Goldilocks & the Three Bears, an Emerging Markets Tale

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Emerging Markets Have Not Fared Well Over the Past Year

Relative Performance Emerging vs Developed Markets
(MSCI EM Free Index vs MSCI World Index)

Source: MSCI Barra
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Either the Porridge Was “Too Hot” or “Too Cold”

Emerging vs Developed Market Performance

Fear of inflation
10/6/10 - 2/10/11

Fear of Hard Landing
8/2/11 - 10/5/11

EM vs DM

Source: MSCI Barra

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“Too Hot” Fears Are Fading

Chinese Consumer Price Inflation Moderating

Source: Capital Economics
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Valuations Make for an Interesting Entry Point

Price to Earnings

MSCI CHINA  MSCI INDIA


Price to Book

MSCI CHINA  MSCI INDIA


Source: MSCI Barra
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Investors May Be Losing Track of the Big Picture

Household Liabilities
(as % of GDP - 2008)

Source: Societe Generale, Citi Investment Research & Analysis, Artio Global Management LLC
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Investors May Be Losing Track of the Big Picture

Government Debt/GDP Estimates in Year 2015

Source: International Monetary Fund
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Emerging Markets Have Grown In Importance Over the Past Decade

Historical Weighting of Emerging Markets
(as a % of MSCI ACWI)

Source: Factset
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But Are Still Underrepresented Relative to Their Real World Importance

Emerging Economies
(as a % of World Total)

- Population: 85.40%
- Foreign Exchange Reserves¹: 67.40%
- Energy Consumption: 57.22%
- GDP at PPP: 46.20%
- Exports: 34.50%
- GDP, Current Prices: 31.05%
- Stockmarket Capitalization: 13.88%

Sources: Human Development Index, Bloomberg, IMF, BP, MSCI, Artio Global Management LLC

¹. International reserve assets excluding holdings of gold.

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And Vastly Understated in Terms of Their Future Import

Emerging Markets GDP % Global Total

Source: IMF, Artio Global Calculations
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Asia (China & India) Will Remain the Major Drivers

China and India GDP % Global Total

Source: World Bank
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The Big Picture Is the Secular Trend

Rapid Growth in Middle Class Consumers
Consumers earning over US$6K annually (in real 2008 US$ terms)

Source: UN Population Division, Goldman Sachs Global ECS Research
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The Big Picture Is the Secular Trend

Estimated Change Number Middle Income Consumers (> $6k/yr)  
2010 - 2020

Source: UN Population Division, Goldman Sachs Global ECS Research
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The Big Picture Is the Secular Trend

Est. Change Number "Super" Middle Income Consumers (> $30k/yr)
2010 - 2025

Source: UN Population Division, Goldman Sachs Global ECS Research
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Driven By Continued Urbanization

Current Level of Urbanization (% of Population)

- China: 47%
- India: 30%
- Brazil: 87%
- Russia: 73%
- USA: 82%
- Japan: 67%
- Germany: 74%
- France: 85%
- UK: 80%
- Italy: 68%
- Canada: 81%

Source: UN World Population Prospects, the 2010 Revision
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Est. Annual Increase in Urban Population (millions)

Source: UN World Population Prospects, the 2010 Revision, Artio Global Management
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Greater Wealth Changes Consumption Patterns

Proportion of Fresh vs. Packaged Food Consumption

Source: Euromonitor

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In Absolute, Not Just Growth Terms, Emerging Markets Are Entering a New Phase

World Car Registrations
(Annual rate, 6 months moving average)

Source: SG Cross Asset Research
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With Plenty of Room for Growth

Cars per 1000 People

<table>
<thead>
<tr>
<th>Country</th>
<th>Cars per 1000 People</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>14</td>
</tr>
<tr>
<td>China</td>
<td>28</td>
</tr>
<tr>
<td>Brazil</td>
<td>159</td>
</tr>
<tr>
<td>Korea</td>
<td>257</td>
</tr>
<tr>
<td>Japan</td>
<td>576</td>
</tr>
<tr>
<td>US¹</td>
<td>808</td>
</tr>
</tbody>
</table>


1. US cars in use include passenger cars and light vehicles/SUVs

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Greater Growth Changes Consumption Patterns

Packaged Food and Hot Drinks Market Size

Source: Euromonitor, Goldman Sachs Research estimates
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Greater Growth Changes Consumption Patterns

Home Care Market Size

Source: Euromonitor, Goldman Sachs Research estimates
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Greater Wealth Changes Consumption Patterns

Share of Household by Product Category
(% - averages by wealth level)

Country Average by Wealth Band (GDP/Capital)

Source: Goldman Sachs Global ECS Research; July 12, 2010
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India Stands Out in Terms of Demographics

Population Age 15-64

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And for Its Potential to Play “Catch Up”

India: The Next Wave for Commodity Demand?

(GDP/Capita – real 2005 $PPP terms)

Source: Global Insight
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## India Even Lags the Other BRICs

<table>
<thead>
<tr>
<th>Country</th>
<th>Energy Consumption (oil per capita)</th>
<th>Color TV (per 100 households)</th>
<th>Mobile Telephone Subscriptions (per 100 population)</th>
<th>Computers (per 100 population)</th>
<th>Rail Freight (’000 tons per km per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1,484</td>
<td>96.1</td>
<td>48.0</td>
<td>5.7</td>
<td>2,523,917</td>
</tr>
<tr>
<td>India</td>
<td>529</td>
<td>31.7</td>
<td>29.4</td>
<td>3.3</td>
<td>551,448</td>
</tr>
<tr>
<td>Brazil</td>
<td>1,239</td>
<td>95.6</td>
<td>78.5</td>
<td>14.1</td>
<td>267,700</td>
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<tr>
<td>Russia</td>
<td>4,730</td>
<td>96.1</td>
<td>141.1</td>
<td>13.3</td>
<td>1,865,305</td>
</tr>
</tbody>
</table>


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Infrastructure Will Be the Key Driver in the Indian Story

Indian Infrastructure Spending
(as a % of GDP)

Source: UBS Estimates
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Worry (and the Opportunity) in China Is Balance

Chinese GDP Composition (as % Total GDP)

Source: Bloomberg
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Manufacturing Investment Is the Component to Monitor

Distribution of Fixed Asset Investment as % GDP (12 mma)

Source: Bloomberg, China Economic Information Network, Artio Global Management
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Worry – Far Less Leverage in the Economy

Mortgages
(as a % of GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>Mortgages</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>7.9</td>
</tr>
<tr>
<td>US</td>
<td>72.2</td>
</tr>
<tr>
<td>UK</td>
<td>92.9</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>29.7</td>
</tr>
<tr>
<td>Taiwan</td>
<td>44.9</td>
</tr>
<tr>
<td>China</td>
<td>10.7</td>
</tr>
<tr>
<td>Korea</td>
<td>22</td>
</tr>
<tr>
<td>Japan</td>
<td>26.9</td>
</tr>
<tr>
<td>Singapore</td>
<td>21.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>9.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>6</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2.5</td>
</tr>
</tbody>
</table>

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Structural Clarity: Growth Shifting In-Land

China Fixed Asset Investment – Coastal Region
(% of total)

Source: Credit Suisse
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Structural Clarity: Growth Shifting In-Land

China Coastal GDP (% of total)

Source: Credit Suisse
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