Economic Miracles: Institutions and Growth Promoting Policies

Victor Polterovich and Vladimir Popov

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Assistant: Alexander Tonis

1. State of the Art

If rapid economic growth in a particular country continues for several decades, it is usually described as economic miracle. The undisputed cases of economic miracles so far include Japan, South Korea, Taiwan, Singapore and Hong Kong – 5 East Asian countries that were still developing around 1950 and that became developed several decades later, effectively catching up with the Western countries in terms of per capita income and consumption. Quite often the term "economic miracle" is applied to other countries that exhibited very high rates of growth for several decades, but either started from a rather high base (postwar Germany and Italy, more recently – Ireland and Norway), so were classified as developed countries before, or started from a very low base (Botswana, Malaysia, China, etc,) and are still classified as developing countries. Finally, often small oil rich countries (Brunei, Equatorial Guinea, Oman, Qatar, Trinidad and Tobago, UAE) that managed to increase their per capita income as a result of the favorable shifts in the terms of trade (increase in oil prices) are also labeled as "economic miracles", but we do not consider these cases, unless the improvement in the terms of trade was associated with the considerable acceleration of growth.

In a sense, the general picture of miracle "dynamics" is similar in different countries. Consider several examples.

"Spanish miracle" (1959-73) – in 1959 Spanish GDP per capita constituted 30% USA level. In 1974 it was already 56%. Afterwards, the catching up process stopped. In 1994, the relative Spanish GDP per capita level was the same as in 1974. In 2005 it was equal to 61.5%[1].

Portugal experienced high economic growth in 1959-1973 as well. This country started from a GDP per capita level of 26% relative to the USA and reached about 46% in 1973. In 1994 and 2005 the figures were 49% and 47% respectively.

For Japan the figure were as follows: in 1950 – 20%., in 1983 -76%, in 1991 -90%, in 2005 - 75% of the USA GNI per capita level.

In 1962 Korean GDP per capita was just 11.4% USA level. In 1992 it raised up to 46%. Afterwards the catching up speed diminished drastically. In 2005 Korean GNI per capita reached 52% USA level. Nam (1995, p.159) writes that "real GDP of Korea has increased more than 18-fold during the 1962-91 period, with an average annual growth rate of 10.6 percent. This contrasts with an average growth rate of 3.6 percent during the earlier…period of 1954-62".

In 1994, when fast growth suddenly started in Ireland, its GDP per capita was almost the same as in Spain, about 56% USA level. In 2005 it reached 83%, more than one third higher than in Spain.

Thus one can see that in most cases miracle-type catching up dynamics follows a similar pattern: a shock-wise start, a very fast development, coming to a halt at a certain point.. What are the mechanisms determining this pattern?

This pattern can be described as a quick transition from one equilibrium trajectory to another in a system where the multiplicity of equilibria takes place. There is a number of economic models

[1] All figures for 2005 are relative GNI that is very close to relative GNP.

that explain the phenomenon of multiple equilibria. In our context, it is important to understand which factors and mechanisms can help the economy to get out of a low efficient equilibrium (a trap) and to start fast economic growth, and what are the factors bringing this growth to a halt. Are these mechanisms associated with the spontaneous development, institutional reform, macroeconomic or industrial policies? Why are "economic miracles" so rare events in the modern economic history? What are the obstacles to replicate them in other countries?

Existing literature is very controversial and contains only partial and incomplete answers on the questions formulated above.

In fact there are several strands of literature related to the topic.

First, a general theory of endogenous economic growth that studies why rates of growth are so different in different economies (Aghion, Howitt (1998)). In particular, poverty trap theories (Matsuyama (2005)) suggest explanations of slow growth but do not explain exceptionally fast development.

Second, modern institutional theory (including the new political economy) tries to explain variations in efficiency of economies by the differences in their institutions – cultural and behavior norms, quality of bureaucracy, legal and political structures of society, etc. (Aaron (2000), Acemoglu, Johnson, Robinson(2004), Persson, Tabellini (2000).). There are attempts to build theories explaining how government economic policies have to evolve depending on the stage of economic and institutional development of a country (Acemoglu, Aghion, Zilibotti (2002a,b), Полтерович, Попов (2006a,b)) . Again, this strand of literature does not give us a clear answer about causes of economic miracles.

Third, there are numerous studies of economic miracle countries. According to a number of researches (World Bank (1993), Ito (2001)), the following factors were prerequisites of the East Asian miracles.

1) A stable macroeconomic environment.
2) High savings and investment rates.
3) High quality human capital.
4) A merit based bureaucracy.
5) Low income inequality.
6) Sophisticated institutional reforms and growth promoting government policies.

Let us consider these points in greater detail.

All researchers agree that economic miracle can not occur under high inflation. There is a question, however, to what extent efforts to bring inflation down are compatible with growth enhancing policies. In the initial period, East Asian "miracle countries" experienced moderate (but not very low) inflation. For example, in Korea average growth of wholesale price index was 12.2% in 1962-1981 and 19.5% in 1981-1991 (Nam, 1995, Table 6.3). There are evidences that disinflation may be harmful for growth if inflation is below some (specific for each economy) threshold level (see Полтерович (2006b) for a survey).

Asian economies are known for their high savings and investment rates. For "miracle economies" investment rate exceeded 30% of GDP in some periods. In the initial periods of "miraculous" growth the figures were much less impressive, however. For example, in 1963 investment rates in Korea, Singapore and Taiwan were about 18% (Krueger, 1995, p. 14). The same dynamics was observed for the saving rates as well. For example, in Korea, domestic saving rate was 3.3% in 1962, 15.5 in 1971, 21.7 in 1981, 36.2 in 1991 (Nam, 1995, Table 6.3). This means that high savings and investment rates are not prerequisites, but rather results of miracles.

It is not quite clear which level of human capital and bureaucratic quality are necessary to trigger an economic miracle[2]. Nevertheless, there are no doubts that both factors are very important as well as such factor as low income inequality.

There were attempts to explain East Asian economic growth as a consequence of physical and human capital accumulation only (Young, 1995). However, Aghion and Howitt (1998, ch.12) using Schumpeterian dynamics approach demonstrated that technology transfer was an important (maybe, the most important) factor of miracles. Cebrian and Lopez (2004) argued that the main source of Spanish miracle was technology transfer.

The role of institutional reforms and government growth promoting policies in creating economic miracles is the most controversial issue.

East Asian and European miracles took places under very different initial conditions and institutional structures. Nevertheless, they have important common feature. As a rule they started from rather centralized system (except Ireland) and liberalized their economies very gradually. In all of them, including modern Ireland, miracle was designed in the framework of development plans, and special institutions were created to develop planning procedures and to stimulate fulfillment of plans. A central feature of all planning procedures was intensive interaction and close cooperation between the business and the state (Kuznetz (1988), Qian (2003), Stiglitz (2001), World Bank (1993, 1997), Rodric (1995a,b), Cazes (1990), Jantti et al (2005)).

The evolution of economic policies in "miracle countries" proceeded depending on their stage of development. The analysis presented in Полтерович, Попов (2006a, b) allowed to trace the major directions of such evolution – from import substitution to export orientation, from regulation of import tariffs to non-selective policy of the real exchange rate undervaluation, from import of technology to domestically based research and development, from creation of large companies to support of small and medium-size firms. It was argued that the impact of each type of policy may be positive or negative - in many cases a threshold combination of GDP per capita and institutional quality indicators may be found to separate two different outcomes. A precondition of economic success is the timely switching of economic policies to avoid both types of mistakes: excessive inertia or premature use of instruments that are effective for more advanced stages of development only. We hypothesize that one of these mistakes was a cause of particular miracles running out of steam, as was mentioned above.

2. Goals of the Project and Methodology

Most general goals of the project were already described: we will try to understand which factors and mechanisms may cause an economy to get out of a trap and start very fast economic growth, and what are the causes of going back to the low growth trajectory. Is it spontaneous development, institutional reform, macroeconomic or industrial policies? Why are "economic miracles" so rare events in the modern economic history? What are the obstacles to replicate them in other countries?

The narrower goals of the project are fourfold. First, one has to compare East Asian and European miracles to reveal common features and differences in mechanisms and policies. Our central hypothesis is that a truly engine of economic miracle is the effective technology transfer. This means borrowing more advanced (not necessarily the most advanced) technologies[3], facilitating their propagation throughout the country and replacing them by even more advanced technologies at an appropriate moment of time. Institutional reforms, human capital improvements, industrial policies all should be subordinated to this goal. In particular, we intend

[2] In earlier ninetieth, China was evaluated as more corrupted country than Russia.
[3] Technology is understood in a broad sense including methods of accounting, governance, etc.

to analyze and to compare government policies in transition and developing economies to reveal what were the causes of the relative success in China and Vietnam.

Second, we hope to improve our general understanding of the state capacities to boost economic growth. If both the market and the state are imperfect and weak, what can be done? Is there a threshold that separates the area where the state helping hand is more effective than market invisible hand? What kind of instruments - direct subsidies, tariffs, capital control with non-equilibrium interest rate or exchange rate - have to be used for different situations? We hope to develop a number of political economy models to answer these questions. One of the most challenging tasks is to describe the mechanisms responsible for the start and the end of miracles in a unique framework.

Third, we intend to study to what extent the sophisticated growth promoting policy is compatible with democratic or authoritarian decision making. Is it merely by chance that "economic miracle countries" - Japan, Korea, Taiwan, Singapore, Hong Kong and recently China - restricted democratic freedoms for a considerable period of time? To answer this important question one needs to combine methods of exogenous growth theory and the new political economy (Persson, Tabellini (2000)). It looks plausible that, to be sustainable, changing growth promoting policy requires political stability and long-term planning horizon of median voter or ruling elite. These conditions are rare in developing countries, and this may explain why so few countries were able to adopt successful catch-up strategies. Additional difficulties may arise if a country is resource abundant (Robinson,Torvik, Verdier (2006), Polterovich, Popov (2006), Polterovich, Popov, Tonis (2007)).

Fourth, we could try to analyze to what extend current Russian conditions are compatible with those conducive to the emergence of economic miracle. What are the main “binding constraints” (Rodrik, Hausmann, Velasco (2005)) that hold back economic growth in Russia?

Having in mind a synthetic nature of the project, we intend to make use of theoretical and empirical approaches combining endogenous growth models, institutional theory, and econometrics analysis.

We start our research seminar with discussing and comparing miracles in different countries and studying related endogenous growth models. Then students are expected to chose their topics and report their own findings.

3. Tentative topics for master theses

1. Comparison of “growth miracles” – what do they have in common and how they differ?
2. Explaining economic miracle dynamics.
3. Catching up strategies: the role of technology transfer.
4. Industrial policy, corruption and lobbing: Can weak government correct market failures?
5. Growth promoting policy in resource rich countries – can it overcome the resource curse?
6. Industrial structure and industrial policy in a transition economy with large resource sector.
7. Economic openness and growth.
8. Import substitution vs. export support: where is a growth promoting balance?
9. Trade protectionism versus exchange rate policy.
10. Economic miracle and democratization.
11. Domestic prices for fuel and energy – does it pay off to keep them low?

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