National and Regional Competitiveness: The Agenda for Libya

Professor Michael E. Porter
Institute for Strategy and Competitiveness
Harvard Business School

Project Kick-Off
Libya
1 July 2004

Libya’s Strategic Challenge

- Libya’s economy has been **isolated** from the world economy for several decades
- Libya seeks to **transform** itself into a vibrant market economy
- Libya possesses a number of **key strengths**, including its oil and gas reserves, accumulated capital reserves, attractive location, and a strategic role with its neighbors
- As it has opened, Libya is attracting the interest of numerous international companies. Libya needs a strategy to seize this opportunity and harness the power of **inward FDI** for economic change
- However, Libya faces numerous **challenges** in upgrading and modernizing its economy and society to enable success in a new economic structure
- Libya also must begin **creating jobs** for its young and growing populations, starting from a position of high unemployment

- Libya seeks to develop an Economic Master Plan to:
  - Articulate and chart a **long-term vision for the Libyan economy**
  - **Guide the myriad of individual policy choices** in important areas of economic and social policy
  - Ensure that short-term activities and decisions are **consistent with a long-term framework**
  - **Shape** Libya’s future rather than be driven by outside forces and reacting to opportunities
Libyan Competitiveness 2004

+ Prosperity is among the highest in the region
+ Opportunity of fast reintegration into the international community
+ High levels of formal education

– Growth has been the lowest in the region over the last decade
– Growth is volatile and driven by world oil prices
– High unemployment and private sector job creation far below the 4% annual increase in labor force
– Oil exports below potential because of low foreign investment
– Dominance of the public sector in the oil and non-oil economy
– High deficit in the non-oil government budget
– Significant tariffs and trade barriers
– Serious underinvestment in transportation and communication infrastructure
– Low educational standards
– Widespread government intervention and complex regulations
Comparative GDP per Capita Performance
Selected Developing and OECD Countries

Note: Kuwait had artificially high growth rates in the aftermath of the first Gulf war, OPEC members in red, North African countries in green

Source: EIU (2003)
Foundations of Sustainable Prosperity

Sustainable Prosperity

Productivity

Innovative Capacity

Competitiveness
What is Competitiveness?

- Competitiveness is determined by the **productivity** with which a nation uses its human, capital, and natural resources. Productivity sets a nation’s or region’s standard of living (wages, returns to capital, returns to natural resource endowments)
  - 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 competes in that matters for prosperity, but **how** firms compete in those industries
  - Productivity in a nation 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”** industries is of fundamental importance to competitiveness, not just that of traded industries
  - Devaluation **does not** make a country more competitive

- Nations compete in offering the **most productive environment** for business
- The public and private sectors play **different but interrelated roles** in creating a productive economy
Sources of Prosperity

**Inherited Prosperity**

- Prosperity is derived from **selling inherited natural resources or real estate**
- Prosperity is **limited** by the amount of natural resources available, and ultimately **temporary**
- Focus gravitates towards the **distribution** of wealth as interest groups seek a bigger share

- **Government** is the central actor in the economy as the owner and distributor of wealth
- Productivity growth is **arrested**

**Created Prosperity**

- Prosperity is derived from **creating valuable products and services**
- Prosperity is **unlimited**, based only by the innovativeness and productivity of companies in the economy
- Creating the **conditions** for productivity and innovation are the central policy question

- **Companies** are the central actors in the economy
- The **government**’s role is to create the enabling conditions
Natural Resource Exports and Prosperity

Natural Resource Exports as Share of GDP, 2001

Note: OPEC countries in blue
Source: UN (2002), author's calculations
Oil Endowments and Competitiveness

• Export revenues from oil endowments have a **positive direct effect** on prosperity and provide investment capital for infrastructure and other projects

However

• Oil endowments tend to have a **negative effect** on the underlying sources of competitiveness
  – Empirically, the presence of high natural resource-exports, including oil is associated with **declining competitiveness over time**
    • Incentives
    • Volatility
    • Mindset and attitudes
  – Natural resource endowments, oil resources in particular, reduce prosperity growth over time through their effect on **institutional quality**
  – **Companies** tend to have a narrow in the value-chain, neglect nearby markets, rely on external partners, and compete exclusively in commodity markets
Total Factor Productivity Growth by Region
Ten Year Averages

Determinants of Productivity and Productivity Growth

Macroeconomic, Political, Legal, and Social Context for Development

Microeconomic Foundations of Development

- A sound macroeconomic, political, legal, and social context creates the potential for competitiveness, **but is not sufficient**
- Competitiveness ultimately depends on improving the **microeconomic capability** of the economy and the **sophistication of local companies and local competition**
Integration of Macro- and Microeconomic Reforms

Macro reform alone can lead to short term capital inflows and growth spurts that ultimately are not sustainable.

Micro reform is needed to raise the level of sustainable prosperity.

Stability and confidence support investment and upgrading.

Create opportunity for productivity.

Required to achieve productivity.

Productivity growth allows economic growth without inflation, making macroeconomic stability easier to achieve.
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
- Meritocratic incentive system across institutions
- Open and vigorous competition among locally based rivals

Factor (Input) Conditions

- Presence of high quality, specialized inputs available to firms
  - Human resources
  - Capital resources
  - Physical infrastructure
  - Administrative infrastructure
  - Information infrastructure
  - Scientific and technological infrastructure
  - Natural resources

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 regionally and globally

Related and Supporting Industries

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

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.
Business Environment Quality in Oil-Rich Economies
Selected Observations

Factor (Input) Conditions

- Lagging and restrictive legal system and administrative structure
- Skilled citizens heavily employed in public sector
- Dependence on highly-skilled foreign specialists
- Lack of education for low-skill foreign workers
- Lack of first rate public schools and universities
- Financial markets remain inefficient
- Low level of R&D, science and innovative capacity
- Poor availability of data

Context for Firm Strategy and Rivalry

- Heavy government involvement in economic activity limits private initiative
- Limits on foreign ownership
- Incentive structure not tied strictly to merit and productivity
- Economies sheltered from domestic and international competition
- Few local exporting companies
- Weak governance systems and frequent conflicts of interest

Demand Conditions

- Lack of sophisticated local demand from business customers
- Sophisticated personal demand served by foreign companies
- Heavy government role in procurement

Related and Supporting Industries

- Weak clusters in the non-oil sectors of the economy
- Low level of integration between foreign investments and local industries
- Lack of specialized suppliers and service providers
- Free zones deter progress in improving the business environment in the overall economy
- Free zones focused on real estate rather than true cluster development
The Cairns (Australia) Tourism Cluster

- 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

Sources: HBS student team research (2003)
Clusters and Competitiveness
Houston Oil and Gas Products and Services Cluster

- Oil & Gas Exploration & Development
- Oil & Gas Completion & Production
- Equipment Suppliers (e.g. Oil Field Chemicals, Drilling Rigs, Drill Tools)
- Specialized Technology Services (e.g. Drilling Consultants, Reservoir Services, Laboratory Analysis)
- Subcontractors (e.g. Surveying, Mud Logging, Maintenance Services)
- Business Services (e.g. MIS Services, Technology Licenses, Risk Management)
- Specialized Institutions (e.g. Academic Institutions, Training Centers, Industry Associations)

- Gas Gathering
- Gas Processing
- Gas Trading
- Gas Transmission
- Gas Distribution
- Gas Marketing
- Oil Transportation
- Oil Trading
- Oil Refining
- Oil Distribution
- Oil Wholesale Marketing
- Oil Retail Marketing
- Oil Refining
- Oil Distribution
- Oil Wholesale Marketing
- Oil Retail Marketing
Leading Footwear Clusters

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

Romania
- Production subsidiaries of Italian companies
- Focus on lower to 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

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

Source: Research by HBS student teams in 2002
Examples of Clusters in an Oil-Rich Economy

U.A.E.

- Petrochemicals
- Energy
- Tourism
- Logistics and distribution
- Business services
- Information technology
- Financial services
- Media
- Health
- Agriculture
# Institutions for Collaboration
## The Australian Wine Cluster

<table>
<thead>
<tr>
<th>Institution</th>
<th>Establishment Date</th>
<th>Focus</th>
<th>Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winemakers’ Federation of Australia</td>
<td>1990</td>
<td>Public policy representation of companies in the wine cluster</td>
<td>Member companies</td>
</tr>
<tr>
<td>Cooperative Centre for Viticulture</td>
<td>1991</td>
<td>Coordination of research and education policy in viticulture</td>
<td>Other cluster organizations</td>
</tr>
<tr>
<td>Australian Wine Export Council</td>
<td>1992</td>
<td>Wine export promotion through international offices in London and San Francisco</td>
<td>Government; Cluster organizations</td>
</tr>
<tr>
<td>Grape and Wine R&amp;D Corporation</td>
<td>1991 as statutory body</td>
<td>Funding of research and development activities</td>
<td>Government; Statutory Levy</td>
</tr>
<tr>
<td>Wine Industry Information Service</td>
<td>1998</td>
<td>Information collection, organization, and dissemination</td>
<td>Cluster organizations</td>
</tr>
<tr>
<td>Wine Industry National Education and Training Council</td>
<td>1995</td>
<td>Coordination, integration, and standard maintenance for vocational training and education</td>
<td>Government; Other Cluster Organizations</td>
</tr>
</tbody>
</table>

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
Roles in Economic Development
Challenges for Oil-Dependent Economies

Public Sector-Driven

• All sources of wealth are controlled by the public sector
• The public sector develops and distributes wealth. Government operates companies or is a dominant buyer
• Citizens are entitled to public goods to which they do not contribute
• Private wealth is related to power in intermediating with the public sector

Private Sector-Driven

• All wealth is ultimately created in companies
• Private wealth is related to productivity and the ability to create value
• Citizens pay taxes on their wealth or contribute to the cost of public services
• The public sector shapes the business environment
Influences on Competitiveness
Multiple Geographic Levels

- World Economy
- Broad Economic Areas
- Groups of Neighboring Nations
- Nations
- States, Provinces
- Cities, Metropolitan Areas
Specialization of Regional Economies
Select U.S. Geographic Areas

Seattle-Bellevue-Everett, WA
Aerospace Vehicles and Defense
Fishing and Fishing Products
Analytical Instruments

San Francisco-Oakland-San Jose Bay Area
Communications Equipment
Agricultural Products
Information Technology

Los Angeles Area
Apparel
Building Fixtures, Equipment and Services
Entertainment

San Diego
Leather and Sporting Goods
Power Generation
Education and Knowledge Creation

Wichita, KS
Aerospace Vehicles and Defense
Heavy Machinery
Oil and Gas

Pittsburgh, PA
Construction Materials
Metal Manufacturing
Education and Knowledge Creation

Chicago
Communications Equipment
Processed Food
Heavy Machinery

Boston
Analytical Instruments
Education and Knowledge Creation

Raleigh-Durham, NC
Communications Equipment
Information Technology
Education and Knowledge Creation

Atlanta, GA
Construction Materials
Transportation and Logistics
Business Services

Houston
Heavy Construction Services
Oil and Gas
Aerospace Vehicles and Defense

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
Cross-National Regions and Economic Strategy

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

New View
• A regional strategy as a powerful tool to enhance competitiveness in autonomous countries
  1. Increase internal trade and investment
     AND
  2. Upgrade company operations and strategy
     – Enhancing the competitive capability of firms
     – Expanding trade in non-traditional export industries
  3. Enhance business environment
     – Mutual benefits to the productivity of the business environment through policy coordination that captures external economies and the benefits of specialization in institutions and infrastructure across borders
  4. Encourage cluster development
     – Cross-border cluster specialization and integration
  5. Increase inward foreign investment
     – Enhancing interest and investment in the region by the international community
  6. Improve the economic policy process
     – Improving economic policy formulation and implementation at the national level
## Cross-National Economic Coordination

### Illustrative Policy Areas

<table>
<thead>
<tr>
<th>Factor (Input) Conditions</th>
<th>Context for Strategy and Rivalry</th>
<th>Demand Conditions</th>
<th>Related and Supporting Industries</th>
<th>Regional Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improve regional <strong>transportation infrastructure</strong></td>
<td>• Coordinate <strong>macroeconomic</strong> policies</td>
<td>• Agree on foreign <strong>investment promotion guidelines</strong> to limit forms of investment promotion that do not enhance productivity</td>
<td>• Establish ongoing upgrading process in <strong>clusters that cross national borders</strong>, e.g.</td>
<td>• Share <strong>best practices</strong> in government operations</td>
</tr>
<tr>
<td>• Create an efficient <strong>energy</strong> network</td>
<td>• Eliminate <strong>trade and investment barriers</strong> within the region</td>
<td>• Set minimum <strong>environmental standards</strong></td>
<td>– <strong>Tourism</strong></td>
<td>• Improve regional <strong>institutions</strong></td>
</tr>
<tr>
<td>• Upgrade/link <strong>regional communications</strong></td>
<td>• Simplify <strong>cross-border</strong> regulations and paperwork</td>
<td>• Set minimum <strong>safety standards</strong></td>
<td>– <strong>Agribusiness</strong></td>
<td>– Dispute resolution mechanisms</td>
</tr>
<tr>
<td>• Upgrade/link <strong>financial markets</strong></td>
<td>• Guarantee minimum basic <strong>investor protections</strong></td>
<td>• Establish reciprocal <strong>consumer protection laws</strong></td>
<td>– <strong>Textiles and Apparel</strong></td>
<td>– Policy coordination body</td>
</tr>
<tr>
<td>• Upgrade <strong>higher education</strong> through facilitating specialization and student exchanges</td>
<td></td>
<td></td>
<td>– <strong>Information Technology</strong></td>
<td>– Regional development bank</td>
</tr>
<tr>
<td>• Expand cross-border business and financial <strong>information access and sharing</strong></td>
<td></td>
<td></td>
<td></td>
<td>• Develop a regional <strong>marketing</strong> strategy</td>
</tr>
<tr>
<td>• Coordinate activities to ensure <strong>personal safety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Factor (Input) Conditions**

- Improve regional transportation infrastructure
- Create an efficient energy network
- Upgrade/link regional communications
- Upgrade/link financial markets
- Upgrade higher education through facilitating specialization and student exchanges
- Expand cross-border business and financial information access and sharing
- Coordinate activities to ensure personal safety

**Context for Strategy and Rivalry**

- Coordinate macroeconomic policies
- Eliminate trade and investment barriers within the region
- Simplify cross-border regulations and paperwork
- Guarantee minimum basic investor protections

**Demand Conditions**

- Agree on foreign investment promotion guidelines to limit forms of investment promotion that do not enhance productivity
- Coordinated competition policy

**Related and Supporting Industries**

- Set minimum environmental standards
- Set minimum safety standards
- Establish reciprocal consumer protection laws

**Regional Governance**

- Establish ongoing upgrading process in clusters that cross national borders, e.g.
  - Tourism
  - Agribusiness
  - Textiles and Apparel
  - Information Technology

- Share best practices in government operations
- Improve regional institutions
  - Dispute resolution mechanisms
  - Policy coordination body
  - Regional development bank
- Develop a regional marketing strategy
Roles of Government in Economic Development

• **Macroeconomic, political, legal, and social context**
  – Establish a **stable and predictable** macroeconomic, legal, and political environment
  – Improve the **social conditions** of citizens

• **General microeconomic business environment**
  – Improve the availability, quality, and efficiency of **cross-cutting or general purpose inputs, infrastructure, and institutions**
  – Set **overall rules and incentives** governing competition that encourage productivity growth

• **Clusters**
  – Facilitate **cluster development and upgrading**

• **Process of Economic Change**
  – Create institutions and **processes for upgrading competitiveness** that inform citizens and mobilize the private sector, government at all levels, educational and other institutions, and civil society to take action
Cluster Policy versus Industrial Policy

**Industrial Policy**

- Target desirable industries / sectors
- Focus on domestic companies
- Intervene in competition (e.g., protection, industry promotion, subsidies)
- Centralizes decisions at the national level

**Cluster-based Policy**

- All clusters can contribute to prosperity
- Domestic and foreign companies both enhance productivity
- Relax impediments and constraints to productivity
- Emphasize cross-industry linkages / complementarities
- Encourage initiative at the state and local level

**Distort competition**

**Enhance competition**
Comparative GDP per Capita Performance
Selected Developing and OECD Countries

GDP per Capita (PPP), USD, 2002

Growth of GDP per Capita (PPP), CAGR, USD, 1990-2002

Note: Kuwait had artificially high growth rates in the aftermath of the first Gulf war, OPEC members in red, North African countries in green

Source: EIU (2003)

Copyright 2004 © Professor Michael E. Porter
# Libya Top 30 Goods Export Industries

## By Export Value

<table>
<thead>
<tr>
<th>Industry</th>
<th>Cluster</th>
<th>World Export Share</th>
<th>Point Change in Share 1997-2001</th>
<th>Export Value (in $1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Crude petroleum oils</td>
<td>Oil and Gas Products</td>
<td>4.04%</td>
<td>-1.06%</td>
<td>$9,963,482</td>
</tr>
<tr>
<td>2  Miscellaneous fuel oils</td>
<td>Oil and Gas Products</td>
<td>3.42%</td>
<td>-1.29%</td>
<td>$624,545</td>
</tr>
<tr>
<td>3  Motor gasoline and other light oils</td>
<td>Oil and Gas Products</td>
<td>1.43%</td>
<td>-0.43%</td>
<td>$424,747</td>
</tr>
<tr>
<td>4  Kerosene and other medium oils</td>
<td>Oil and Gas Products</td>
<td>1.95%</td>
<td>-0.34%</td>
<td>$144,533</td>
</tr>
<tr>
<td>5  Acyclic hydrocarbons</td>
<td>Chemical Products</td>
<td>2.58%</td>
<td>-0.06%</td>
<td>$127,522</td>
</tr>
<tr>
<td>6  Gas oils</td>
<td>Oil and Gas Products</td>
<td>0.65%</td>
<td>-0.05%</td>
<td>$119,300</td>
</tr>
<tr>
<td>7  Natural gas</td>
<td>Oil and Gas Products</td>
<td>0.18%</td>
<td>-0.08%</td>
<td>$115,493</td>
</tr>
<tr>
<td>8  Acyclic monohydric alcohols</td>
<td>Chemical Products</td>
<td>1.70%</td>
<td>-0.45%</td>
<td>$97,962</td>
</tr>
<tr>
<td>9  Liquefied propane and butane</td>
<td>Oil and Gas Products</td>
<td>0.87%</td>
<td>0.12%</td>
<td>$63,586</td>
</tr>
<tr>
<td>10 Fertilizer, except crude (group272)</td>
<td>Agricultural Products</td>
<td>0.47%</td>
<td>-0.20%</td>
<td>$58,015</td>
</tr>
<tr>
<td>11 Flat-rolled iron, not clad, plated or coated</td>
<td>Metal Manufacturing</td>
<td>0.22%</td>
<td>0.02%</td>
<td>$46,272</td>
</tr>
<tr>
<td>12 Mineral tars and products</td>
<td>Oil and Gas Products</td>
<td>1.32%</td>
<td>0.56%</td>
<td>$44,235</td>
</tr>
<tr>
<td>13 Miscellaneous petroleum gases</td>
<td>Oil and Gas Products</td>
<td>0.83%</td>
<td>-0.26%</td>
<td>$41,316</td>
</tr>
<tr>
<td>14 Polymers of ethylene</td>
<td>Plastics</td>
<td>0.16%</td>
<td>0.15%</td>
<td>$27,589</td>
</tr>
<tr>
<td>15 Pig iron, spiegeleisen, sponge iron or steel granules</td>
<td>Metal Manufacturing</td>
<td>0.37%</td>
<td>0.31%</td>
<td>$24,243</td>
</tr>
<tr>
<td>16 Other inorganic bases and metallic oxides</td>
<td>Chemical Products</td>
<td>0.34%</td>
<td>-0.30%</td>
<td>$18,703</td>
</tr>
<tr>
<td>17 Iron or steel bars, rods, angles, shapes and sections</td>
<td>Metal Manufacturing</td>
<td>0.05%</td>
<td>-0.13%</td>
<td>$10,449</td>
</tr>
<tr>
<td>18 Hides, skins (excluding furs), raw</td>
<td>Agricultural Products</td>
<td>0.19%</td>
<td>-0.18%</td>
<td>$9,767</td>
</tr>
<tr>
<td>19 Ingots and other primary forms of iron or steel</td>
<td>Metal Manufacturing</td>
<td>0.07%</td>
<td>-0.04%</td>
<td>$6,370</td>
</tr>
<tr>
<td>20 Lubricants</td>
<td>Oil and Gas Products</td>
<td>0.04%</td>
<td>0.03%</td>
<td>$5,257</td>
</tr>
<tr>
<td>21 Fish, fresh, chilled, or frozen</td>
<td>Fishing and Fishing Products</td>
<td>0.03%</td>
<td>0.02%</td>
<td>$5,083</td>
</tr>
<tr>
<td>22 Other non-ferrous metal waste</td>
<td>Metal Manufacturing</td>
<td>0.07%</td>
<td>0.05%</td>
<td>$4,510</td>
</tr>
<tr>
<td>23 Polymers of vinyl chloride</td>
<td>Plastics</td>
<td>0.05%</td>
<td>-0.16%</td>
<td>$3,931</td>
</tr>
<tr>
<td>24 Other ferrous waste and scrap</td>
<td>Metal Manufacturing</td>
<td>0.07%</td>
<td>0.07%</td>
<td>$3,179</td>
</tr>
<tr>
<td>25 Other animal materials</td>
<td>Agricultural Products</td>
<td>0.08%</td>
<td>0.03%</td>
<td>$2,238</td>
</tr>
<tr>
<td>26 Parts of jet, gas turbine engines</td>
<td>Aerospace Engines</td>
<td>0.01%</td>
<td>-0.01%</td>
<td>$1,645</td>
</tr>
<tr>
<td>27 Parts for air pumps, compressors, fans and hoods</td>
<td>Production Technology</td>
<td>0.02%</td>
<td>0.00%</td>
<td>$1,068</td>
</tr>
<tr>
<td>28 Aluminum and aluminum alloys, unwrought</td>
<td>Metal Manufacturing</td>
<td>0.00%</td>
<td>0.00%</td>
<td>$804</td>
</tr>
<tr>
<td>29 Other electric transformers</td>
<td>Lighting and Electrical Equipment</td>
<td>0.02%</td>
<td>0.02%</td>
<td>$740</td>
</tr>
<tr>
<td>30 Pile-drivers, pile-extractors</td>
<td>Heavy Machinery</td>
<td>0.56%</td>
<td>0.56%</td>
<td>$723</td>
</tr>
</tbody>
</table>

Note: Export data are extracted from trading partner's import data. Import values are usually higher than export values. Source: UNCTAD Trade Data. Author's analysis.
Oil and Gas Products Cluster

- Change in Share 1997-2000; **Change in Share 1997-1999;
- Beginning year is not 1997; ^ Export data are extracted from trading partner's import data. Import values are usually higher than export values.
- Note: Size Proportional to Export Value.
Libyan Competitiveness 2004

+ Prosperity is among the **highest** in the region
+ Opportunity of fast **reintegration** into the international community
+ High levels of **formal** education

- Growth has been the **lowest** in the region over the last decade
- Growth is **volatile** and driven by world oil prices
- High **unemployment** and private sector job creation far below the 4% annual increase in labor force
- Oil exports below potential because of **low foreign investment**
- Dominance of the **public sector** in the oil and non-oil economy
- High **deficit** in the non-oil government budget
- Significant **tariffs and trade barriers**
- Serious underinvestment in transportation and communication **infrastructure**
- **Low educational standards**
- Widespread government **intervention** and complex regulations
Libyan Competitiveness Agenda

Key Dimensions

• Upgrading the **business environment**
• Identifying opportunities in developing existing and emerging Libyan **clusters**
• Establish **public and private institutions** for economic development
• Develop regional economic plans in **Libyan regions**
• Develop a plan for economic cooperation in the **North African region**
• Define Libya’s **unique position** in the world economy