Structural transformation and industrial policy in Turkey: Any lessons for least developed countries?

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Three guiding questions

- Q1: Did “structural change” take place in Turkey? How?

- Q2: Did “structural change” deliver the desired results?

- Q3: What was the role of industrial policy? What should be its role for the future?
Framework

- What has Turkey achieved in terms of structural transformation?
  - Full side of the glass: How did we become a middle income economy?
  - Empty side of the glass: What is it that industrial policy need to fix?

- What is the prevalent policy framework?
  - Can we call it industrial policy?

- Any policy lessons for least developed countries?
Industrial policy (as we shall know it)

- Picking winners or fostering structural transformation?
  - Diversification/specialization

- Rationale
  - Self-discovery externalities
  - Coordination externalities
  - Missing public inputs

- “Industrial policy as a mindset”
  - Process more important than policy
  - Getting the institutions right
An overview of the recent progress of Turkish economy

<table>
<thead>
<tr>
<th></th>
<th>1980</th>
<th>2001</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (billion $)</td>
<td>70</td>
<td>509</td>
<td>700</td>
</tr>
<tr>
<td>Per capita GDP (USD)</td>
<td>1,500</td>
<td>2,906</td>
<td>9,000</td>
</tr>
<tr>
<td>Number of enterprises</td>
<td>90,000</td>
<td>723,503</td>
<td>1,170,248</td>
</tr>
<tr>
<td>Exports (USD billion)</td>
<td>3</td>
<td>31</td>
<td>132</td>
</tr>
<tr>
<td>Exports per worker (USD)</td>
<td>65</td>
<td>1,456</td>
<td>6,229</td>
</tr>
<tr>
<td>Industry share in exports</td>
<td>10%</td>
<td>92%</td>
<td>92%</td>
</tr>
<tr>
<td>Number of exporters</td>
<td>1,000</td>
<td>25,000</td>
<td>47,000</td>
</tr>
<tr>
<td>Tourism revenue (billion $)</td>
<td>0.3</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Ranking in the world (in terms of GDP)</td>
<td>25th</td>
<td>21st</td>
<td>17th</td>
</tr>
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</table>

Source: WDI, EIU, TÜİK, SSK, TİM
Transformation is still ongoing; along with rapid urbanization

Sectoral distribution of labor (%) 1988 - 2009

Source: TÜİK
No structural change after 2001?

Sectoral composition of GDP (%) 1965 - 2009

Source: WB, World Development Indicators
Technological transformation: declining low-tech, rising mid-tech

Technological composition of Turkey’s exports 1990-2009

Source: UN COMTRADE database, TEPAV calculations (Based on UNIDO classification of products by level of technology)
What does Turkey produce now?

- **Emerging sectors:**
  - White goods
  - Automobile and parts
  - Consumer electronics
  - Ships
  - Machinery and equipment

- **Traditional sectors:**
  - Textile, apparels, leather
  - Food and agro-industry
  - Construction materials
  - Furniture
Widening gap has implications...

- **Emerging sectors:**
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- **Emerging sectors:**
  - Capital intensive
  - High level of import dependency

- **Traditional sectors:**
  - Labor intensive
  - Low level of import dependency
Sectoral diversification: a highly visible trend

Number of product groups with above $500 million exports
HS4 classification, 2 digit, 1999-2009

Source: UN COMTRADE
Turkey appears to be the most diversified economy in her region

Number of product groups with above $500 million exports
(HS4 classification, 2 digit, 2008)

Source: UN COMTRADE
Industrial activity has spread throughout the country

Geographical distribution of the largest 1000 industrial firms in Turkey, 1999 and 2009

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>İstanbul</td>
<td>508</td>
<td>421</td>
</tr>
<tr>
<td>İzmir</td>
<td>122</td>
<td>83</td>
</tr>
<tr>
<td>Adana</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>Bursa</td>
<td>41</td>
<td>71</td>
</tr>
<tr>
<td>Rest of Turkey</td>
<td>249</td>
<td>382</td>
</tr>
</tbody>
</table>
“the emerging Anatolian tigers”

Cities with 5 or more firms among the largest 1000 industrial firms in Turkey, 2009

Source: Istanbul Chamber of Industry
Geographic composition of Turkey’s exports: EU-Turkey Customs Union brings Turkey closer to her region

Geographical composition of Turkey’s exports (1996-2009)
To sum up the transformation story

- Transformation is happening and changing the Turkish society more than ever before

- Not a coherent industrial policy but rather the outcome of the interplay of several factors

  ➔ Internal structural factors:
    - Geographical location
    - EU Customs Union and accession process
    - Demographic structure / entrepreneurship potential

  ➔ External factors:
    - Global economic and technological trends
    - Vertical specialization strategies of MNCs
    - Rising foreign direct investment flows
Empty side of the glass? Major policy challenges waiting to be tackled...

- Achieving convergence
  - Increasing the economic growth capacity from 4 to 7 percent
  - A coherent growth story?

- Tackling SME growth problem
  - Productivity and innovation issues
  - An ambitious eco-system renovation strategy?

- Fighting skills mismatch and unemployment
  - Urban-rural transformation
  - An education reform strategy in line with growth and competitiveness strategy?
A very stable convergence performance!
Structural change with no (relative) results?

GDP per capita in Turkey as percentage of GDP per capita in U.S., (PPP, 1975-2008)
Though non-convergence is not destiny. A coherent growth story is what Turkey needs…

GDP per capita in S.Korea and Turkey as a percentage of GDP per capita in U.S., (SAGP, 1975-2008)

Kaynak: EIU and TEPAV calculations
Growth of firms in a healthy, private sector driven economy...
Growth problem in Turkish SMEs

Firm-level employment growth across different sizes, percentage increase (2004-2007)

Kaynak: World Bank Enterprise Surveys
Dual structure of the economy is a big problem

- Registered (modern) firms
  - Productivity levels: 62% of firms in USA
  - Economies of scale; new technologies, quality products
  - Spread over Anatolia; export oriented

- Unregistered (traditional) firms
  - Productivity levels: 25% of firms in USA
  - Old technologies, low quality; domestic oriented
  - Being unregistered provides a cost advantage of around 20%

Source: McKinsey Global Institute
Rapid urbanization puts pressure on labor market and skill needs

Urban population as a percentage of the total population in Turkey, Spain, Italy, Greece and South Korea, (%), 1960-2009

Source: World Bank, World Development Indicators
What is the existing policy framework?

- Incentive framework in line with EU
  - Regional development focus
  - Incentive or compensation?

- Science and technology policy
  - Scientific Research Council’s expansionary budget as the main instrument
  - Focus and prioritization problems...

- Investment climate reform
  - Role of organized industrial zones as one stop shops

- Foreign economic relations strategy
  - Regional economic integration focus
  - Capacity problems...

*Can we call these a coherent industrial policy framework?*
Role of special economic zones

- **Main motive:**
  - Improving the investment climate everywhere is not possible but we can designate certain areas as more equal and special

- **Different types of special economic zones**
  - **Free Trade Zones**
    - 20 FTZs: 3,620 firms, 50,000 employment
  - **Technology Development Zones**
    - 37 TDZs: 1,178 firms, 11,195 employment
  - **Organized Industrial Zones**
    - 120 OIZs: 37,000 firms, 820,000 employment
What sort of industrial policy? – What Turkey needs now...

- Larger context: A coherent growth story that would tackle the binding constraints with ambitious reforms (eco-system renovation for innovation)
  - Access to finance (PE and VC focus)
  - Education
  - ... (second generation reforms to upgrade institutions)

- A supporting industrial policy framework as part of the overall growth strategy

- Process more important than policy: focus on governance of industrial policy
Conclusions and takeaways...

- We are yet to see the adoption of the new industrial policy “mindset”
- Risk is obvious: middle income trap. Stuck in between two worlds...
  - Hard time converging to US and EU income levels
  - Hard time competing with low-cost East Asian producers
- A jump is needed, and industrial policy is the answer
Possible policy lessons for LDCs?

- Political will to support structural transformation
  - Political instability vs developmental state

- Leaving it to markets and/or external actors?
  - Industrial policy as major component of a coherent growth strategy
  - Vision for future – what type of an economic structure do we dream of? How will we get there?

- Creating pockets of excellence
  - Geography – special economic zone, infrastructure
  - Bureaucracy – special tax admin, policy planning
  - Judiciary – special treatment for strategic investments