

# economic

## Policy and Poverty

periodical

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1. Economic growth recorded in Armenia was prominent in 2003 at 13.9 percent, resulting in a per capita GDP of USD 871,<sup>1</sup> which exceeds the 1990 level by 5.5 percent. Making cross-country comparisons, we see that per capita GDP in 2003 adjusted for purchasing power parity amounted to USD 3343<sup>2</sup>. At the same time, poverty remains quite high: according to the household survey of 2002, 49.1 percent<sup>3</sup> of Armenians live below the poverty line.  
Thus, recent trends of income generation in Armenia are not compatible with the social situation. Per capita income generated in the economy currently exceeds even the level of the last years of the Soviet Union, but contrary to this, the social situation has worsened with poverty at 49.1 percent compared to 20 percent in 1988.
2. It is worthwhile, that, like 2002, the growth rate of the economy has accelerated during 2003. Higher growth rates were recorded in industry (15.4 percent) and transport and communications (8.2 percent). 3.1 percentage points out of the total 13.9 percent growth were contributed by industry (21.5 percent of total GDP), 5.7 percentage points by construction (15.8 percent of GDP), and 1 percentage point by the agricultural sector (21.5 percent of GDP). Domestic demand, as compared to the previous year, grew faster than external demand, resulting in a 20 percentage points reduction in the domestic-to-external demand ratio.
3. According to official data, income polarization in the economy decreased by an enormous rate: the GINI coefficient shrank by 0.1 during a year (2002 indicator compared to 2001). Simple estimations based on the published economic growth rate and the GINI coefficient suggest that poverty incidence in 2002 should be nearly 0, while the official statistics state it at 41.9 percent.
4. The unemployment rate is estimated at 33.3 percent<sup>4</sup>, a decrease of 2 percentage points from the previous year. This decrease implies that labor efficiency grew by 16 percent. According to the same survey, unofficially employed workers constitute 25.3 percent of total employment. If we assume that employers need to pay at least AMD 5000 per employee per month to the State Fund of Social Security, a minimum of AMD 19.9 bln (or 36.9 percent of the projected revenues of the Fund) was not collected or was omitted from social payments collections.
5. Both exports and imports grew at quite high rates in 2003: 34.2 and 28.6 percent respectively. High import growth rates were partly due to increasing demand for imported raw materials and consumer goods (e.g., imports of ready-made food products grew by 117.2 percent). As a result, the trade balance deficit grew by 22.6 percent. Exports to CIS countries grew by 31.6 percent, while imports from CIS grew by 2.6 percent. The same indicators for non-CIS countries grew by 34.9 and 40 percent respectively.
6. In 2003, inflation was relatively high compared to recent years—4.7 percent<sup>5</sup>. The major factor affecting the price index was a striking growth of 30 percent in the average price of bread. That increase caused an increase in the price of the minimum consumer basket of 5.7 percentage points; inflation excluding bread prices equaled 2.9 percent in 2003. Inflation during recent years remains quite low—under two-digits. Given the strong growth in demand, this stability suggests that aggregate supply is relatively elastic.
7. Interest rates continued to fall throughout 2003. Repo rates of the Central Bank of the Republic of Armenia fell by 6.5 percentage points as compared to January 2002 and reached 7.0 percent in December 2003. The difference between commercial banks' interest rates on deposits and loans of grew by 2.61 percentage points. Average weighted interest rates on treasury bills shrank significantly – by 2.2 percentage points, thus providing for an average annual rate of 15.65 percent for 2003.

<sup>1</sup> Per capita GDP for present population figure is about USD 932.2.

<sup>2</sup> Purchasing power parity is assumed to be equal to 2002 level - 3.8.

<sup>3</sup> It is worth to mention, that there are serious inconsistencies between GINI coefficient obtained through the 2002 household survey and 2002 National accounts indicators, which makes any analysis of the income polarization for 2002 almost non-feasible.

<sup>4</sup> According the summary data of 1161 households sample survey on labour, 1<sup>st</sup> half of 2003.

<sup>5</sup> Prices grew by 8.6 percent during December, 2002 – December, 2003.

## Response to ‘Several Issues regarding government regulation of monopolies’ article\*

The interesting article on regulation of monopolies suggests the idea that there are two distinct models for competition policy, the European model, lenient on monopolies, and the American model, more strictly anti-monopolist.

From there, the author derives the conclusion that there would exist such thing as an ideal balance between monopolies and competition, which implies the idea that under some circumstances, the economic optimum would involve some level of monopoly and that, at some stages in history, some countries in Europe actually opted “for” monopolies.

I think this is a misunderstanding. Ever since Adam Smith, more competition has always been better than less competition. Competition, by reducing the market power of any single agent, makes each individual firm “atomistic”, to use the economic jargon, which means “powerless” in terms of market, since each agent is too small to influence market price or consumer behavior. In this sense, monopoly—full control of a market by a single agent—is never desirable.

Hence monopoly is no good and competition policies across the world, including in the US and in Europe, are unequivocal on this. What is more, competition is increasingly a global matter; and competition policy and regulation will become increasingly a multilateral matter.

The real issue is not whether—or in what discreet quantity—competition is desirable. Indeed, the answer to that is more competition is always better. The real issue is how to achieve a competition-prone environment.

In terms of specific instruments, competition policies have differed widely between Europe and the US and, indeed, other regions, because of large differences in the history of economic development, in particular in terms of the formation of large single markets and of a different articulation of the relations between financial institutions, big business and governments.

Competition policies in Europe and the U.S. have also become very elaborate and complex in terms of their legal implications, involving a broad array of issues like market entry, mergers, pricing and marketing strategies, etc. But none of this is relevant to the case of Armenia. What we have in Armenia is high to extreme concentration or quasi monopolies in a number of industries, particularly in the area of agro-industry. And the issue is: what can you do about it, if anything?

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\* EPP 6, November 2003, page 6-7, “Several Issues Regarding Government Regulation of Monopolies” by Mikayel Mikayelyan.

## Statistical Analysis of Foreign Trade Development Trends in Armenia

Alexander Petrosyan

Analyses of trends of main macroeconomic indicators of Armenia for the last five years reveal some socio-economic trends specific to the transition to market. It is worth noting that the economic crisis had a negative influence on volumes of foreign trade: in particular, foreign trade turnover shrank more than 16 times from 1990 to 1992. Exports shrank more than 24 times, while imports – 13 times.

Table 1. Selected Macroeconomic indicators for Armenia

	1997	1998	1999	2000	2001	2002	2003*
GDP, USD mln	1639	1892	1845	1912	2117	2367	2796.6
FDI flows, USD mln	51.9	232	135	125	75.9	149	150
Exports of goods, USD mln	232.5	220.5	231.7	300.5	341.8	505.2	648.1
Imports of goods, USD mln	892.3	902.4	811.3	884.7	877.4	987.2	1269
Propensity to export, %	20.4	19.0	20.7	23.3	25.5	29.5	30.8
Propensity to import, %	59.1	52.8	49.7	50.5	45.9	46.8	49.8
Degree of Economic Openness, %	79.5	71.8	70.4	73.8	71.4	76.3	80.6
Terms of Trade	...	1.15	0.96	0.99	0.91	1.10	1.03

\* Preliminary data

Nevertheless, economic stabilization and growth since 1995 also positively affected foreign trade, especially since 2000. During 2000-2003, along with an average 10 percent real annual growth, the foreign trade turnover grew by 16.4 percent, including average annual export growth of 29.3 and import growth of 11.8 percent. In 2003 alone, trade turnover grew by 30.5 percent, with 34.2 percent export growth and 28.6 percent import growth. Consequently, the import coverage ratio (exports/imports) grew from 0.29 in 2000 to 0.51 in 2003.

Bilateral agreements signed with other countries, as well as the accession of Armenia to various international organizations (especially the World Trade Organization), boosted foreign trade. As a result, the organization of foreign trade was modified. Whereas in the first years of transition, foreign trade was implemented on occasional contracts (single contracts), in recent years, foreign trade partners collaborate in accordance to the international standards in this field.

Foreign trade development was accompanied both by geographical expansion and modification of trade composition. In the first stages, Armenia was trading mainly with other CIS countries, however, in recent years, foreign trade expanded to the European Union (77.6 and 32.4 percents of total turnover in 2000 respectively, as compared to 28 and 13 percents in 1993). The geographic dispersion of the foreign trade of Armenia shows that, while improving the living standards of Armenians, it further expanded to developed countries (EU countries, USA, Canada, Switzerland, etc.) Together with other factors, this can be attributed to a better adaptation of Armenian exporters to countries with advanced marketing conditions. Due to this adaptation, in 1999-2001, the negative terms of trade also improved significantly, i.e., currently foreign trade is more profitable (See Table 1).

It is widely accepted that the development of the Armenian economy with its small domestic market largely depends on an excessive growth of its exports. Exports of Armenian goods showed growing trends in recent

years (See Table 1). Nevertheless, it is worth noting that the export base is still quite limited, since the products produced under current production possibilities constraints that could be exported do not comply with international market requirements. Meanwhile, the growing external debt of the Republic of Armenia (net external liabilities totaled USD 1.5 bln) implies that the development of export-oriented industries is crucial for Armenia. In this context, it is worth noting that 25.8 percent of goods produced (excluding diamonds and scrap metal) in Armenia were exported in 2003, and the rest was consumed domestically.

Exports of precious and semi-precious stones and metals still constitute the largest share in total exports. Traditionally export-oriented industries, such as textiles and machinery and equipment, currently have insignificant shares in total exports, even showing a declining trend.

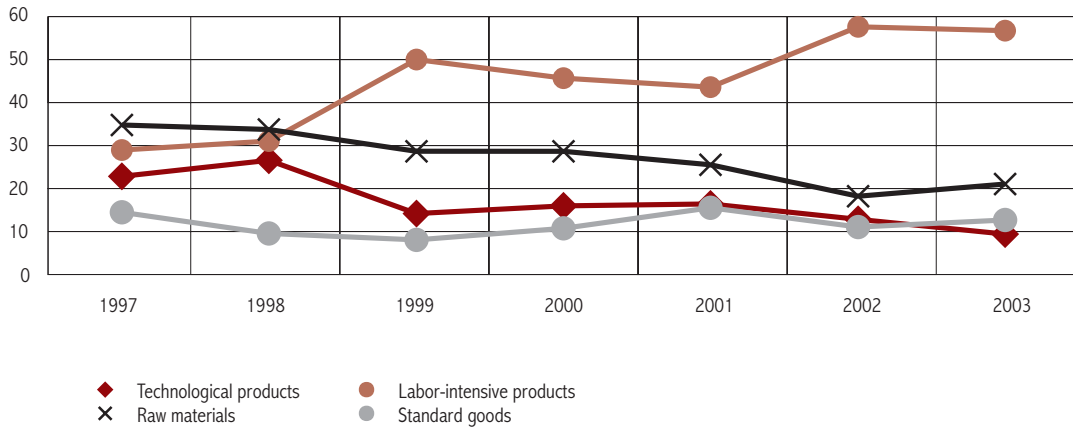
Table 2. Breakdown of exports of Armenian goods (USD mln)

	2000	2001	2002	2003	Growth 2001/2000 (%)	Growth 2002/2001 (%)	Share in Total 2003 (%)
1. Precious and Semi-precious stones, metals and items thereof	121.5	122.9	258.3	349.4	110.2	35.3	51.5
2. Non-precious metals and items thereof	44.2	43.4	44.7	90.4	3.0	102.2	13.3
3. Mining	37.1	38.4	42.1	47.7	9.6	13.3	7.0
4. Machinery, equipment	31.0	28.5	21.4	20.5	-24.9	-4.2	3.0
5. Food products	27.3	48.0	54.8	72.2	14.2	31.8	10.6
6. Textiles	13.2	24.3	28.6	30.9	17.7	8.0	4.6
<b>Total 1-6</b>	<b>274.3</b>	<b>305.5</b>	<b>449.9</b>	<b>611.1</b>	<b>47.3</b>	<b>35.8</b>	<b>90.1</b>
<b>Total Export</b>	<b>300.5</b>	<b>341.8</b>	<b>505.2</b>	<b>678.1</b>	<b>47.8</b>	<b>34.2</b>	<b>100.0</b>

In order to provide for sustainable export growth and entering new markets, the diversification of export composition is crucial, and, in this regard, FDI inflow is extremely important, since FDI will bring in new management, technologies, products and markets. The recent trends of export growth have proved the direct correlation between investments and exports. In spite of declining investment growth rates since 1999, industries that experienced large FDI inflows (i.e. diamond cutting, food processing, chemical and mining industries, etc.) reached better positions in foreign markets. This correlation shows that export-oriented industries do have better perspectives, since they get strategic partners and penetrate new markets.

At this stage of transition, according to comparative advantage theory, Armenia is classified as a country with excessive land and labor and insufficient capital. Thus, land and labor are relatively cheap, while financing – expensive. When looking at the export composition of Armenia in this context, it is worth noting that labor-intensive products prevail in exports in recent years (See Figure 2), however, the share of raw materials is still quite high with a declining trend since 1999. In the short term, this trend most probably will be maintained.

Figure 1. Export composition in 1997-2001, according to the neo-classical comparative advantages theory (in %)



It is worth mentioning here that imports of labor-intensive products (which also includes high-tech products) exceed exports from Armenia thereof. According to expert estimations, high-tech exports amounted USD 11.8 mln in 2003 exceeding the 2002 level by about 34 percent. This sector has tended to grow progressively in recent years.

Armenia, being a country with poor natural resources, obviously should rely on imports of commodities and raw materials, which is the case currently – 55-60 percent of imports. On the other hand, despite import substitution for some goods in the last years, about 25-30 percent of imported goods is consumed directly, while imports of capital or investment goods for the same period did not exceed 12 percent.

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## Costs of Closed Borders for Armenia's Trade\*

Lev Freinkman  
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### 1. Introduction

This paper focuses on the analysis of Armenia's international trade performance in the years of transition based on the utilization of standard statistical models. It intends to compare the achieved level of Armenia's trade development, and especially export development, to the "international norm", i.e., to the average levels achieved by the countries that are at similar income levels, including other CIS members. The paper uses this international benchmarking to obtain estimates for the existing losses from under-trading and under-exporting.

We argue that the Armenia's current under-performance in the trade area cannot be explained in terms of distorted trade or macroeconomic and structural policies of the Armenian government, because Armenia has been among the reform leaders in the CIS since the second half of the 90s. Instead, this under-performance should be primarily attributed to the effect of closed borders with its neighbors, which continue to depress Armenia's export capabilities. We further proceed to estimate the size of such a "blockade tax", evaluate its recent dynamics, and discuss economic policy implications.

\* The views expressed in this article are those of the authors and do not necessarily represent those of the World Bank.

The current paper is based on findings and results exposed in full in Freinkman et al. (2004a).

## 2. Armenia's trade in the cross-country perspective and costs of blockade<sup>1</sup>

In order to understand how Armenia's trade performance compares to other countries, we used two popular trade models — the openness model and the gravity model — that broadly determine the association between intensity of countries' trade flows, income levels, size and geographical characteristics. We pay special attention to a comparison between Armenia and other CIS and transition economies, which provide natural benchmarks for Armenia's performance due to their common history of socialist past and transitional shocks of the early 90s.

Our main hypothesis could be summarized as follows. Armenian economic performance for the last 3-4 years has been favorably compared to that of other CIS members. Armenia has shown higher growth, stronger macroeconomic indicators, and more progress in the area of structural reforms (see e.g., World Bank, 2003). Therefore, if we find that Armenia significantly under-trades relative to its comparators, we believe that we have sufficient justification to claim that the main reason for such under-trading relates to the blockade, but not to the policies of the Armenian government.

## 3. Analysis based on the model of trade openness

The theoretical hypothesis underlying this approach to the analysis of openness (trade integration) is that richer countries trade more (as a percentage of their GDP) and larger countries trade less. Following Rodrik (1998), variable for openness, measured by the share of trade in the GDP, was regressed on GDP per capita and the country population, which was used as a proxy for the country size.

We used two alternative measures of trade openness as the dependent variable – the ratio of trade turnover to GDP and the ratio of exports to GDP. GDP per capita in current US\$ and GDP per capita in purchasing power parity (PPP) terms were used as alternative measures of independent variable representing income level; however, in our view, a measure of GDP in nominal dollars is more appropriate for the trade analysis of CIS countries<sup>2</sup>. In order to combat the apparent endogeneity between the measures of openness and GDP, we used the instrumental variables estimator (two-stage least squares). GDP was instrumented by the following variables: infant mortality rate (per 1,000 live births); telephone lines (per 1,000 people); and the Heritage Foundation Index of Economic Freedom (as a proxy for policy and institutions). All 149 countries for which trade and income data are available from the World Bank's World Development Indicators database have been included in the pool. The model was estimated on the averages for 1994-2001. In addition, dummies for regional country groupings were included as independent variables in some models. Our analysis of a series of regression specifications showed that models with regional dummies provide fundamentally more accurate predictions for the trade openness of CIS countries. We base further assessments on the following specifications (only CIS dummy shown; standard errors in the parenthesis):

$$\text{Trade/GDP} = 119.8 - 14.5 \ln(\text{population}) + 12.7 \ln(\text{GDP per cap.}) + 23.7 \text{ CIS}$$

(38.2)    (2.2)                      (4.0)                      (7.8)

$$R^2 = 0.52$$

$$\text{Exports/GDP} = 32.7 - 6.2 \ln(\text{population}) + 8.3 \ln(\text{GDP per cap.}) + 11.6 \text{ CIS}$$

(18.8)    (1.1)                      (2.0)                      (4.6)

$$R^2 = 0.52$$

Our main conclusion is that Armenia has been lagging in its trade and export development relative to most CIS countries as well as to low-income developing countries in general. Armenia's serious trade under-performance confirms that the blockade imposed on Armenia as a result of the regional conflict remains

<sup>1</sup> This section utilizes some results and models developed by the authors for Chapter 2 of Freinkman et al. (2004b).

<sup>2</sup> The GDP-in-PPP measure could grossly inflate country's trade potential by assigning too much weight to non-tradables, i.e. the portion of local economy that does not and cannot participate in international trade. These problems are especially serious for the CIS countries, whose PPP coefficients are among the highest in the world.

costly (Polyakov, 2001). As mentioned above, we claim that the factor of closed borders is the only plausible explanation of this finding. Thus, we used this result to estimate the economic “costs of blockade” for the Armenian economy. The estimate equals to the difference between the actual volumes of trade and exports and those that correspond to the regression line, given the Armenian fundamentals such as GDP per capita and population.

While in 2001 actual openness of the Armenian economy was 72 percent, our model suggests that the “normal” level for this indicator for Armenia would be 124 percent. For 2002 the respective ratios are 75 percent and 125 percent resulting in annual losses of total trade from US\$1,100-1,200 million or about a half of GDP. On the export side, our analysis suggests that the country may lose about US\$700 million a year due to the blockade.<sup>3</sup> It is worth noting that the relative cost of the blockade in GDP terms has been steadily declining – from 36 percent in 1999 to 30 percent in 2002. This reflects the fact that with time, the private sector operators found various ways to reduce the impact of the blockade on their activities, which for example is seen in gradual reduction in transportation costs. It is worth noting that these numbers roughly correspond to the estimates obtained by Polyakov for the earlier period of the mid-1990s<sup>4</sup>. Overall, since 1999, a considerable catch up in Armenian exports has taken place, while the blockade gradually becomes less binding.

#### 4. Analysis based on the gravity model

For the analysis of Armenia’s trade flows, we performed out-of-sample estimation based on the gravity model developed by Frankel (1997), which describes total bilateral trade flows, as was estimated by Frankel (1997):

$$\log(T_{ij}) = - 12.146 + 0.930 \log(GNP_i, GNP_j) + 0.128 \log(GNP/pop_i, GNP/pop_j) \\ (0.469) \quad (0.018) \quad (0.019) \\ - 0.770 \log(Dist_{ij}) + 0.445 (Adj_{ij}) + 0.768 (Lang_{ij}) + \bar{a} (Bloc_{ij}) + u_{ij} \\ (0.038) \quad (0.157) \quad (0.090)$$

where  $T_{ij}$  is the trade turnover between countries  $i$  and  $j$  (that is, exports from country  $i$  to country  $j$  plus imports of country  $i$  from country  $j$ ), GNP is the nominal Gross National Product, GNP/pop is the nominal per-capita GNP, Dist is the great circle distance between the main commercial centers countries’ capitals, Adj is the adjacency dummy (equals one for adjacent countries and zero otherwise), Lang is the language dummy (equals one for countries sharing the same language<sup>5</sup>), Bloc is the bloc dummy (equals one for countries in the same trading bloc), and  $u_{ij}$  is the error term.

We believe that the CIS is a powerful natural trade bloc, with our indirect estimate of bloc effect similar to that of ASEAN in the Frankel model. Based on this assumption, the estimated realization ratio of total trade (actual trade over the fitted value from the gravity equation) for Armenia fluctuated between 1.0 and 1.1 from 1999 – 2002 thus denying any notion of significant under-trading by Armenia. However, since this absence of under-trading relates to the total trade volumes (exports and imports), it does not mean that Armenian export volumes are sufficiently developed.

The relatively high realization ratios for Armenia’s trade, as estimated based on the gravity model, to a large extent derive from large trade deficits funded by remittances and international assistance and booming diamond exports with little benefits for the overall economy. In other words, the gravity results do not mean that the blockade effect is insignificant, because both models are in an agreement that Armenia’s exports remain below the “normal” level. Still, the gravity model estimate for export losses due to the blockade is smaller than those based on the openness model, and it amounts to a half of the current trade deficit, i.e., 12.5 percent of GDP in 2001 and 10 percent of GDP in 2002. We believe that the gravity model provides more accurate estimates for export losses, because it reflects several important geographical factors that are missing in the openness model.

<sup>3</sup> Thus, export losses represent about two-thirds of the total trade losses.

<sup>4</sup> Polyakov estimated that under-exporting amounted to 30 percent of the annual average GDP for the period of 1995-98.

<sup>5</sup> All CIS countries share the same language (Russian) while conducting trade.

## 5. Costs of blockade in a comparative perspective and policy conclusions

The previous analysis suggests several conclusions with respect to the magnitude of the effect of closed borders on Armenian economy. First, the blockade is still costly for Armenia, and it clearly depresses trade, growth and poverty reduction efforts. Second, our findings highlight that the actual costs of blockade (in terms of lost exports), while considerable, are likely to be lower than it was earlier considered based on simpler statistical models, and could be placed into a range of 10-13 percent of GDP. We believe that at the moment this amount does not represent a major development constraint for Armenia. Third, it is clear that the blockade effect has been eroding over the last four to five years as the private sector has found ways to reduce transportation costs within existing political constraints.

To understand better the real importance of the effect of closed borders, it should be placed in a comparative perspective, i.e., its impact has to be compared with other factors that affect Armenian exporters and importers. In this paper, we argue that despite recent improvements in the business environment, Armenian firms are still facing major unnecessary administrative barriers in their operations that inflate their costs and undermine their capacity to compete and export. We conducted a case study of a leading Armenian exporter of copper, Armenian Copper Programme CISC, to support our claim that advancing deregulation of the economy in the short to medium term would bring much more potential benefits for Armenian traders than lifting the blockade. This case study confirms that under the current circumstances the exporter's losses from the administrative hurdles represent a larger threat for its competitiveness than additional transportation charges deriving from the blockade.

We think that public opinion continues to overestimate the actual costs of blockade for Armenia. This poses a risk of misunderstanding of relative importance of different development constraints, and it could result in wrong prioritization of government policies. Since Armenia has been losing more from the deficiencies in the business environment than from the blockade, the top priority of the government policy should be aimed at all those elements of the investment climate, which in contrast to blockade do not require complicated international nego-

tiations but are entirely under the government control.

## References

- Frankel, Jeffrey A. 1997. Regional Trading Blocs in the World Economic System. Institute for International Economics. Washington, DC.
- Freinkman, Lev, Evgeny Polyakov, and Carolina Revenco. 2004a. "Armenia's Trade Performance in 1995-2002 and the Effect of Closed Borders: A Cross-Country Perspective" Armenian Journal of Public Policy (forthcoming).
- Freinkman, Lev, Evgeny Polyakov, and Carolina Revenco. 2004b. "Trade Performance and Regional Integration of the CIS Countries." World Bank Working Paper. Washington, DC (forthcoming).
- Polyakov, Evgeny. 2001. "Changing Trade Patterns after Conflict Resolution in the South Caucasus". Policy Research Working Paper 2593. The World Bank. Washington, DC.
- Rodrik, Dani. 1998. Trade Policy and Economic Performance in Sub-Saharan Africa. NBER Working Paper 6562. Cambridge, MA.
- World Bank. 2003. Armenia: Public Expenditure Review. Washington, DC.
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## Liberal Trade Policy as Precondition for Sustainable Economic Development

Tigran Davtyan

The liberal trade policy of Armenia was developed as a result of the structural and economic reforms and served as an important prerequisite for economic development. Simultaneously, it turned out to be a precondition for macroeconomic stabilization and economic growth during the transition period. To achieve continued economic growth, export promotion and stimulation will be critical. This article examines both the liberal trade policy of Armenia to date and recommendations for export promotion in the future.

The liberal external trade policy of Armenia, as it is known, is aimed at the integration of Armenia into the international economy, the liberalization of external trade, export stimulation, and attraction of foreign investments into the economy of Armenia.

During the last years the efforts at liberalizing the trade regime have resulted in a number of tariff and non-tariff regulatory arrangements. Exports are exempt of any duties—the objective of such policy is to promote exports and create the most favorable environment for exporters. Two tariff rates are applied for import duties: 0 and 10 percent. The annual weighted average import tariff equals 1.8 percent. The objectives of customs policy with regard to imports are as follows:

- Improvement of current account balance;
- Further unification of the import tariffs;
- Protection of domestic producers;
- Ensuring revenues to the Government.

In fact, quotas on imports and exports and licensing (apart from the licensing of textiles to European Union, which is an EU requirement) have been totally abolished in Armenia.

The development and implementation of a liberal trade policy revealed the export potential of the country through a gradual growth of exports and improvement in the structure of exports. In this regard, one could state that the growth of trade turnover, especially of exports, played a significant positive role in the transition period both for eco-

nomical stabilization and economic growth. The main problems of the transition period were more successfully and promptly resolved in the foreign trade sector than in other sectors of the economy, allowing the sector to not only avoid contraction, but also leading to a growth of exports and imports. Exports have experienced 30-40 percent annual growth during the last years. In 2003, exports totaled USD 678 mln, exceeding the previous year's indicator by 33.7 percent. At the same time, exports are becoming more diversified, and the sector has registered a structural change.

In spite of the success of the liberal trade policy in Armenia to date, for continued economic growth in the face of the current trends of globalization, export promotion and stimulation is critical. Unlike with foreign trade policy and the government regulatory system, where a relatively favorable legal environment for exports and a liberal tariff and non-tariff regime of trade are established, there are still unresolved problems facing export promotion.

Due to its small domestic market, Armenia should focus on external markets with the objective of finding stable niches for Armenian goods in foreign markets. In particular, in the highly competitive international environment, entering and gaining a share in foreign markets is an extremely difficult task for Armenian producers. In this regard, practical assistance, both from government bodies and various public and non-public infrastructure is vital.

The main directions of export promotion and stimulation should be:

- Maintaining a liberal trade regime;
- Elimination of all normative, administrative, technical and other similar barriers to export;
- Creation of export-promoting infrastructure;
- Establishment of trade representations of Armenia in foreign countries and their efficient operation;
- Market analyses abroad;
- Introduction of services providing relevant information to exporters;
- Creation of an export insurance system;
- Provision of technical assistance (development of business plans, contract drafting, application of negotiations technologies, search for counterparts, provision of information on legal and

tax issues in foreign countries, application for on-line trade, assistance to export-import transactions, etc.)

- Participation in international exhibitions and fairs;
- Organization of international business forums;
- Provision of miscellaneous economic and legal consulting services.

Despite the foreign trade-friendly infrastructure created as a result of the institutional reforms in Armenia, there is still much to do in terms of establishing specialized export-promoting structures and organizing their activities efficiently. Armenian producers experience serious difficulties in reaching foreign markets without such institutions. The task of these institutions should be provision of full service export promotion to Armenian companies. Those services should necessarily include technical assistance components (including market analyses, provision of information and data, consulting services, contract drafting, filling-in applications for electronic trading, assistance in exporting and importing transactions, search for partners, assistance in participating in international fairs and exhibitions), as well as activities directly connected to import and export transactions.

The issue of certification, that is, the development and introduction of an internationally accepted certification system, should be solved in the export promotions system. The absence of such a system very often hampers Armenian goods from entering foreign markets. Another outstanding problem is the absence of an export insurance system. As a first step it is necessary to establish insurance structures that will be involved in insuring export transactions against commercial and non-commercial risks. The solution of such problems related to export promotion will allow companies to better use their own resources, find a stable place in international market and, thus, provide for sustainable production growth.

In the context of export promotion, foreign trade growth, and sustainable economic growth, the accession of Armenia to the WTO, after 10 years of negotiations, was a very serious milestone. As a consequence of accession, Armenia obtained a most-favored nations regime with about 150 countries, provided for the compliance of its legislation to in-

ternational criteria, as well as obtained the right to settle trade disputes through the WTO dispute settlement system, along with other opportunities. Simultaneously, markets in other member countries became more accessible for Armenian companies. As a result of accession, Armenian firms will hence be more protected from any discrimination while exporting or importing. Foreign trade and export transactions became more accessible and realistic both for local and foreign companies.

Accession to the WTO will assist Armenian firms to penetrate new markets in case more traditional ones shrink. It also gives better terms for exports of Armenian products to WTO member countries with the help of most-favored nations regime and national approach system. Armenian products will now face lower duties in foreign markets, with a view to further lower them after negotiations. Accession to the WTO will also guarantee against possible tariff increases or unilateral discriminatory duties imposition. Reduction of non-tariff barriers is also expected, thus, providing for equal opportunities for Armenian exporters, free of various (namely, non-tariff) discrimination.

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## Administrative Barriers to Foreign Direct Investments in Development Countries

Tigran Suqiasyan

Worldwide foreign direct investments totaled USD 651 bln<sup>1</sup> in 2002; however, the bulk of them went to a few countries. In fact, 95 percent<sup>2</sup> of total foreign direct investment (FDI) was received by 30 main countries. Such disproportion results from various factors. The success of countries with large markets and rich natural resources need not to be explained, and the investor behavior in such countries, other things being equal, is obvious.

The research and analyses of various international organizations, research centers, and experts carried out during recent years reveals the significance of a developed investment climate in the country receiving direct investments from abroad in the decision-

<sup>1</sup> World Investment Report 2003, UNCTAD

<sup>2</sup> Administrative Barriers to Foreign Investment in Developing Countries, Jacques Morisset and Oliver Lumenga Neso, FIAS, 2002

making by potential investors.<sup>3</sup> Both qualitative and quantitative aspects of administrative procedures and the costs and barriers associated with them can play a serious negative role in transition countries.

To try to overcome these effects, many countries in the first stage of economic liberalization, including Armenia, offered various fiscal privileges to foreign investors: tax holidays, duty exemption when importing, subsidies for rent, fuel and water. Research shows that in developing countries the statistical value of such privileges per one job created reaches annually more than ten thousand USD, in one exceptional case, even USD 200,000<sup>4</sup>.

Numerous analyses carried out in recent years show that such privileges are inefficient for the economy. They tend to decrease the efficiency of companies and cost tens of millions of USD for host-governments. They often protect non-efficient companies, and thus interfere with competition pressures and thereby reduce overall competitiveness. As a result, investment-conducive climate, the "value" of entrepreneurship, and clear and efficient administrative procedures in host countries are gaining more and more importance as inducements for foreign direct investment.

What are the administrative functions?

Administrative functions exist in all countries. Although their goals are common everywhere, there are significant variations in methods of entrepreneurship regulation in various countries. It is extremely difficult to draw the line where the administrative regulation becomes excessive.

Nevertheless, analysis carried out by the World Bank Foreign Investments Advisory Service in 32 developing countries (including Armenia) revealed 26 major administrative functions, which can be divided into 3 groups: (i) entry license and company registration, (ii) provision of land and connection to utilities, and (iii) other registration for entrepreneurial activities<sup>5</sup>. The analysis also showed the variations between administrative functions and their value and duration in the countries in sample, allowing examination of success and failure of various countries in attracting FDI. Certain interesting findings are summarized in the table below.

Country	Number of functions			Duration (banking days)			Cost (US \$)			Cost per function (US \$) <sup>6</sup>	
	I group	II group	III group	I group	II group	III group	I group	II group	III group	For local investors	For foreign investors
Armenia	13	45	10	59	131	15	84	4414	75		
Bulgaria	29	40	19	157	545		291	233		326	1366
Czech Republic	11			65			447			243	869
Latvia	17	19		114			367	5885		540	1229
Lithuania	10	22	9	36	166		139	1550		449	1850
Romania	10	42		50	584		154	22523		2530	6207
Slovenia	12	30	7	30	45		2895			1535	2363
Turkey	22	125	8	121	985		304			832	6480
Average	11	31	11	68	334	41	504	4723	756		
Minimum	2	13	2	18	45	8	80	47	10		
Maximum	29	125	26	187	985	122	3040	22523	3186		

<sup>3</sup> In particular, WB Foreign Investments Consulting Service, Organization for Economic Cooperation and Development, UNCTAD, McKinsey Global Institute, etc.

<sup>4</sup> The Truth about FDI in Emerging Markets, McKinsey Quarterly N1, 2004

<sup>5</sup> Administrative Barriers to Foreign Investment in Developing Countries, Jacques Morisset and Oliver Lumenga Neso, FIAS, 2002

<sup>6</sup> Total costs are determined basing on financial costs defined in each particular country for specific administrative functions plus the costs (converted into monetary units) associated with delays.

The analyses suggests certain conclusions. Not always and not necessarily small number of administrative functions and their clarity implies minimum hindrances and costs. For comparison we can bring the example of Latvia, where they have numerous administrative functions, meanwhile, efficiency of these functions for investors experts evaluated as one of the best.

Another important conclusion is that some governments, through establishing artificial barriers to entry of foreign investors, tend to protect and prolong the life of local inefficient business units.

### Experience of Armenia in overcoming administrative barriers

If in the initial stage of transition to market and liberalization, the Government of Armenia used fiscal privileges as the main tool to ensure foreign direct investments, in recent years the priorities in this field have been reset. Currently, the main direction of the policy to ensure an investment-conducive business climate (including foreign investments) is the implementation of a stable and foreseeable policy, as well as provision of efficient administrative functions.

Since 1999, the situation has significantly improved in Armenia, as a result of measures taken to eliminate the barriers revealed by the analysis carried out by the World Bank Foreign Investments Advisory Service (WB/FIAS) ("Armenia: Administrative Barriers to Investments"). In order to eliminate identified bottlenecks, the main targets were announced as provision of access to the legal acts and by-laws, judicial reforms, development and implementation of an anti-corruption program, creation of a single unified company register, simplification of tax and customs administration and construction licensing procedures. Measures were taken to improve the situation applying best international practice in respective fields. Consequently, observations and reviews of international organizations prove that the investment climate has significantly improved in Armenia, as do the ratings of Armenia (according to various rating institutions).

In 2003, a new survey was initiated together with the WB/FIAS. This survey will be prominent, because it will be carried out by the Government of Armenia

with the assistance of the FIAS. The results of the survey sample of 300 companies on Administrative and Regulatory Expenses for 2004 (carried out by the WB Resident Office in Yerevan on an annual basis) will be used to substantiate the abovementioned new survey. The findings of this survey are expected to be presented to stakeholders in the 3rd quarter of 2004.

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## Integration into the Global Economy through Rule of Law

Michael W Nicholson\*

Modern global economics demands certain levels of integration for countries seeking sustainable economic development. Such integration offers considerable opportunities for trade, investment, and labor mobility, in addition to other numerous factors which are often considered vital for successful development. One hallmark of global transition is the ascension of six former centrally-planned economies in Eastern Europe and three former Soviet Union countries to the European Union on May 1<sup>st</sup>, 2004. However, many former centrally-planned economies, including Armenia, are not yet sufficiently positioned for such integration. One of the numerous explanations for this development trend that is achieving interest among social scientists is the role of rule-of-law (ROL), which includes such characteristics of liberal systems as control of corruption and expected enforcement of property rights. In fact, such ROL may be the *primary* condition necessary for successful global integration.

Consistently at the heart of discussions on Armenia's economic status remain its geographic isolation, at least relative to the countries ascending to EU membership. This isolation is both natural, due to the mountains and the land-locked nature of the country, and artificial, due to the economic blockade. Geography and liberal trade policies have been cited for some time by neoclassical economists as primary determinants of growth; however, it could also be strongly argued that properly

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functioning institutions, with accompanying ROL, may be a necessary condition for sustainable development.

Recent research indicates that ROL may in fact have a stronger impact on economic growth than either geography or openness.<sup>1</sup> Using a measure for institutional development as a proxy, Rodrik, Subramanian, and Trebbi (2002) find that ROL “trumps” the other primary determinants of growth, geography and openness.<sup>2</sup> In this context, the necessary conditions for economic development are internal to a country and within its control. For a specific application to Armenia, this suggests that a fundamental element for development may involve a different (or at least complementary) approach to removing the artificial barriers to trade. The foundation for development may be focusing policies on continuing development of liberal rule of law in the country.

In this context, rule of law carries a considerably stronger meaning than mere legal reform – the connotation for ROL includes both laws on the books and institutions that are capable of implementing and enforcing those laws. Despite significant legal harmonization of paper laws across national jurisdictions, there exists a crucial gap between these laws on the book and the impact they have in various countries. Consider the impact of the recent proliferation of Western laws throughout the world. One popular example of this diffusion of laws is carried about by the WTO. Over 130 countries are members of the WTO, and are more or less bound by the rules set by that organization, and the constitutions of some countries (such as Armenia) contain clauses that the laws of any international treaty supersede any domestic laws.

Theoretically, then, should these countries join the WTO, they are legally bound to follow its rules.<sup>3</sup> However, a cursory glance at computer software stores or recorded music stores throughout many WTO signatory countries would suggest that neither the letter nor the spirit of the WTO agreement on intellectual property rights is being followed. This is

in accord with research I conducted on the recent global wave of legal reform of competition policy (i.e., antitrust).<sup>4</sup> Over 65 jurisdictions have adopted competition laws since 1990, many in order to achieve congruence with EU procedures. However, these competition laws are no indication that effective antitrust enforcement is also enjoying rapid development; in fact, some of the jurisdictions with the strongest paper laws may have the weakest enforcement. Simply put, laws on the book do not translate necessarily into rule of law.

The salient question concerns the manner in which paper laws translate into ROL. That is, how do “laws” become “Law”. Accepting that ROL is a proxy for institutions, as Rodrik, et al. have done, then the question may be answered through institution-building. Paper laws provide the foundation for the creation of institutions, and it is the development of those institutions themselves that lead to ROL and governance. Grajzl and Murrell (2003) cite the prominence of legal institutions, such as professional organizations, as a contrast between transition in Poland and that in Georgia or early Russia.<sup>5</sup>

By no means does this argue that legal reform is a bad idea for transition economies, it simply argues that adopting legislation is far from enough, and may even prove the easiest part of the matter. Suppose we accept the notion that ROL is a sufficient condition for economic development. It should not be too hard to accept that appropriate legislation is a necessary condition for effective ROL. That is, in order to have Law, one must first have laws. Consequently, legal reform itself represents an important initial step. This must be followed, however, with institutions that can implement and enforce these laws. These institutions include the courts, state and government agencies, cultural acceptance of meaningful laws, and the political will to respect international obligations.

These results can be taken with some optimism. If institutions indeed are the primary means of strong economic development, then policymakers have substantially more control over their fate than af-

<sup>1</sup> It must be noted that this is a general statement. Armenia's geopolitical circumstance is sufficiently unique that the blockade likely dominates economic trends; however, the universal necessity of rule-of-law surely still applies.

<sup>2</sup> D. Rodrik, A. Subramanian, and F. Trebbi, October 2002, *Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development*, Mimeo, Harvard University.

<sup>3</sup> As has been well discussed, these rules tend to extend far beyond simple agreements about multilateral tariffs. They could include rules on domestic subsidies, domestic antidumping policies, intellectual property rights, environmental protection, (labor standards), etc. The proposed “Singapore Issues” would extend the rules imposed by the WTO into government procurement, trade facilitation, and competition policy. Cite *The Economist*.

<sup>4</sup> M. Nicholson, February 2004, *Quantifying Antitrust Regimes*, Federal Trade Commission working paper No. 267.

<sup>5</sup> P. Grajzl and P. Murrell, January 2004, *Lawyers and Politicians: The Impact of Organized Legal Professions on Institutional Reforms*, SSRN working paper.

forded them under the geographic determinist arguments of many neoclassical economists. It also shifts the tone of policy from the liberalizing forces of integration towards that of building institutions. The top-down approach of legal reform by such organizations as the WTO and the EU may not be such a paper tiger. The key to sustainable economic development may be following up some legal reform with effective institution building.

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## Cluster based industrial development model and export promotion

Hrayr Gyonjyan

"The biggest reason to expect more Clustering is that it works...  
...success tends to cluster."<sup>1</sup>

This article is dedicated to the problems of the cluster-based model of industrial development. In our opinion, it will provide high and sustainable rate of Armenian industry development, as well as this model will increase competitiveness of industrial products in foreign markets and export volumes. This approach is vital especially in current period of economic development, when Armenian industrial enterprises has not appropriate development level to successfully compete with foreign rivals and penetrate into foreign markets.

Since independence, the structure, volumes and geography of Armenian export have changed significantly. If in 1990ís, the industrial goods and high-tech products made the key components in the structure of export, than nowadays, the main exported products are expensive stones and jewelry (made of imported raw materials), not expensive

metals, raw materials and equipment. In fact, the major percent of export is covered by the above mentioned four product groups. It is apparent from previous thought that the structure and the volume of export do not coincide with the real potential of the country.

The stipulation of proposed model will encourage close cooperation of Armenian business entities, improve their position in foreign markets, and finally export structure progress and volume growth.

At the present time, cluster approach of economic development is widely spread and justified model. For example, it creates favorable conditions for Italian Small Enterprises competing successfully in global markets (in Udine – furniture, in Biella and Prato - wool, textiles, in Milan-machine tools, in Sassuolo - ceramic tiles, in Bologna- food machinery & packaging machinery, etc. In Georgia (USA), Daltonís carpet manufacturing cluster provides 45% of world, and 80% of USA capacity. Singaporeís Hard Disks cluster provide 40% of world market share, Denmarkís Wind Turbines cluster, approximately 60% World Market Share.

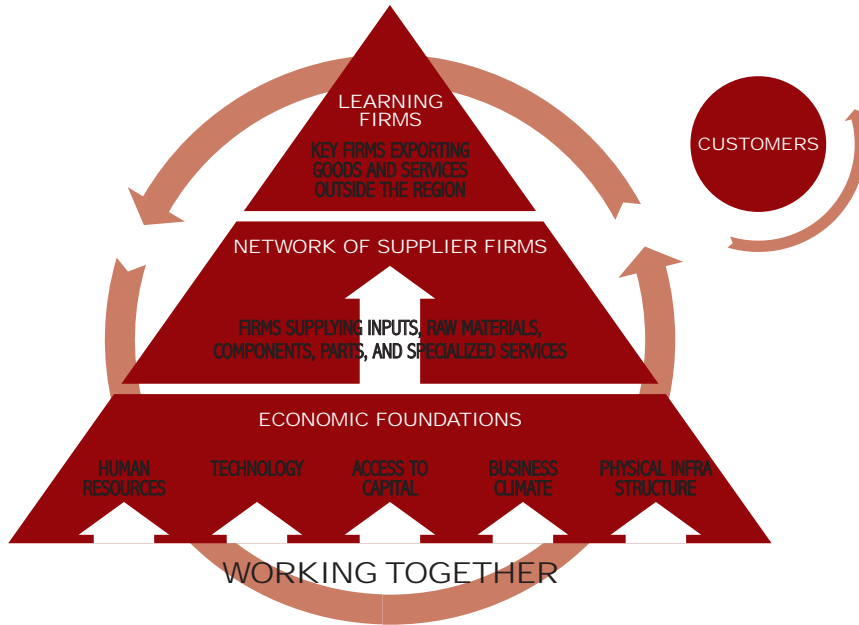
What is a Cluster? According to the founder of this theory Michael Porter<sup>2</sup> "A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. The geographic scope of a cluster can range from a single city or state to a country or even a network of neighboring countries".

Proposed cluster based model is a productive and close cooperation of leading export-oriented enterprises, supplier firms (supplying inputs, raw materials, components, parts and specialized services) and economic foundations, in case of favorable conditions which support business activity (human resources, technology, access to capital, business climate, physical infrastructures, etc.) (see chart N1).

<sup>1</sup> Cluster Navigators, Ltd.

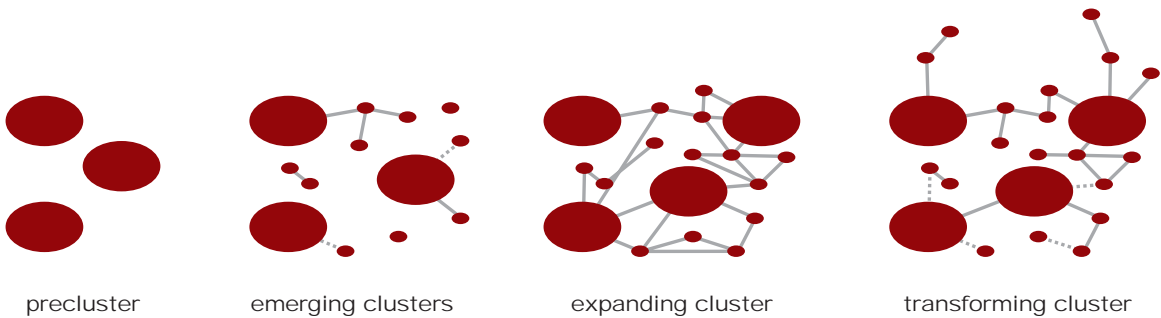
<sup>2</sup> "On competition" by Michael E. Porter, A Harvard Business Review Book.

Chart 1: Structure of Cluster based model



Conditionally, clusters evolution can be divided into four stages: pre-cluster, emerging cluster, expanding cluster and transforming (see chart N 2).

Chart 2: Stages of Evolution of Clusters<sup>3</sup>



In RA none of cluster researches was performed<sup>4</sup>. In our opinion, such kind of research is very urgent, because it will allow finding new solutions for industrial issues. The results of survey will be specifying of present clusters and their evaluation stages, as well as presence of favorable preconditions for new entrants.

To insert a cluster based model, Armenian Government will realize the following steps:

- To stipulate the importance of cluster based industrial development model in the framework of Armenian economic development,
- To study and research foreign experience within the implementation of cluster based industrial development model in Armenia,

<sup>3</sup> Economic Competitiveness Group, Inc., Introduction to Clusters & Competitiveness for CERMA Consultants.

<sup>4</sup> It is illustrated in "Economic Policy and Poverty" periodical #6, in the article of "As a premise for the development of Armenian industry."

- To organize competent group of experts for co-ordination the model implementation task
- To execute the due diligence of Armenian economy,
- To develop action plan and program of implementation in accordance with the features of Armenian economy
- To create favorable institutional and legislative conditions for implementation of cluster based industrial development model

In fact, we have to insist on the argument that the major strategic objectives of Armenian industrial policy will consist of clustering and creation of network conditions, which will provide sustainable and high growth of Armenian industry.

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## The Role of Foreign Aid in Combating Poverty

Armenak Darbinyan  
 Nara Balasanyan

In countries with high poverty incidence, foreign aid can play an important role in fighting poverty if it is utilized purposefully and efficiently. Since about half of Armenia's population is poor and the country is receiving significant foreign aid, an important issue is how efficiently this aid is used, especially towards the goal of reducing poverty in the country. Such a question is also pertinent from the point of view of the international community providing assistance, since most of its efforts currently are directed to the problems of poverty and inequality.

Foreign aid to Armenia constitutes about 11 percent of GDP annually, while the average for developing countries is 0.8 percent. Per capita foreign aid in Armenia is USD 54.7 which exceeds the average

for developing countries (USD 9.5) about 6 times.

Poverty and inequality reduction in any country largely depends on economic growth. A stable and favorable macroeconomic environment and an efficient institutional system and governance environment (low level of corruption) accompanied by foreign aid can ensure high economic growth rates.

The influence of foreign aid on GDP growth rates is conditioned by the economic governance level of the country, which is sometimes measured as a weighted sum of the economic policy and institutional system indices<sup>1</sup>. According to Burnside and Dollar<sup>2</sup>, the economic policy index includes the budget deficit of the country, inflation, and the level of openness of the economy. The World Bank CPIA (Country Policy and Institutional Assessment) Index<sup>3</sup> is used to assess the economic governance level of countries. It contains 20 components and its value is in the range of 0-5. Low-income countries have CPIA index of 2.75-2.95, and the average is 3. Armenia's CPIA is close to the average.

The institutional environment is often evaluated using the Corruption Perception Index published by Transparency International. Armenia received an index of 3 for 2003. The Corruption Perception Index has values of 0-10, where the lower magnitudes of the index indicate high levels of corruption. Armenia is 78<sup>th</sup> country according to corruption estimates, having a better picture as compared to such countries as Romania, Russia, Ukraine, etc. Their indexes are 2.8, 2.7 and 2.3 respectively.

In countries with better economic governance environments, foreign aid in the amount of 1 percent of GDP results in GDP growth by 0.5; in countries with average levels – 0; and in low economic governance countries, the impact is -0.3<sup>4</sup>. Thus, foreign aid is more effective in promoting growth when received by a country with successful economic policy and a favorable institutional environment. Countries with higher scores on the World Bank Country Portfolio Performance Review (CPPR) are predicted to experience a positive impact from foreign aid of not higher than 30 percent of GDP – the point of "over-

<sup>1</sup> Knack, Stephen, and Philip Keefer. 1995. *Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures*. Economics and Politics 7(3).

<sup>2</sup> Burnside, Craig, and David Dollar. 1997. *Aid, Policies, and Growth*. "Policy Research Working Paper 1777, World Bank, Development Research Group, Washington, D.C.

<sup>3</sup> *Global Development Finance, various issues*. World Bank

<sup>4</sup> *Assessing aid: What works, What doesn't and Why?* World Bank, 1998

precipitation" (according to Durbarry, Gemmel and Greenway, the over-precipitation point is 40 percent of GDP<sup>5</sup>) provided that the macroeconomic situation is stable.

The average CPPR indicator for poor countries is 3.2, where the positive impact of foreign aid will be maintained before the later reaches 19 percent of the GDP. Meanwhile, according to Collier and Burnside<sup>6</sup>, higher volumes of foreign aid should be provided to countries with higher poverty incidence and successful economic policy, since the efficiency of the foreign aid is eventually assessed by how it helped people to overcome poverty line. These authors admit that higher aid volumes should be also provided to countries with slightly weaker economic policies but higher poverty. In this case, efficiency of foreign aid is slightly lower, but higher levels of poverty argue for battling it directly. In such cases it is feasible for donors to provide assistance in a stepped-up manner or in the form of programs aimed directly at the poor. Through the improved allocation of assistance – that is, prioritizing the provision of assistance to countries with better economic policies – the efficiency of aid distribution in terms of poverty reduction increased 2.5 times by the end of the 1990s as compared to the beginning of 1990s. Below we present an attempt to estimate potentials for poverty reduction due to efficient allocation of foreign aid.

The maximum potential for poverty reduction can be expressed by the following formula:

$$\sum_i G^i \alpha^i h^i N^i$$

$$\text{Maximum potential for poverty reduction} = \sum_i A^i y^i N^i = A, \quad A^i \geq 0$$

where

$y$  - Per capita income,  $A$  - foreign aid volume,  $h$  - poverty incidence (e.g. expressed by the number of poor),  $\alpha$  - income elasticity of poverty reduction,  $N$  - total population,  $G$  - Economic growth,  $i$  - number of countries.

The maximization condition is the following:

$$G^i \alpha^i h^i N^i = \lambda y^i N^i,$$

where

$\lambda$  - is the shadow aid volumes.

Thus, based on the available international experience with foreign aid efficiency and the assessment of economic and institutional environments, it is possible to increase volumes of international assistance and its efficiency, provided that: the institutional and economic policy environment is improved in a given country; donor programs are coordinated and conform with the economic development strategy; recipient countries undertake full ownership and responsibility for the programs; adequate personnel is hired to administer the foreign aid programs; a sectoral approach is applied as opposed to program-specific approach<sup>7</sup>; and the condition of providing foreign aid in hard-currency is reviewed.

In order to further improve efficiency, it is also necessary to encourage spending the foreign aid exactly for the purpose it is designed for; the efficient operation of the recipient government and donor specialization are the guarantees for that. Other contributing factors would be the application of the single account approach, the revision of commitment mechanisms, an encouragement of the NGO role, elimination of tied-assistance methods, promotion of external debt alleviation and local capacity building projects, as well as increase in official guaranteeing of investments and crediting the private sector.

<sup>5</sup> Durbarry, Ramesh, Normal Gemmel, and David Greenaway. 1998. "New Evidence on the Impact of Foreign Aid on Economic Growth." Centre for Research in Economic Development and International Trade Research Paper 1998. University of Nottingham, United Kingdom

<sup>6</sup> Paul Collier and David Dollar (2001) "Development Effectiveness: What have we learnt", World Bank

<sup>7</sup> Under sectoral approach, assistance is provided to a single sector through the efforts of one or more donors, based on the sector development strategies and positive assessment of institutional capabilities.

Consequently, Armenia has significant reserves for ensuring sustainable high growth rates in the long run and for reducing poverty in a relatively short period through improving the efficiency of programs, institutions, and economic policy together with receiving significant portions of foreign assistance.

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