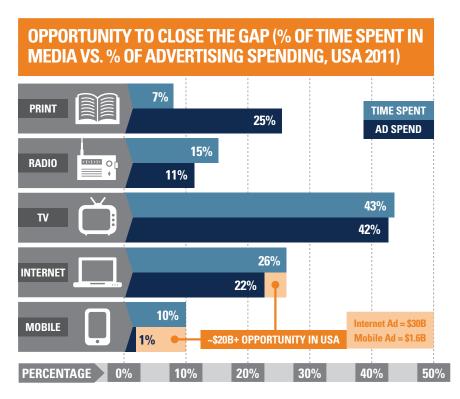
<sup>&</sup>lt;sup>1</sup> Earnings before interest, taxes, depreciation, and amortization

# **EMERGING MARKET REPORT: MOBILIZATION**



There has been a profound change in the advertising industry over the last decade. Advertising dollars are shifting from traditional advertising mediums such as newspapers to the Internet. And this transformation is being driven by increasing broadband penetration and the proliferation of internet-connected devices. Over the next decade, the number of Internet connected devices will likely experience explosive growth and the opportunity for Internet advertising is tremendous.

We anticipate Internet advertising to grow by approximately 15% per year, on average, over the next five years. A shift in consumer behavior will lead advertisers to continue to move advertising dollars towards the Internet and mobile applications. As shown in the chart below, there is a large discrepancy in the amount of time spent on print media vs. the advertising dollars spent in this space. Although people spend less than 10% of their time reading newspapers and magazines, advertisers allocate 25% of their resources to this venue. We expect this gap to narrow and we believe Internet advertising will be the primary beneficiary of the decline in print media. Currently, 26% of media time is allocated to the Internet, yet online advertising only accounts for 22% of total advertising expenditure. This disparity is even more pronounced in mobile applications as it represents 10% of total time spent vs. only 1% of total advertising dollars. Superior economics, measureable results and targeted advertising will drive the growth in Internet advertising.



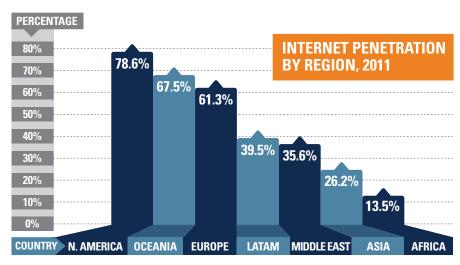
Source: eMarketer, Kleiner Perkins Caufield & Byers 2012 Internet Trends Update. Note: \*Internet excluding mobile advertising reached \$30billion in the U.S. per IAB. Mobile advertising reached \$1.6 billion per IAB. \$20 billion opportunity calculated assuming internet and mobile ad spend share equal their respective time spent share. Time spent and ad spend data eMarketer, Dec 2011.

Long-term Internet traffic growth will come from higher Internet penetration in the emerging markets. Currently, emerging market Internet penetration remains relatively low today given the high cost of personal computers (PC) and limited broadband infrastructure. While broadband connectivity in developed markets such as the U.S. was largely fixed-line during the early days of the Internet, build-outs of third and fourth generation wireless networks will drive increased Internet penetration in emerging markets. But we expect Asia to spearhead the growth in Internet users with India, China and Indonesia leading the way. Internet penetration is currently at 10%, 38%, and 23% respectively, and the combined population of those countries is greater than 2.8 billion people. That's a massive consumer base that is ready to spend more on technology and dive into the digital age.

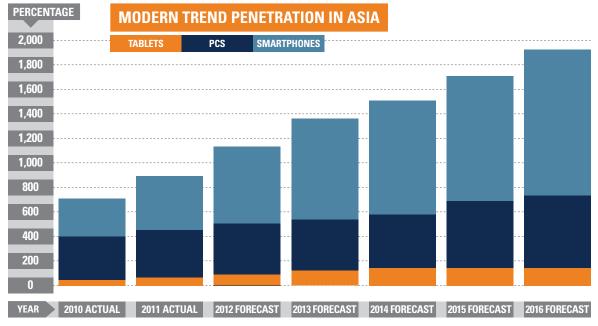
Mobile device adoption surpassed PC sales in 2011, and within the next five years the Internet traffic from mobile devices may potentially surpass PCs. Given its convenience,

smartphones and tablets will be the primary method of accessing information. The proliferation of mobile devices and the desire for ubiquitous Internet connectivity will drive penetration of next generation (3G/4G) cellular devices and networks. Smartphones sales are expected to increase from 494 million units in 2011, to 1.16 billion by 2016. During the same period, tablet shipments are expected to grow from 89 million to 198 million.

Furthermore, an increase of shared data plans offered by wireless operators will result in increased smartphone and tablets usage. These plans allow users to share a single cellular data among many devices, which will reduce the total cost of data usage.



Source: Deutsche Bank, Mirae Asset Global Investments



Source: International Data Corporation (IDC)

A majority of 3G revenue growth will come from the emerging markets, where penetration is below 10% (as of 2011). In 2012, China, India and Brazil had a combined total of 351 million 3G subscribers. Given the large mobile phone subscriber base and lower cost as compared to 4G, the opportunity for 3G penetration is immense in countries such as China and Brazil.

Globally, less than 16% of mobile phone subscribers own a smartphone. We believe this low penetration rate is a function of the current high cost of smartphones and the lack of cellular infrastructure to support them. But over the five years, we believe that the smartphone penetration rate could approach 50% as a result of governments investing billions in faster mobile networks to further support mobilization prosperity.

### **GLOBAL 3G PENETRATION, 2011**

RANK COUNTRY	CQ4:11 3G SUBS(MM)	3G PENETRATION	3G SUB Y/Y GROWTH		
1. USA	208	64%	31%		
2. Japan	122	95%	9%		
3. China	57	6%	115%		
4. Korea	45	85%	10%		
5. Italy	44	51%	25%		
6. UK	42	53%	25%		
7. Brazil	41	17%	99%		
8. India	39	4%	841%		
9. Germany	38	36%	23%		
10. Spain	33	57%	21%		
11. France	30	45%	35%		
12. Indonesia	29	11%	27%		
13. Poland	28	57%	17%		
14. Australia	22	76%	21%		
15. Russia	17	8%	45%		
Global 3G Stats: Subscribers=1,098MM Penetration=18% Growth=37%					

Source: Informa WCIS+

Emerging Markets Risk - The risks of foreign investments are typically greater in less developed countries, which are sometimes referred to as emerging markets. For example, political and economic structures in these countries may be changing rapidly, which can cause instability and greater risk of loss. These countries are also more likely to experience higher levels of inflation, deflation or currency devaluation, which could hurt their economies and securities markets. For these and other reasons, investments in emerging markets are often considered speculative. Similarly, investors are also subject to foreign securities risks including, but not limited to, the fact that foreign investments may be subject to different and in some circumstances less stringent regulatory and disclosure standards than U.S. investments.

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