Investment Strategies for the China Century

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Dallas/Ft. Worth FPA

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China Was Once the World’s Largest Economy

- **1820** China Was the Largest World Economy
- **1839 - 1860** Opium Wars begin “Century of Humiliation”
- **1949 - 1976** Mao’s “Great Leap Forward” and “Cultural Revolution”
- **1980** The “Economic Revolution” of Deng Xiaoping begins

*Adjusted for purchasing power parity Source: Historical Statistics for the World Economy – Angus Maddison, ISI.*
China’s Gross Domestic Product
1980 - 2009

Purchasing–Power-Parity Valuation in Current US Dollars; Source: IMF
Why China Should Continue to Grow

1. **Strong Balance Sheet and Effective Policies**
   - Over $2.4 trillion of reserves
   - Chinese banks in better shape than U.S. banks
   - Bigger and better stimulus than U.S.

2. **Development of Middle and Western Regions and Needed Infrastructure**
   - China has more than 150 cities with more than 1 million people (U.S. has 9)
   - More than 170 cities will need mass transit systems by 2025
   - Over next five years China will invest $300 billion in railways

3. **Urbanization**
   - China will have 100 cities with more than 3 million people by 2020
   - China will have an urban population of 926 million by 2025
   - China will build 50,000 new skyscrapers by 2025

4. **Rise of Chinese Consumer**
   - Consumption is 37% of GDP in China vs. 70% in U.S.
   - China cars per capita: 10 per 1000 vs. US cars per capita: 765 per 1000
   - Consumer credit in early stages – 90% of car buyers pay cash

Sources: McKinsey, JD Power, AlphaShares, LLC
Risks to China

1. Global Recession
   - China’s response more effective than ours – growth has resumed

2. Weak banking system (bad loans)
   - Nonperforming loans + explicit government debt is small relative to GDP

3. Tensions with Taiwan and Japan
   - Economic interdependency and recent progress

4. Environmental degradation
   - Government is responding - green technology

5. Uneven distribution of income
   - Growth part of solution - not the problem

6. Corruption
   - Alleviating corruption a work in progress
For Systematic Reasons Most Investors are Seriously Underexposed to China

1. China currently classified as “emerging” vs. “developed”
   - “Institutional consensus”
   - Operational efficiency

2. Float adjustment factors further reduce index weightings
   - A Shares not counted
   - Government shares not counted

Most investors receive exposure to China through their allocation to emerging markets

Emerging Market benchmarks currently weight China at 10.5%*

Average Emerging Market Benchmark

Typical Institutional Allocation

- Emerging Markets: 10%
- Other: 90%

Emerging Market: 10.5%

Typical Allocation to China = 1.0%

*Weight of China 10.78% in iShares MSCI Emerging Markets Index ETF as of 12.31.09
Investors should have **at least** 5% of their Portfolio in China

- China is 7.2% of global GDP based on official exchange rates
- China is 11.4% of Global GDP when adjusted for purchasing power parity
- China was 30% of Global GDP growth in 2007
- China may be 100% of Global GDP growth in 2009

Source: IMF
Primer on China Equities

- “A Shares” are listed in Shanghai and Shenzhen and are available to Chinese citizens and institutions, but largely unavailable for non-Chinese investors.
- “H Shares” are listed in Hong Kong and available to international/non-Chinese investors.
- “N Shares” are listed in New York and available to international/non-Chinese investors.
- Many companies trade on multiple exchanges. The lack of arbitrage has led to “A-Share premium.”

Value as of 12.31.9 was 120.93
Source: Hong Kong Exchange
Chinese Equities Rebounded in 2009 but Valuations Do Not Indicate a Bubble……

<table>
<thead>
<tr>
<th>Index</th>
<th>P/E</th>
<th>P/E 2011 Est.</th>
<th>PEG</th>
<th>P/B</th>
<th>P/S</th>
<th>Yield</th>
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</thead>
<tbody>
<tr>
<td>AlphaShares China All Cap (YAO)</td>
<td>22.58</td>
<td>15.84</td>
<td>1.36</td>
<td>4.50</td>
<td>5.53</td>
<td>1.68</td>
</tr>
<tr>
<td>AlphaShares China Small Cap (HAO)</td>
<td>22.89</td>
<td>15.70</td>
<td>1.04</td>
<td>3.08</td>
<td>6.44</td>
<td>1.27</td>
</tr>
<tr>
<td>AlphaShares China Real Estate (TAO)</td>
<td>12.60</td>
<td>14.33</td>
<td>0.56</td>
<td>1.30</td>
<td>7.05</td>
<td>2.20</td>
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<tr>
<td>CSI 300 Index (A Shares)</td>
<td>27.17</td>
<td>18.71</td>
<td>n/a</td>
<td>3.68</td>
<td>4.05</td>
<td>1.42</td>
</tr>
</tbody>
</table>

Source: Bloomberg as of 3.23.10
Especially if the Yuan is Undervalued

**Is the Chinese Currency Undervalued?**

There is general consensus among Western economists that the renminbi is undervalued against the dollar, but opinions differ as to how much the currency would rise if allowed to float freely on world currency markets. Below, some estimates:

**EQUILIBRIUM EXCHANGE RATES**

Economists who use this method try to estimate what the exchange rate of a currency should be based on the country’s current-account balance, which includes its trade and financial relationship with the rest of the world. Scholars compare the country’s actual balance with the ideal balance based on the country’s development status and demographics.

Using this approach, two researchers at the Peter G. Peterson Institute for International Economics determined that the renminbi was undervalued against the United States dollar by

- **40%**

**PRODUCTIVITY-BASED CALCULATIONS**

Other scholars compare the relative productivity improvements in different countries. Simply put, productivity measures how much a country or a company spends to get one unit of output. As countries like China become more productive, they become wealthier and their currencies should appreciate against those of countries like the United States whose productivity is not improving as quickly.

Using this method, professors at Harvard and Freie Universität Berlin, estimate the renminbi is undervalued against the dollar by

- **30-50%**

**PURCHASING POWER PARITY APPROACHES**

Most goods and services, say fried rice and haircuts, generally cost less in developing countries like China than they do in developed countries like the United States. As countries become richer, their prices catch up with those in developed countries. That is happening in China, but it will take time. Using regression analysis of relative prices, scholars can determine whether a currency is undervalued relative to its country’s state of development.

A researcher at the Organization for Economic Cooperation and Development estimates that using this yardstick, the renminbi is undervalued by only

- **12%**

*Sources: Peter G. Peterson Institute for International Economics; Niall Ferguson and Moritz Schularick; Heimit Reisen*
Chinese Equities are Volatile

*The CBOE Volatility Index® (VIX®) is a key measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices. The AlphaShares China Volatility Index (CHIX) is a measure of near-term volatility conveyed by major China equity index options.

<table>
<thead>
<tr>
<th>History</th>
<th>VIX</th>
<th>CHIX</th>
<th>HSI Vol</th>
<th>FXI Vol</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX</td>
<td>80.86</td>
<td>122.25</td>
<td>132.44</td>
<td>115.54</td>
</tr>
<tr>
<td>MIN</td>
<td>9.89</td>
<td>11.09</td>
<td>10.07</td>
<td>11.32</td>
</tr>
<tr>
<td>AVG</td>
<td>22.42</td>
<td>28.95</td>
<td>26.84</td>
<td>36.65</td>
</tr>
<tr>
<td>Current</td>
<td>25.61</td>
<td>29.75</td>
<td>25.62</td>
<td>33.89</td>
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*The CBOE Volatility Index® (VIX®) is a key measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices. The AlphaShares China Volatility Index (CHIX) is a measure of near-term volatility conveyed by major China equity index options.
Major China Equity Indexes are Flawed

• Poor coverage
  – MSCI does not include NY listings (Baidu, etc.)
  – Hang Seng does not include NY listings
  – FTSE/Xinhua does not include NY listings

• Sector Concentration
  – Mega Caps dominate
  – FTSE/Xinhua China 25 (FXI) has 46% in financials, 20% in Energy and 0% in Consumer
  – MSCI China has 20% in China Mobile

<table>
<thead>
<tr>
<th>Sector</th>
<th>FTSE Xinhua China 25 (FXI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Discretionary</td>
<td>0.00%</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>0.00%</td>
</tr>
<tr>
<td>Energy</td>
<td>20.71%</td>
</tr>
<tr>
<td>Financials</td>
<td>46.15%</td>
</tr>
<tr>
<td>Health Care</td>
<td>0.00%</td>
</tr>
<tr>
<td>Industrials</td>
<td>7.30%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>3.05%</td>
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<td>Materials</td>
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<td>Telecommunication Services</td>
<td>16.34%</td>
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<tr>
<td>Utilities</td>
<td>1.69%</td>
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Source: Bloomberg as of 12.31.09
What Are You Missing with A Shares or FXI?

Chinese technology companies NOT included in the A Share market or in FXI:

• Tencent (HK: 0700)
  — A leading Chinese internet company
  — 78% of instant messaging market

• Baidu (NASDAQ: BIDU)
  — The leading Chinese search engine
  — 73% of Chinese search market

• BYD (HK: 1211) (Note: added to FXI Q4 09)
  — A leading Chinese electric and hybrid car maker
  — Partially owned by Warren Buffett’s Berkshire Hathaway

• Alibaba.com (HK: 1688)
  — A leading Chinese business to business website
  — Also owns taobao.com the leading Chinese internet retailer
What Are You Missing with A Shares or FXI?

Chinese consumer companies NOT included in the A Share market or in FXI:

- **Tingyi (HK: 0322)**
  - The leading Chinese manufacturer of branded food products
  - Master Kong brand has 43% of Chinese instant noodle market

- **Want Want (HK: 0151)**
  - The leading Chinese manufacturer of rice crackers and other snack foods
  - Want Want has 90% of rice cracker market

- **Li Ning (HK: 2331)**
  - The leading Chinese manufacturer of branded athletic footwear
  - Shaquille O'Neil wears and endorses Li Ning shoes

- **Mengniu Dairy (HK: 2319)**
  - The leading Chinese manufacturer and distributor of dairy products
Conclusion

Summary

• **Case for Chinese economic growth remains strong**
  • China has a strong balance sheet and effective policies
  • China’s growth rate will continue to be the highest in the developed world
  • China will be the largest economy in the world within twenty years

• **Most investors are underexposed to China and should add China to their portfolios**
  • Index weight = 1.5%
  • GDP weight = 7% at official exchange rates (and growing fast)
  • 30% of Global GDP growth

• **Investing in China is complicated and risky**
  • Alphabet soup of share classes
  • “A Share” market premium
  • High volatility
  • Major indexes are poor

✓ **AlphaShares offers strategies for investors seeking exposure to China**
# AlphaShares Index Solutions

<table>
<thead>
<tr>
<th>AlphaShares Index</th>
<th>ETF</th>
<th>Overview</th>
<th>Stocks</th>
<th>Expense Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>AlphaShares China All Cap Index</td>
<td>YAO</td>
<td>Broadly diversified exposure to Chinese equities of all sizes</td>
<td>150</td>
<td>0.70%</td>
</tr>
<tr>
<td>AlphaShares China Small Cap Index</td>
<td>HAO</td>
<td>Chinese companies between $200mm &amp; $1.5 billion</td>
<td>135</td>
<td>0.70%</td>
</tr>
<tr>
<td>AlphaShares China Real Estate Index</td>
<td>TAO</td>
<td>Chinese real estate companies including Hong Kong</td>
<td>39</td>
<td>0.65%</td>
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<td>AlphaShares China Technology Index</td>
<td>CQQQ</td>
<td>Chinese Technology companies</td>
<td>34</td>
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*Standard & Poor’s Custom Index Services calculates and maintains AlphaShares indices.*
YAO = Smarter Exposure to China

YAO Gives Investors Better Diversification
- More stocks: All HK and NY listings (150 in YAO vs. 25 in FXI)
- Exposure to all 10 sectors of the economy vs. 7 in FXI
- Less concentration: max. sector weight of 35%, max. stock weight of 5%
- Includes large, mid and small cap vs. only large cap in FXI

YAO Gives Investors Exposure to Key Growth Sectors
- FXI has 0% consumer exposure
- YAO has 11% in consumer sectors

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Source: Bloomberg as of 12.31.09
AlphaShares Team

Dr. Burton G. Malkiel is the Chief Investment Officer of AlphaShares. Dr. Malkiel is the Chemical Bank Chairman’s Professor of Economics at Princeton University and the author of the widely read investment book, *A Random Walk Down Wall Street*. He has long held professorships in economics at Princeton, where he was also chairman of the Economics Department. He was dean of the Yale School of Management and William S. Beinecke Professor of Management Studies there from 1981 to 1988. He is a past appointee to the President’s Council of Economic Advisors. He serves on the boards of directors of The Vanguard Group Europe, Genmab A/S and Theravance, Inc. and on the investment committees of Active Investment Advisors and the American Philosphic Society. He holds B.A. and MBA degrees from Harvard and a Ph.D. degree from Princeton University. Dr. Malkiel began his career in the investment banking department of Smith Barney & Co.

Jonathan J. Masse, CFA, is the Senior Portfolio Manager of the AlphaShares. Prior to joining AlphaShares, Mr. Masse served as an Institutional Portfolio Manager and Strategist for Barclays Global Investors where his team managed over $300 billion of assets. He has managed equity portfolios benchmarked to nearly all emerging markets including over $8.9 billion in Chinese equities. Prior to joining Barclays Global Investors, Mr. Masse was an options trader and market maker on the PSE, CBOE, and CBOT with Stafford Trading, the Timber Hill Group, and Cooper Neff/BNP respectively. He holds the Chartered Financial Analyst (“CFA”) charter, teaches the “Portfolio Management in a Global Context” class for the San Francisco Analyst Society’s CFA Level III Review program, has an MBA degree from the University of Santa Clara, and received a BS in Finance from Boston College.

Mark G. Adams, CFA, is the Director of Research of AlphaShares. Prior to joining AlphaShares, Mr. Adams was a Senior Portfolio Manager for Active Investment Advisors, an investment management firm specializing in index and ETF based investment strategies. He was the Portfolio Manager of the Active China Strategy and Active Managed ETF Portfolios. Previously, Mr. Adams was Chief Operating Officer of investment consulting firm Barra RogersCasey. Prior to joining Barra RogersCasey, Mr. Adams worked for Barra International in Asia as Managing Director in Hong Kong and Japan overseeing research and consulting. Mr. Adams holds the Chartered Financial Analyst (“CFA”) charter and received a BS in Economics from the University of Pennsylvania.

Kevin T. Carter is the Chief Executive Officer of AlphaShares. Prior to founding AlphaShares, Mr. Carter was the Founder, Chairman and Chief Executive Officer of Active Index Advisors (“AIA”), an investment management firm specializing in index and ETF based investment strategies. AIA was acquired by IXIS Asset Management in December 2004. Prior to founding AIA, Mr. Carter was the Founder and Chairman of Electronic Investing Corporation (“EIC”). Mr. Carter led EIC from inception through its July 2000 acquisition by E*TRADE Group. Prior to founding EIC, Mr. Carter worked as an institutional equity salesman and securities analyst for firms including Feshbach Brothers, Prudential Securities, and Robertson Stephens & Co. Mr. Carter received a BA in Economics from the University of Arizona.

Mark Wehrman, is the Director of Business Development for AlphaShares. Prior to joining AlphaShares, Mr. Wehrman was with Renaissance Institutional Management, a $30B New York based quantitative investment management firm, working as part of the institutional marketing team. Prior to Renaissance Technologies, Mr. Wehrman worked as part of a west coast based fundamental long/short hedge fund in San Francisco, focused primary on small and mid capitalization companies. Mr. Wehrman began his career at Bear Stearns & Co. providing equity research coverage and equity capital market offerings to west coast institutional and hedge fund accounts. Mark holds a BA from California Polytechnic State University, San Luis Obispo and holds NASD Series 7 & 63 licenses.

Mike Lin is a Research Analyst for AlphaShares. Prior to joining AlphaShares Mr. Lin worked at Nicholas Applegate Capital Management, a subsidiary of Allianz Global Investors, as an Equity Research Analyst. Mr. Lin holds an MBA from the Massachusetts Institute of Technology and a BS in Computer Science from the University of Texas at Dallas.
Contact

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