The 2006 Robert Schuman Lecture
The Honourable Leszek Balcerowicz
President, National Bank of Poland
Residence Palace, Brussels
23 January, 2006
Presentation Agenda:

I. Facts about Convergence and Divergence.

II. The Problems of Convergence and Divergence in Economic Literature.

III. Institutions, Policies and Systems.

IV. Three Basic Propositions about Convergence.

National Bank of Poland
I. Facts about Convergence and Divergence

• Prior to 1800, living standards differed little across countries and time. Modern economic growth started around 1800 in Western Europe (and its ethnic offshoots) bringing about an unprecedented acceleration in the growth of living standards in Western countries. Such acceleration did not take place in other countries until about 1950. Thus, “the big story over the last 200-300 years is one of the massive divergence in the levels of income per capita between the rich and the poor” (W. Easterly, R. Levine, 2000, p.18).

GDP per capita
(1990 International Geary-Khamis dollars, Western Europe and its ethnic offshoots = 100)
• While the Western countries as a group surged ahead, there was a substantial convergence of income levels in the West itself. The most widespread and intense convergence occurred during 1950-1973 when all the Western economies grew considerably faster than the USA.

GDP per capita (1990 International Geary-Khamis dollars, Western Europe = 100)

Source: Maddison Database.
• The post-World War II period brought about not only an accelerated convergence among Western countries, but also impressive catching-up by some other economies.

• However, there were also important examples of divergence during this period, most notably in Africa and to a lesser extent in Latin America. During 1970-1998, per capita income fell in 32 countries, while only seven developing countries showed rapid convergence.

*GDP per capita (1990 International Geary-Khamis dollars, Western Europe = 100)*

Source: Maddison Database.
• **The costs of communism**

Countries under communism lost a lot of distance to Western economies.

*Per-capita GDP (in 1990 international dollars) in 1950 and 1990:*

**Poland vs Spain,**

<table>
<thead>
<tr>
<th>Year</th>
<th>Poland</th>
<th>Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>2447</td>
<td>2397</td>
</tr>
<tr>
<td>1990</td>
<td>12210</td>
<td>5115</td>
</tr>
</tbody>
</table>

- (102%) to (98%)
- (42%)
- (239%)

**Hungary vs Austria,**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hungary</th>
<th>Austria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>2480</td>
<td>6471</td>
</tr>
<tr>
<td>1990</td>
<td>3706</td>
<td>16881</td>
</tr>
</tbody>
</table>

- (57%) to (149%)
- (149%)
- (38%)
- (261%)

Source: Maddison Database.
Per-capita GDP (in 1990 international dollars) in 1950 and 1990: North Korea vs South Korea and Cuba vs Chile.

Per-capita GDP (in 1990 international dollars) in China (Western Europe=100).
II. The Problems of Convergence and Divergence in Economic Literature

There have been differences in both emphasis and approach in the treatment of the convergence problem in economic literature.

- Economic growth was the main topic for Adam Smith and his followers and successors, including Karl Marx. The marginalist revolution in the late 19th century shifted economists’ attention to the issues of market exchange and allocation, under given resources, technology and consumers’ tastes. This static tradition was taken up and developed in general equilibrium theory. Nor did mainstream economic analysis focus on long-run growth until after World War II.

- Schumpeter (1912)*, one of the few to break away from the dominant static analysis of his time, can retrospectively be identified as a pioneer in the modern analysis of development. He focused on major technological breakthroughs and on the related role of the entrepreneur, defined as a person implementing inventions in business practice. However, his views on what institutional framework is conducive to technical change were rather ambivalent.

• Issues of risk taking and technical change surfaced in the debate over whether socialism can be as economically efficient as capitalism. Lange (1936) argued that the first order conditions for a static optimum could be implemented as well by a planner as in a market system. Schumpeter (1942) argued that under socialism innovations can be easily spread by decree. Critics, notably Mises and Hayek, emphasized the need for incentives, and issues of uncertainty and change. Subsequent experience awards victory in this debate to the latter group.

• Within theoretical literature, early models by Harrod and Domar were the precursors of two generations of growth models, those originating from Solow (1956) and the ever-growing endogenous growth theory approach originating from Lucas (1988) and Romer (1986). Within this literature, Barro pioneered cross-country econometric research on the determinants of longer-term growth.

• Starting after World War II, the economic profession and multinational organizations had to address the problem of underdevelopment in the poorer countries, now named the less developed countries (LDCs). Among the pioneers in this literature were Albert Hirschman, Arthur Lewis, Paul Rosenstein-Rodan, and Walt Rostow.
Two basic approaches to the study of longer-term growth may be distinguished.

1. "Quantitative" approach  
(R. Harrod, E. Domar, R. Solow, D. Romer, R. Lucas)

2. "Qualitative" approach  
(Free market)  
(A. Smith and his classical followers, F. Hayek, D.C. North, H. de Soto, G.W. Scully, D. Acemoglu)  
(Statist)  
(K. Marx, Old Development Economics)
III. Institutions, Policies and Systems

“Institutions are the rules of the game in society; more formally, they are the humanly devised constraints that shape human interaction. Thus, they structure incentives in exchange, whether political, social or economic.”

- D.C. North (1998, p. 95)

The relationship between institutions and policies

- Bottom-up reforms (spontaneous)
  - Institutional framework (system)
    - Reforms or “structural” reforms
      - Policies
        - Macroeconomic policy
Various institutional systems can be distinguished based on the criterion of **economic freedom** as expressed through the concept of property rights, which have several dimensions.

- At the basic (constitutional) level three types of **property rights regimes** can be identified:
  
  (i) **open (liberal)**, which allows the choice of both private and non-private types of enterprises;

  (ii) **closed**, which ensures the monopoly of just one type of non-private firm (state-owned or labor managed) and

  (iii) **mixed**, which preserves the monopoly of SOEs in some sectors (e.g. oil in Mexico).

The property rights regime and the resulting ownership structure fundamentally influence economic performance.

- There are some other dimensions (including within open property rights regime):
  - **Extent of anticompetitive regulations** (A. Lewis, S.P. Scarpetta)
  - **Burden and type of taxation** (V. Tanzi, L. Schuknecht, M. Feldstein, A. Skinner, G.M. Milesi-Ferretti, N. Roubini)
  - **The level of the rule of law** (H. de Soto, S. Knack, P. Keefer, R. E. Hall, C. Jones)
**Growth trajectories** differ enormously in the extent of their variability. These differences are partly due to differences in the external shocks that hit economies. However, some negative shocks are produced at home and countries may differ in their ability to cope with external shocks.

It is useful to distinguish two types of institutions:

- **Propelling institutions** – determine the systematic forces of growth. They include various dimensions of property rights as well as the extent of anticompetitive regulations.

- **Stabilizing institutions** – determine the frequency and severity of domestic shocks and the capacity of the economy to deal with external shocks. They include institutional constraints (if any) on monetary and fiscal policy, some institutional features of the financial sector and its environment (the extent of market discipline, the relationship between the state and banks, prudential regulations, supervisory institutions) and the institutional characteristics of the labor market.

<table>
<thead>
<tr>
<th>Propelling institutions</th>
<th>Stabilizing institutions</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>strong</td>
<td>strong</td>
<td>United States, Australia</td>
</tr>
<tr>
<td>strong</td>
<td>weak</td>
<td>Asian tigers until 1998 (?)</td>
</tr>
<tr>
<td>weak</td>
<td>strong</td>
<td>Portugal under Salazar, until the economic liberalization in the 1960’s</td>
</tr>
</tbody>
</table>
IV. Three Basic Propositions about Convergence

Proposition 1:

No poor country has lastingly converged under any variation of a statist institutional system or under a failed state system. By implication, an institutional change that results in such a system also precludes lasting convergence.
The statist system, by definition, crowds out legal market competition and/or produces serious breakdowns in economic growth.

- The main varieties of statist system are as follows:
  1. Systems with a closed property rights regime (i.e. with a ban on the creation of private firms). The main example of this is Soviet socialism in which, in addition, central planning replaced co-ordination by the market.
  2. Systems with nominally liberal or mixed property rights regimes, but having at least one of the following features:
     2.1. A dominant state sector;
     2.2. Very limited competition due to strong anticompetitive regulations on entry to the market and/or on import of goods, capital and technology;
     2.3. Other very restrictive regulations impacting the adoption of new technologies, especially restrictive labor practices (neo-guilds).

Characteristics 2.2 and 2.3 imply a strong attenuation of private property rights.

2.4. The protection of property rights is limited to a privileged minority, while a large portion of the population operates in the informal sector;
2.5. Low general level of protection;
2.6. A profound weakness of stabilizing institutions, leading to chronic or frequent and profound macroeconomic imbalances.
A **failed state system** is defined by a very low level of protection of private property rights and in the extreme by a negative protection (**predatory state**). Thus the radically reduced level of protection of private property rights is a defining feature of a shift toward failed states whereby ostensibly state agencies are in fact instruments of a private plunder. This state of anarchy may be distinguished from the statist systems where corruption is not a defining feature (although it often occurs in practice). A bad system dominates the impact of private morality of its officials.

<table>
<thead>
<tr>
<th>Country</th>
<th>Index value</th>
<th>Real GDP growth in the last 10 years*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somalia</td>
<td>-2.31</td>
<td>n/a</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>-1.81</td>
<td>n/a</td>
</tr>
<tr>
<td>Liberia</td>
<td>-1.76</td>
<td>n/a</td>
</tr>
<tr>
<td>Congo, Democratic Republic</td>
<td>-1.74</td>
<td>-0.6</td>
</tr>
<tr>
<td>Haiti</td>
<td>-1.66</td>
<td>1.7</td>
</tr>
<tr>
<td>Sudan</td>
<td>-1.59</td>
<td>6.3</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>-1.53</td>
<td>-2.4</td>
</tr>
<tr>
<td>Burundi</td>
<td>-1.50</td>
<td>-0.4</td>
</tr>
<tr>
<td>Nigeria</td>
<td>-1.44</td>
<td>3.8</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>-1.44</td>
<td>0.6</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>-1.43</td>
<td>7.4</td>
</tr>
<tr>
<td>Cote d'Ivoire</td>
<td>-1.42</td>
<td>2.0</td>
</tr>
<tr>
<td>Angola</td>
<td>-1.33</td>
<td>7.4</td>
</tr>
</tbody>
</table>

* The lowest rated countries with regard to the rule of law in 2004 according to the World Bank Governance Indicators

| Index range: from -2.5 (the worst) to 2.5 (the best). |
Proposition 2:

• All successful cases of sustained convergence have happened:
  1) under more or less free market systems, or
  2) during and after the transition to such systems, i.e. due to institutional change in the free market direction (successful transitions).

• Some special issues:
  – transition effects,
  – growth miracles,
  – experience of post-communist transition.
Transition effects:

• The acceleration of growth does not have to wait till the completion of the reforms. Rather, *growth may accelerate during the reforms*: improvements in the direction of a market system can increase growth. These can be called *transition effects*.

• The transition effects increase growth because they increase productivity in the previously repressed sectors (e.g. *agriculture in China, or retail trade in the Soviet system*) or because the previous incentive structure encouraged massive waste (command socialism). Such transition effects tend to expire after a certain time and the rate of subsequent growth largely depends on the strengths of permanent incentives to work, to save and to innovate.
Growth miracles:

- Some exceptionally rapidly growing countries have been referred to as *growth miracles*. Some have argued that a growth miracle can occur only in countries that start with a large development gap and, especially, a large technology gap relative to the leader. This is Gerschenkron’s advantage of backwardness. However the case of **Ireland** suggests that it is not necessary to begin far behind to become a growth miracle.

- There are three main types of explanations proposed for growth miracles:
  1. some special state interventions (e.g. directed credits, state-led industrialization);
  2. the combination of special state interventions and an improved general framework for private economic activity; and
  3. improved framework for private economic activity (compared to other LDC) including a limited fiscal position of the state.

### Public spending/GDP ratio (%)

*Source: EcoWin.*
The experience of post-communist transition

Real GDP, 2004 (1989=100).

The principal factors explaining differences in growth rates are:

• initial conditions,
• external developments (e.g. the Russian crisis) including:
  - access to markets,
• location,
• extent of market reforms and the nature of macroeconomic policies.
• The extent of market-oriented reforms constitutes the most important explanatory variable.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Citation</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Havrylyshyn, Oleh, Wolf, Thomas (2001)</td>
<td>&quot;Unfavourable initial conditions should not become an excuse for inaction. (...) First, their negative effects decline over time. Second, the empirical studies clearly suggest that these effects can be compensated by modestly faster progress on reforms. Third, perhaps the main fact is indirect; that is, unfavourable initial conditions result in less political will and capacity for reform, and less reform means less growth.&quot;</td>
<td></td>
</tr>
<tr>
<td>Mervar, Andrea (2002)</td>
<td>„After the dominant influence of ‘transition’ factors, such as structural reforms, macroeconomic stability and initial conditions in the early transition years, increasing importance in explaining economic activity during later years is attributed to the openness of an economy as well as indicators of institutional development.”</td>
<td></td>
</tr>
<tr>
<td>Polanec, Sašo (2004)</td>
<td>&quot;(...) we find that in later stages of transition, measures of economic reforms matter for productivity growth, although with a lag, which is in our exercise equal to four years. This result confirms the importance of reform efforts in enhancing the potential for growth.”</td>
<td></td>
</tr>
<tr>
<td>Krueger, Anne O. (2004)</td>
<td>&quot;(...) it is worth noting that those transition countries that experienced the most rapid structural reforms have, by and large, experienced more rapid growth. This is true, for example, of the Baltic States. In recent years, Russia has also seen higher rates of growth – a result, in large measure, of reforms that were implemented in the 1990s.”</td>
<td></td>
</tr>
</tbody>
</table>
Countries which introduced more market-oriented reforms, tend to achieve better economic results.

**GDP level in 2003 (1989=100) and average value of EBRD liberalization index (1991-2005).**

The EBRD liberalization index is a composite index calculated as an arithmetic average of the 8 EBRD liberalization indices published in the EBRD Transition Reports (index of price liberalization, index of forex and trade liberalization, index of small-scale privatization, index of large-scale privatization, index of enterprise reform, index of competition policy, index of banking sector reform, index of reform of non-banking financial institutions). EBRD Index: value 1 (minimum) – very little (or no) progress since the fall of communism; value 4.3 – standards and performance typical of advanced industrial economies.

Source: EBRD Transition Reports.
Some transition countries are catching up quickly with the ones that are already advanced in reforms.

Armenia

Real GDP growth (annual rates, in %).

Consumer price index (in %).

• Armenia is an example of a post-communist country with a limited state.

**Average general government expenditure (as % of GDP).**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>26.1</td>
<td>25.5</td>
<td>25.6</td>
<td>30.1</td>
<td>25.9</td>
<td>20.9</td>
<td>19.3</td>
<td>18.9</td>
<td>16.0</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>12.9</td>
<td>16.3</td>
<td>16.9</td>
<td>19.3</td>
<td>17.7</td>
<td>17.1</td>
<td>14.6</td>
<td>14.3</td>
<td>14.1</td>
<td></td>
</tr>
</tbody>
</table>

**Tax revenues (as % of GDP).**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>12.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>12.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Average general government balance (as % of GDP).**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>-8.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>-3.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


National Bank of Poland
Reforms in Armenia led to an expansion of economic freedom.

Economic Freedom Index*
(The lower the value of the index and rank, the greater the extent of economic freedom).

* The index level is based on a composite index calculated as an arithmetic average of 10 sub-indices: (1) Trade, (2) Fiscal Burden, (3) Government Intervention, (4) Monetary Policy, (5) Foreign Investment, (6) Banking Finance, (7) Wages/Prices, (8) Property Rights, (9) Regulation, (10) Informal Market. The ranking included about 150 countries.

Source: Heritage Foundation.
Real GDP growth (annual rates, in %).

Consumer price index (in %).

- Lithuania managed to cut public expenditures and reduce the fiscal deficit.

General government expenditures (as % of GDP).

Tax revenues (as % of GDP).

General government balance (as % of GDP).

Source: Eurostat.

National Bank of Poland
Reforms in Lithuania resulted in an increase in the extent of economic freedom.

Economic Freedom Index*

(The lower the value of the index and rank, the wider the extent of economic freedom).

* The index level is based on a composite index calculated as an arithmetic average of 10 sub-indices: (1) Trade, (2) Fiscal Burden, (3) Government Intervention, (4) Monetary Policy, (5) Foreign Investment, (6) Banking Finance, (7) Wages/Prices, (8) Property Rights, (9) Regulation, (10) Informal Market. The ranking included about 150 countries.

Source: Heritage Foundation.
Proposition 3:

While all the successful cases of sustained convergence have taken place under more or less free market systems, or during and after the transition to such systems, not all market-oriented reforms have led to lasting convergence.
It is all too easy to find examples of market-oriented reforms that failed to produce lasting convergence. One should distinguish between non-genuine and genuine failures. Let me start with the non-genuine failures:

- First, reforms are frequently announced but are not implemented or are implemented to a lesser extent than planned.
- Second, reforms may be implemented initially, but then reversed or seriously attenuated. In both these cases, critics may blame the announced reforms, rather than the failure to implement them, for the failure to converge.
- Third, some authors acknowledge that it was the reversal of reforms and not the reforms themselves that caused a lack of convergence, but blame the reforms and the reformers for their rejection, linking them to social or political protests. Such critics tend to take it for granted that there existed some milder reforms, which, if implemented, would have avoided the protests while producing the desired economic results.
There are nonetheless genuine reasons why market reforms may fail to generate lasting convergence. Let me note three, which should be regarded as hypotheses meriting future research:

1. Market-oriented reforms may fail to produce convergence, if they are _incomplete in a critical way_, in particular _by violating crucial complementarities_.

2. Market-oriented reforms may fail to generate convergence if some of their crucial details are badly structured and induce operational failures. Examples include a serious misspecification of the initial level of a fixed exchange rate peg, or an incorrect incentive structure in the bankruptcy law.

3. Some regions may be of such an inhospitable nature or so distant - in terms of transportation costs - from large markets that no profitable economic activity can develop there. In such situations market-oriented reforms cannot produce lasting convergence. However, such a geographical predicament at the country level, while present in parts of Africa and on other continents, is still relatively rare, as there are few countries with a sizeable population that consists only of inhospitable and distant regions.