Rebalancing the World - Determining Appropriate Allocations in a Dynamic Equity Landscape

Michael A. Vardas, CFA
Managing Director
Quantitative Management and Capital Markets
I. Perspective on 2008’s market meltdown and its impact on global equities

II. Does the case for international equities still stand?

III. Emerging markets – revisiting the investment thesis
   a. Structural reforms
   b. Global significance
   c. Graduation of countries

IV. Completing the investment universe – international small cap and frontier markets

V. The rebalancing decision facing all investors
   a. Globalization and the imperative to evolve asset allocation
   b. Expansion of investment choices and the benefits of an integrated approach
   c. Rebalancing decision and implementation

VI. Potential positioning for the new post-crash world of 2009 and beyond
I. Perspective on 2008’s market meltdown and its impact on global equities
A Global Equity Market Crash - and Its Implications

- U.S. financial crisis spreads globally
- Dramatic decline in all global markets
- Unprecedented volatility
- Globally coordinated policy response
- Significant currency impact

Continued economic turbulence and earnings disappointment has dashed hopes for a “solid bottom” in most markets
Few Places to Hide – Asset Class Returns

2008 Total Returns by Asset Class – %

Source: Bloomberg, Northern Trust Performance
Past performance is not indicative of future results. Please see important information about performance following this presentation.
Global Equity Market Performance - 2008

Q1 & Q2 2008
-11.76
-11.91
-9.76

Q3
-26.95
-20.67

Q4
-27.60
-21.94
-21.15

YTD (12/31/2008)
-53.33
-43.56
-37.00

Emerging Markets | S&P 500 | World x-US

Source: Factset, MSCI
Past performance is not indicative of future results. Please see important information about performance following this presentation.
**Long-Term Performance**

**Monthly Cumulative Returns**

- **S&P 500**
- **MSCI EAFE**
- **MSCI Emerging Markets**

Source: NTGI, MSCI, Standard & Poor’s, December 2008

Past performance is not indicative of future results. Please see important information about performance following this presentation.
## Currency Effect

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EAFE Local</strong></td>
<td>-14.95</td>
<td>-0.88</td>
<td>-13.02</td>
<td>-18.54</td>
<td>-40.27</td>
</tr>
<tr>
<td><strong>EAFE $U.S.$$</strong></td>
<td>-8.91</td>
<td>-2.25</td>
<td>-20.56</td>
<td>-19.95</td>
<td>-43.38</td>
</tr>
<tr>
<td><strong>Difference</strong></td>
<td>6.05</td>
<td>-1.37</td>
<td><strong>-7.54</strong></td>
<td>-1.41</td>
<td><strong>-3.11</strong></td>
</tr>
<tr>
<td><strong>Emerging Markets Local</strong></td>
<td>-11.01</td>
<td>-1.56</td>
<td>-20.87</td>
<td>-21.99</td>
<td>-45.92</td>
</tr>
<tr>
<td><strong>Emerging Markets $U.S.$$</strong></td>
<td>-10.99</td>
<td>-0.86</td>
<td>-26.95</td>
<td>-27.60</td>
<td>-53.33</td>
</tr>
<tr>
<td><strong>Difference</strong></td>
<td><strong>0.01</strong></td>
<td>0.70</td>
<td><strong>-6.08</strong></td>
<td>-5.61</td>
<td><strong>-7.41</strong></td>
</tr>
</tbody>
</table>

- Flight to safety (to U.S.$ and Japanese Yen)
- Shift from tailwind to headwind
- Sustainable trend?

Source: Factset, MSCI
In 2007 emerging markets represented 11.32% of the world; today they are 8.75% (still higher than 1999 peak at 5%)

U.S. is 46% of global market cap

Source: Factset, MSCI
II. Does the case for international equities still stand?
International Markets - Does The Case Still Stand?

- Diversification and correlations
  - Short-term
  - Long-term
- Currency factors
- Relative valuations
Correlations rose dramatically during recent crisis... just as they did in previous crises (1998, 2000 / 2001)

Short-Term Correlations – December 2007-December 2008

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSCI EAFE</td>
<td>0.90</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSCI Emerging Markets</td>
<td>0.85</td>
<td>0.97</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developed International Small Cap</td>
<td>0.86</td>
<td>0.98</td>
<td>0.96</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Emerging Markets Small Cap</td>
<td>0.84</td>
<td>0.97</td>
<td>0.99</td>
<td>0.96</td>
<td>1.00</td>
</tr>
<tr>
<td>S&amp;P IFCG Frontier</td>
<td>0.77</td>
<td>0.78</td>
<td>0.82</td>
<td>0.78</td>
<td>0.82</td>
</tr>
</tbody>
</table>

*As of November 2008, the S&P Frontier Index refers to the S&P Frontier BMI Index

Long-Term Correlations – January 2000-December 2007

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSCI EAFE</td>
<td>0.83</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSCI Emerging Markets</td>
<td>0.73</td>
<td>0.81</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developed International Small Cap</td>
<td>0.74</td>
<td>0.94</td>
<td>0.84</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Emerging Markets Small Cap</td>
<td>0.62</td>
<td>0.71</td>
<td>0.94</td>
<td>0.77</td>
<td>1.00</td>
</tr>
<tr>
<td>S&amp;P IFCG Frontier</td>
<td>0.30</td>
<td>0.53</td>
<td>0.50</td>
<td>0.56</td>
<td>0.55</td>
</tr>
</tbody>
</table>

Source: Factset, MSCI, Standard & Poor’s
Dollar weakness has provided ‘tailwind’ for international equities since 2001

- Developed economy currencies
- Emerging market currencies

**MSCI Currency Time Series**

MSCI Exchange Rate - Monthly

- Australian Dollar per U.S. Dollar
- Japanese Yen per U.S. Dollar
- Euro per U.S. Dollar
- U.S. Dollar per U.S. Dollar

Source: Factset
Impact of Global Crash on Valuations

- Record market declines have created “record low valuations”
- Economic and business conditions have deteriorated sharply
- “Cheap” stocks might become cheaper
- Investors with a true long-term perspective should not be deterred from evolving their allocations and rebalancing to their targets
III. Emerging markets - revisiting the investment thesis
Emerging markets did not escape the wrath of the global financial crisis.

2008 decline was a loss of 60% at its low.

However, emerging markets today are very different than they were in previous crises.
# Emerging Market Regional / Country Performance

<table>
<thead>
<tr>
<th>Region</th>
<th>Weight</th>
<th>QTD</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asia</strong></td>
<td>55.70</td>
<td>-21.52</td>
<td>-52.96</td>
</tr>
<tr>
<td>China</td>
<td>18.18</td>
<td>-10.75</td>
<td>-50.83</td>
</tr>
<tr>
<td>Korea</td>
<td>13.62</td>
<td>-26.49</td>
<td>-55.29</td>
</tr>
<tr>
<td>Taiwan</td>
<td>10.88</td>
<td>-23.84</td>
<td>-46.45</td>
</tr>
<tr>
<td>India</td>
<td>6.52</td>
<td>-29.91</td>
<td>-64.63</td>
</tr>
<tr>
<td>Malaysia -EM</td>
<td>3.05</td>
<td>-13.16</td>
<td>-41.21</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1.49</td>
<td>-33.69</td>
<td>-56.48</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.50</td>
<td>-25.70</td>
<td>-52.55</td>
</tr>
<tr>
<td>Pakistan</td>
<td>0.09</td>
<td>-50.42</td>
<td>-74.18</td>
</tr>
<tr>
<td><strong>Latin America</strong></td>
<td>20.99</td>
<td>-34.07</td>
<td>-51.41</td>
</tr>
<tr>
<td>Brazil</td>
<td>12.93</td>
<td>-37.28</td>
<td>-56.21</td>
</tr>
<tr>
<td>Mexico</td>
<td>5.23</td>
<td>-30.02</td>
<td>-42.94</td>
</tr>
<tr>
<td>Chile</td>
<td>1.39</td>
<td>-25.87</td>
<td>-35.79</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.63</td>
<td>-17.63</td>
<td>-25.10</td>
</tr>
<tr>
<td>Peru</td>
<td>0.67</td>
<td>-15.52</td>
<td>-40.20</td>
</tr>
<tr>
<td>Argentina</td>
<td>0.14</td>
<td>-43.83</td>
<td>-54.45</td>
</tr>
<tr>
<td><strong>Europe, Middle East &amp; Africa</strong></td>
<td>23.31</td>
<td>-33.77</td>
<td>-55.71</td>
</tr>
<tr>
<td>Russia</td>
<td>5.68</td>
<td>-51.30</td>
<td>-73.88</td>
</tr>
<tr>
<td>South Africa</td>
<td>8.40</td>
<td>-16.30</td>
<td>-37.89</td>
</tr>
<tr>
<td>Israel</td>
<td>3.40</td>
<td>-21.35</td>
<td>-29.26</td>
</tr>
<tr>
<td>Poland</td>
<td>1.63</td>
<td>-39.09</td>
<td>-54.82</td>
</tr>
<tr>
<td>Turkey</td>
<td>1.50</td>
<td>-37.44</td>
<td>-62.29</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.90</td>
<td>-31.24</td>
<td>-43.10</td>
</tr>
<tr>
<td>Egypt</td>
<td>0.68</td>
<td>-32.18</td>
<td>-52.35</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.61</td>
<td>-46.67</td>
<td>-61.53</td>
</tr>
<tr>
<td>Morocco</td>
<td>0.51</td>
<td>-12.82</td>
<td>-11.08</td>
</tr>
</tbody>
</table>

Source: FactSet, MSCI; 12/31/08
Past performance is not indicative of future results. Please see important information about performance following this presentation.
Since the last EM crisis there has been substantial micro- and macro-economic advances...

- Structural reforms in emerging markets have provided a more stable investing environment
  - Foreign exchange-denominated debt reduction from 90% of GDP to 10% (EM aggregate)
  - Increase in foreign exchange reserves to 70%
  - Improved fiscal balances
    - Improved fiscal position flexible monetary and fiscal response to economic shocks
  - Greater transparency at both the government and corporate level as emerging market countries move to U.S. GAAP or European IAC standards

- Big improvements in “big emerging markets”
  - Reduced systemic risk – minimized “contagion effect” despite market panic
  - Sovereign ratings upgrades in Brazil, China and India
  - Brazil was rated as investment grade for the first time by S&P in April 2008
  - Some economic decoupling (not reflected in markets)
    - Half of China’s exports now go to other emerging markets
    - Emerging markets export more to China than the United States

Macro appeal of emerging markets remain, despite higher short-term correlations with developed markets

Source: Datastream, Standard & Poor’s, Credit Suisse research
Emerging markets include many global industry leaders

- **Petrobras**
  Energy (Brazil) – Recently discovered largest new oil reserve in the world

- **Samsung**
  Electronics (Korea) – World’s top producer of DRAMS

- **Embraer**
  Aviation (Brazil) – Third-largest aircraft company in the world

- **Cemex**
  Cement (Mexico) – Third-largest cement company, major player in U.S. market

- **Haier**
  Home appliances (China) – Fourth-largest home appliance manufacturer in the world

- **Taiwan**
  Semiconductor (Taiwan) – Major supplier to all major computer manufacturers

- **Teva**
  Generic Drugs (Israel) – Largest generic drug manufacturer

- **Infosys**
  Software and outsourcing (India) – Global outsourcing leader used by most multinational service companies

*Global footprint of key emerging market companies is too big to ignore*
In late 2007 emerging markets represented 11.32% of the world.

Today… they represent 8.75% – still higher than 1999 peak at 5%

Source: Factset, MSCI
Weight (%) of EM in ACWI

Source: Factset, MSCI
In a crisis, stock markets tend to become more correlated, but stocks should respond to economic strength in the long term.

There is a difference between short-term market correlations and long-term economic and stock market outperformance.

Although the U.S. and other developed economies are expected to contract in 2009, many emerging markets may continue to expand. China, India and Brazil are expected to grow at or above 3% this year.

Source: International Monetary Fund, Nov. 2008
The fastest growth in dividends paid from 2002-2007 was in developing countries, which now represent more than 10% of global dividend streams.

At current payout ratios, investors are likely to be well-compensated while awaiting potential return of growth.
Returns and Diversification Benefits

Long-Term Performance

- Emerging markets were outperforming until deleveraging accelerated and became global
  - EM +144% vs. developed world +13% (December 1999-August 2008)
- Will emerging markets need to underperform before they recover?

Monthly Cumulative Returns

Source: NTGI, MSCI, Standard & Poor’s, December 2008
Past performance is not indicative of future results. Please see important information about performance following this presentation.
## Current Market vs. Previous EM Bear Markets

<table>
<thead>
<tr>
<th>Market Peak</th>
<th>Market Bottom</th>
<th>Decline</th>
<th>Duration (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1990</td>
<td>November 1990</td>
<td>29%</td>
<td>4</td>
</tr>
<tr>
<td>September 1994</td>
<td>February 1995</td>
<td>25%</td>
<td>5</td>
</tr>
<tr>
<td>July 1997</td>
<td>August 1998</td>
<td>56%</td>
<td>13</td>
</tr>
<tr>
<td>October 2007</td>
<td>November 2008?</td>
<td>&gt;60%</td>
<td>13?</td>
</tr>
</tbody>
</table>

*Emerging markets may be better-positioned for a rebound today than after prior economic slowdowns but recovery is highly dependent on investors’ risk appetites*

Source: FactSet, MSCI
MSCI has completed a consultation process on its emerging and frontier classification methodologies

- Jordan was demoted to frontier status in November 2008
- Israel and Korea may be reclassified as developed from emerging (2009 or 2010)
- Kuwait, Qatar and UAE may be reclassified as emerging from frontier (2010 or 2011)
- Argentina may be demoted to frontier status (2009)

As emerging and frontier market countries develop and mature, some may progress to developed and emerging status, benefiting investors in an integrated international strategy which includes emerging and frontier markets.
IV. Completing the investment universe - international small cap & frontier markets
Redefining the International Market Structure

Potential to increase portfolio diversification via a broader and deeper definition of market structure associated with non-US stocks, simply by structuring international equity benchmarks the way U.S. equity benchmarks are structured.

Non-U.S. Market Capitalization by Region

International Dev Large Cap 70%

Dev Small Cap
- AEGIS Group
- Benetton
- Rothmans
- Clariant
- Telenet
- GEOX
- Hyundai
- Yokohama Tire

All Cap Emerging Markets
- Samsung
- CNOOC
- Embraer
- TEVA
- CEMEX
- Gazprom
- Endesa
- China Mobile

Frontier Markets
- Mobile Telecom
- New Mauritius Hotels
- Kazkommertsbank
- Platinum Bank
- KRKA Pharmaceuticals
- Dangote Sugar Refinery

Other 30%

Source: NTGI, S&P, MSCI, FTSE
- Traditional international allocations focus on developed international markets.
- The evolution of global benchmarks highlights the logic of a dedicated allocation to small-capitalization equities (both developed & emerging).
Developed international small cap, emerging markets (both large & small cap) and frontier markets have provided attractive diversification.
The correlation between the S&P 500 and MSCI EAFE has increased over time. (Correlation between MSCI EAFE and the S&P 500 was 54% for the 1990-2000 time period.)

International sub-asset classes continue to provide diversification benefits

- Developed international small cap
- Emerging market small cap
- Frontier markets

**Correlations between January 2000 and December 2008***

<table>
<thead>
<tr>
<th></th>
<th>S&amp;P 500</th>
<th>MSCI EAFE</th>
<th>MSCI Emerging Markets</th>
<th>Developed International Small Cap</th>
<th>Emerging Markets Small Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSCI EAFE</td>
<td>0.86</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSCI Emerging Markets</td>
<td>0.77</td>
<td>0.87</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developed International Small Cap</td>
<td>0.78</td>
<td>0.95</td>
<td>0.89</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Emerging Markets Small Cap</td>
<td>0.70</td>
<td>0.81</td>
<td>0.96</td>
<td>0.85</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: Factset, MSCI

*The correlation between the frontier markets and S&P 500 was 56% for the January 2005 to December 2008 time period.
Why allocate to these sub-asset classes?

- Lower correlation historically has led to lower portfolio risk
- Asset owner controls allocation, not active manager
- International small-cap companies tend to be less global than their larger counterparts
- Emerging markets: investing in higher growth economies
- Frontier markets: even lower correlations, with substantial growth potential
What Are Frontier Markets?

There is no single strict definition of a frontier market. Generally, they are developing economies with underdeveloped equity markets.

<table>
<thead>
<tr>
<th></th>
<th>GNI per Capita</th>
<th>% of World Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Markets</td>
<td>$40,986.52</td>
<td>16.38%</td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>$6,754.78</td>
<td>71.17%</td>
</tr>
<tr>
<td>Frontier Markets</td>
<td>$7,763.43</td>
<td>12.45%</td>
</tr>
</tbody>
</table>

*See Footnote 1

The “Frontier” Countries

<table>
<thead>
<tr>
<th>Europe</th>
<th>Africa</th>
<th>Middle East</th>
<th>Asia</th>
<th>Americas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>Botswana</td>
<td>Bahrain</td>
<td>Bangladesh</td>
<td>Colombia</td>
</tr>
<tr>
<td>Croatia</td>
<td>Ghana</td>
<td>Jordan</td>
<td>Cambodia</td>
<td>Ecuador</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Ivory Coast</td>
<td>Kuwait</td>
<td>Pakistan</td>
<td>Jamaica</td>
</tr>
<tr>
<td>Estonia</td>
<td>Kenya</td>
<td>Lebanon</td>
<td>Sri Lanka</td>
<td>Panama</td>
</tr>
<tr>
<td>Georgia</td>
<td>Mauritius</td>
<td>Oman</td>
<td>Vietnam</td>
<td>Trinidad and Tobago</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Namibia</td>
<td>Qatar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>Nigeria</td>
<td>UAE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithuania</td>
<td>Tunisia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Romania</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slovak Republic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slovenia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ukraine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*See Footnote 2

1. Source: World Bank
   Developed Markets are defined as MSCI EAFE + Canada + US; Emerging Markets are defined as MSCI EM, excluding Taiwan; Frontier Markets include those countries included in the MSCI Frontier Index, the S&P Frontier Index, the S&P Select Frontier Index and the S&P Extended Frontier 150 Index and excludes those countries also classified as “Emerging Markets.”
   GNI per Capita is for 2007 except Bahrain (2005), Kuwait (2005), Oman (2004), and UAE (2005). Qatar is excluded from the GNI per Capita calculation.
   Population is for 2007
2. Includes those countries included in the MSCI Frontier Index, the S&P Frontier Index, the S&P Select Frontier Index and the S&P Extended Frontier 150 Index
Frontier markets have experienced strong growth in the last few years, significantly outpacing both developed and emerging markets.

### Average GDP Growth Rate

<table>
<thead>
<tr>
<th>Market Type</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Markets</td>
<td>3.40%</td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>6.12%</td>
</tr>
<tr>
<td>Frontier Markets</td>
<td>6.70%</td>
</tr>
</tbody>
</table>

*Source: World Bank and CIA World Factbook, Developed Markets are defined as MSCI EAFE + Canada + US, Emerging Markets are defined as MSCI EM, excluding Taiwan and Serbia. Frontier Markets include those countries included in the MSCI Frontier Index, the S&P Frontier Index and the S&P Extended Frontier 150 Index and excludes those countries also classified as Emerging Markets. GDP Growth Rate is for 2007 except Bahrain (2005), Kuwait (2005), Oman (2005), Qatar (2005) and UAE (2005). Population Growth Rates are 2008 estimates.*
Despite strong growth, frontier market economies remain very small compared to developed and more advanced emerging market countries, leaving room for steady “equitization” of their economies.

Median Stock Market Capitalization as % of GDP

Source: World Bank
Developed Markets are defined as MSCI EAFE+Canada+US
Emerging Markets are defined as MSCI EM, excluding Taiwan
Frontier Markets include those countries included in the MSCI Frontier Index, the S&P Frontier Index and the S&P Extended Frontier 150 Index.
What critical issues exist for investors in frontier markets?

- Diversification and investability of benchmarks
- Operational risks
- Regulatory / market risks
- Transaction costs
V. The rebalancing decision facing investors
Globalization and the Imperative to Evolve Asset Allocation

- The American “consumption basket” is increasingly global
- “Foreign” footprint in U.S. economy continues to grow
- Innovation is global

Why would investors want to underweight half the world’s equities?
Expansion of Investment Choices...

- Asset owners are beginning to evaluate their international portfolios in a similar way as their U.S. portfolios.
- Changes to global benchmarks now make it easier to measure the *complete* international opportunity set.
- U.S. asset owners are evolving and adding additional “sub-asset” classes to their portfolios.
NTGI’s response to growing demand for global / international strategies:
- Total Global Equity Index Fund
- MSCI All Country World ex-US Investable Market Index (IMI) Fund
- Developed International Small Cap Fund
- Emerging Market Small Cap Fund
- NTGI frontier market strategy

Substantial client flows to international and global equities

An ‘integrated international’ approach is optimal
NTG1 “Roadmap” to a Holistic International Allocation

Global Equity

- US Large / Mid Cap
- US Small Cap
- Canada Large / Mid Cap
- MSCI EAFE Large / Mid Cap
- Emerging Markets Large / Mid Cap
- International Developed Small Cap
- Emerging Markets Small Cap
- Frontier Markets
Implementation of Rebalancing

What needs to be done?

- Review / analysis of asset class benchmarks and sub-asset categories
- Strategic allocation review
- Rebalance to new allocations
VI. Potential positioning for the new post-crash world of 2009 and beyond
Global equity market crash does not invalidate the case for international diversification

Current environment presents an opportunity to evolve equity allocations to better align portfolios with the global economy

Institutional clients invest with a long-term horizon ideal for exposure to the complete global equity universe
NOT A SOLICITATION. No information provided herein shall constitute, or be construed as, an offer to sell or a solicitation of an offer to acquire any security, investment product or service, nor shall any such security, product or service be offered or sold in any jurisdiction where such offer or solicitation is prohibited by law or regulation. This material is provided for informational purposes only and does not constitute a recommendation of any investment strategy or product described herein.

This material is directed to eligible counterparties and professional clients only and should not be relied upon by retail investors. The information in this report has been obtained from sources believed to be reliable, but its accuracy and completeness are not guaranteed. Opinions expressed are current as of the date appearing in this material only and are subject to change without notice. All rights reserved.

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS. Performance returns reflect the reinvestment of dividends and other earnings, but do not reflect the deduction of investment advisory fees which would reduce the total return amount.

Returns for periods greater than one year are annualized. Index performance returns do not reflect any management fees, transaction costs or expenses. It is not possible to invest directly in an index.

Foreign market securities may involve additional risks such as social, political and economic instability, reduced market liquidity and currency volatility.
**Michael A. Vardas, CFA**

Mike is the Managing Director of Northern Trust Quantitative Management and Capital Markets in Chicago. The Quantitative Management business comprises passive or index asset management mandates and has assets under management of $208 billion as of December 31, 2008.

Mike is also responsible for Northern Trust’s Capital Markets business which includes Global Securities Lending and Northern Trust Securities Incorporated (NTSI). Global Securities Lending has approximately $115 billion of securities out on loan and has trading offices in Chicago, London, Toronto and Hong Kong. NTSI provides brokerage services which include institutional execution services, transition management, soft dollar services, commission management, 10b5-1 plans and prime brokerage services.

Prior to joining Northern Trust in 1983, Mike was associated with the Chicago Board Options Exchange. He received his Masters of Management Degree from Northwestern University’s Kellogg Graduate Business School and a Bachelor of Business Administration Degree from Emory University. He also is a Chartered Financial Analyst and is a member of the Investment Analysts Society of Chicago and the Association for Investment Management and Research.
Thank you.

Michael A. Vardas, CFA
Managing Director
Quantitative Management and Capital Markets

© 2009 Northern Trust Corporation