WORLD OUT OF BALANCE
NAVIGATING GLOBAL RISKS TO SEIZE COMPETITIVE ADVANTAGE

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WITH A FOREWORD BY JÜRGEN HAMBRECHT, CHAIRMAN, BASF

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ATKEARNEY
Navigating Global Risks

Introduction to Scenario Planning
Overview of the Five Global Drivers
Scenarios & Wildcards
Navigating Global Risks
While the opportunities of globalization have grown

A.T. Kearney’s Globalization Index

Trade barriers are steadily on the decline

So have the risks

Terrorist incidents are increasingly common

Computer viruses cause more damage in less time
Successful companies must anticipate and manage change according to the key drivers of the global operating environment:

- Globalization
- Demographics
- Natural Resources & Environment
- Consumption Patterns
- Technology & Innovation
- Regulation & Activism
- Wildcards - Low probability, high impact, disruptive events
Example: globalization - is an integrated world at risk?


Growth in globalization, 1990-2003

Globalization Index, weighted

Source: A.T. Kearney Globalization Index, 2005
For each driver, we model the component parts

- **Globalization**
  - Economic Integration
  - Technological Connectivity
  - Personal Contact
  - Political Engagement

- **Demographics**
  - Population Growth
  - Age Dependency Ratio
  - Gender Imbalances
  - Infectious disease

- **Consumption Patterns**
  - Size of the overall consumer market
  - Income distribution & the middle class
  - Local tastes
  - Consumption trends

- **Regulation & Activism**
  - Government liberalization
  - Corporate image
  - Stakeholder activism
  - Corporate social responsibility

- **Natural Resources & the Environment**
  - Resource Scarcity (oil, water)
  - Energy Dependence
  - Environmental Degradation
Scenarios are built from the ground up

**Driver:** Globalization

**Indicators:**
- Economic Integration
- Political Integration
- Social Networking
- Technology Gap

**Sub-Scenarios:**
- “National Guard”
- “Near Abroad”
- “Davos Man”
Macro-Scenarios are developed from a combination of sub-scenarios and span the continuum of future possibilities.

Generate Scenarios

- **Macro Drivers**
  - Globalization
  - Demographics

- **Indicators**
  - Economic Integration
  - Political Integration
  - Social Networking
  - Technology Gap
  - Growth and Distribution
  - Wealth Accumulation

- **Sub-Scenarios**
  - Continued Gap
  - Slow Integration
  - One Europe
  - Street War
  - Guarded Acceptance
  - Home, Sweet Home

- **Scenarios**
  1. "Regional Polarity"
  2.

Management Uses Scenarios as Guidelines

- Prepare risk and action plans for the different scenarios
- Observe drivers and other “road signs” along the way
- Adopt scenarios and plans to changes in the environment
- Restructure business to changing environment
“Powerfully imagined and rigorously researched...scenarios are an indispensable guide to decision-making in an environment of new risks & opportunities”*

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Full-Spectrum Scenarios for the World in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Castles and Moats</td>
</tr>
<tr>
<td>Globalization</td>
<td>National Guard: perceived external threats to security fuel nationalism</td>
</tr>
<tr>
<td>Demographics</td>
<td>Urban Time Bomb: young, poor populations combust while aging hits West</td>
</tr>
<tr>
<td>Consumption Patterns</td>
<td>Discount Warehouse: weak growth restrains middle class size in emerging countries</td>
</tr>
<tr>
<td>Natural Resources &amp; Environment</td>
<td>Toxic Shock: resource competition and regional conflicts</td>
</tr>
<tr>
<td>Regulation &amp; Activism</td>
<td>New Dirigisme: populist governments and militant activists</td>
</tr>
</tbody>
</table>

* John Gray, School Professor of European Thought, London School of Economics
Navigating Global Risks
Scenarios & Wildcards
Overview of the Five Global Drivers

- Globalization
- Demographics
- Consumption Patterns
- Natural Resources & the Environment
- Activism & Regulation
Globalized countries tend to be rich, free and open

2005 Globalization Index Top 10

Singapore, Ireland, Switzerland, United States, Netherlands, Canada, Denmark, Sweden, Austria, Finland

2005 Globalization Index Bottom 10

Peru, China, Venezuela, RB, Turkey, Brazil, Bangladesh, Egypt, Arab Rep., Indonesia, India, Iran

Source: A.T. Kearney Globalization Index 2005
The developing world will comprise virtually all future population growth

Population trends in developed and developing countries (1750 - 2100)

Source: Population Reference Bureau, U.S. Census Bureau
Developing countries will be urban and young

Developing countries in 2020 show a youth explosion... while industrialized populations are aging rapidly

Age Groupings 2020

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>75+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60-74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-14</td>
<td></td>
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</tr>
</tbody>
</table>

Source: US Census Bureau
A convergence of forces is creating a new global market for talent.
Consumption Patterns

Middle class growth will be largely in the developing world

2000

2015

Consumption patterns are shifting

**Advanced Markets:**
*More Experiences*
- High-end, luxury goods
- Custom features and add-on’s
- Individualized leisure activities and entertainment options
- Travel and tourism
- Vacation homes
- Concern for health, longevity
- Growing ecological awareness

**Emerging Markets:**
*More Stuff*
- Status-oriented merchandise
- Electronics
- Consumer durables
- New vehicles
- Housing

Source: Dr. John Quelch
Local culture will also drive consumer preferences

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>English Canada</th>
<th>French Quebec</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
<td>Do it now</td>
<td>Wait</td>
<td>The past</td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td>Superman</td>
<td>Winter energy</td>
<td>Frustration</td>
</tr>
<tr>
<td><strong>Space</strong></td>
<td>The universe</td>
<td>The best place on earth</td>
<td>Shrinking or under siege</td>
</tr>
<tr>
<td><strong>The Logic of Emotion</strong></td>
<td>Life, liberty and the pursuit of happiness</td>
<td>Peace, order, and good government</td>
<td>Je me souviens or a sense of remembrance</td>
</tr>
<tr>
<td><strong>The Body</strong></td>
<td>A machine</td>
<td>An inconvenience</td>
<td>For pleasure</td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td>A machine</td>
<td>Maintenance</td>
<td>Enjoyment</td>
</tr>
<tr>
<td><strong>Eating</strong></td>
<td>Fill up the tank</td>
<td>Keep life going</td>
<td>An orgy</td>
</tr>
</tbody>
</table>

Source: Dr. G. Clotaire Rapaille, Archetype Discoveries
Four key factors will drive future energy markets

Politics
- Development of situation in Iraq
- Central Asian regime stability
- OPEC cohesiveness

Technology
- Extractive technology
- New efficiencies
- Alternative energy technology

Economics
- Consolidation of oil markets and firms
- Asian economic development
- Central Asian macroeconomic stability

Environment
- Degree of observable climate change
- Availability of natural resources
The future will be increasingly characterized by concerns over water scarcity and water stress.

**2000 Water Availability**

- **Sufficiency**: 92%
- **Stress**: 5%
- **Scarcity**: 3%

**2050 Water Availability**

- **Sufficiency**: 58%
- **Stress**: 24%
- **Scarcity**: 18%

Sources: CGIAR = consultative group on international agricultural research & IWMI = international water management institute
The reality of global climate change is now universally acknowledged.

**Temperature Change, °C**

Sources: Scientific American, NASA
Complex regulatory issues challenge constrained governments...

**Issues at the frontier**

- Digital technology & privacy issues
- E-commerce
- Biotechnology
- Stem cell research and human cloning
- Genetic testing raises medical privacy concerns

**U.S. Government “Brain Drain”**

- Public Sector Retirement Eligibility, 2005

- Nearly half the senior executives in the US government may soon depart

Source: Council on Excellence in Government
...while empowered activists challenge corporate behavior

Transnational networking
- Low cost of global transportation and communication
- Decentralized organizations disseminate information rapidly and efficiently

Brand “boomerang” tactics

Brand editing
- Profusion of brand names and identities allows activist groups to educate and instigate consumers
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Each scenario has its own set of implications

**Implications under Open Borders, Lingering Fears**

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<tr>
<td>Globalization</td>
<td>Rise of localization</td>
</tr>
<tr>
<td>Demographics</td>
<td>Restless masses</td>
</tr>
<tr>
<td>Consumption Patterns</td>
<td>Rice and beans</td>
</tr>
<tr>
<td>Natural Resources &amp; Environment</td>
<td>Constrained energy</td>
</tr>
<tr>
<td>Regulation &amp; Activism</td>
<td>Big Brother is watching</td>
</tr>
</tbody>
</table>

- The US and China are the dominant economic and political players on the world scene
- Increased trade and investment openness boost international business activity and technological innovation, but several thorny regulatory and governance issues remain.
- Rising affluence of consumers, with growing middle class in emerging markets
- Industrialized countries become more open to immigrant workers due to aging workforce
Insights derived from the scenarios can be quantified and driven down to the level of geographic markets and key customer industries.

China will have the highest growth in the future, but Europe and North America will continue to have the most important markets by size.

The company’s existing customer industries are expected to grow only moderately over the coming decade.

Company portfolio share vs. industrial customer growth:

- Optimistic scenario
- Pessimistic scenario

Note: For 2001, new GDP growth is for the previous 10 years. Russia’s growth was negative -3.0.

Source: IMF, World Bank, EIU.
“Wildcards” must also be considered

Wild cards are low-probability, extremely high-impact events that:

(1) directly affect the human condition;
(2) are potentially disruptive (negatively or positively);
(3) are intrinsically beyond the control of any institution, group or individual;
(4) are rapidly moving

Source: The Arlington Institute, A.T. Kearney Analysis
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In this rapidly changing business world, corporations face an increasingly complex risk environment.

**Greatest risks impacting FDI decisions, 2004**

- Government regulation/legal decisions: 64%
- Country financial risk: 60%
- Currency/interest rate volatility: 51%
- Political & social disturbances: 46%
- Corporate governance issues: 30%
- Absence of rule of law: 29%
- Theft of intellectual property: 28%
- Terrorist attacks: 26%
- Security threats to employees/assets: 26%
- Disruption of key supplier/customer/partner: 23%
- Product quality/safety problems: 20%
- IT disruption: 19%
- Employee fraud/sabotage: 10%
- Natural disasters: 6%
- Activist attacks on global/corporate brands: 5%

*Source: A.T. Kearney Foreign Direct Confidence Index*
S&P 500 Directors fear they are unable to properly assess emerging global risks and opportunities

Percent S&P 500 Directors Rating Board as “Very Effective”

- Probing Problems: 49%
- Monitoring Financials: 43%
- Leadership Development: 24%
- Guiding Strategy: 21%
- Monitoring Risks: 16%
- Performance Warnings: 15%

Source: A.T. Kearney Analysis
Lack of appropriate tools and objective information are seen as the biggest impediments to effective strategy and risk monitoring.

What are the impediments to monitoring business performance? (% of directors ranking in top 3)

Directors do not have enough time: 17%
Insufficient operating mgmt. discussions: 19%
Board Culture: 21%
Amount and type of company information: 23%
Lack of tools/processes providing early warning signs: 41%

Regular, independent, third-party reviews of governance practices:

Should Have:
- Yes: 55%
- No: 45%
- N/A: 1%

Do Have:
- Yes: 24%
- No: 75%
- N/A: 1%

Source: A.T. Kearney Analysis
Managing risk requires five key steps

1. Prioritize earnings drivers
2. Identify critical infrastructure
3. Locate vulnerabilities
4. Develop responses
5. Monitor the risk environment

Examples
- Intellectual Property
- Delivery & Logistics
- Raw Materials & Inventory
- Personnel & Customer Support
- IT & Telecom Systems
- Manufacturing, Plant & Equipment

Risk responses

<table>
<thead>
<tr>
<th>Key Characteristics</th>
<th>Not considered</th>
<th>On “to do” list</th>
<th>Implementing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Redundant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborative</td>
<td></td>
<td></td>
<td></td>
</tr>
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Illustrative

Key Port/Node

Flow of Goods
A risk/response matrix should be agreed upon to define the responses required at each level of risk

<table>
<thead>
<tr>
<th>Risk Level*</th>
<th>Profitability Impact</th>
<th>Action Required</th>
<th>Accountability / Report Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severe</strong></td>
<td>High</td>
<td>- Operations in affected country to be stopped immediately</td>
<td>- CEO and Executive Team</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td>High</td>
<td>- Action plan for diverting operations to be created within 1 month</td>
<td>- CPO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Legal, Financial Departments</td>
</tr>
<tr>
<td><strong>Elevated</strong></td>
<td>Moderate</td>
<td>- Explicit risk mitigation/diversification strategy to be created within 1 month</td>
<td>- Procurement and Supply Chain leadership team</td>
</tr>
<tr>
<td><strong>Guarded</strong></td>
<td>Moderate</td>
<td>- Report on key risks to be submitted; validation of current strategy</td>
<td>- Regional Sourcing Managers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Category Managers</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>Moderate</td>
<td>- Regular risk monitoring</td>
<td>- Risk audit core team</td>
</tr>
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</table>

* Sample gradations; additional complexity can be incorporated in model, including probabilistic distribution, variability in risk assessment, etc.