Innovation performance and competitiveness of country: the case of Kazakhstan

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Content

1. Key facts on Kazakhstan and its economy

2. Strategy for Industrial and Innovation Development of Kazakhstan for 2003-2015

3. Initiatives in innovation development

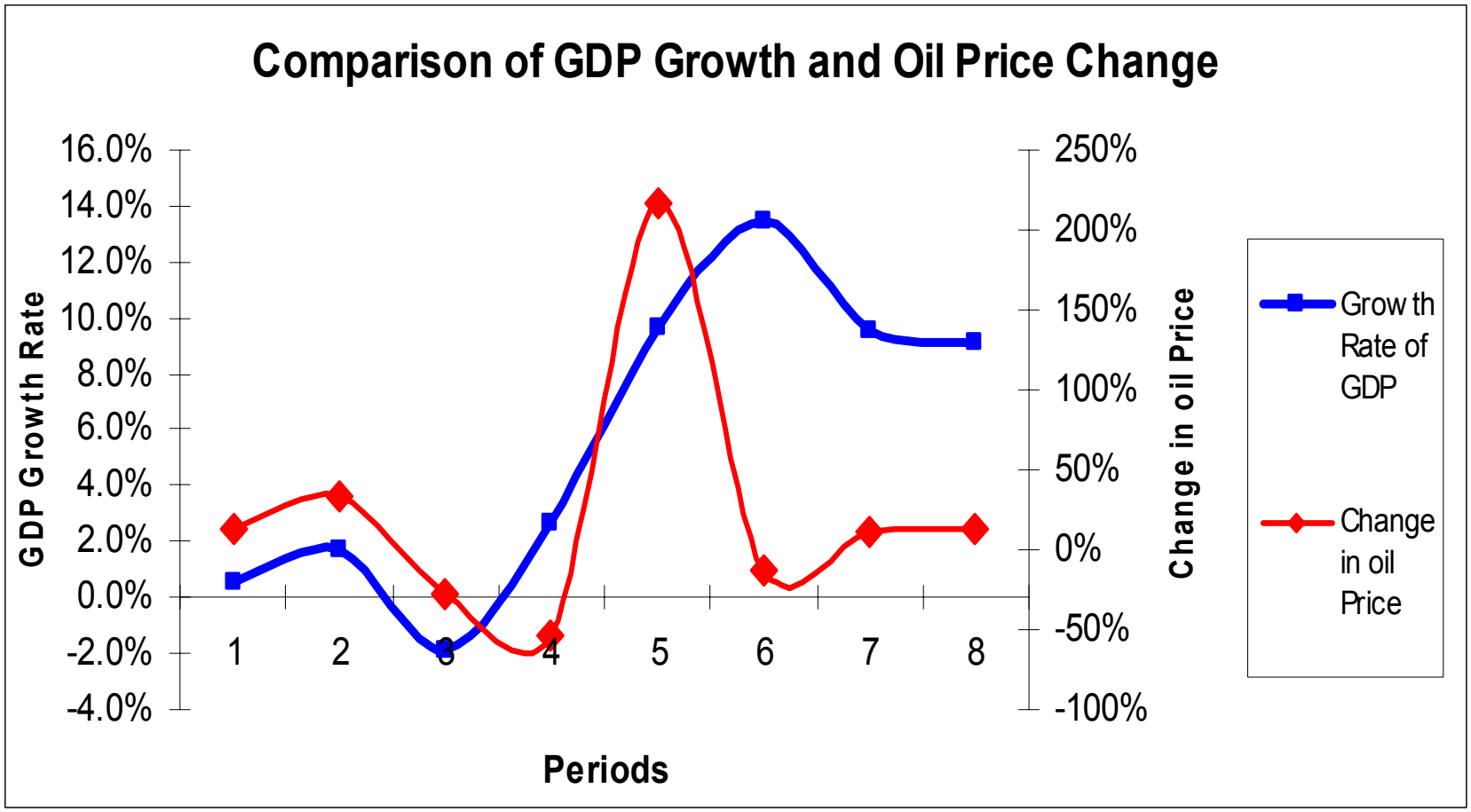
Kazakhstan Fact File

Location:	Central Asia
Area:	2.7 mln. Sq. Km. (9th largest country in the world)
Population:	15 mln. People
People	46% Kazakh, 34.7% Russian, 4.9% Ukrainian, 3.1% German, 2.3% Uzbek, 1.9% Tatar
Languages	Kazakh, Russian
Religion	47% Muslim, 44% Russian Orthodox, 2% Protestant
GDP per capita	3 620 USD

Kazakhstan Economy

- Ave. annual GDP growth for the last 3 years – 10.5%
  - *Oil and Gas sector – about 30% of GDP*
  - *Manufacturing – 14.5% of GDP*
- Export Profile (2004)
  - *Mineral Products – 68%*
- Oil and Natural Resources Dependency
- Very small share of innovation in the economy
  - *Less than 0.5%*

Kazakhstan GDP growth and oil prices



Competitiveness rank of the country (2005)

The Growth Competitiveness Index

1. Finland
2. USA
3. Sweden
6. Singapore
12. Japan
13. UK
14. Canada
15. Germany
17. South Korea
21. Austria
27. Israel
30. France
39. Hungary
49. China
50. India
51. Poland
55. Mexico
58. Bulgaria
61. Kazakhstan
65. Brazil
75. Russia
84. Ukraine
86. Georgia
116. Kyrgyzstan

Source: Global Competitiveness Report (GCR) 2005-2006

Obstacles to competitiveness

- mineral resource dependency of the economy
- low level of productivity
- concentration of SME in trade and service sectors
- insufficient integration with the world economy
- obsolete infrastructure and technologies
- administrative barriers
- gap between education system and labor market demands
- low level of use of R&D

What are we doing about it ?

Adoption of the Strategy for Industrial-Innovation Development for 2003 – 2015

Strategy for Industrial and Innovation Development of Kazakhstan : main goals

- Diversification of the economy
  - *Development of non-extracting sectors*
  - *Maintenance 7-8% annual growth in non-extracting sectors*
- Improving productivity
  - *Trebling productivity by 2015*
  - *Achieving productivity growth by 8-9% annually*
- Doubling GDP by 2008
- Reduction of energy intensity by half
- To be in the list of 50 top competitive countries by 2010
- Doubling the share of innovation activities in GDP

Kazakhstani Cluster Initiative as one of the results of the Strategy for Industrial-Innovation Development

- Objectives of the project:
  - *set pilot clusters example*
  - *create mechanism of effective public-private dialogue*
  - *creating favorable enabling and business environment*

- Project results:
  - *7 pilot industries for clusterization identified*
  - *action plan for pilot clusters adopted*

- Advisor: Michael Porter, Harvard University
- Contractor: J.E. Austin Associates Inc. USA

Development institutions

1. Development Bank	• *Long term loans*
2. Investment Fund	• *Equity share in projects*
3. SME Development Fund	• *Loans for SME*
4. State Insurance Corporation	• *Insurance of KZ exporters and investors*
5. Investment Promotion Agency “Kazinvest”	• *Information campaigns and assistance to potential investors*
6. CMAR	• *Market and policy analysis*
7. National Innovation Fund	• *Venture funds, grants for R&D, innovation infrastructure*

Increasing efficiency of development institutions

- "Kazyna" Sustainable Development Foundation as a new shareholder

- Directions of activities of "Kazyna"
  - *Improving corporate governance*
  - *Enhancing coordination between development institutions*
  - *Implementing break-through projects*
  - *Promoting export and investors interests in other countries*

What do we do in the development of innovations ?

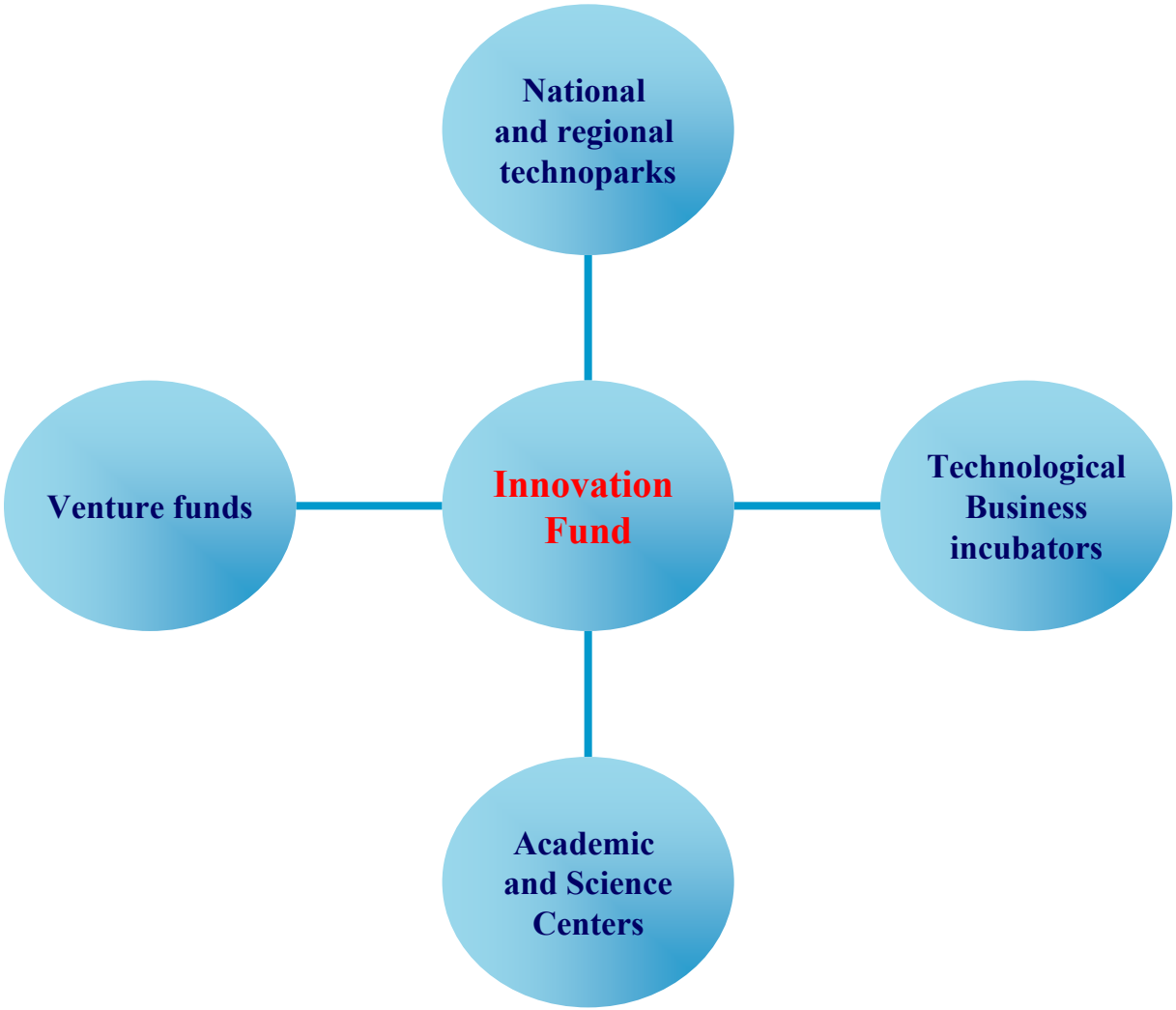
Main priorities in innovation policy

- Development of hi-tech productions
- Establishment of technology transfer system
- Creation of R&D infrastructure
- Realization of existing R&D potential
- Attraction of investments to R&D, commercialization of technologies

Priority of R&D investment directions

- Biotechnology and pharmaceutics
- Alternative energy
- IT
- Technologies for hydrocarbon sector
- New materials development, nanotechnologies
- Communication technologies
- Space technologies

Innovation infrastructure



Innovation Fund: direction of activities

- Participation in innovation projects – up to 5 mln. USD
- Participation in venture funds – up to 10 mln. USD
- Provision of grants for applied R&D – up to 0,25 mln. USD
- Participation in creating innovation infrastructure – up to 0,5 mln.USD.

National technological parks

- IT park
- Biotechnology park
- Nuclear technology park
- Petrochemical park
- Space monitoring park

Regional technological parks

• "Algorithm" Technopark in Uralsk	• engineering manufacture, instrument engineering, metalworking for oil-extracting and oil-processing industries, petrochemistry, environmental protection technologies
• "UniScienTech" Technopark in Karaganda	• mining and smelting, engineering manufacture, chemistry, ecology
• Almaty regional technopark	• construction, new materials, energy systems, chemistry

New initiatives for innovation development

- Implementation of break-through innovation projects and entering international market

- Purchase of shares of international companies which are involved in development of new technologies

Implications for other countries (1)

- World economy is becoming knowledge-based
- All countries should develop innovations in order not to be behind
- Each country has to find its own niche in the world market
- Innovations can be developed in two ways:
  - *development of new high-tech industries*
  - *introduction of new technologies in traditional industries*

Implications for other countries (2)

- Innovation development takes long time
- Government support is required
- Strong relations should be established: R&D institutions – Public organization – Business
- Necessary conditions for innovations:
  - *Strategy*
  - *Specialized institutions*
  - *Infrastructures*
  - *People with relevant skills*
- Implementation process is accompanied by mistakes and problems. Be ready.

Contacts: learn more about KZ development institutions

1. Development Bank	• www.kdb.kz
2. Investment Fund	• www.ifk.kz
3. SME Development Fund	• www.frmp.kz
4. State Insurance Corporation	• www.kecic.kz
5. Investment Promotion Agency “Kazinvest”	• www.kazinvest.kz
6. CMAR	• www.cmar.kz, www.cluster.kz
7. National Innovation Fund	• www.nif.kz

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Thank you