

## Mirae Asset Global Investments



**The Global Middle+ Class  
in the Emerging Markets:  
The Growth Has Only Begun**

### **About Mirae Asset Global Investments**

Mirae Asset Global Investments manages investment strategies for clients across the globe. With over \$53 billion in total assets under management (as of December 31, 2010), we are driven by a global network of on-the-ground investment professionals, engaging in a fundamentally driven, research-intensive investment approach. Our global team of over 500 employees includes over 110 investment professionals based in Hong Kong, Korea, India, Brazil, Taiwan and the United States.

# The Global Middle+ Class in the Emerging Markets: The Growth Has Only Begun

## Summary

At Mirae Asset Global Investments, our approach to defining the emerging market middle class utilizes what we term as the “Global Middle+ Class”, which includes both upper and middle classes based on per capita GDP by PPP (purchasing power parity). We believe the combined classes will be a more meaningful indicator for global consumption than the middle class alone.

There are three noteworthy observations from our Global Middle+ Class projections:

- The ratio of people belonging to the global middle+ class within emerging markets will increase from 6% in 2000 to 22% in 2020, with the absolute population size increasing from roughly 300 million to about 1.4 billion over this time frame.
- The global middle+ class population in emerging markets is expected to surpass that of the developed world by 2015, and this gap will continue to widen over time.
- Lower-income classes in the emerging markets should also increase, primarily because the total population size is increasing faster in relatively poor countries.

What are the key implications for the emerging markets given this growing middle class?

- We believe that the rising discretionary income levels in the emerging markets will increase the region’s share of global consumption. The emerging markets, in our view, will become increasingly important, not only on the supply side of the global economy but also on the demand side.
- Longer term, we believe the growing middle+ class in emerging markets will support socioeconomic and political stability in their respective nations, which will reduce some of the risks of investing in emerging market equities.
- We believe a growing middle+ class will also support a more innovative and market-oriented culture in the emerging markets, which will drive the emergence of globally competitive companies based in the emerging markets.



## The Global Middle+ Class in the Emerging Markets: The Growth Has Only Begun

*One of the most common characteristics used to describe the emerging market countries is a rising “middle class.” Many investors seem to agree that the middle class in emerging markets will grow rapidly given demographic advantages, competitive production costs, high savings rates, and even the relatively clean balance sheets of governments in these countries.*

- **How exactly do we define middle class, and what does it mean in the context of emerging markets?**
- **Does the middle class in the United States, for example, have the same meaning as the middle class in emerging market countries?**
- **How large is the middle class of the emerging markets, and how quickly can we expect it to grow?**
- **Finally, what are the implications of this growing middle class for investors?**

*Overall, our analysis shows that middle- and upper-class populations in emerging markets could potentially outpace the developed world by 2015. We believe this growth is a compelling reason to invest in these markets.*

*Our analysis shows that the middle and above class population in the emerging markets could potentially grow and outpace the population of the developed world by 2015.*

*From a social perspective, the middle class is viewed as a group of people who have a common set of values that differs from that of both the upper and the lower classes.*

## Different Definitions

The term middle class can be defined and used in different contexts, both socially and economically. The Greek philosopher Aristotle, for example, defined the ideal political community as one where the middle class outnumbered both the upper and the lower classes. He believed that the very rich and the very poor were more prone to internal strife, while the middle class was least apt to act unjustly toward its fellow citizens.<sup>1</sup>

From a social perspective, the middle class is viewed as a group of people who have a common set of values that differs from that of both the upper and the lower classes. Research from the Asian Development Bank, for example, finds that the middle class has distinct views on values such as gender equality, trust in others and technology adoption.<sup>2</sup>

Even within a purely economic framework, the definition of middle class may vary. According to the U.S. Department of Commerce, the American middle class can be defined largely by its aspirations. For example, middle-class families in the U.S. typically aspire to home ownership, one car per adult, college educations for their children, health and retirement security and discretionary family vacations. For the average two-parent, two-child family, the annual income required to achieve such aspirations is estimated to be \$80,600.<sup>3</sup>

<sup>1</sup>"Aristotle's Political Theory," Stanford Encyclopedia of Philosophy, 2011.

<sup>2</sup>"Who are the Middle Class and What Values do They Hold? Evidence from the World Values Survey," ADB Economics Working Paper Series, Asian Development Bank, 2010.

<sup>3</sup>"Middle Class in America," U.S. Department of Commerce Economics and Statistics Administration, 2010.

When we view an emerging economy such as South Africa's, however, we see a much more basic set of standards to classify the middle class. Typical middle-class goals in South Africa include formal housing, running water in the dwelling, electricity as the main light source, and ownership of a landline or mobile phone.<sup>4</sup> Clearly, these standards differ greatly from middle class aspirations in the United States. Thus, it is reasonable to expect that each society will have a distinct set of living standards and aspirations that will define its middle class, and that those will depend largely on the stage of that country's economic development.

Given these differences, we believe there is limited utility in applying varying definitions of the middle class by country to arrive at a global middle-class population. Similarly, using a relative approach to define a country's middle class, such as households with 75% to 125% of median income, will also vary greatly by country. We believe there is a more useful approach to understand the middle class in a global context.

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<sup>4</sup>"Profiling South African Middle-class households, 1998-2006," Statistics South Africa, 2009.

*We believe that in some emerging markets, a growing middle class as defined in an individual country is not necessarily a meaningful indicator of global consumption.*

## The Middle Class in a Global Context

We believe an absolute definition of middle class is more appropriate for a global assessment. In this scenario, an absolute approach is defined as a population determined by setting single lower and upper boundaries for the purchasing power of individuals or households across different countries. This type of absolute methodology is more useful when observing the size or growth of the middle class across emerging markets, as well as the impact of the emerging markets' middle class on global consumption demand.

Using India as an example, the National Council of Applied Economic Research (NCAER) in India defines the middle class as a five-member household earning an annual income of between 45,000 and 180,000 rupees (or \$1,000 to \$4,000 U.S. dollars).<sup>5</sup> With this definition, 62% of Indian households were considered middle class at the end of the fiscal year ending in March 2010.<sup>6</sup>

One may question, however, whether this level of household income would be considered middle class on a global basis. The range of income noted above for the Indian middle class is well below the poverty line, not only in the developed world, but also in other emerging market countries, such as the Czech Republic.<sup>7</sup> Thus, extrapolating from our example of India, we believe that in some emerging markets, a growing middle class as defined within an individual country is not necessarily a meaningful indicator of global consumption if the income levels of the middle class are significantly below those of the developed world and other emerging market economies.

<sup>5</sup>Market exchange rate is 44.85 rupees per U.S. dollar as of June 1, 2011.

<sup>6</sup>"Wealthy Indian households outnumber low income families: NCAER," Hindustan Times, August 1, 2010. The National Council of Applied Economic Research (NCAER) is a leading think tank in India.

<sup>7</sup>The minimum cost of living in the Czech Republic for a four-person household was approximately \$6,600 in 2009, according to the European Working Conditions Observatory (EWCO).

### Purchasing Power or Nominal Income<sup>8</sup>?

One factor we must consider in analyzing the middle class in a single global context is the difference in purchasing power of individual emerging market currencies. To define the purchasing power of a country's currency, we begin with the cost of purchasing a standard basket of goods and services in local currency. When the cost of this basket is converted from local currency to U.S. dollars, the ratio that equates these two values is known as a country's purchasing power parity (PPP) rate. Emerging market currencies are often believed to have much greater purchasing power than their U.S. dollar-exchange rates indicate because the prices of similar, or even the same, goods and services in emerging markets are much lower than in developed economies. Thus, the income gap we observe between developed markets and emerging markets may be smaller in PPP than in market exchange rates.<sup>9</sup>

If we revisit the example of India, we can see how the PPP rate will impact the definition of the middle-class population. The 2010 gross domestic product (GDP)<sup>10</sup> per capita in India is estimated to be \$1,265 in the market exchange rate, while it is \$3,339 in PPP, implying that the purchasing power of an Indian family is more than 2.5 times what it appears. Thus, the NCAER's definition of a middle-class-household's income of \$1,000 to \$4,000 U.S. dollars can be, in

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<sup>8</sup>Nominal income is defined as income that has not been adjusted for inflation or changes in purchasing power.

<sup>9</sup>"Viewing the world at purchasing power parity," 2008 World Development Indicators, World Bank.

<sup>10</sup>Gross domestic product is defined as the total market value of all final goods and services produced in a country in a given year.

fact, interpreted as approximately \$3,000 to \$12,000 U.S. dollars of income in PPP. In the case of Brazil, the difference between the market and PPP GDP per capita is less than 5%, implying that the market exchange rate of the Brazilian real is relatively fairly priced in terms of the purchasing power of the currency. When applying absolute definitions of global middle class to emerging markets, we believe that PPP rates provide a more accurate portrayal of both income levels and growth.

## GDP PER CAPITA, 2010

	GDP at Market Exchange Rate (USD)	GDP at PPP (USD)	Percentage Change, Market Exchange and PPP
United States	47,284	47,284	0%
<b>Emerging Markets</b>			
Brazil	10,816	11,239	4%
Chile	11,828	15,002	27%
China	4,382	7,519	72%
Colombia	6,273	9,566	52%
Czech Republic	18,288	24,869	36%
Egypt	2,789	6,354	128%
Hungary	12,879	18,738	45%
India	1,265	3,339	164%
Indonesia	3,015	4,394	46%
Korea	20,591	29,836	45%
Malaysia	8,423	14,670	74%
Mexico	9,566	14,430	51%
Morocco	3,249	4,754	46%
Peru	5,172	9,330	80%
Philippines	2,007	3,737	86%
Poland	12,300	18,936	54%
Russia	10,437	15,837	52%
South Africa	7,158	10,498	47%
Taiwan	18,458	35,227	91%
Thailand	4,992	9,187	84%
Turkey	10,399	13,464	29%

Source: International Monetary Fund, World Economic Outlook Database, April 2011.

### Technical Issues To Note

We see a few technical issues in applying income boundaries to estimate the size and the growth of the global middle class. First, we believe data on an individual or household level is more meaningful than country averages or data such as GDP per capita; (unfortunately, this level of data is often not readily available, particularly in emerging economies). For example, the middle class population in a country could decline, despite GDP per capita growth, or vice versa, depending on how income is distributed. In fact, in the United States, the real median income of working-age households<sup>11</sup> declined between 2000 and 2008, while GDP per capita grew in the same period.<sup>12</sup>

Second, we should be mindful of the fact that within a household, goods and services, such as housing, cars and telephones, are often shared among family members. This implies that the poverty level of a four-member household would be substantially less than multiplying the poverty level of a single person by four. Thus, we would ideally use household data, rather than per capita data, to analyze the size of the global middle class.

### Defining the Emerging Market “Global Middle+ Class”

Given the varying definitions of middle class and the technical issues noted above, we naturally find differing estimates and projections, often based on ad hoc assumptions, for the size and outlook of the middle class in emerging markets. Research from the Organization for Economic Cooperation and

*The middle-class population in a country could decline, despite GDP per capita growth, or vice versa, depending on how income is distributed.*

<sup>11</sup>The United Nations report uses two categories of more developed and less developed in population projections. The World Bank compares high-income countries against low-and middle- income countries. The definitions of less developed or low-and middle- income countries are not necessarily the same as that of emerging markets, but we believe that there should be no substantial difference. High-income or more developed countries are mostly overlapped with those of developed markets in investment world. Emerging markets in this discussion are used in a broad sense, which includes all the countries not included in the camp of high-income counterparties.

<sup>12</sup>Annual Report, The White House Task Force on the Middle Class, February 2010.

*We define the “global middle+ class” as a combination of the upper and middle class.*

Development (OECD), for instance, defines the global middle class as households with daily expenditures between \$10 and \$100 US dollars per person in year 2005 PPP. This range, approximately \$3,650 to \$36,500 US dollars per person on an annual basis, is a bit broad in our view. A more reasonable definition of the global middle class, in our opinion, is one from the World Bank,<sup>13</sup> which suggests that the annual per capita income thresholds for global middle class should be approximately equal to \$4,000 and \$17,000 US dollars in year 2000 PPP. Their lower boundary was set in line with the per capita income of Brazil, while the upper boundary was determined using Italy’s PPP per capita income in 2000 as a proxy. The resulting range of per capita incomes is narrower versus the OECD report, and one we believe makes slightly more sense: In 2000, Brazil was on the upper end of per capita income among emerging markets, and Italy was among the lower end of developed markets in terms of per capita income.

According to these estimates, the total global middle class in 2000 was 7.6% of the global population, or 465 million people.<sup>14</sup> Of these, 257 million people, or only 5.2% of the emerging market population, belonged to the global middle class.<sup>15</sup> The World Bank also estimates that 10.5% of the global population belonged to the “upper class” (we assume that this upper class was primarily from the developed world).

<sup>13</sup>World Bank, Global Economic Prospects, 2007.

<sup>14</sup>Population data is taken from the United Nations report: *2010 Revision of World Population Prospects*, May 2011.

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Below we develop our projections of the global middle class, both in the emerging markets and the developed world. We focus on what we term the “global middle+ class,” a combination of the upper and middle class. We use this approach primarily because our interest in this exercise is to determine the growing consumption power of the emerging markets population, both middle and upper class.

### So How Will the Global Middle+ Class Grow In the Future?

We introduce here the result of our extrapolation of the World Bank estimates, combined with the United Nation’s population projections, to provide a more detailed breakdown of the global middle+ class by emerging markets and developed markets. We make two underlying assumptions: 1) Only 1% of the population in emerging markets belonged to the upper class in 2000, and 2) Over 90% of the population in the developed world will belong to the global middle+ class, mostly the upper class, by 2030. We believe these two assumptions are relatively conservative because they likely underestimate the middle+ class in the emerging markets.

#### GLOBAL POPULATION AND GLOBAL MIDDLE+ CLASS POPULATION (millions of people)

		2000	2005	2010	2015E	2020E	2025E	2030E
Population	World	6,115	6,507	6,896	7,284	7,657	8,003	8,321
	Emerging Markets	4,926	5,296	5,660	6,028	6,384	6,716	7,025
	Developed Markets	1,189	1,211	1,236	1,256	1,273	1,287	1,296
Global Middle+ Class	World	1,107	1,463	1,819	2,173	2,515	2,834	3,129
	Emerging Markets	306	557	851	1,148	1,436	1,704	1,953
	Developed Markets	801	906	968	1,025	1,079	1,130	1,176

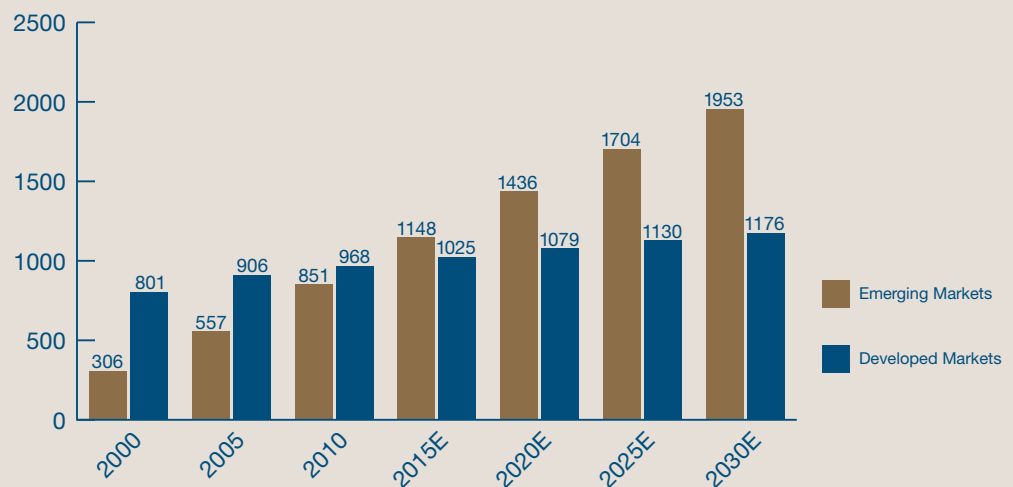
Source: Mirae Asset projections represented in columns labeled E, World Bank, United Nations.

## The Emerging Market Global Middle+ Class Will Surpass that of the Developed World by 2015

There are three noteworthy observations based on our projections. First, the ratio of people belonging to the global middle+ class within emerging markets will increase from 6% in 2000 to 22% in 2020. The global middle+ class population in emerging markets was only about 300 million in 2000, which means that 4.6 billion people (or 94% of population) were poor. The global middle+ class population in emerging markets, however, is likely to increase to 1.1 billion in 2015 and 1.4 billion in 2020.

Second, the global middle+ class population in emerging markets is expected to surpass that of the developed world in 2015, and this gap will continue to widen over time, as highlighted in the chart below. By contrast, in 2000, the global middle+-class population in emerging markets was roughly one-third that of the developed markets, despite total populations in emerging markets being four times larger than in the developed markets.

### GLOBAL MIDDLE+ CLASS POPULATION (millions of people)



Source: Mirae Asset projections, World Bank, United Nations.

Third, the growth of the global middle+ class in emerging markets does not imply that the number of poor people in this region will decline going forward. In fact, the lower-income class in the emerging markets should also increase, primarily because the total population size is increasing faster in relatively poor regions such as India and certain African countries.<sup>16</sup> We also agree with the World Bank that the percentage of wealthy people in the middle class in emerging markets should still be relatively small in 2020, and that this upper class will come primarily from the developed world. That being said, we believe that the rapid growth of middle+ class people in emerging markets is one of the most important global economic changes going forward.

### **Brazil and Italy in 2000; Morocco and Portugal in 2010**

While we appreciate the World Bank's notion of providing the context of Brazil and Italy as boundaries for the global middle class in 2000, we believe it is interesting to update these two countries to provide a 2010 perspective on the global middle class.

Per capita income in both Brazil and Italy has clearly increased over the last decade, combined with a decline of the U.S. dollar due to inflation. Thus, Brazil is more likely to be considered part of the global middle class, and Italy is more likely to belong to the global upper class. The countries' per capita incomes in 2010 with 2000 PPP constant prices of \$8,991 U.S. dollars and \$23,513 U.S. dollars respectively are much higher their incomes back in 2000.<sup>17</sup>

<sup>16</sup>United Nations, *2010 Revision of World Population Prospects*, May 2011.

<sup>17</sup>IMF and authors' own calculation.

The per capita incomes of Brazil and Italy ten years ago are, in fact, comparable to those of Morocco and Portugal in 2010 in real terms.<sup>16</sup> Again, we believe these two countries provide a good range for the global middle class. Similar to Brazil, Morocco is often classified as an emerging market in commonly used emerging market indices, and similar to Italy, Portugal is included in developed market indices but often toward the lower end of per capita incomes. We can expect that typical, global middle-class people have incomes somewhere between those of Morocco and Portugal today.<sup>18</sup>

In 2010, the per capita incomes of many emerging markets, such as Brazil, China, Russia, Turkey and South Africa, were in the “Morocco-Portugal” range,<sup>19</sup> although there were exceptions. South Korea, for example, was above the range, while India and Indonesia were below the range. Overall, we believe these two countries provide a useful context for presenting the global middle-class range.

*As income levels rise, we will see the emerging markets continue to become significant target customers for sellers of consumer staples and consumer discretionary goods globally.*

<sup>16</sup>IMF and Mirae Asset's own calculation.

<sup>19</sup>We assume roughly 20% cumulative inflation in the United States from 2000 to 2010 when making this calculation.

## The Implications of a Growing Middle+ Class in Emerging Markets

### What are the implications for the Emerging Markets?

We see several notable implications for a rising middle+ class in the emerging markets. First, we believe that rising income levels in the emerging markets will increase the region's share of global consumption. China, for example, is poised to overtake Japan as the largest consumer of luxury goods, with an estimated global market share of 22% and total luxury goods sales of close to \$13 billion in 2010.<sup>20</sup> As income levels rise, we will see the emerging markets continue to become significant target customers for sellers of consumer staples and consumer discretionary goods globally. We believe this trend will alter the mindset of businesses, and that they will now consider their end consumers to be based not only in the developed markets but in the emerging markets as well.

Second, longer term, we believe the growing middle+ class in emerging markets will support the socioeconomic and political stability in its respective nations. As a greater percentage of the population becomes educated, owns both homes and automobiles and amasses savings for retirement, we see the levels of civil unrest and corruption declining in emerging market countries (similar to the maturation process in developed market countries). Households that are more capable of fulfilling basic needs will have higher overall satisfaction levels. Over time, we see these trends as having a positive impact on investor sentiment toward the emerging markets, as some of the political and social risks of investing in this region are mitigated.

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<sup>20</sup>China Market Research Group, March 2011.

Third, we believe a growing middle+ class will support a more innovative and market-oriented culture in the emerging markets, as successful industries and companies in the emerging markets will strive to remain competitive. This will involve creating a culture of innovation and market appeal. Many large firms and industries in the emerging markets are realizing that being a low-cost leader is not enough anymore, and that being both innovative and market-oriented is vital to their future success. We believe the growing middle+ class in the emerging markets will support this trend toward innovation, as the appeal of a rising quality of life drives economies toward the creation of sustainable, competitive businesses.

Overall, we view the large and growing middle+ class in the emerging markets as a powerful driver of global consumption, political stability and market innovation for this region. While globally we are starting to see the impact of this rising middle class, such as in China's luxury goods market, we believe we are only in the beginning stages of the consumption power that will be unlocked as the emerging markets continue to gain economic strength.

*Many large firms and industries in the emerging markets are realizing that being a low-cost leader is not enough anymore, and that being both innovative and market-oriented is vital to their future success.*

Peter Lee, PhD, CFA  
Head of Emerging Market Strategy



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