Armenian Competitiveness: Towards a Strategy for Economic Development

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This presentation draws on ideas from Professor Porter’s books and articles, in particular, “Building the Microeconomic Foundations of Prosperity,” in The Global Competitiveness Report 2004-05 (World Economic Forum, 2004); “Clusters and the New Competitive Agenda for Companies and Governments,” in On Competition (Harvard Business School Press, 1998). No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without the permission of Michael E. Porter.

Additional information may be found at the website of the Institute for Strategy and Competitiveness, www.isc.hbs.edu
Armenia's Economic Performance

- Solid recent economic growth, above that of many CIS peers, has significantly raised prosperity.
- Growth has been driven by a combination of policy reforms, a favorable external environment, and the availability of unusual production capacity after the Russian crisis.
- Despite the recent growth, Armenian prosperity is still below the 1991 level.
- Armenia is moving in the right direction but there are serious concerns whether progress is fast enough to reduce emigration and support sustainable growth in prosperity.
- Armenia also faces a significant strategic challenge in deciding where and how it can be competitive given the constraints of its problematic relations with neighbors.
Comparative Economic Performance
Real GDP Growth Rates

Countries sorted by 1998-2003 annual real GDP growth rate (CAGR)

Comparative Economic Performance
Level of Real GDP

Level of real GDP, 1990 = 100

Source: EIU (2004), author’s calculations
Armenia’s Competitiveness

- Foundations of Competitiveness
- Assessing Armenia's Current Position
- Armenia’s Competitiveness Agenda
Defining the Right Goal

Reduce Poverty

Increase sustainable jobs, income, and wealth that is widely distributed

Competitiveness
What is Competitiveness?

• The competitiveness of a nation or region is determined by the **productivity** *(value per unit of input)* with which it utilizes its human, capital, and natural resources. Productivity sets a nation’s or region’s standard of living (wages, returns on capital, returns on natural resources)
  – Productivity depends both on the **value** of products and services (e.g. uniqueness, quality) as well as the **efficiency** with which they are produced
  – It is not **what** industries a nation or region competes in that matters for prosperity, but **how** firms compete in those industries
  – Productivity in a nation or region is a reflection of what both domestic and foreign firms **choose to do in that location**. The location of ownership is secondary for national prosperity
  – The productivity of “**local**” or domestic industries is of fundamental importance to productivity and competitiveness, not just that of traded industries
  – Devaluation and revaluation do **not** make a country fundamentally more or less competitive

• Nations or regions compete in offering the **most productive environment** for business
• The public and private sectors play **different but interrelated roles** in creating a productive economy
A sound macroeconomic, political, legal, and social context creates the potential for competitiveness, **but is not sufficient**
Integrating Economic and Social Policy

• There is a **synergy** between economic and social objectives

• The **competitiveness of companies** depends heavily on
  – Rising skill levels
  – Safe working conditions
  – A sense of equal opportunity
  – Low levels of pollution (pollution is a sign of unproductive use of physical resources)

• Efforts to meet social objectives must be **aligned with productivity** and equip citizens to **succeed in the market system**

• Efforts to improve social conditions must take place **in parallel** to economic reform
Integrating Economic and Social Policy

Examples

**Training**
- Organize training investments around clusters

**Housing**
- Create mechanisms to encourage home ownership; provide incentives for new company formation in the construction cluster; reduce unnecessary costs of housing construction due to regulatory and admission delays; secure property rights to residents

**Health Care**
- Create incentives for private insurance; open health care delivery to competition

**Social Security**
- Establish a private pension system. Link welfare payments with training and incentives to return to the workforce

**Environmental Quality**
- Institute a regulatory regime that encourages environmental stewardship; invest in technical assistance in eco-efficient processes and practices
Productivity and the Business Environment

Context for Firm Strategy and Rivalry

- A local context and rules that encourage investment and sustained upgrading
  - e.g., Intellectual property protection, property rights
- Meritocratic incentive systems across all major institutions
- Open and vigorous local competition

Related and Supporting Industries

- Access to capable, locally based suppliers and firms in related fields
- Presence of clusters instead of isolated industries

Demand Conditions

- Sophisticated and demanding local customer(s)
- Local customer needs that anticipate those elsewhere
- Unusual local demand in specialized segments that can be served nationally and globally

Factor (Input) Conditions

- Presence of high quality, specialized inputs available to firms
  - Human resources
  - Capital resources
  - Physical infrastructure
  - Administrative infrastructure (e.g. business registration, permitting licenses)
  - Information infrastructure
  - Scientific and technological infrastructure
  - Natural resources

Successful economic development is a process of successive economic upgrading, in which the business environment in a nation evolves to support and encourage increasingly sophisticated ways of competing.
Clusters and Competitiveness
Cairns Tourism

- Public Relations & Market Research Services
- Food Suppliers
- Property Services
- Maintenance Services
- Travel agents
- Tour operators
- Restaurants
- Attractions and Activities (e.g., theme parks, casinos, sports)
- Hotels
- Airlines, Cruise Ships
- Local retail, health care, and other services
- Local Transportation
- Souvenirs, Duty Free
- Banks, Foreign Exchange
- Government agencies (e.g., Australian Tourism Commission, Great Barrier Reef Authority)
- Educational Institutions (e.g., James Cook University, Cairns College of TAFE)
- Industry Groups (e.g., Queensland Tourism Industry Council)

Source: Research by HBS Student Team, 2003
Clusters and Competitiveness
California Wine

Sources: California Wine Institute, Internet search, California State Legislature. Based on research by MBA 1997 students R. Alexander, R. Arney, N. Black, E. Frost, and A. Shivananda.

Growers/Vineyards

State Government Agencies (e.g., Select Committee on Wine Production and Economy)

Winery/Processing Facilities

Grapestock

Fertilizer, Pesticides, Herbicides

Grape Harvesting Equipment

Irrigation Technology

California Agricultural Cluster

Educational, Research, & Trade Organizations (e.g., Wine Institute, UC Davis, Culinary Institutes)

Public Relations and Advertising

Specialized Publications (e.g., Wine Spectator, Trade Journal)

Winemaking Equipment

Barrels

Bottles

Caps and Corks

Labels

Tourism Cluster

Food Cluster
Leading Footwear Clusters

**Portugal**
- Production
- Focus on short-production runs in the medium price range

**Italy**
- Design, marketing, and production of premium shoes
- Export widely to the world market

**United States**
- Design and marketing
- Focus on specific market segments like sport and recreational shoes and boots
- Manufacturing only in selected lines such as hand-sewn casual shoes and boots

**Vietnam/Indonesia**
- OEM Production
- Focus on the low cost segment mainly for the European market

**Romania**
- Production subsidiaries of Italian companies
- Focus on lower to medium price range

**China**
- OEM Production
- Focus on low cost segment mainly for the US market

Source: Research by HBS student teams in 2002
### Institutions for Collaboration

#### Selected Massachusetts Organizations, Life Sciences

<table>
<thead>
<tr>
<th>Category</th>
<th>Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life Sciences Industry Associations</strong></td>
<td>- Massachusetts Biotechnology Council</td>
</tr>
<tr>
<td></td>
<td>- Massachusetts Medical Device Industry Council</td>
</tr>
<tr>
<td></td>
<td>- Massachusetts Hospital Association</td>
</tr>
<tr>
<td><strong>General Industry Associations</strong></td>
<td>- Associated Industries of Massachusetts</td>
</tr>
<tr>
<td></td>
<td>- Greater Boston Chamber of Commerce</td>
</tr>
<tr>
<td></td>
<td>- High Tech Council of Massachusetts</td>
</tr>
<tr>
<td><strong>Economic Development Initiatives</strong></td>
<td>- Massachusetts Technology Collaborative</td>
</tr>
<tr>
<td></td>
<td>- Mass Biomedical Initiatives</td>
</tr>
<tr>
<td></td>
<td>- Mass Development</td>
</tr>
<tr>
<td></td>
<td>- Massachusetts Alliance for Economic Development</td>
</tr>
<tr>
<td><strong>University Initiatives</strong></td>
<td>- Harvard Biomedical Community</td>
</tr>
<tr>
<td></td>
<td>- MIT Enterprise Forum</td>
</tr>
<tr>
<td></td>
<td>- Biotech Club at Harvard Medical School</td>
</tr>
<tr>
<td></td>
<td>- Technology Transfer offices</td>
</tr>
<tr>
<td><strong>Informal networks</strong></td>
<td>- Company alumni groups</td>
</tr>
<tr>
<td></td>
<td>- Venture capital community</td>
</tr>
<tr>
<td></td>
<td>- University alumni groups</td>
</tr>
<tr>
<td><strong>Joint Research Initiatives</strong></td>
<td>- New England Healthcare Institute</td>
</tr>
<tr>
<td></td>
<td>- Whitehead Institute For Biomedical Research</td>
</tr>
<tr>
<td></td>
<td>- Center for Integration of Medicine and Innovative Technology (CIMIT)</td>
</tr>
</tbody>
</table>
Sub-National Regions
Selected U.S. Metropolitan Areas

Note: Clusters listed are the three highest ranking clusters in terms of share of national employment
Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School
Competitiveness and Cross-National Regions

Traditional Views

• Regions as free trade zones; regions as economic unions (e.g., United States, European Union)

New View

• Regional economic integration to enhance competitiveness
  1. Expand internal trade and investment
  and
  2. Enhance the competitive capability of firms
  3. Improve the business environment through cross-country collaboration
  4. Encourage specialization and cluster development
  5. Increase inward foreign investment
  6. Improve the economic policy process
     – Motivate improvements at the national level
Competitiveness and Cross-National Regions
Illustrative Policy Areas

**Factor (Input) Conditions**
- Improve the regional transportation infrastructure
- Create an efficient energy network
- Integrate regional communications
- Link national financial markets
- Upgrade higher education through specialization and student exchanges
- Coordinate activities to ensure personal safety

**Context for Strategy and Rivalry**
- Coordinate macroeconomic policies
- Eliminate trade and investment barriers within the region
- Simplify and harmonize cross-border regulations and paperwork
- Guarantee minimum basic investor protections and dispute resolution mechanisms
- Agree on foreign investment promotion guidelines to limit forms of investment promotion that do not enhance productivity
- Develop a regional marketing strategy
- Enhance internal competition in the region

**Demand Conditions**
- Set minimum safety standards
- Establish reciprocal consumer protections
- Set minimum environmental standards

**Related and Supporting Industries**
- Establish ongoing upgrading process in clusters that cross national borders, e.g.
  - Tourism
  - Agribusiness
  - Textiles
  - Electronic assembly and software

**Regional Governance**
- Share best practices in government operations
- Improve regional institutions
  - regional development bank
  - dispute resolution procedures
Competitiveness in Central America
Logistical Corridor

- Roads
- Ports
- Airports
- Logistic Corridor
Shifting Responsibilities for Economic Development

**Old Model**

- **Government** drives economic development through policy decisions and incentives

**New Model**

- Economic development is a collaborative process involving government at multiple levels, companies, teaching and research institutions, and institutions for collaboration
Armenia’s Competitiveness

- Foundations of Competitiveness

- Assessing Armenia’s Current Position

- Armenia’s Competitiveness Agenda
Comparative Economic Performance
Selected Countries

Comparative Economic Performance
Selected Countries

Note: Unofficial remittances are estimated at about 20% of GFP, official remittances at 10% of GDP
Aid and Economic Growth

Official Development Assistance as a percent of GDP

Source: OECD; WDI; author’s calculations.

Tajikistan
Armenia
Georgia
Moldova
Albania
Azerbaijan
Bulgaria
Uzbekistan
Romania
Ukraine
Lithuania
Latvia
Turkmenistan
Slovak Republic
Slovenia
Croatia
Hungary
Poland
Czech Republic
Belarus

20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Armenia’s Export Performance
World Export Market Shares

Armenia’s Export Portfolio
Exports by Cluster, 1997-2002

Change in Armenia’s Total World Export Share: +0.0022%

Armenia’s Total World Export Share: 0.0073%

Armenia’s Export Portfolio, continued

Exports by Cluster, 1997-2002


Armenia’s Total World Export Share: 0.0073%
Change in Armenia’s Total World Export Share: +0.0022%

Exports of $50 million = 

-0.010% -0.005% 0.000% 0.005% 0.010% 0.015%
0.000% 0.005% 0.010% 0.015%

-0.010% -0.005% 0.000% 0.005% 0.010% 0.015%
Armenian Goods Exports
Leading Export Industries, 2002

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Diamonds excluding industrial</td>
<td>Jewelry, Precious Metals and Collectibles</td>
<td>0.313%</td>
<td>0.178%</td>
<td>136,299</td>
</tr>
<tr>
<td>2 Spirits</td>
<td>Agricultural Products</td>
<td>0.375%</td>
<td>0.202%</td>
<td>42,705</td>
</tr>
<tr>
<td>3 Gold, non-monetary, excluding ores</td>
<td>Jewelry, Precious Metals and Collectibles</td>
<td>0.127%</td>
<td>0.119%</td>
<td>23,796</td>
</tr>
<tr>
<td>4 Ores and concentrates of molybdenum, titanium, zirconium</td>
<td>Metal Mining and Manufacturing</td>
<td>0.925%</td>
<td>0.925%</td>
<td>15,038</td>
</tr>
<tr>
<td>5 Electric current</td>
<td>Power Generation and Transmission Equipment</td>
<td>0.134%</td>
<td>0.114%</td>
<td>13,427</td>
</tr>
<tr>
<td>6 Copper ores and concentrates</td>
<td>Metal Mining and Manufacturing</td>
<td>0.211%</td>
<td>0.095%</td>
<td>12,192</td>
</tr>
<tr>
<td>7 Other non-ferrous metal waste</td>
<td>Metal Mining and Manufacturing</td>
<td>0.144%</td>
<td>-0.191%</td>
<td>9,652</td>
</tr>
<tr>
<td>8 Copper, copper anodes and alloys</td>
<td>Metal Mining and Manufacturing</td>
<td>0.078%</td>
<td>0.071%</td>
<td>9,648</td>
</tr>
<tr>
<td>9 Pig iron, spiegeleisen, sponge iron or steel granules</td>
<td>Metal Mining and Manufacturing</td>
<td>0.112%</td>
<td>0.083%</td>
<td>8,917</td>
</tr>
<tr>
<td>10 Synthetic rubber</td>
<td>Plastics</td>
<td>0.091%</td>
<td>-0.062%</td>
<td>5,144</td>
</tr>
<tr>
<td>11 Miscellaneous prepared or preserved vegetables</td>
<td>Agricultural Products</td>
<td>0.037%</td>
<td>0.030%</td>
<td>4,046</td>
</tr>
<tr>
<td>12 Parts for telecommunication equipment</td>
<td>Communications Equipment</td>
<td>0.004%</td>
<td>0.004%</td>
<td>2,730</td>
</tr>
<tr>
<td>13 Miscellaneous non-ferrous base metals</td>
<td>Metal Mining and Manufacturing</td>
<td>0.090%</td>
<td>0.085%</td>
<td>2,649</td>
</tr>
<tr>
<td>14 Aluminum foil &lt; .2mm thickness</td>
<td>Prefabricated Enclosures and Structures</td>
<td>0.049%</td>
<td>0.034%</td>
<td>2,479</td>
</tr>
<tr>
<td>15 Cigarettes containing tobacco</td>
<td>Tobacco</td>
<td>0.018%</td>
<td>0.018%</td>
<td>2,081</td>
</tr>
<tr>
<td>16 Mill, grindstones, grinding wheels and the like</td>
<td>Chemical Products</td>
<td>0.106%</td>
<td>0.105%</td>
<td>1,712</td>
</tr>
<tr>
<td>17 Crustaceans, mollusks, and aquatic invertebrates</td>
<td>Fishing and Fishing Products</td>
<td>0.012%</td>
<td>0.012%</td>
<td>1,665</td>
</tr>
<tr>
<td>18 Other ferrous waste and scrap</td>
<td>Metal Mining and Manufacturing</td>
<td>0.029%</td>
<td>-0.253%</td>
<td>1,660</td>
</tr>
<tr>
<td>19 Watches, precious metal cases</td>
<td>Jewelry, Precious Metals and Collectibles</td>
<td>0.048%</td>
<td>0.025%</td>
<td>1,434</td>
</tr>
<tr>
<td>20 Electric motors, generators, AC</td>
<td>Motor Driven Products</td>
<td>0.015%</td>
<td>-0.019%</td>
<td>1,331</td>
</tr>
<tr>
<td>21 Other garments, not knitted</td>
<td>Apparel</td>
<td>0.026%</td>
<td>0.024%</td>
<td>1,273</td>
</tr>
<tr>
<td>22 Precious metal waste and scrap</td>
<td>Jewelry, Precious Metals and Collectibles</td>
<td>0.070%</td>
<td>0.036%</td>
<td>1,241</td>
</tr>
<tr>
<td>23 Miscellaneous non-alcohol beverages</td>
<td>Processed Food</td>
<td>0.017%</td>
<td>0.012%</td>
<td>1,070</td>
</tr>
<tr>
<td>24 Fruit, preserved or prepared</td>
<td>Agricultural Products</td>
<td>0.018%</td>
<td>0.011%</td>
<td>1,069</td>
</tr>
<tr>
<td>25 Electric control panels, boards, cabinets and other bases</td>
<td>Lighting and Electrical Equipment</td>
<td>0.009%</td>
<td>0.000%</td>
<td>1,032</td>
</tr>
</tbody>
</table>

Top 25 Industries as percentage of Armenia’s total goods exports: 93.1%
# Armenian Services Exports

## by Cluster, 2002

<table>
<thead>
<tr>
<th>Cluster</th>
<th>World Export Share</th>
<th>Change in Share, 1997-2002</th>
<th>Export Value in $thousands</th>
<th>Change in Value, 1997-2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitality and Tourism</td>
<td>0.014%</td>
<td>0.009%</td>
<td>$65,312</td>
<td>$43,092</td>
</tr>
<tr>
<td>Transportation and Logistics</td>
<td>0.019%</td>
<td>0.002%</td>
<td>$64,289</td>
<td>$13,659</td>
</tr>
<tr>
<td>Communications Services</td>
<td>0.057%</td>
<td>0.002%</td>
<td>$17,709</td>
<td>$3,379</td>
</tr>
<tr>
<td>Business Services</td>
<td>0.004%</td>
<td>0.002%</td>
<td>$15,864</td>
<td>$11,034</td>
</tr>
<tr>
<td>Financial Services</td>
<td>0.006%</td>
<td>0.002%</td>
<td>$6,712</td>
<td>$3,752</td>
</tr>
<tr>
<td>Construction Services</td>
<td>0.021%</td>
<td>0.017%</td>
<td>$6,216</td>
<td>$4,586</td>
</tr>
</tbody>
</table>
Export Intensity
Total Goods Exports as a Share of GDP vs. GDP per capita, 2002

Source: Prof. Michael E. Porter, International Cluster Competitiveness Project. Underlying data from UN Comtrade.
Comparative Inward Foreign Investment
Selected Transition Countries

FDI Stocks as % of GDP, Average 1999-2001

FDI Inflows as % of Gross Fixed Capital Formation, Average 1999-2001

Azerbaijan
Hungary
Estonia
Kazakhstan
Czech Republic
Moldova
Armenia

Foreign Direct Investment in Armenia
Composition of FDI by Industry, 1998-2002

Note: Total FDI 1998-2002 = $735 million. $45 million of FDI in unspecified categories is not included above.
Source: UNCTAD
Competitive Assessment of Armenia

Microeconomic Foundations

- The Sophistication of Company Operations and Strategy
- The Quality of the Microeconomic Business Environment

Macroeconomic, Political, Legal, and Social Context
Macroeconomic Context

Armenia

- Strong **GDP growth** in the post-1998 period; driven by net exports since 2001

- **Low inflation** reflecting steady improvements in Central Bank policies

- Dramatic **reduction of the fiscal deficit**, mainly through reductions in expenditures. The tax system remains weak

- A **negative current account** but this has been financed through remittances and foreign aid; the ratio external debt service to export revenues has improved due to **export growth** and the **renegotiation of debt terms** in 2003

- The real exchange rate has **fallen** between 2000 and 2005

Source: IMF (2005)
Human Development Index
Medium and High-Level Countries

Index Value, 2002

Change of Index Value, 1995 - 2002

## Political, Social, and Legal Conditions in Armenia

<table>
<thead>
<tr>
<th>Political</th>
<th>Social</th>
<th>Legal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia has suffered from significant <strong>political instability</strong></td>
<td>• Poverty rates are <strong>still high</strong> (close to 40% in 2002), despite some recent improvements</td>
<td>• Armenia ranks <strong>higher</strong> on most governance indicators than many of its regional peers, including Russia,</td>
</tr>
<tr>
<td>Problematic <strong>relationships with neighbors</strong> increase the level of political and economic uncertainty</td>
<td>• <strong>Inequality</strong> remains significant after a sharp increase in the 1990s</td>
<td>• However, Armenia still performs <strong>worse</strong> than Eastern European countries like Romania that aim for the EU</td>
</tr>
<tr>
<td></td>
<td>• Public spending on <strong>education and health</strong> has not reached the lower income levels</td>
<td>• The large <strong>grey economy</strong> signals significant governance and regulatory problems</td>
</tr>
</tbody>
</table>

Economic Freedom
Armenia, 2005

Most Free (1)

Banking and Finance 1.0
Foreign Investment 2.0
Trade Policy 2.0
Monetary Policy 2.0
Fiscal Burden 2.3
Government Intervention 2.5
Wages and Prices 3.0
Property Rights 3.0
Regulation 4.0
Informal Market 4.0

Least Free (5)

Source: Heritage Foundation (2005)
Competitive Assessment of Armenia

Macroeconomic, Political, Legal, and Social Context

Microeconomic Foundations

The Sophistication of Company Operations and Strategy

The Quality of the Microeconomic Business Environment
Armenia’s Microeconomic Business Environment

Context for Firm Strategy and Rivalry

+ Liberal trade regime (WTO 2002, free trade with CIS states)
- Dominance of a few large business groups with preferential access to government support
- Widespread corruption and lack of respect for rule of law
- Unpredictable regulatory environment
- Significant informal sector
- IP legislation strong but not enforced

Factor (Input) Conditions

+ Well educated labor force
+ Legacy of highly regarded educational institutions, particularly in technology and science
+ Well developed domestic road network
- Little arable land and few natural resources
- Landlocked country with high transport costs
- Poor and expensive telecommunication infrastructure
- Outdated rail transport system; lack of air cargo facilities
- Skills generated by the education system do not much the needs of business
- High level of bureaucracy and red tape

Demand Conditions

- The quality of local demand is low but improving slowly with economic opening
- Weak product quality, safety, and consumer protection laws
- Lack of transparency of the public procurement system

Related and Supporting Industries

+ A few significant clusters: diamonds, IT, and agricultural products (including wine and brandy)
- Clusters are generally weak and no formal cluster building mechanisms exist
Communication Infrastructure
Armenia’s Relative Position

Per 1,000 inhabitants, 2002

Ease of Business Formation
Selected Transition Countries

Cost of Business Formation relative to GDP per capita

Armenia’s Competitiveness

- Foundations of Competitiveness
- Assessing Armenia's Current Position
- Armenia’s Competitiveness Agenda
Upgrading Armenian Competitiveness
Towards a Strategic Plan

- **Secure existing Armenian strengths**
  - Strengthen educational institutions
  - Continue the mobilization of the Armenian Diaspora

- **Strengthen the foundations of competitiveness**
  - Address critical weaknesses in the business environment
  - Launch an aggressive cluster development agenda
  - Create a focused strategy to attract foreign direct investment

- **Overcome the challenges of Armenia’s location**
  - Build an efficient domestic economy, not just the traded sector
  - Upgrade telecommunications and air transport
  - Build capabilities in clusters with less dependence on the physical transport of goods
  - Create a long-term plan for cross-border economic cooperation in the region

- **Redefine the roles of government and the private sector**
  - Strengthen the effectiveness of government
  - Enhance public-private collaboration

- **Articulate and build consensus around a long-term vision and strategy for Armenia based on the principles of competitiveness**
  - What role in the world economy and region will Armenia play?
Secure Existing Armenian Strengths

Skills

• The strong skill base of Armenia requires continued investments if it is to be sustainable

• Educational institutions
  – Investments to reverse erosion of buildings, educational capacity, etc.
  – Improve the regulatory environment to strengthen the focus on performance and tie teaching to the needs of the business community
  – Strengthen linkages between educational institutions and business
  – Improve computer and internet access in all schools, particularly in the outlying provinces

• Demand for skills
  – Create incentives for companies to invest in skill upgrading

• Stem the brain drain
  – Will only occur based on improving economic opportunities within Armenia
Strengthen the Foundations of Competitiveness
Address Weaknesses in the Business Environment

- Legal and regulatory environment
  - Mount a broad-based effort to address corruption
  - Address the root causes of the grey economy

- Competition policy
  - Reduce political influence on competition
  - Create and implement a strong competition policy that limits anticompetitive practices, cartels, and monopolies

- Infrastructure
  - Upgrade physical infrastructure through regulatory reform and mobilization of private investment capital

- Financial markets
  - Improve the transparency and reliability of ownership rights; this is critical to improve their possible use as collateral
  - Laws on corporate governance are good, following the IFC project 1999-2001, but they need to be implemented more aggressively

Strengthen the Foundations of Competitiveness
Cluster Development

• Clusters are **critical engines** of productivity growth and economic development
  – Clusters enable companies to improve performance and seize **market opportunities** otherwise unavailable to them
  – Clusters are especially important for fostering **new business formation**

• Clusters are a forum to **identify important challenges** in the business environment

• Clusters provide an opportunity for government, companies, and other institutions to **work constructively together** in economic development

• Clusters are the best way to focus **export promotion**, **attracting FDI**, and developing **industrial parks**

• Cluster development should be a **central element** of any competitiveness plan
Public / Private Cooperation in Cluster Upgrading
Minnesota’s Medical Device Cluster

Context for Firm Strategy and Rivalry

- Aggressive trade associations (Medical Alley Association, High Tech Council)
- Effective global marketing of the cluster and of Minnesota as the “The Great State of Health”
- Full-time “Health Care Industry Specialist” in the department of Trade and Economic Development

Factor (Input) Conditions

- Joint development of vocational-technical college curricula with the medical device industry
- Minnesota Project Outreach exposes businesses to resources available at university and state government agencies
- Active medical technology licensing through University of Minnesota
- State-formed Greater Minnesota Corp. to finance applied research, invest in new products, and assist in technology transfer

Demand Conditions

- State sanctioned reimbursement policies to enable easier adoption and reimbursement for innovative products

Related and Supporting Industries
Armenian Clusters

- Diamonds and Jewelry
- Spirits and Brandy
- Hospitality and Tourism
- Agricultural Products
- Metal Mining and Manufacturing

Emerging/Potential

- IT Services
- Outsourced Services
Strengthen the Foundations of Competitiveness
Attracting Foreign Direct Investment

• Foreign multinational companies bring significant benefits to the economies in which they locate, especially in developing countries
  – Local employment and investment
  – Inflow of foreign human capital and skills
  – Training of citizens
  – Competition and exposure to world-class business practices
  – Access to world-class products and services and to global supply and distribution networks

• Armenia has already attracted some investment but needs to tightly link its investment attraction and cluster development efforts
  – Investors are easier to attract to clusters
  – Clusters multiply the benefits of foreign investments for the local economy

• Current approaches to business attraction need to be significantly improved
Upgrading Armenian Competitiveness
Towards a Strategic Plan

• Secure existing Armenian strengths
  – Strengthen educational institutions
  – Continue the mobilization of the Armenian Diaspora

• Upgrade the foundations of competitiveness
  – Address critical weaknesses in the business environment
  – Launch an aggressive cluster development agenda
  – Create a focused strategy to attract foreign direct investment

• Overcome the challenges of Armenia’s location
  – Build an efficient domestic economy, not just the traded sector
  – Upgrade telecommunications and air transport
  – Build capabilities in clusters with less dependence on the physical transport of goods
  – Create a long-term plan for cross-border economic cooperation in the region

• Redefine the roles of government and the private sector
  – Strengthen the effectiveness of government
  – Enhance public-private collaboration

• Articulate and build consensus around a long-term vision and strategy for Armenia based on the principles of competitiveness
  – What role in the world economy and region will Armenia play?
Trade within the Region

Source: Prof. Michael E. Porter, International Cluster Competitiveness Project. Underlying data from UN Comtrade.
Overcome the Challenge of Location
Steps Towards Regional Economic Integration

- Redouble efforts to ease the economic blockades
  - Trade agreements and harmonization of customs procedures with neighbors
- Pursue infrastructure collaboration as a means to begin practical integration efforts in the region
  - Joint planning on road and railroad infrastructure
- Opportunities for win-win cooperation in tourism

- International institutions are increasingly open to fund cross-national projects and strongly support their benefits in terms of political stability
Upgrading Armenian Competitiveness
Towards a Strategic Plan

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- Articulate and build consensus around a long-term vision and strategy for Armenia
  based on the principles of competitiveness
  - What role in the world economy and region will Armenia play?
Shifting Responsibilities for Economic Development

Old Model

- **Government** drives economic development through policy decisions and incentives

New Model

- Economic development is a **collaborative process** involving government at multiple levels, companies, teaching and research institutions, and institutions for collaboration
What Could Armenia Become?

Analogies

• Ireland
  – Strategy build on attracting foreign investment
  – Advantages: proximity to EU, English speaking, well educated, moderate cost labor
  – Significant Diaspora

• Singapore
  – Highly advantageous geographic location
  – Strong government leadership
  – Business hub of its region

• Israel
  – Isolated from its neighbors
  – Highly educated population, strengths in science and technology
  – Sizable, wealthy, involved Diaspora
Where Is Armenia Unique?

• Education and skills
  – Legacy of training in physics, math and other sciences
  – Musical talent--piano in even the poorest households
  – World chess champions
  – Known as resilient, rugged, individualistic people

• Diaspora
  – Sizable, wealthy, successful, caring Diaspora

• Culture and history
  – First Christian nation (recently celebrated 1700th anniversary)
  – Biblical sites
This presentation will be available at the website of the Institute for Strategy and Competitiveness. Please see the tab for “recent presentations.”

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Appendix
Levels of Clusters

• There is often a **array of clusters** in a given field in different locations, each with different levels of specialization and sophistication.

• Global **innovation centers**, such as Silicon Valley in semiconductors, are few in number. If there are multiple innovation centers, they normally **specialize** in different market segments.

• Other clusters focus on **manufacturing**, outsourced **service functions**, or play the role of **regional** assembly or service centers.

• Firms based in the most advanced clusters often **seed or enhance clusters** in other locations in order to reduce the risk of a single site, access lower cost inputs, or better serve particular regional markets.

• The challenge for an economy is to move from **isolated firms** to an array of **clusters**, and then to **upgrade the breadth and sophistication** of clusters to more advanced activities.
Governance Indices
Selected Transition Countries

Political Stability
-2
-1.5
1

Rule of Law
-1.5
0.5
1

Control of Corruption
-1.5
1

Note: Minimum of -2.5, maximum of 2.5.
Governance Indices
Selected Transition Countries

Government Effectiveness

-1.5 1

Slovenia  
Estonia  
Hungary  
Czech Republic  
Latvia  
Poland  
Lithuania  
Slovak Republic  
Croatia  
Bulgaria  
Romania  
Macedonia, FYR  
Russian Federation  

ARMENIA

Albania  
Moldova  
Ukraine  
Georgia  
Kazakhstan  
Kyrgyz Republic  
Bosnia and Herzegovina  
Azerbaijan  
Belarus  
Uzbekistan  
Tajikistan  
Turkmenistan  

Regulatory Quality

-1.5 1

Slovenia  
Hungary  
Estonia  
Czech Republic  
Poland  
Lithuania  
Latvia  
Slovak Republic  
Croatia  
Bulgaria  
Romania  
Macedonia, FYR  

ARMENIA

Moldova  
Russian Federation  
Ukraine  
Azerbaijan  
Kyrgyz Republic  
Bosnia and Herzegovina  
Kazakhstan  
Albania  
Belarus  
Turkmenistan  
Uzbekistan  
Georgia  
Tajikistan  

Note: Minimum of -2.5, maximum of 2.5.
Economic Freedom
Selected Transition Economies

Source: Heritage Foundation (2005)
Public Expenditure on Education
Selected Countries

Spending on Education, as % of GDP

Labor Market Regulation
Selected Transition Countries

Stringency of Labor Market Regulation, (0-100)

WORSE

BETTER

Contract Enforcement
Selected Transition Countries

Context for Firm Strategy and Rivalry

Cost of Contract Enforcement relative to GNI per capita

Bankruptcy
Selected Transition Countries

Efficiency of Bankruptcy Procedures, (0-100)