NATIONAL
COMPETITIVENESS
REPORT

ARMENIA

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Nerses Yeritsyan  
Minister of Economy of the Republic of Armenia

The publication of the first National Competitiveness Report of Armenia comes in an important phase for the Armenian economy, when the Government of Armenia has launched the process of economic policy reprioritization and the implementation of next generation reforms. The report presents a comprehensive profile of the Armenian economy under the framework of competitiveness – assessing both the current competitiveness state of the country and the possible improvement options in the context of the global economy.

Armenia has achieved significant progress in terms of improved macroeconomic fundamentals and business environment conditions. However, the country is still lagging behind its peers in the vital spheres of infrastructure conditions, education system, efficiency of financial systems, technological readiness, business sophistication level and innovations. Of note, the sophistication of these spheres is a prerequisite for the development of a knowledge based and innovative economy, set as the prime target by the Government of Armenia.

The report highlights various issues of Armenian economic strategy, such as the definition of Armenia’s value proposition to the world, the deployment of key levers of breakthrough, and the establishment of priority areas and sectors of economy. Along with the adoption of a long-term development strategy, it is necessary to undertake actions for a quick improvement of the country’s competitiveness state which will serve to bolster the level of motivation and trust towards the long-term strategic developments.

I hope that the National Competitiveness Report of Armenia will make its unique contribution to the vital processes of the next generation reforms of Armenia and the advancement of the concept of competitiveness in the country. I believe that the Report will facilitate the dialogue on strategic development issues of the country among all the stakeholders, aiming to develop a common vision of the country’s development and to consolidate efforts towards increasing the prosperity of our country.
PREFACE

Professor Michael E. Porter
Harvard University

Competitiveness has become a central preoccupation of both advanced and developing countries in an increasingly open and integrated world economy. This first National Competitiveness Report of Armenia is a strong sign that Armenia is getting serious about competitiveness and about developing a true strategy for economic development. The ultimate beneficiaries will be the citizens of Armenia, through the opportunities that a vibrant economy will open for present and future generations.

Armenia has gone through a turbulent phase after gaining independence from the Soviet Union in 1991. During the last few years the country has begun to achieve attractive rates of economic growth. But, as the National Competitiveness Report of Armenia highlights, the macroeconomic factors, remittances, and foreign aid that have driven this growth are neither sustainable nor sufficient to secure future economic growth. Armenia needs to define its position in the regional and global economy, and develop a strategy for improving its microeconomic fundamentals. Doing so will require an objective analysis of Armenia’s actual conditions.

The National Competitiveness Report of Armenia makes an important contribution to moving the competitiveness debate to a higher and more fact-based level. The Report will provide a useful input to the new National Competitiveness Council of Armenia, a promising new institution within Armenia that has the potential to bring together all the constituencies around a common competitiveness agenda.

I am proud that Yerevan State University, where the main author of this Report teaches a curriculum on competitiveness and economic development that I originated at Harvard, is a part of a global network of more than 75 universities which are involved in that program. My aspiration is that the universities that comprise this network will do more than just teach, but will become important contributors to competitiveness research and practice in their respective countries. The National Competitiveness Report of Armenia represents the type of collaboration between research centers, universities, government, and the private sector that will be necessary if Armenia’s economy is to truly flourish.
EXECUTIVE SUMMARY

Competitiveness is a major challenge facing Armenia’s decision makers in both the private and public sectors.

Armenia’s economic growth rate has been exceptionally high during the last decade. However, it has been largely dependent on external factors (e.g. remittances, assistance from international financial and donor organizations). Attaining higher levels of competitiveness will determine whether Armenia can achieve sustainable and harmonious economic growth beyond that bolstered by remittances, foreign assistance and resource exploitation.

Armenia’s current economic situation can be characterized as a “growth-competitiveness paradox”.

Armenia records high rates of growth on most macro-economic metrics, but low and lagging competitiveness. In the Global Competitiveness Report 2007-2008, produced by the World Economic Forum, Armenia ranked 93rd out of 131 countries in the Global Competitiveness Index (GCI) and 108th out of 127 countries in Business Competitiveness Index (BCI).

Compared with other economies competing primarily on basic factors, Armenia demonstrated relatively solid performance in the areas of health, primary education, and macro-economic stability; procedures for starting a business; establishment of a flexible labor market; and ensuring security for businesses. However, it trails many peer countries in critical areas such as infrastructure, higher education, financial markets efficiency, technological readiness, level of business sophistication, and innovation factors.

Economic achievements of Armenia relative to comparator countries in CIS, Central and Eastern Europe (CEE) and Eurasian Crossroad regions are moderate.

In this report Armenia’s economic performance is measured in comparison with regional peers and comparator countries. The traditional list of countries (CIS and CEE) is complemented by a select list of Middle Eastern and Mediterranean countries we refer to as Eurasian crossroad countries. Beyond historical and cultural connotations this choice is based on the country positioning options proposed in ACR. Ireland has been chosen as a benchmark country.

Prosperity: With CAGR of GDP per capita over 12% in 2000-2006, Armenia outpaced comparator countries except for Azerbaijan (over 16%). However, Armenia trails on other indicators of prosperity measured in absolute terms. Wage levels reached only around 40% of their level in 1990 and real unemployment (over 30%) and poverty (around 26% in 2006) still remain quite high.

Internationalization: Since 2000 Armenia’s share of world exports has more than doubled, although in absolute terms it remains very small and is behind most of the CEE, CIS and Eurasian Crossroad countries. It is less than Armenia’s GDP share of world GDP, suggesting that Armenia’s growth has not been export-driven. Armenia’s exports are largely resource intensive. The share of resource intensive exports in Armenia’s total merchandise exports was about 64% in 2005 and increased to 69.5% in 2006.

Armenia has demonstrated moderate investment performance during the last decade and competed quite successfully in attracting FDI in infrastructure and resource-intensive industries. In 2003-2007, the CAGR of inward FDI to Armenia was 52.9%, which, however, was driven mainly by reinvestments.

Knowledge creation: R&D and innovation performance of Armenia has been rather disappointing. The link between S&T potential and other sectors of economy and the society has been disrupted, and S&T has not been viewed and/or integrated as an important factor for economic and social development. Public spending on R&D has been negligible.

Productivity: Armenia has a low labor force participation rate (59%) lagging behind most of the comparator countries. This reflects the effects of massive emigration since early 1990s. Labor productivity per employee is significantly lower than that of countries in EE region, but higher than that of Georgia and...
Azerbaijan. According to official data the construction is the most productive sector (followed by mining and quarrying), while agriculture is the least one.

**Armenia’s key disadvantages lie in the microeconomic business environment.**

While Armenia’s overall macroeconomic environment is stable and relatively advanced, there are serious issues such as inequitable distribution of wealth and income as well as growing disparity between Yerevan and regions.

Since 2001 the Government of Armenia initiated a number of reforms including the consolidation and reduction of business inspections, simplification of administrative procedures, reduction of time for business registration, and streamlining of the licensing regime. This was reflected in comparatively high rankings of Armenia in such reports as Doing Business (39th place) of the World Bank and the Heritage Foundation’s Index of Economic Freedom (28th place). However, these efforts proved to be insufficient for improving making the business environment globally competitive, as reflected in the low rankings of the quality of the national business environment in the GCR at 106th place, down by 17 places relative to the previous year.

Some of the bottlenecks in physical infrastructure are low level of telecommunication infrastructure and Internet penetration, while in administrative infrastructure these include poor implementation of laws (104th place in GCR), lack of judicial independence (120th in GCR). Other areas of concern are overall quality of education and S&T infrastructure.

The financial sector plays only a marginal role in financing Armenia’s economy. The quality of financial intermediation in Armenia is one of the lowest when compared with comparator countries. The underlying reasons include the structure of GDP skewed toward the informal sector, unofficial tax privileges, uneven distribution of income, low trust towards financial institutions, micro-management of the sector, etc. Interest rate spreads and collateral requirements are the highest among the transition countries.

The quality of the business environment is also negatively affected by the overall unsophisticated demand of the Armenian consumers and lack of strong clusters. Lax corporate governance practices and non-transparent public institutions do not motivate Armenian companies to be more competitive. There are serious distortions in local markets that do not promote fair competition.

Armenian companies lag behind in management of strategy and most functional areas. Unwillingness to delegate authority, employment of mostly non-sophisticated operational processes and technologies, lack of control of international distribution chains, insufficient investments in skills upgrade and HR development are among the key disadvantages of the Armenian companies.

**We believe that Armenia has yet to adopt a development-driven policy context.**

We describe the evolution of Armenia’s public policies as a transition from “survival context” in early 90s to “redistribution context” in late 90s and finally to “social or poverty reduction” context starting from early 2000s up until now. The first phase was characterized by a short-sighted view of policy and a general lack of policy coordination and of an overall strategy toward policy development. The government grew accustomed to governing in “crisis mode”, forced to find quick solutions to urgent, short-term problems. The policy then shifted towards more redistributive functions, when one of the main areas of reform was privatization and massive asset reallocation throughout the country. This period is notable for economic stabilization, recovery of energy supply and revival of the economy. The beginning of the millennium was marked by a more comprehensive policy approach, primarily focused on poverty reduction supported by high rates of economic growth. The Poverty Reduction Strategy (PRSP) became an overarching document based upon which the Government developed its policies and programs. It introduced elements of longer-term planning, better coordination of policies and operations, and improved institutional capacities.

In the next stage an economic development-focused strategy should address such issues as Armenia’s global value proposition, key drivers of competitiveness, sectoral preferences, etc.

**ACR proposes an approach which distinguishes two layers of action, namely “Strategic Breakthrough” and “Quick Wins”.**
The Quick Wins are targets that are achievable in a short time period, while actions in the Strategic Breakthrough sections define factors that may move Armenia to the next level of competitive position vis-à-vis other countries and direct competitors.

**Strategic Breakthrough:**

Strategic positioning suggests definition of country’s *value proposition* that incorporates the specific role the country plays in the world or regional economy. Among many alternatives the ACR suggests the possibility of becoming a regional R&D hub capitalizing on the nurturing of unique human resources. Such positioning will require re-definition of a notion of region as Armenia’s perceived positioning arena. Re-defining “competitors” should become a core theme for the country’s branding and image building. We introduce the concept of the Eurasian Crossroad, including the South Caucasus, Middle Eastern, and Mediterranean countries, as another attractive platform. The strategic positioning based on the concept of a crossroad will also help overcome the perception of Armenia as a country in a landlocked location without significant natural resources. The region defined in this way provides opportunities for Armenia to capture leading roles in a few selected areas that demand highly developed human capital, access to global networks and a tradition of science and technology.

A system of levers is proposed as an approach to attain strategic breakthrough and create several internationally competitive industries. The system will consists of a leverage platform and key levers as described below:

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**System of Levers**

**Leverage Platform**
- Innovation Policy
- Cluster Initiatives
- Regional Development Policy

**Key Levers**
- FDI
- Diaspora Networks
- Education

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Cluster-based policies will play a central role in shaping the leverage platform. This will be called the *policy nexus*. The cluster initiatives in potentially internationally competitive clusters will be enhanced by supportive innovation and regional development policies which can be called *policy add-ins*. The combined and integrated application of this platform is intended to create an efficient and conducive context for applying the levers.

Within this policy context three key factors are identified as levers that can be deployed to bring a true breakthrough:

1. Technological FDI – top priority should be given to attracting selected elements of global value chains of medium and high technology multinationals;
2. Diaspora networks - an effective partnership arranged as a “hub-and-spoke” model;
3. Superior education – high standards for basic education and specialization in higher education linked to cluster priorities.
Quick Wins:

A special analytical tool (the “Prioritization Filter”) has been developed and applied to identify the following short-term priorities and select the quick wins:

<table>
<thead>
<tr>
<th>Energizing Financial Sector</th>
<th>1. Easing access to loans and expanding credit activity by banks</th>
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<td></td>
<td>2. Reduction of interest rate spread</td>
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<td>Improving Selected Elements of Business Environment</td>
<td>3. Raising effectiveness of antitrust policy</td>
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<td>4. Improving the effect of taxation (tax incentives, total tax rate, burden of customs procedures, non-wage labor costs)</td>
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<td>5. Introducing incentives for FDI in prioritized areas</td>
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<td>Promoting Technology Usage</td>
<td>6. Spreading the use of cellular telephones</td>
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<td>7. Encouraging use of personal computers</td>
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<td>8. Encouraging use of Internet</td>
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<td>9. Regulatory framework; encouraging use of ICT</td>
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<td></td>
<td>10. Government procurement of technology products</td>
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Armenia still has a long way to go to create a highly competitive economy. The next stage requires more focused efforts, greater skills, higher aspirations and visionary leadership.
INTRODUCTION

This is the third year in a row Armenia has been included in the Global Competitiveness Report (GCR) of the World Economic Forum. First published in 1979, the GCR has, throughout the years, become one of the world’s leading and most comprehensive tools for measuring the competitiveness of countries. Today, it covers 131 countries, and measures competitiveness based on 110 indicators derived from a very broad set of databases.

Despite being included in the GCR, this first annual National Competitiveness Report of Armenia (ACR) is the first attempt to take a broader and deeper analytical look at Armenia’s international competitiveness standing and the factors influencing it, by using contemporary conceptual frameworks for competitiveness. Many other countries have prepared such National Competitiveness Reports; Ireland and the U.S. prepared two of the earliest, and most rigorous reports. National Competitiveness Reports can be viewed as “analytical and synthesis mirrors” that reflect a country’s realities in the global context and, thus, are useful tools for designing future development strategies.

The National Competitiveness Report of Armenia is the fruit of the efforts of the research team of the Economy and Values Research Center. The authors of this report hope that the ACR will help foster more in-depth dialogue and analysis on how to improve Armenia’s competitiveness, and will make an important contribution to Armenia in several ways.

First, it will inform Government and business sector leaders and will help to benchmark Armenia’s progress. It will help Government leaders understand Armenia’s strengths and weaknesses and point out policy priorities and monitor the effectiveness of measures that are implemented to boost competitiveness. Private sector leaders will find in the ACR, a report card on the strengths and weaknesses of Armenia’s companies. Companies, both Armenian and international, need a competitive business environment in which to thrive. Many of the results of the ACR come from a survey of executives, so they will be able to see an assessments of their peers.

Second, it will provide a tool for private-public dialogue around competitiveness priorities. The ACR will stimulate a healthy debate on the best policies and initiatives to achieve competitiveness, while informing that debate with objective data.

Third, it can help reaffirm the statement to the international business community that Armenia intends to become a highly competitive country through maintaining its impressive rate of growth well into the future. The ACR provides them with an ongoing objective assessment of progress in that direction.

Fourth, teachers, university professors and students from Armenia’s business, economics, law, engineering, and social studies faculties will find in this report, a wealth of data and analysis which will enrich their understanding of the current legal, economic and business environment in a rapidly changing country. It can serve as a point of departure for further research. University leaders will find in these pages an endorsement of the importance of their institutions and their contribution to the Armenian economy. The ACR encourages closer linkages between Armenia’s universities and the private sector. Students will find excellent reference material which may serve as the basis for articles, studies and dissertations.

Civil society organizations will find in this report an excellent tool for private-public dialogue regarding the agenda for reform. Research institutes will be encouraged to utilize this report. Regional and local leaders can find in these pages ideas for improving competitiveness. Those concerned with building civil society can contribute to this dialogue.

The ACR addresses a number of key questions:

- How competitive is Armenia among the world’s nations today? How competitive are Armenia’s business environment and businesses in the global context?
- What are Armenia’s competitive strengths and weaknesses, how can the strengths be further developed and the weaknesses be addressed?
What is behind and in front of Armenia's economic growth rate, and can these growth rates be sustained? Will the average Armenian citizen be more prosperous in the next five years?

Can current economic performance patterns ensure progressive development of the nation?

How can competitiveness best be built, and what should be the top priorities for private-public dialogue over the next years? What is the role of the private sector, public sector and civil society in the development process?

To address these questions the structure of ACR is based on the following logic and consequence.

Chapter I - introduces the concept of competitiveness and stresses the importance of competitiveness for the development of a nation, firm or individual.

Chapter II - reflects a deeper look at Armenia's economic achievements in order to see the anatomy of Armenia’s competitiveness position, reveal key realities of Armenia’s situation and understand its underlying factors and causal links. Armenia’s economic performance is viewed in the international context, i.e. in comparison with neighbor countries in the region as well as with other competitor/peer countries and benchmark countries.

Chapter III - presents a quick glance at Armenia’s competitiveness position, and analyses key determinants of such a position. It portrays Armenia’s business environment as well as depicts the level of sophistication of Armenian companies and describes how Armenian businesses operate in that environment. This chapter uses contemporary tools for analyzing both macro- and micro-levels of the business environment.

Chapter IV - is a “synthesis” chapter that looks to the future. It summarizes and puts together key pieces of the “analysis-puzzle” from the other chapters, and thus forms a picture with highlighted major constraints and opportunities for Armenia. The chapter, then, attempts to emerge with thoughts and recommendations on the future development of Armenia, and covers such issues as the context of future policies, frameworks and mechanisms for setting priorities and designing short- to long-term development strategies; approaches for positioning Armenia in the region and globally.
CHAPTER I: ARMENIA’S COMPETITIVENESS CHALLENGE

Importance of Competitiveness

Currently, competitiveness is a major challenge facing Armenia’s decision makers in both the private and public sectors. While Armenia’s economic growth rate is exceptionally high, it has only recently recovered to GDP levels seen in 1990 and wage levels are still less than half of levels seen in 1990. Economic performance has been largely dependent on external factors (e.g., remittances, assistance from international financial and donor organizations). Large and increasing regional disparities and continued poverty among some segments of the Armenian population create a sense of urgency to bring economic dynamism to all geographic areas and to all segments of the population. Armenia’s disadvantage as a landlocked country increases the need for repositioning Armenia towards high-value products and services that are less subject to transportation cost disadvantages. Attaining higher levels of competitiveness will determine whether Armenia can achieve sustainable and harmonious economic growth beyond that bolstered by remittances, foreign assistance and resource exploitation.

The tendency to compete is in human nature and we live in a world where competition is one of the main forms of interaction between humans, firms and nations. They compete to attain greater benefits or advantages, more power, higher market share or profits, better living conditions and higher levels of prosperity. In this day and age, with increasingly higher levels of mobility, technological development and wider and faster communication, competition has become more intense and complex. The forces of global integration and technological change are putting additional pressures on countries and their citizens. No country, landlocked or not, can escape the influence of globalization. Attaining competitiveness is the key to benefiting from globalization instead of becoming its victim. In the long-run, the prosperity and economic self-determination of Armenia depend on its ability to achieve higher levels of competitiveness.

Competitiveness, which we define here as high and rising levels of productivity, is determined more by created factors than its resource endowments. It is a function of the nation’s ability to develop an environment enabling firms and individuals to utilize the nation’s resources and factors effectively and efficiently. It is about the ability of the nation, its firms and citizens to design, adopt and implement sophisticated strategies and operations which allow efficient utilization of available resources and factors. In other words, competitiveness is about the ability to be productive; competitiveness is all about productivity. Thus, competitive advantage is different from comparative advantage in that the former is not based on raw material abundance, cheap labor or locational advantage. Rather, it is the efficiency by which these factors are transformed into value that sets one entity apart from its peers. It is about the ability of businesses to understand the need for and deliver goods and services with high value-added rather than undifferentiated commodities, and for which customers are willing to pay premium prices. It is also about a government’s ability (and willingness) to remove roadblocks, lower transactions costs and ensure supportive regulations, infrastructure and platform services.

Competitiveness eventually brings prosperity to the citizens of a particular country and creates the foundation for future development. It leads to sustainable economic development, increases the well being of “average citizens” and reduces poverty. Therefore, there is a strong moral purpose and social objective behind a focus on competitiveness.

The aspiration of competitive nations and/or firms for innovation and continuous development enhances international competition, leads to rising international standards, upgrades product and service quality, and contributes to technological development worldwide. Competitiveness drives global technological development and global value creation, hence, creating better frameworks for cooperation.
Defining Competitiveness

There are numerous definitions of the term “competitiveness”. The ACR will base its analysis on the following two complementary definitions:

**According to Harvard University Professor Michael Porter (1998, 1990), “Competitiveness is determined by the productivity with which a nation, region, or cluster uses its human, capital, and natural resources. Productivity sets a nation’s or region’s standard of living (wages, returns on capital and returns on natural resources)”. This definition stresses the microeconomic foundation as a key driver of competitiveness.**

**Professor Xavier Sala-i-Martin et al. (2004) and the World Economic Forum (2005) define “Competitiveness as a set of institutions, policies, and factors that determine the level of productivity of a country, and that, therefore, in turn, set the sustainable level of prosperity that can be attained by an economy currently and in the medium-term (3-5 years).” This definition takes into consideration, both macro- and microeconomic factors as drivers of productivity and hence prosperity that the given nation could attain in a dynamic process. This definition is used by the World Economic Forum in its Global Competitiveness Report.**

We will also stress a key feature of national competitiveness, which is the country’s *ability* to produce and market goods and services, particularly in international markets (Scott and Lodge, 1985).

Additional discussion on the notion of competitiveness and some selected definitions are presented in Annex 1.

Measuring Competitiveness

The best measure of competitiveness is that of productivity. However, productivity statistics are notoriously difficult to obtain for all countries, limiting comparability. An easy proxy for competitiveness is often that of income per capita. However, very often it does little to explain competitiveness or predict future performance.

Various benchmarks of competitiveness exist. Those generally considered most authoritative are provided by the **World Economic Forum (WEF)**, **International Institute for Management Development (IMD)**, and the **Institute of Industrial Policy Studies (IPS)**. However, only WEF currently
includes Armenia in its reports. Therefore, in this report we will heavily (but not exclusively) rely on WEF’s indexes for assessing relative competitiveness.

The World Economic Forum’s **Global Competitiveness Report (GCR)** has become the leading source for assessing a country’s competitiveness. It is one of the most comprehensive tools for assessing the competitiveness of countries, since it relies on both hard data (from databases of the IMF, World Bank, ITU, EIU, etc.) and soft data (from Executive Opinion Surveys, conducted by partner institutes of the WEF in each country).

The GCR has two benchmarks: the **Global Competitiveness Index (GCI)** and the **Business Competitiveness Index (BCI)**. The GCI – the main indicator of competitiveness - is a composite index based on 110 sub-indexes grouped under twelve “pillars” that include a broad set of indicators spanning from macro economy to health and education. The BCI measures the national business environment and the sophistication of company strategies and operations and, thus, highlights important details of the microeconomic foundations of competitiveness with special focus on company-specific factors.

Detailed discussion on the GCR methodologies of assessing competitiveness and on Armenia’s rankings under the GCR can be found in Chapter 3 and Annex 2.
CHAPTER II: ARMENIA’S RECENT ECONOMIC ACHIEVEMENTS

The ultimate goal of the economic activity of a nation is to create welfare for its members and ensure fertile foundations for further development. Prosperity is ultimately a choice. A nation’s welfare or prosperity depends on its choices regarding how efficiently and effectively the nation utilizes and allocates its resources, or in other words, on how productive or competitive the nation is.

We start by looking at what the economic system of Armenia has yielded to date. First, we look at the achievement measures - prosperity - to assess the performance of the economic system and its results. Then we look at its key driver – productivity measures, and, after, two major enablers that stimulate the productivity growth, namely – internationalization and knowledge, skills and creativity measures. Prosperity is viewed in terms of GDP per capita and poverty level; productivity - in terms of labor utilization and labor productivity; internationalization - in terms of export position in world markets and level of foreign direct investment (FDI); knowledge, skills and creativity – in terms of creation and utilization (commercialization) of new knowledge, technological development and innovation.

These are four closely linked indicators of economic achievement of a country. Prosperity depends on the productivity of a nation and on the way wealth is created and distributed in society. Innovative capacity is an important indication of economic achievement, and also an engine for productivity increase. Knowledge, skills and creative potential constitute the innovative capacity of a nation, a cluster, a firm and an individual. Internationalization illustrates the degree to which a country is successfully competing in foreign markets for goods, services and capital. Usually, high productivity is accompanied by increased levels of internationalization, and they together are strong supporters of knowledge and skills creation and upgrade.

Figure 2: Economic Yield and Competitiveness

Armenia’s economic performance is viewed in the international context, i.e. in comparison with regional and international competitor and/or peer countries and benchmark countries. For this purpose, peer and competitor countries are selected from the following regions: (a) Eastern Europe (EE), which includes Central and Eastern European (CEE) and Baltic countries (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia) and Southeastern European (SEE) countries (Albania, Bulgaria, Bosnia-Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia, and Romania); (b) Commonwealth of Independent States (CIS), which includes Russia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine and Uzbekistan); and (d) Eurasian Crossroad Region between the Black, Mediterranean and Caspian Seas, of which Armenia is a part and which also includes Azerbaijan, Georgia, Jordan, Iran, Israel, Lebanon, Syria, Turkey). In addition, Armenia’s key indicators will also be compared with Ireland, which we have chosen as a “benchmark” country that represents international best practice.

This regional coverage allows a fairly comprehensive comparison and a broad view on Armenia’s position based on geographical and historical as well as social and economic factors. Countries of Eastern Europe
and the CIS are all transition countries with a wide range of similarities inherited from communist regimes. The recent history of Armenia is closely linked to CIS countries, and there are still close economic and trade relations with many CIS countries. Comparison with European countries is also in line with current priorities in Armenia’s foreign policy to achieve closer integration with the EU, and with the fact that the EU is now a major trade partner for Armenia. At the same time, Armenia has much longer historical, cultural and economic ties with countries of the Middle East and the Mediterranean, although they were interrupted during Soviet times. We refer to this region as the Eurasian Crossroad region. After the collapse of the Soviet Union, Eurasian Crossroad countries became important economic and trade partners for Armenia, and this region provides broad, but still unexploited market opportunities. Moreover, we believe that repositioning Armenia in a wider regional context will provide better opportunities for establishing a competitive position (see more detailed discussion about positioning in Chapter 4).

Ireland has transformed itself over the last three decades and is testament to the fact that size (as well as geographic isolation) is not as relevant as was once believed. The case of Ireland is relevant to Armenia in two respects. First, Ireland has a comparable size (e.g. country size, population); and second, back in the 1970s, Ireland’s economy had many similar characteristics to Armenia (outward migration, small domestic market, inequitable wealth distribution, predominantly rural economy, growing regional disparities, low competitiveness of local businesses, high levels of unemployment and poverty, low GDP per capita compared to Europe, unexploited export potential to larger “near” markets). Though its performance is sometimes attributed to the advantages of being part of the EU, other EU Members failed to show similar performance, suggesting that Ireland was doing much more than “riding the wave”. Without refuting some important differences in Ireland’s geographic, political and economic conditions at the start of “acceleration” with those of current Armenia, there are many useful lessons to be derived from its experience. While this does not suggest blind imitation of Ireland, it does provide good ground for thinking of relevant strategic alternatives.

**Prosperity**

After a more than 50 percent decline in GDP between 1991 and 1993, Armenia recorded 5.4 percent growth in 1994, and has since grown at an annual compound rate of 8.2 percent. The growth rate has been remarkably high during the last six years, at two digit levels. In 2004, after a decade of economic growth, the GDP level surpassed the 1990 level (Figure 3). Armenia’s GDP growth rate outpaced almost all transition countries in EE, the CIS and the Eurasian Crossroad regions (Figures 4) in 2006. An exception was Azerbaijan, which registered a 34.5% GDP growth rate for the year 2006 versus Armenia’s 13.4% growth rate for the same year, and in 2007 it reached 13.7%. Azerbaijan’s high growth rate was strongly correlated to the implementation of large oil projects and benefited from increasing oil and gas prices worldwide.

**Figure 3: Armenia GDP and Wage Growth Rates (1990-2005)**

Source: NSS, various publications
There has been a similar trend with regard to growth rates of GDP per capita. Between 2000-2006, Armenia’s compound annual growth rate (CAGR) of GDP per capita was 12.89%, outpacing neighboring countries including Georgia (8.74%), Turkey (3.25%), and Iran (4.14%), as well as its regional peer/comparator countries including Jordan (3.70%), Estonia (9.15%), Latvia (9.47%), Lithuania (8.24%), Slovenia (3.66%) and Romania (6.75%), although lagging behind Azerbaijan (15.75%). With this growth rate, Armenia’s GDP per capita in PPP terms passed the USD 5000 level in 2006, putting Armenia in the group of lower middle-income countries according to World Bank criteria.

Figure 4: Comparative Economic Performance (2000-2006)

Economic growth has brought about considerable improvements in the population’s welfare in terms of real wage increases, poverty reduction, and increased spending on social services and transfers (Annex 4). However, a closer look shows that in absolute terms the level of Armenia’s GDP, based on purchasing power parity (PPP) as well as GDP per capita, still remains low and lags behind most of its competitor and peer countries. In 2006, Armenia’s GDP per capita (PPP) was higher than the GDP per capita of Georgia, Moldova, Kyrgyzstan, Uzbekistan, Tajikistan, Syria, Egypt, Lebanon and Albania but was significantly lower than other EE, CIS and Eurasian Crossroad countries. Although the country’s economy has been growing annually by double digits, this growth should be viewed against a very low GDP base.

Additionally, economic growth in Armenia has not resulted in corresponding wage growth; wage levels reached only around 40% of 1990 levels (Figure 3). Real unemployment levels (over 30 percent) and poverty (circa 26 percent in 2006) still remain quite high; the distribution of wealth in society is highly inequitable; and disparities between regions in terms of economic and social development are significant (see more discussion on these issues in the Chapter 3 and 4).
Internationalization

Export Performance

We look at Armenia’s export performance as an important indicator for measuring a country’s (and its companies’) comparative productivity and ability to compete in world markets. For a country like Armenia (with a small internal market) export performance is a crucial factor for economic development, as it permits the achievement of economies of scale and concentration on those sectors where the country is more competitive. The Government of Armenia has indicated that export promotion is one of its main priorities.

Since 2000 Armenia’s share of world exports has more than doubled, although in absolute terms Armenia’s share of world exports remains very small and is behind most of the EE, CIS and Eurasian Crossroad countries (Figure 5).

Figure 5: Export Share in World Export (2000-2005)

Source: WB, WDI-Online, 2007 (last accessed October 2007); Authors’ own calculations.

Note: Bubble size indicates the difference of shares of world exports and world GDP. White color indicates that the share of nation’s export in the world exports is less than the nation GDP share in the world GDP. These are generally considered underperformers. Data for Syria is for 2004.

Armenia’s total share of world exports is slightly less than the share of Armenia’s GDP of world GDP. This is an indication that economic growth has not been export driven, but has been attained primarily through import substitution, growth of domestic demand, and growth of non-traded sectors of the economy. This is a warning sign for Armenia’s international competitiveness given the small domestic market and, hence, the need for export-led growth as a long-term sustainable strategy. The difference between Armenia’s share of world exports and share of world GDP is better than that of Turkey, Lebanon, and Albania, but is worse than that of other countries in EE, the CIS and Eurasian Crossroad regions.

As in the 1990s, Armenia’s trade balance has been largely negative in recent years. Export performance was rather weak in the 1990s, but improved significantly since the beginning of this decade and has demonstrated high growth rates. In 2000-2007 the CAGR of total merchandise exports was 19.6%, while the annual growth rate of “non-precious stones and metals” (mostly “non-diamond”) exports was about 24%. Armenia’s exports became more diversified – the number of exported items doubled between 1997-2005; the geography of Armenia’s exports indicates a shift from traditional markets (CIS and Middle East) towards the European Union (Figure 6).
Despite the aforementioned developments, Armenia’s exports are still characterized by a high degree of concentration in terms of product as well as geographical coverage. Export growth has been driven by few commodity groups with low value added and low knowledge intensity - mostly waste or scrap metal, mines and ores (together accounting for about 48.6% of total merchandise exports in 2007\(^1\)), precious and semi-precious stones and precious metals (18.5%), and a processed foodstuffs (12.5%). Processed foodstuffs, representing about 10% of total exports in 2006, included mainly alcoholic beverages (83% of prepared foodstuff in 2006). Around 80% of alcoholic beverages were exported to Russia in 2006. Armenia’s five major export partners accounted for about 60% of total merchandise exports in 2006\(^2\).

In 2006, exports to European countries was characterized with the dominance of two types of commodities (metallic ores, other base metals (copper, iron and steel, etc.) and precious and semiprecious stones/metals). Europe is one of Armenia’s major trading partners with about a 55% share in total merchandise exports in 2006 (Figure 6).

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1 Source: Preliminary data/estimates, National Statistical Service of Armenia, 2008

Armenia’s exports are largely resource intensive. The share of resource intensive exports in Armenia’s total merchandise exports was about 64% in 2005 and increased to 69.5% in 2006, which is quite high compared with indicators of most counties in EE, the CIS and Eurasian Crossroad regions (Figure 7). It should be noted that in 2002-2004, the indicator of resource intensity of Armenia’s exports was higher still at over 70% (2002-75%, 2003-77%, 2004-71%). The drop of the indicator in 2005 was due to the drop in the export of diamonds (in 2002 the share of diamonds among all merchandise exports was 48.0% compared with only 30.9% in 2005).3 High resource-intensity also means low value-added of Armenian exports. Higher value-added products and services are required to attain higher levels of productivity and competitiveness. 4

Figure 7: Resource Intensity of Merchandise Exports (2006)

![Figure 7: Resource Intensity of Merchandise Exports (2006)](image)

Source: WB, WDI-Online; UNCOMTRADE online database, 2007; Authors’ own calculations.

Note: PPP adjusted GDP per capita of Israel is for 2005

### Investment Performance

Foreign direct investment (FDI) is an important factor that can contribute to economic performance and to productivity in several ways, including: (a) introduction of new technologies, managerial competences and knowledge; (b) enhancing the business climate; (c) improving domestic competition; (d) job creation; and (e) increasing the quality of human resources. FDI-driven growth has been a model for economic

3 Cross-country comparison in Figure 7 shows a negative trend between the share of resource based products in the total merchandise exports and the level of GDP per capita (PPP). The higher the GDP per capita indicator for the country, the less the share of resource-based products in the export. Indicators of resource intensity of exports differ significantly among Eurasian Crossroad countries (12.02% in Turkey and 92.1% for Iran). The same picture is true for CIS countries (24.25% in Ukraine, 86.36% in Kazakhstan and 91% in Azerbaijan). Countries of the other regions have more or less close indicators.

4 Resource intensive product groups were defined using the Lall (2000) classification of export by their technological intensity. Two groups of products were treated as resource based products: primary products (fresh fruit, meat, rice, cocoa, tea, coffee, wood, coal, crude, petroleum, gas) and resource based manufactures - agro/forest based products (prepared meats/fruits, beverages, wood products, vegetable oils)) and other resource based products (ore concentrates, petroleum/rubber products, cement, cut gems, glass). Source: Chami Batista, 2004; UNCTAD, 2004; Mahmood, 2004
growth in many countries (e.g. Hungary). In most such countries, the bulk of investment has been domestic, but FDI creates a leading edge and triggers new domestic investments.

It is logical to expect, and the recent history of FDI has demonstrated, that high levels of FDI are recorded in countries with primary extractive industries, with a superior cost position, with large domestic markets or in countries that can supply highly skilled scientists and engineers for high value-added processing and R&D activities. Given the constraints in natural resource endowments, size and geopolitical situation, in order to attract large and high quality FDI it is vital for Armenia to enhance knowledge intensive industries. This would boost the competitiveness of the nation, and over time would allow establishing or bringing high value processing elements of the global value chains of multinationals to Armenia (discussed in detail in Chapter 4).

Overall, Armenia has demonstrated moderate investment performance during the last decade and competed quite successfully in attracting FDI in infrastructure and resource-intensive industries. Despite the fact that FDI per capita has more than doubled since 1999, Armenia has still shown only average performance compared to EE, CIS and Eurasian Crossroad countries in terms of FDI inflows as a percentage of GDP, FDI inflows as a percentage of gross capital formation, and FDI per capita (Figure 8).

Figure 8: Foreign Direct Investment Performance (2000-2006)

Source: UNCTAD online database, WIR 2007, WB, WDI-Online; Authors’ own calculations.
Note: The size of bubbles is relative to inward FDI per capita, 2000-2006 average. The data for Israel, Iran and Lebanon are for 2000-2005

Between 2003-2007 the CAGR of inward FDI to Armenia was 52.9%, which, however, was driven mainly by reinvestments (Figure 9). The largest inflow of equity investments was observed in 2006, peaking at 216.73 million. The tremendous growth of FDI was due to the rise of reinvested profits and other investments in 2007. In 1998-2007, the major FDI recipients were electricity, gas and water supply (25.15%), post and telecommunications (19.83%), mining and quarrying (14.64%), and food products and beverages (7.70%), sectors5. If the current trends continue, Armenia will soon exhaust its potential to attract even resource-driven FDI into new sectors.

5 Source: Nationals Statistical Service of Armenia, 2008
At the end of 2007, Russian investments accounted for 47.5% of net FDI stocks (1998-2007), making Russia the major source of inward FDI, followed by Germany (a large copper mining investment deal) and France each with a 8.1% share respectively. Other important sources of FDI include the United States, followed by Canada, the United Kingdom, Argentina, etc - countries with relatively strong, established and affluent Diaspora communities that play a significant role in generating and attracting investments (between 1998-2004, Diaspora-connected FDI accounted for about 25% of total FDI inward flows).  

**Figure 9: Inward FDI, Armenia (2001 - 2007)**

![Graph showing inward FDI in Armenia from 2001 to 2007](image)

Source: NSS of Armenia, Balance of Payments, various publications

### Knowledge, Skills and Creativity

A nation’s and its firms’ and citizens’ ability to create, accumulate, disseminate and utilize knowledge as well as their ability to innovate are crucial factors for competitiveness and economic development. In practical terms, this refers to innovation and technological development, i.e. to the intensity and efficiency of scientific and applied research (or R&D) and the ability to turn knowledge into new and commercially viable and valuable products or services, production processes or marketing methods, and organizational or management solutions, or the upgrading of existing ones. For Armenia, a country with low resource endowments and high transportation costs the development of sectors requiring knowledge, high skills and creativity is of crucial importance.

Since independence, the R&D and innovation performance of Armenia has been rather disappointing. Once an important center for scientific research and high-tech production in the former Soviet Union, Armenia has lost most of its scientific and technological (S&T) resources and has yet to exploit its S&T potential. Until recently, the promotion and development of innovation were, practically, out of the Government’s policy agenda. In essence, there were insufficient incentives to promote private R&D expenditures and private sector-university cooperation. The link between S&T potential and other sectors of the economy and society have been disrupted, and S&T has not been viewed and/or integrated as an important factor for economic and social development. The private sector, to a large degree, failed to extensively involve S&T resources in supporting its development. The link between academia and the private sector is perceived to be very weak.

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6 Source: Nationals Statistical Service of Armenia, 2008  
7 Economy and Values Research Center, 2007. Hergnyan et al., 2007  
8 Armenia had 25,000 scientists and engineers in 1990 vs. 6,700 in 2005 (Arzumanyan, 2006)
The law on State Support of Innovation Activities was adopted only in 2005, but the amount allocated in the state budget is low ($570,000 for 2007). In some selected fields such as physics, information technology and biotechnology, Armenia still has potential, which is mostly utilized through bilateral or multilateral international research projects (International Science and Technology Centre, US Civilian Research and Development Foundation and its Armenian affiliate the National Foundation of Science and Advanced Technologies, NATO Science Programme, INTAS, and others).

Armenia has a higher tertiary education expenditure/GDP per capita ratio than most other countries, but in absolute terms tertiary student expenditure is lower than that of most countries. Government expenditure on R&D has been extremely low and negligible and below that of most competitor and peer countries in EE, the CIS and Eurasian Crossroad regions (both as a percentage of GDP and, more dramatically, in absolute terms). In 2006, R&D expenditures accounted for 0.22% of GDP. In 2005, Government R&D expenditure in the country was only 0.12% of GDP, and there has been a similar ratio in the previous five years. Armenia’s private sector businesses also had very low expenditure for R&D and for employee training (less than Government expenditure). In 2005, total R&D expenditure in the country was only 0.23% of GDP.

Armenia obtained two US patents in 2006 vs. one patent in 2005. The trend in the figure below shows a positive relationship between R&D expenditures as a percentage of GDP (inputs) and the average number of US patents per million population (outputs) (Figure 10).

**Figure 10: R&D Expenditure vs US Patents per Million Population (2000-2005)**

![Graph showing R&D Expenditure vs US Patents per Million Population (2000-2005)](image)


Note: R&D data for Croatia, Romania and Turkey are for 2000-2004; Tajikistan for 2001-2005

It has to be noted that high R&D spending itself may not bring widespread knowledge creation and dissemination, and, thus, new invention and registered patents, unless necessary institutions, mechanisms and infrastructures are in place. However this relationship is weak in countries with a relatively low number of R&D specialists, low level of S&T education and graduates, their respective quantity, etc. In

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9 Government decree on 2005-2010 program for innovation system creation was adopted in 2005.
11 NSS; UNESCO online database, 2007.
12 The number of US-registered patents is considered to be a good indicator for patenting activity since all the commercially viable innovations tend to register in the world’s largest economy.
these nations high R&D spending will not ultimately result in higher numbers of patents, unless the necessary infrastructure is set. The position of Armenia indicates that the level of R&D expenditures doesn’t reflect the true state (number of registered US patents), indicating the fact that Armenia still relies on knowledge and skills acquired in the Soviet times.

**Productivity**

Armenia’s prosperity measured in terms of GDP per capita reflects both the level of labor force utilization and the productivity at which labor is employed (Porter et al., 2003). Labor productivity is an important measure of economic performance. However, ensuring higher labor participation in the economy also is a crucial economic and social achievement. Labor productivity can be increased by cutting the labor force, however, this will not bring about real increase in prosperity of the society or the competitiveness of the country.

Labor force utilization depends on labor force as a share of the working age population (labor force participation rate), employment rate (% of working age population) and hours worked (per employee). Armenia has a low labor force participation rate (59%) lagging behind most of the EE, CIS and Eurasian Crossroad countries (Figure 11). This reflects the effects of massive emigration of mostly young people since the early 1990s. Official unemployment has been decreasing since 2000 - from 11.7% in 2000 to 7.5% in 2006. But, official figures for unemployment (or registered unemployment) differ significantly from real unemployment in the country. Real unemployment still remains quite high – in 2006 the unemployment rate was about 30 percent. Moreover, there is a quite high level of underemployment in the economy, particularly in the agricultural sector, where more than half of the labor force was underemployed and expressed readiness to work more hours. In the industrial and services sector, the levels of underemployment in 2004 were 37.9% and 36%, respectively. The level of underemployment in terms of working less than 40 hours per week was 30.2%, 39.4% and 73.4% in the industrial, services and agricultural sectors, respectively.

**Figure 11: Labor Force Participation Rate and Labor Productivity per Employee (2006)**

Source: WB, WDI-Online (last accessed October, 2007), ILO Laborsta (last accessed October 2007); IMF, International Financial statistics May 2007; Authors’ own calculations.

Note: Data for Egypt, Georgia, Iran, Israel and Kyrgyz Republic are for 2005

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13 NSS Survey data (ILO methodology); ILO.
Armenia does poorly in terms of labor productivity. Figures for labor productivity per employee are significantly lower than that of countries in the EE region (Figures 11 and 12). Compared to its neighboring countries, Armenia’s total productivity per employee is higher than that of Georgia and Azerbaijan (nations with a higher labor force participation rate), but is considerably lower than that of Iran and Turkey, where labor force participation rates are lower than that of Armenia. It is interesting to note that overall, in EE countries, manufacturing productivity is much higher than that in the CIS and Eurasian Crossroad countries. However, in these comparator countries the manufacturing productivity is less than that of nationwide productivity per employee (Figure 12).

Figure 12: Manufacturing Sector Productivity vs. Labor Productivity per Employee (2006)

Labor productivity depends on the structure of the economy, i.e. on what sectors of the economy are driving growth, and nationwide average productivity levels may differ from the productivities of individual sectors (e.g. manufacturing, agriculture).

In 2007, construction accounted for 25.6% of GDP, followed by agriculture (17.4%) and industrial sectors (accounting for 15.6% of GDP). The main driver of economic growth is the construction sector, which accounted for 32.9% of GDP growth in 2007 (57.4% in 2006, and 31.2% in 2005). In 2007, agriculture accounted for about 12.5% of the growth (0.5% in 2006 and 18% in 2005), industrial sectors accounted for 4.3%, while in 2006 they had a negative contribution to GDP growth (-0.75% in 2005). In 2007, financial intermediation and real estate, renting and business activities sectors contributed 8.8% to the GDP growth.

Based on official data, the most productive sector of the Armenian economy was construction in 2006 (2.7% of the total employment, and 26% of gross value added). The mining and quarrying sectors also had relatively high productivity (increased due to the rising base metal prices worldwide, which suggests that this may not be a sustainable source of productivity). The productivity level is particularly low in the

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15 Source: Preliminary data/estimates, National Statistical Service of Armenia, 2008
16 Source: National Statistical Service of Armenia, various publications
17 Although it is obvious that the construction sector is the most productive sector in Armenia, it may be argued that the reported level of employment and, thus, the real productivity in the construction sector is much less that the real level due to non-registered employees.
agricultural sector which employed 46% of the total labor force in 2006, but represented only 20% of gross value-added in the country (Figure 13).

While development of the construction sector can have an important multiplier effect for economic growth in the short-run, it is not exportable and, given the small local market, in the long run is unlikely to maintain its leadership position. It is essential, therefore, that Armenia in the medium- to long-run relies on the promotion and development of export oriented, high value-added sectors, if Armenia is to enhance its international competitiveness.

**Figure 13: Shares of Main Sectors - Employment and Value Added as % of Gross Value Added (2006)**

![Graph showing shares of main sectors](chart.png)

Given that the private sector in Armenia is the main provider of jobs, employing around 80% of the labor force (with the state representing an ever-decreasing share), the demand for jobs can be satisfied predominantly through the development of private businesses. Therefore, the establishment of a sound business environment and the development of private businesses are of vital importance. Ultimately, a nation's wealth is created by its companies and individuals.

What is the nature of the enabling environment in which Armenian businesses operate and create jobs and wealth? How well do Armenian businesses function in that environment? What is the level of sophistication of Armenian companies? What is the Armenia's international competitive position as a result of interplay of these factors? The next chapter addresses these and other related issues.
CHAPTER III: ARMENIA’S COMPETITIVENESS POSITION AND ITS CAUSES

In terms of growth rates of many macro-economic metrics, Armenia’s performance has been quite impressive. The compound annual growth rate of Armenia’s per capita GDP in 2000-2006 was one of the highest in the world at 12.9%, outpacing most of its neighbors and peer/competitor countries. Armenia’s double digit growth of GDP and exports is even more impressive if we take into account the difficulties that the country faced since 1988. What is driving this growth rate? How competitive is Armenia in the global context? Can these rates of growth be sustained? Will the average Armenian citizen be more prosperous in the next five years?

Can current economic performance patterns ensure progressive development of the nation?

In order to address these questions and to form a multi-dimensional picture of Armenia’s economic performance in the global context, we will look at Armenia’s competitiveness position using country statistics and comparative benchmark reports; the first of which being the WEF’s Global Competitiveness Report (GCR). Then, we analyze the key underlying causes and determinants of such a position. This analysis highlights Armenia’s major strengths and weaknesses, constraints and opportunities, and it will help to set priorities for future policies. It is important to note that the results in the GCR are largely supported by rankings and information provided by other international organizations referred to in this report.

Armenia’s Competitiveness Scorecard

In the GCR 2007-08, Armenia ranked 93rd out of 131 countries in the Global Competitiveness Index (GCI), i.e. Armenia was in the 8th decile of countries - a relatively low ranking, indicating that there is still much room for improvement if Armenia is to become a globally competitive country. The GCI provides a holistic overview of around 110 factors that influence productivity and competitiveness of countries, grouping these factors into “twelve pillars” that are arranged into three broader categories, namely, basic requirements, efficiency enhancers, and innovation and sophistication factors, as presented in Figure 14.

The choice and design of the twelve pillars is based on a significant body of theoretical and empirical work demonstrating that each of the pillars fosters and facilitates productivity growth and development. Empirical evidence shows that for countries at relatively low levels of development with “factor driven economies” basic requirements such as institutions, infrastructure, macro economy, health and primary education play a greater role in explaining competitiveness. For middle income countries, or those with “efficiency driven economies”, efficiency enhancers such as higher education, market efficiency, technological readiness and market size become more important. For highly developed countries with “innovation driven economies”, which already have advanced institutions, infrastructure, educational systems, efficiently functioning markets and the like, business sophistication and innovation factors become relatively more important as drivers of competitiveness. In order to reflect these differences attributable to the level of development of countries, each of the pillars in the GCI is given a different weight depending on the level of development of a given country (additional details on GCI methodology can be found in Annex 2).

In the GCR, Armenia is considered a country with a factor driven economy.

It is important to note that the competitiveness of a nation is determined by a combination of all pillars, and for assessing the competitiveness of a nation or analyzing the evolution of its productivity, all twelve pillars should be viewed as an integrated whole.

The rankings and scores in this section are those of the GCR 2007-08 if not otherwise noted. The comparisons are with GCR 2006-07 rankings and scores, if not otherwise mentioned.
Overall, Armenia scored relatively better on the four pillars grouped under “basic requirements”, but was still in the 7th decile of countries. Macroeconomic stability, on which Armenia was among the upper half of countries (57th rank), was the major positive contributor to Armenia’s ranking for basic requirements. However, the weak institutional standing and considerably worsening performance in health and primary education decreased Armenia’s overall rank in this category.

The greatest negative effect on Armenia’s overall rank came from Armenia’s ranking on “efficiency enhancers” and “sophistication and innovation factors” where Armenia ranked in the lower end of 8th decile of countries. The small size of local and foreign markets, the low efficiency of the goods market and, especially, of financial markets and low technological readiness, impair the overall efficiency of Armenia’s economy, despite the fact that the country ranked quite high (40th) in the labor market efficiency pillar. The two pillars making up “innovation and sophistication factors” were lower still with “business sophistication” ranked at 111th.

It is worthwhile mentioning that Armenia’s rankings in the GCR deteriorated due to the inclusion of 6 new countries in the GCR 2007-08; all six countries ranked higher than Armenia. Armenia’s rankings on some indicators were also affected by changes in the methodology of GCI ranking. In order to understand the underlying factors of Armenia’s competitiveness position, we will now discuss each of the twelve pillars in more detail.

**Figure 14: GCR’s Twelve Pillars of Competitiveness of a Nation**

Note: Rankings are that of GCI 2007-08 compared to GCI 2006-07

**Pillar 1 – Institutions (96th).** Institutions comprise “a system of rules that shapes incentives and defines the way economic agents interact in an economy”\(^\text{20}\). The institutional framework relating to both public and private institutions “plays a central role in the ways societies distribute the benefits and bear the costs of development strategies and policies, and has a bearing on investment decisions and on the organization of production. … Institutions are more resistant to change in the short term, as institutional reforms often touch on deeply entrenched human behavior”\(^\text{21}\).

\(^{19}\) Six new countries were included in the GCR analysis — Libya, Oman, Puerto Rico, Saudi Arabia, Syria, and Uzbekistan. Serbia and Montenegro, previously analyzed as a single country, were included separately. This has increased the GCR coverage to a total of 131 countries instead of 127 in the previous year. There have been also some refinements to both the structure of the GCI model and to the weighting scheme. These refinements reflect the results of international experience and the experience of testing and working with GCI.


\(^{21}\) Ibid.
With respect to **public institutions**, Armenia ranked 92nd out of 131 countries. Armenia recorded relatively good, but deteriorating performance in relation to ensuring security for private companies, e.g., business costs of terrorism, business costs of crime and violence, reliability of police services, and organized crime. Major problems related to public institutions, on which Armenia was well behind of other countries and had worsening performance, were poor practical implementation of laws, lack of judicial independence (only 120th), favoritism in decisions of government officials (110th), low public trust of politicians, and low efficiency of the use of public funds due to corruption (106th – down by 21 places).

In terms of **private institutions**, Armenia ranks only 115th in the GCR out of 131 countries. This reflects the poor quality of private institutions. There is an urgent need for enhancing the capabilities of private companies by empowering them with the knowledge and practices of modern management and good corporate ethics. There is significant room for improvement with regard to: (a) ethics of behavior in interacting with other companies, customers and public authorities; (b) accountability of top management of companies; (c) protection of interests of minority investors; and (d) compliance with strong financial auditing and reporting standards.

**Pillar 2 – Infrastructure (87th).** Reliable and high-quality physical infrastructure (air and ground transportation, port facilities, reliable electricity supply, and telecommunications, etc.) is essential for enabling businesses to achieve higher productivity. It helps to reduce operational costs and increase efficiency of business activities.

Armenia’s physical infrastructure (ranked 87th in the GCR) needs significant improvement although there were notable improvements in road, air and telecommunication infrastructures. The private sector representatives stated the inadequate supply of infrastructure as one of the most problematic issues for doing business in Armenia that limits access to foreign markets. Major setbacks in physical infrastructure are the low level of air transport infrastructure with low density of weekly flights from and into the country, and the absence of port infrastructure.

While there are objective geographical and geopolitical reasons for problems in transportation infrastructure for a landlocked country like Armenia, with limited ground transportation routes and no access to the sea, it is vital for the economy that the Government takes practical measures to ensure high quality air transportation and a liberal administrative regime fostering competition.

**Pillar 3 – Macroeconomy (57th).** A solid and stable macroeconomic environment (national savings rate, inflation, interest rate spread, etc.) is a necessary precondition for companies to function, develop and build capacity for innovation and upgrading.

According to the global comparison in the GCR, Armenia continued performing well at the macroeconomic level. Armenia improved its position notably (by 9 places) and stood at 57th rank in the “macroeconomic stability pillar”. A notable achievement was the improvement of the national savings rate. In the previous year, Armenia also had a very high rank (ranked 4th, up a dramatic 83 places from the prior year) for low inflation. However, this rank dropped to 39th due to increased inflation in the country (inflation increased from 0.6% in 2005 to 2.9% in 2006, and then to 4.4% in 2007). It is also important to note that Armenia improved its competitive position (52nd, up by 30 places) in terms of the national savings rate.

Factors hurting Armenia’s macroeconomic performance included the very high interest rate spread, recent fluctuations of the exchange rate, and Government surplus/deficit ratio as a percentage of GDP. High “prices” for loans have an across-the-board effect on the private sector, which also requires innovation in financial instruments. The macroeconomic environment in Armenia is hampered as well, by highly inequitable distribution of wealth and by high and increasingly deepening disparities between regions of the country.

**Pillar 4 – Health and Primary Education (99th).** “Clearly, an unhealthy workforce hampers competitiveness and imposes heavy costs on all parts of society” including businesses. Although Armenia’s performance in the health and primary education pillar was still a bit higher than the average for factor driven economies, compared to the previous year, Armenia took a major steps back,

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22 Lopez-Claros et al., 2006
23 In the GCR 2006-2007, Armenia improved its position in terms of health and primary education (up by 13 points), but went down by 22 points in the GCR 2007-2008.
falling by 22 places. On health, Armenia’s position was fair in terms of prevalence of such diseases as malaria and tuberculosis, and good in terms of HIV prevalence. However, Armenia’s ranks on infant mortality and life expectancy worsened relative to the year before due to the better performance of other countries.

Good primary education is a prerequisite for ensuring solid foundations for the next levels of education, and, thus, high primary enrollment and high quality of primary education are essential for the future competitiveness of professionals. It may be surprising, but Armenia’s rank on primary education was just 113. This was due largely to primary enrollment (the ranking went down by 54 places), although Armenia had a relatively high ranking for primary education in the previous year. There is much room for improvement also, in terms of the quality of primary education and public expenditure on education.

**Pillar 5 - Higher Education and Training (95th).** The quality of higher education and on-the-job training is crucial for economies wanting to move up the value chain beyond simple production processes and products. In particular, today’s globalizing economy requires countries to nurture pools of well educated workers, who are able to adapt rapidly to their changing environment. The availability of highly-educated professionals (managers, marketing specialists, engineers, etc.) and specialized training services, enhance the capability of companies to run their own R&D facilities to develop new products, apply new marketing approaches, etc.

Armenia’s position on higher education and training worsened in the GCR, falling by 13 places. There was moderately deteriorating performance in terms of quantity of education (gross secondary enrollment and tertiary enrollment), but rankings for the quality of education (in terms of its ability to meet the needs of the market; quality of math and science education; quality of business schools) as well as for on-the-job training were disappointing and dropped significantly. Rankings were particularly low in relation to the quality of management schools and internet access in schools.

**Pillar 6 – Goods Market Efficiency (104th).** In general, market efficiency pillars determine efficiency in the allocation of resources, labor force and financial resources in a particular country. Distortions in goods, labor and financial markets lower the productivity by which a nation utilizes its resources, and hence jeopardizes a nation’s competitiveness. Armenia’s scores on market efficiency in the GCR indicate that there are serious distortions especially in Armenia’s goods and financial markets. The labor market received rather high, but decreasing marks (falling 8 places).

As regards the goods market efficiency, Armenia achieved poor rankings with respect to local competition and moderate rankings for foreign competition.

In terms of local competition, there were relatively good rankings on the ease of starting business. Also, agricultural policies do not appear to impose a heavy burden on the economy, since the level of agricultural subsidization in Armenia has been rather low. However, “weak” and “unfair” local competition in Armenia had a significant negative effect on Armenia’s competitive position. Armenia’s local competitive environment is greatly distorted due to the low intensity of local competition, the dominance of few power groups in the market, and the low efficiency of antimonopoly policies. Armenia’s lowest rankings, 130th and 131st were in the latter two areas.

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24 The number of people with tuberculosis per 100,000 inhabitants was 78.6 in 2005 vs. 85.2 in 2004. Source: World Health Organization, WHO Statistical Information System Online Database, (last accessed: January 2008)

25 Armenia had a relatively high ranking for enrollment in primary education (ranked 55th in the previous year GCR 2006-2007). Gross primary enrollment in 2005-2006 in Armenia was 93.69%. Source: UNESCO Institute for Statistics (June 2006); United Nations Statistics Division.

26 The backward move in primary enrollment can partly be conditioned by two factors: (a) change in the methodology in the GCR – instead of previously used gross enrollment, this year GCR used the net enrollment indicator; (b) parents frequently send their children to school earlier than the official school age (i.e. under-age enrollment), which affects the net enrollment for future years. Gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. Net enrollment ratio is the ratio of children of official school age, based on the International Standard Classification of Education 1997, who are enrolled in school to the population of the corresponding official school age.


28 Gross secondary enrollment rate in Armenia increased by 8 percentage points in 2004, however in 2005 it declined by 3 percentage points (88%). In the case of gross tertiary enrollment it started to increase and reached 28% over 2004 (26.20%) Source: WB, WDI-Online (last accessed November 2007). Again, this may be related to the issue of “under-age primary enrollment”.
Armenia seems to be relatively open for foreign competition. Armenia’s highest ranking 5th, was earned for its liberal foreign trade regime with low tariffs on imported goods. But burdensome customs procedures (ranked 121st) and non-tariff regulations seriously impede facilitation of trade and investment. Other serious drawbacks in the goods market include low levels of responsiveness by Armenian firms to their customers and buyer sophistication.

**Pillar 7 – Labor Market Efficiency (40th).** Armenia’s labor markets were characterized by a relatively high levels of flexibility in terms of freedom of companies in establishing wage levels; cooperation between employers and employees; and flexibility of hiring and firing employees. However, Armenia’s private sector reported that the tax regime does not provide strong incentives to work and invest in the country.

GCR scores are particularly low in terms of the efficiency of labor force utilization or the efficiency of the use of talent. Armenia ranks high in the GCR on the relationship wages and productivity of employees, and female participation in the labor force. But there are serious disadvantages that lower the efficiency of labor force utilization such as the lack of reliance on professional management (marked only 127th in the GCR), non-merit based hiring practices, and brain drain, due to the inability of the economy to provide competitive opportunities for talented professionals who leave the country seeking jobs abroad.

**Pillar 8 - Financial Market Sophistication (110th).** The inefficiency of financial markets or the low level of financial market sophistication appears to be one of main disadvantages for Armenia, although ongoing reforms in the banking sector have brought about some improvements in terms of increasing the level of financial market sophistication and soundness of banks during recent years. Armenia was ranked only 110th on the overall efficiency of financial markets. High interest rate spread and high cost of collateral make it extremely difficult for businesses to get money from banks. Innovative and/or risky projects can not be funded due to the lack of access to venture capital funds. Issuing shares and selling them on the local stock market in order to raise funds is virtually impossible.

**Pillar 9 - Technological Readiness (104th).** The use of modern technologies enable companies to enhance their productivity by offering high-quality, comparatively low-cost goods and services both for domestic market consumption and export. In terms of technological readiness Armenia recorded a decline in the GCR (down by 15 places), due to its limited use of new technologies, lack of developed regulatory framework for the use of ICT, and low use of internet. ICT penetration to gain knowledge and transform it into higher productivity was low. There was considerable decline in terms of the readiness of Armenian firms to absorb new technologies (81st, down by 33 places). Armenian businesses indicated that FDI brought some new technology, but not enough for becoming an important source of new technology (rank 83rd, down by 9 places).

**Pillar 10 – Market Size (111th).** Under this pillar, the size of both the local and foreign markets is taken into account. As a small country, Armenia suffers a natural disadvantage. Therefore, for a country with a small local market, the size of foreign export markets is becoming vital for reaching economies of scale. “In the era of globalization, international markets have become a substitute for domestic markets, especially for small countries”.

Armenia’s GCR rankings indicate that the small size of Armenia’s domestic market combined with small size of exports and low ratios of imports and exports to GDP is yet another major stumbling block for Armenian firms. In short, the “smallness” does not allow Armenian firms to reach high productivity and earn sizable returns. To overcome this, Armenia badly needs foreign markets. To enter foreign markets, Armenian firms and the Government need to have high aspirations, adopt outward looking strategies, and become competitive globally.

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29 In terms of ICT indicators in GCR Armenia suffers because of the significant lag with which the data is reflected (in some cases up to two years), since the sector improved significantly in the last two years.


31 Despite the fact that both imports and exports have been increasing during recent years, the ratio of imports and exports to GDP decreased due to higher GDP growth rates relative to growth rates of imports and exports in absolute terms. The appreciation of the Armenian national currency has put additional pressure on exporters. Exports of goods and services as a percentage of GDP decreased from 27.4% in 2004 to 26.9% in 2005 and, then to 23.4 in 2006. Imports of goods and services as a percentage of GDP decreased from 42.1% in 2004 to 39.9% in 2005 and, 36.3 in 2006. Source:WB, WDI-Online (last accessed: November 2007)
**Pillar 11 - Business Sophistication (115th).** In the international comparison, Armenia has had disappointing results in terms of both sophistication of company operations and strategy, and of networking and supporting industries. Low and deteriorating overall GCR rankings indicate that these aspects are one of main disadvantages for Armenia (discussed in more detail below).

**Pillar 12 – Innovation (94th).** Despite an increasing number of utility patents granted by the US Patent and Trademark Office and the availability of scientists and engineers, Armenia received low scores for innovation in the GCR, which was driven by such factors as an extremely low level of public and private spending on R&D, low and worsening quality of scientific and research institutions, and insufficient collaboration between companies and educational and scientific institutions.

**Summary**

Compared to the previous year, Armenia improved its scores modestly in several areas, but saw its rankings fall because many other countries achieved faster progress. This highlights the fact that we are living in a highly competitive and integrated world, where trivial improvements will be inadequate to stand the competition and achieve sustainable prosperity.

Armenia’s ranking in the GCR acknowledges that Armenia did well in the areas of macroeconomic stability, labor market efficiency and security for doing business. The Government of Armenia should be commended for its notable efforts aimed at: ensuring macroeconomic stability, including good government debt management and low inflation; facilitating procedures for starting a business; establishing a flexible labor market; and ensuring security for businesses. Armenia’s highest ranking (ranked 5th in the GCR) relates to its liberal foreign trade regime with quite low tariff rates (0 and 10 percent on imports).

However, Armenia’s solid macroeconomic performance is not backed by adequate progress in other aspects or pillars of competitiveness, which are necessary for ensuring the sustainability of economic growth as well as for progressive development of the nation. There are serious shortcomings or weaknesses in a number of areas, especially at the micro-level, which significantly lower Armenia’s competitiveness in the global context and endanger the sustainability of economic development. Areas of concern are so wide that they point out to the need for a comprehensive reform of public and private sectors. They span from general quality of the business environment, especially the financial sector; the lack of judicial independence and the prevalence of favoritism in government decisions to weak performance in higher education and training and low level of innovation. Armenia’s rankings on the intensity and fairness of local competition (ranked 130th and 131st for market dominance of a few power groups and for efficiency of antimonopoly policies, respectively) can be regarded as signs of “severe illness”.

The sustainability of economic growth and the ability to transform it into a sound basis for economic development in the future depends greatly on the ability of both the public and private sectors to reshape and build their policies on a truly pro-development context. While much emphasis is rightly placed on the need for Government reforms, there is also a pressing need for the private sector to improve its operational and strategic performance.

Weakness in any one pillar of competitiveness damages Armenia’s overall competitiveness and reduces its attractiveness to both foreign and local investors. Significant growth requires progress on all pillars, especially given the fact that Armenia will be competing with some of the top performing countries for export markets and foreign direct investment (FDI).

The current situation with high rates of economic growth, but low and regressing competitiveness is not balanced and sustainable. It’s a specific situation that can be characterized as a “growth-competitiveness paradox”. This is another impetus for comprehensively understanding the architecture of Armenia’s economic growth, its current and future drivers as well as possible sources of improving its competitive position.

Selected indicators on which Armenia has a competitive advantage and those on which it suffers from a competitive disadvantage are summarized in Table 1.
### Table 1: Armenia’s Competitive Advantages and Disadvantages in the GCR

<table>
<thead>
<tr>
<th>Notable Advantages</th>
<th>Rank</th>
<th>Notable Disadvantages</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade-weighted tariff rate</td>
<td>5</td>
<td>Extent of market dominance</td>
<td>131</td>
</tr>
<tr>
<td>Firing costs</td>
<td>17</td>
<td>Effectiveness of anti-monopoly policy</td>
<td>130</td>
</tr>
<tr>
<td>HIV prevalence</td>
<td>25</td>
<td>Reliance on professional management</td>
<td>127</td>
</tr>
<tr>
<td>Government debt</td>
<td>32</td>
<td>Intensity of local competition</td>
<td>124</td>
</tr>
<tr>
<td>Business costs of crime and violence</td>
<td>35</td>
<td>Venture capital availability</td>
<td>124</td>
</tr>
<tr>
<td>Flexibility of wage determination</td>
<td>36</td>
<td>Ease of access to loans</td>
<td>123</td>
</tr>
<tr>
<td>Female participation in labor force</td>
<td>38</td>
<td>Extent of marketing</td>
<td>123</td>
</tr>
<tr>
<td>Inflation</td>
<td>39</td>
<td>Willingness to delegate authority</td>
<td>123</td>
</tr>
<tr>
<td>Time required to start a business</td>
<td>39</td>
<td>Quality of management schools</td>
<td>121</td>
</tr>
<tr>
<td>Business costs of terrorism</td>
<td>40</td>
<td>Burden of customs procedures</td>
<td>121</td>
</tr>
<tr>
<td>Hiring and firing practices</td>
<td>40</td>
<td>Regulation of securities exchanges</td>
<td>121</td>
</tr>
<tr>
<td>Rigidity of employment</td>
<td>42</td>
<td>Control of international distribution</td>
<td>121</td>
</tr>
<tr>
<td>Legal rights index</td>
<td>47</td>
<td>Judicial independence</td>
<td>120</td>
</tr>
<tr>
<td>Pay and productivity</td>
<td>50</td>
<td>Foreign market size index</td>
<td>120</td>
</tr>
<tr>
<td>Financing through local equity market</td>
<td></td>
<td>State of cluster development</td>
<td>118</td>
</tr>
<tr>
<td>Protection of minority shareholders’ interests</td>
<td></td>
<td>Extent of staff training</td>
<td>114</td>
</tr>
<tr>
<td>Local supplier quality</td>
<td></td>
<td>Efficacy of corporate boards</td>
<td>113</td>
</tr>
<tr>
<td>Availability of latest technologies</td>
<td></td>
<td>Government procurement of advanced technology products</td>
<td>111</td>
</tr>
<tr>
<td>Financial market sophistication</td>
<td></td>
<td>Favoritism in decisions of government officials</td>
<td>110</td>
</tr>
<tr>
<td>Ethical behavior of firms</td>
<td></td>
<td>GDP valued at PPP</td>
<td>110</td>
</tr>
<tr>
<td>Local availability of specialized research and training services</td>
<td></td>
<td>Company spending on R&amp;D</td>
<td>110</td>
</tr>
<tr>
<td>Local supplier quantity</td>
<td></td>
<td>Primary enrollment</td>
<td>109</td>
</tr>
<tr>
<td>Government procurement of advanced technology products</td>
<td></td>
<td>Mobile telephone subscribers</td>
<td>109</td>
</tr>
<tr>
<td>Exports as a percentage of GDP</td>
<td></td>
<td>Exports as a percentage of GDP</td>
<td>109</td>
</tr>
</tbody>
</table>
Determinants of Competitiveness

In broad terms, the competitiveness of a nation is based on two foundations – macro-level and micro-level (Porter, 2003). Macro-level foundations, which include the macroeconomic environment, and political, social and legal conditions and institutions, are prerequisites for a country’s good economic performance and prosperity. However, “a sound macroeconomic, political, legal and social context is necessary for achieving competitiveness, but not sufficient”32, since a nation’s wealth and prosperity in fact is created at the micro-level. In order to achieve and sustain competitiveness, a nation should, in conjunction with sound macro-level foundations, also have adequate micro-level foundations, which include the level of sophistication of company operations and strategy, and the quality of the microeconomic business environment (Figure 15).

Figure 15: Foundations of Competitiveness

<table>
<thead>
<tr>
<th>Notable Advantages</th>
<th>Rank</th>
<th>Notable Disadvantages</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public trust of politicians</td>
<td>108</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic market size index</td>
<td>108</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual property protection</td>
<td>107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet access in schools</td>
<td>107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual property protection</td>
<td>107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversion of public funds</td>
<td>106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate spread</td>
<td>105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency of legal framework</td>
<td>104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparency of government policymaking</td>
<td>104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of port infrastructure</td>
<td>104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University-industry research collaboration</td>
<td>104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of customer orientation</td>
<td>102</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Macro-level foundations of Competitiveness

Macroeconomic Environment

Overall, Armenia has a sound macroeconomic environment, and its macroeconomic performance has remained quite stable during the last decade.

Since declaring independence in 1991, the Government of Armenia has vigorously pursued far-reaching structural reform programs towards establishing a market oriented economy. Liberalization of prices, of foreign trade and foreign exchange regimes, and privatization and support to private sector development were the main directions of Armenia’s economic policy. Armenia implemented one of the most comprehensive and speedy land reforms in the former communist area - most of the arable land was privatized shortly after independence.

Faced with severe economic decline and rampant inflation, Armenia was able to implement successful stabilization policies and stop economic decline in the mid-1990s. Since 1994, GDP growth rates have remained positive and reached two digit levels at the beginning of the 2000s (Figure 3). By the end of the 1990s, via tight monetary and fiscal policies pursued since the mid-1990s, the country managed to take inflation fully under control and reach relatively stable exchange rates, a sufficient level of international reserves and a manageable level of fiscal deficit (Annex 3).

Armenia maintains a floating exchange rate regime with no explicit exchange rate target. In its exchange rate policy, the CBA applies a minimum of market-based indirect monetary instruments and rarely intervenes on the currency market to sustain exchange rate stability. The main focus of CBA policy has been the control over inflation in the country.

Armenia’s macroeconomic achievements become more striking if one takes into account that since independence, Armenia, in parallel with common problems related to Soviet heritage, had to cope with number of major difficulties, shocks and crises including the consequences of a devastating earthquake in 1988, a conflict with Azerbaijan over Nagorno-Karabakh, a transport blockade by Azerbaijan and Turkey, instability of transportation routes through Georgia, the Russian crisis in 1998, and assassinations of leading Armenian politicians in October 1999.

However, there are some realities in Armenia’s macro-economic and social environments that arouse serious concerns about the sustainability of economic growth and the future capacity of the country to stand internal and external pressures for development.

Thus, Armenia’s economic development takes place alongside large and increasing economic and social disparities between regions of Armenia.

The capital city of Yerevan has benefited from growth the most, while residents in other cities gained the least, remaining the poorest segment of the population in Armenia. There is a large gap between Yerevan, where the country’s businesses and wealth are concentrated, and the “rest of the country”, in particular the more remote rural areas. This enormous gap can be seen in the standards of living, concentration of wealth and businesses, infrastructure, quality of services, etc.

There are also increasing disparities between regions of Armenia. Particularly, the areas that have been struck by the earthquake of 1988 (the north-west), and those that have absorbed the large number of Armenian refugees, originating in the conflict around Nagorno-Karabakh, have high indices of poverty and destitution. Poverty is especially pronounced in those regions where conditions are unfavorable for agricultural activities. Thus, the highest levels of poverty are in regions with an altitude over 1,700 meters above sea level, and lowest in valleys less than 1,300 meters above sea level. There are also notable regional disparities with respect to the unemployment rate (and the risk to be unemployed), which indicates relatively low labor mobility and a poor investment climate in many parts of the country. The disparities between regions of Armenia in terms of GDP per capita remain quite high (Table 2).

33 NSS of Armenia - Social Snapshot and Poverty in Armenia, 2006; World Bank, 2002
Table 2: Per Capita GDP in Regions of Armenia, % of Country Average

<table>
<thead>
<tr>
<th>Region</th>
<th>1999</th>
<th>2003</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yerevan</td>
<td>122.6%</td>
<td>147.1%</td>
<td>162.7%</td>
</tr>
<tr>
<td>Aragatsotn</td>
<td>97.8%</td>
<td>66.3%</td>
<td>55.0%</td>
</tr>
<tr>
<td>Ararat</td>
<td>87.0%</td>
<td>73.3%</td>
<td>62.7%</td>
</tr>
<tr>
<td>Armavir</td>
<td>114.2%</td>
<td>67.2%</td>
<td>63.0%</td>
</tr>
<tr>
<td>Gegharkunik</td>
<td>79.5%</td>
<td>77.0%</td>
<td>59.8%</td>
</tr>
<tr>
<td>Lori</td>
<td>71.4%</td>
<td>63.0%</td>
<td>55.8%</td>
</tr>
<tr>
<td>Kotayk</td>
<td>84.3%</td>
<td>92.3%</td>
<td>75.1%</td>
</tr>
<tr>
<td>Shirak</td>
<td>75.4%</td>
<td>65.4%</td>
<td>46.0%</td>
</tr>
<tr>
<td>Syunik</td>
<td>112.0%</td>
<td>117.1%</td>
<td>161.9%</td>
</tr>
<tr>
<td>Vayots Dzor</td>
<td>78.7%</td>
<td>97.3%</td>
<td>88.4%</td>
</tr>
<tr>
<td>Tavush</td>
<td>83.6%</td>
<td>59.1%</td>
<td>48.5%</td>
</tr>
</tbody>
</table>


While regional disparities exist all over the world, particularly in transition countries, in Armenia’s case it is worrying that disparities have experienced a dangerously increasing trend, despite large infrastructure and social projects implemented by the Government with international donor assistance. This situation has been caused, particularly, by the following interrelated factors:

- Government policies and projects, as also indicated by the PRSP, have had a mostly social and infrastructure focus;
- Government policies have had a mostly short sighted reactive nature (“fire fighting”);
- There has been lack of strategic vision for economic development, due to which: (a) it is not possible to reach a much needed focus for utilization of the country’s scarce resources to support the development of priority sectors that can add to the country’s competitiveness and generate wealth for addressing social issues; (b) significant internal and external funds supporting regional development operate at less than optimal levels in terms of impact and effectiveness;
- There has been weak coordination of policies and projects, due to which: (a) projects lack cohesion and thus “punch under their weight”; (b) there has been continued unnecessary duplication and waste of scarce resources.

This suggests that there is an urgent need for a shift in Government’s regional policy towards a more economic development oriented approach that would enable reaching higher levels of competitiveness of the country’s regions. It is economic development that can generate wealth for addressing social needs of society. While the PRSP is a necessary initiative to raise the social, health and well-being of the general population, wealth creation and competitiveness in global markets still lies at the very heart of making Armenia a modern, democratic, fully functioning market economy. This will be necessary if it is to truly develop its potential and become less dependent on support from others. There is a need for much greater effort to coordinate the existing initiatives and, at the same time, promote a “proactive” national and regional development strategy (policies, programs and projects) to address economic and social problems at the regional and local levels but based on accurate up-to-date data (see more discussion on this in Chapter 4).

Since 2003, the high pace of appreciation of Armenia’s currency (the Armenian Dram - AMD) against the USD and Euro has become a test for Armenia’s economy. Appreciation of the national currency, accord-
ing to official opinion has been caused by the increasing inflow of foreign currency into Armenia’s economy via private remittances and transfers from Diaspora and donor communities. From the second quarter of 2003 up to the end of 2007, the Armenian Dram appreciated against the USD by about 46%. Appreciation against the Euro from the first quarter of 2004 to the end of 2007 was about 35%.

According to Armenian businesses, rapid appreciation of the national currency has significantly impaired their ability to compete on the international as well as local markets. The CBA’s position, meanwhile, is that Armenian businesses need to concentrate more on reforms aimed at increasing productivity and, thus, improving their competitiveness. It is true that Armenian businesses need to be more aggressive in absorbing new technologies, and in adopting new productive operational processes to be able to compete globally. But, in practice, if the AMD continues to appreciate in the same manner, it would be difficult for businesses to ensure the increase in productivity necessary to enhance their global competitiveness. It can not be done in overnight – productivity increases require considerable investment and time. Due to the low national savings rate and very costly and limited borrowing opportunities, Armenian companies rely mainly on internal financing sources (Table 7) for “productive” investment choices. These, combined with the declining export earnings, are putting Armenian business in a double trap.

For tackling the challenge, there is a clear need for concerted action both by private and public sectors. The private sector needs to make serious efforts to reform itself in terms of increasing productivity, while the government must implement measures aimed at improvement of the business environment and adopt policies supporting a major shift in the economy away from the high dependency of Armenia’s economy on commodity prices and on “soft” credits and grants from the Donor community. Although sources of financing for economic growth have become more diversified during the last four years, Armenia’s economy remains highly dependent on financial assistance from the Diaspora and international donor communities.

**Social Context**

Despite Armenia’s notable improvements in the macroeconomic environment and achievements under the Poverty Reduction Strategy aimed at improvement of the economic and social environment, social aspects of macro-level foundations in Armenia remain rather problematic, and if not properly addressed may have negative economic consequences in the long run. The real unemployment rate in the country is still very high at about 30 percent. Although the national level of poverty fell considerably during recent years – from over 56 percent of the population in 1999 to about 30 percent in 2005, it still remains at a quite high level. Between 1998 and 2005, the CAGR of real of wages was around 20 percent, but wages are still less than half that of their 1990 level (Figure 3). Wealth distribution in the country is still highly inequitable – the country’s wealth is concentrated in hands of a few.

Armenia’s Human Development Index (HDI) score for 2005 stood at 0.775 which is a middle position among the EE, CIS and Eurasian Crossroad countries under consideration. In the CIS region, Armenia was the fifth out of 12, and in the Eurasian Crossroad region - the second out of eight. However Armenia lags behind most of the EE countries. Between 2001 and 2005, Armenia’s performance has been relatively better in terms of the HDI value growth rate (Figure 16).

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34 Adoption and operation of the Poverty Reduction Strategy Paper (PRSP) since 2004 was a major shift in the overall policy framework towards sustainable and well-balanced economic and social development. The PRSP is an overarching multi-dimensional document that serves as a framework for designing and implementing Armenia’s economic and social policies, and sets out measurable mid and long term objectives to be attained.

35 Gini coefficient before transition stood at 0.25; in 1998 it was 0.597; in 2003 - 0.395; and in 2005 – 0.387.
Real improvement of social and regional cohesion in the country is a major challenge for Armenia in the medium-term. Improvement of social cohesion can make a considerable contribution to a country's competitiveness by enhancing motivation and upgrading the quality of human resources.

**Political, Legal and Institutional Context**

The political situation in Armenia has also been relatively stable, despite the “frozen” conflict over Nagorno-Karabakh. However, Armenia still has an image of a country at war, which negatively affects perceptions of potential foreign investors.

Armenia has been able to establish a fairly comprehensive and sound legislative and institutional framework, which is necessary for the functioning of a market economy and a democratic society. There has been significant progress in bringing Armenia’s laws into compliance with internationally accepted standards in numerous aspects of the economy and social life. Legislative and institutional reform activities in the economic area have been significantly affected by Armenia’s accession to the WTO and touched upon such areas as tax and customs; standardization and conformity assessment; and intellectual property rights protection.

The legal framework is quite advanced, but there are serious shortcomings with regard to law enforcement and practical implementation. Poor implementation of laws is caused by inefficient secondary legislation (e.g. provisions giving room for discretionary interpretation; absence of necessary and clear procedural provisions; inconsistency between laws and their enabling secondary acts, etc.); by the lack of institutional and human capacities required for proper implementation of existing legislation; and by the lack of judiciary independence.
### Micro-level Foundations of Competitiveness

We will evaluate the micro-level foundations of Armenia’s competitiveness through the lens of the Business Competitiveness Index (BCI) of the GCR, and use the “Diamond Model” (Figure 17) developed by M. Porter as an intellectual framework for analyzing the business environment. The BCI is based largely on Executive Opinion Survey data and, in broad terms, measures two broad determinants of the microeconomic environment: (a) quality of national business environment, and (b) sophistication of company strategies and operations (Figure 15). The “Diamond Model” depicts the business environment as a system of four interrelated areas: (a) the quality of factor (input) conditions, (b) the quality of local demand conditions, (c) the context of firm strategy and rivalry, and (d) the presence of related and supporting industries. It has proved to be a very powerful tool in analyzing industry and country competitiveness.

Overall, Armenia has fallen 17 spots in the BCI in 2007 (i.e. BCI index in GCR 2007-08) relative to 2006 (i.e. BCI index in GCR 2006-07), falling from 91st rank to 108th among 127 countries. The primary underlying factors of this are discussed below.

#### Table 3: Armenia’s Business Competitiveness Rankings in the GCR

<table>
<thead>
<tr>
<th>Quality of National Business Environment, Lost 17 Points</th>
<th>Sophistication of Company Strategies and Operations, Lost 23 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 2007</td>
<td>2006 2007</td>
</tr>
<tr>
<td>89 106</td>
<td>92 115</td>
</tr>
</tbody>
</table>


The quality of the national microeconomic business environment is an important determinant of the level of sophistication an individual company can reach. No matter how capable companies are, in order to employ sophisticated operations and strategies, they need developed administrative and physical infrastructure, access to financial resources, and a highly skilled labor force. They need also suppliers of necessary services and materials to produce sophisticated goods; demanding customers urging them to innovate and upgrade to build competitive edge over time; and stringent local competition to enhance productivity.

However, a company’s ability to reach an increased level of sophistication, on which the nation’s productivity depends, is also partly a function of its own strategy and operations. No matter how favorable or developed a nation’s microeconomic business environment is, a nation needs companies that are able to design and employ sophisticated operations and strategies. Ultimately wealth is created by businesses and as a general rule, productive companies tend to have a high degree of sophistication, with more efficient operational processes and strategies. Competitive companies have professional management who are able to design winning strategies and drive the company; employ efficient and innovative ways to produce and market unique and sophisticated goods; collaborate and make effective use of services and “unusual efforts” of skilled engineers and scientists; invest in R&D adopt sophisticated technologies to upgrade their current competitive position; and hire and train high quality professionals.
The Quality of the National Business Environment

Since 2001, recognizing the need for improving the business environment in the country, the Government of Armenia initiated a number of reforms including the consolidation and reduction of business inspections, simplification of administrative procedures, reduction of time for business registration, and streamlining of the licensing regime. The government’s consultation mechanisms with the private sector were strengthened and a high level Business Council, chaired by the Prime Minister, was established.
Privatization and support to the development of private businesses were among the main directions towards establishing a market-based economy in Armenia. Privatization programs included most companies in virtually all sectors of economy. Foreign legal and natural persons were free to participate in the privatization of any state assets. The share of the private sector in GDP production increased from 11.7 percent in 1990 to over 80 percent in 2006.

The quality of the business environment emerged, according to the GCR, as one of Armenia's main disadvantages. In the GCR, the quality of Armenia's business environment was ranked 106th, down by 17 places relative to the previous year.

According to the most recent World Bank's Doing Business Report - 2008, Armenia was ranked 39th among 179 countries, and was ahead of most countries of the EE, CIS and Eurasian Crossroad regions, but lagging behind Estonia (17th), Georgia (18th), Latvia (22nd), Lithuania (26th), Israel (29th) and the Slovak Republic (32nd). In Doing Business-2008, there was a significant positive change related to the improvement of legislation aimed at easing access to credit. However, under the GCR (which measures actual practice rather than a formal regulatory framework), Armenia had a disappointing showing in terms of the difficulty in obtaining a bank loan (123rd out of 131 countries).

Table 4: Ease of Doing Business in Armenia, 2007-2008 (among 179 countries)

<table>
<thead>
<tr>
<th>Ease of...</th>
<th>Doing Business 2008 Rank</th>
<th>Doing Business 2007 Rank</th>
<th>Change in Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doing Business</td>
<td>39</td>
<td>46</td>
<td>+7</td>
</tr>
<tr>
<td>Starting a Business</td>
<td>47</td>
<td>44</td>
<td>-3</td>
</tr>
<tr>
<td>Dealing with Licenses</td>
<td>73</td>
<td>72</td>
<td>-1</td>
</tr>
<tr>
<td>Employing Workers</td>
<td>48</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>Registering Property</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Getting Credit</td>
<td>36</td>
<td>62</td>
<td>+26</td>
</tr>
<tr>
<td>Protecting Investors</td>
<td>83</td>
<td>81</td>
<td>-2</td>
</tr>
<tr>
<td>Paying Taxes</td>
<td>143</td>
<td>137</td>
<td>-6</td>
</tr>
<tr>
<td>Trading Across Borders</td>
<td>118</td>
<td>133</td>
<td>+15</td>
</tr>
<tr>
<td>Enforcing Contracts</td>
<td>64</td>
<td>64</td>
<td>0</td>
</tr>
<tr>
<td>Closing a Business</td>
<td>42</td>
<td>43</td>
<td>+1</td>
</tr>
</tbody>
</table>


According to the Heritage Foundation (2008), Armenia was ranked 28th in economic freedom among 157 countries, i.e. up by 2 places compared to the previous year. Over the period of 2005-2008 the major improvement was reported to be in the “Business Freedom” Index related to the improved legislation on starting and closing a business and obtaining a license. Armenia’s scores went down notably in relation to “Financial Freedom” and “Property Rights” indexes, attributable to the difficulties faced by banks in debt recovery, low judicial independence, and poor enforcement of contracts. Scores on these and most of the other Economic Freedom Indexes are in line with the rankings under the GCR.
Table 5: Economic Freedom Indexes of Armenia, 2005-2008

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2007</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Rank</strong></td>
<td>28</td>
<td>30</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td><strong>Overall Score</strong></td>
<td>70.3*</td>
<td>69.4</td>
<td>71.0</td>
<td>70.1</td>
</tr>
<tr>
<td>Business Freedom</td>
<td>81.3</td>
<td>80.8</td>
<td>77.6</td>
<td>55.0</td>
</tr>
<tr>
<td>Trade Freedom</td>
<td>85.0</td>
<td>85.6</td>
<td>80.6</td>
<td>80.0</td>
</tr>
<tr>
<td>Fiscal Freedom</td>
<td>89.0</td>
<td>89.7</td>
<td>90.0</td>
<td>89.9</td>
</tr>
<tr>
<td>Government Size</td>
<td>86.4</td>
<td>90.8</td>
<td>90.7</td>
<td>88.9</td>
</tr>
<tr>
<td>Monetary Freedom</td>
<td>84.6</td>
<td>80.3</td>
<td>80.6</td>
<td>82.0</td>
</tr>
<tr>
<td>Investment Freedom</td>
<td>70.0</td>
<td>60.0</td>
<td>70.0</td>
<td>70.0</td>
</tr>
<tr>
<td>Financial Freedom</td>
<td>70.0</td>
<td>70.0</td>
<td>70.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Property Rights</td>
<td>35.0</td>
<td>30.0</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Freedom from Corruption</td>
<td>29.0</td>
<td>29.0</td>
<td>31.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Labor Freedom</td>
<td>73.1</td>
<td>77.4</td>
<td>69.6</td>
<td>64.9</td>
</tr>
</tbody>
</table>


Note: *= the level of freedom (in percentages). The highest score under Economic Freedom is 100. The higher the score the more economic freedom the country has.

However, it must be noted that these indicators reflect mostly formal regulatory frameworks rather than their actual enforcement and, more fundamentally, business environment factors. Armenia’s Achilles’ Heel lies in enforcement. Armenia’s macroeconomic achievements highlight the significant flaws in the microeconomic business environment. The GCR gives a clear signal that one of the most urgent needs for the Government is the upgrade of the quality of the national business environment where companies operate and create prosperity for the county’s citizens.

There is an apparent discrepancy between the rankings under the GCR and rankings from other international organizations (e.g. Doing Business), but there is, in fact, no contradiction between them. The GCR takes a much broader and deeper view on macro as well as micro-level practical aspects of the environment that helps to reveal the essence of the real situation, while Doing Business focuses primarily on the micro-economic business policy indicators (in many cases reflecting formal and legal arrangements rather than actual implementation). They also differ by sources of information and data. GCR heavily uses business people and executives perceptions, while the Doing Business report is mostly based on quantitative and measurable data.

Factor Conditions

Physical Infrastructure

In the GCR, Armenia’s overall infrastructure quality was ranked 84th - down by 6 positions, despite the fact that the relevant scores went up slightly. Improved absolute scores reflect the efforts of the Government aimed at upgrading the physical infrastructure; however these efforts were not adequate for Armenia to keep pace with other countries. This relates particularly to reforms in the energy sector that improved electricity supply; reforms in transportation infrastructure, e.g. renovation and refurbishment of aviation infrastructure. Reforms in the railway infrastructure are underway and have not brought about notable improvements yet – railway infrastructure is still in a poor condition. Overall, transportation remains a major problem for Armenian businesses due to the lack of access to the sea; the closure of railway routes connecting Armenia to Russia, Iran, Turkey, and Azerbaijan, due to regional conflicts and the
poor condition of the existing transport infrastructures. Transportation problems result in costly and limited access to external markets.

The BCI indicates another major bottleneck in physical infrastructure - the low level of telecommunication services (fixed telephone, and Internet). In terms of the quality of telephone infrastructure Armenia was 114th and ranked 97th on the number of Internet users per 100 population. Telecommunication infrastructure, despite significant improvements during the last two years, remains a problem. A monopoly in this sector has impeded the development of telecommunication infrastructure and services for many years. The entrance of a second operator into the mobile telephone market (only in 2005) helped to lower significantly mobile line tariffs and increase the number of subscribers. The monopoly in the telecommunication sector was abolished in October 2007. These positive changes are expected to bring about significant improvement in the near future. But, overall, the poor quality of communication services hinders the development of the Internet and Internet based services sector in Armenia.

Administrative Infrastructure

Despite the fact that administrative infrastructure underwent notable reforms and improvements in several areas – the red tape reduced significantly in terms of less time required to deal with officials, and business registration process has become easier - it remains an obstacle for private businesses. The executive opinion survey indicates that Armenia’s administrative infrastructure does not “efficiently” meet the needs of a competitive private sector. One of the main problems for private businesses is related to the poor implementation of laws (ranked 104th in the GCR, down 5 spots), due to the lack of efficient procedural and technical secondary legislation; the lack of institutional and human capacities required for proper implementation of existing legislation; and unfair practices conducted by regulatory and inspection bodies. The latter relates, particularly, to customs and tax authorities. Another important drawback is the lack of judicial independence (ranked 120th, down 8 positions), which creates an atmosphere of mistrust, and inefficiencies in law and contract enforcement. This inhibits private businesses from seeking fair settlement of disputes and lowers the value and legitimacy of regulations or decrees.

Human Resources

There is growing dissatisfaction regarding the low level of skills and professionalism of Armenia’s labor force that reflects the inability of the overall educational system to meet the needs of a competitive economy. Overall ranking on the quality of the educational system in the GCR went down considerably (ranked 94th, down 26 places), including the quality of math and science education and public schools, as well as the availability and quality of vocational and technical training. A major competitive disadvantage for Armenia is the lack of high quality business or management schools. GCR results are consistent with low Government spending on education, and indicate that there is an urgent need for reforming the educational system in Armenia. However, it should also be noted that one of the reasons for growing dissatisfaction among businesses could be the growing awareness of best international practices and of exposure to international competition. This has provided businesses with clearer signals regarding the levels of productivity they will need to reach to become internationally competitive, resulting in higher expectations in the quality of the talent produced by the educational system.

Scientific and Technological Infrastructure

Although Armenia has received moderate rankings in the GCR in terms of availability of scientists and engineers, private businesses report that Armenia’s S&T infrastructure does not enable companies to undertake innovations to constantly upgrade competitive advantage. To be more competitive, businesses need scientists effective mechanisms that facilitate collaboration with scientific and research institutions. Armenia’s position in the GCR worsened in most of the metrics of S&T infrastructure, including the quality of scientific research institutions, collaboration with universities/research institutions, and availability of scientist and engineers. This situation is, actually, a reflection of the fact that Armenia has extremely low Government and private sector expenditure for R&D that is below that of most competitor and peer countries both in terms of % of GDP and, especially, in absolute terms (discussed above, see Figure 10).
Since the early 1990s, the Government has stopped directly interfering with the activities of the financial sector and is instead relying on indirect measures of regulation. Through a series of reform programs, the Government and CBA established a sound regulatory and institutional framework for the development of the financial sector in the country. Armenia’s banking and insurance systems are totally privately owned.

However, the financial sector plays only a marginal role in financing Armenia’s economy; this is also supported by GCR rankings. Financial intermediation in Armenia is one of the weakest areas in the business environment, despite the existence of a sound banking system, and is a major constraint for business development. The securities market, insurance and non-banking financial institutions still remain underdeveloped (in 2006 about 8.2% of the total financial system assets in contrast to banks with over 92%36). The liquid corporate securities market is in fact non-existent – the volume of securities transactions has been negligible. Armenian businesses face serious difficulties in having access to loans to undertake upgrading/new productive investment projects, and venture capital to implement risky and/or innovative projects. Participation of the banking sector in the country’s economic growth has been very low, i.e. loan volumes amounting to less than 9% of GDP37 (only half of it to businesses) - an extremely poor showing, although this has been improving in recent years. At the same time, a very large interest rate spread and unfavorable requirements regarding the value and type of collateral are problematic. In 2006, the interest rate spread stood at 10.7%, which, although less than the 12.2% registered in 2005, is still quite high, compared to 3-5% in countries with an efficient banking sector (Estonia, Lebanon, Slovenia). Additionally, the value of collateral for obtaining loans was 177.7% of loan value in 200538. It would be understandable if this was a temporary phenomenon related to the important goal of controlling inflation. However, this has been a quite long-term trend. The results of the World Bank’s Investment Climate Survey (2005) also reveal the same urgent need to reduce the cost of borrowing and ease access to loans for the private sector (Figure 18).

### Figure 18: Value of Collateral in Armenia (% of loan value), 2005

![Figure 18: Value of Collateral in Armenia (% of loan value), 2005](image)

Source: World Bank, Investment Climate Survey, Armenia, 2005

Armenia’s performance in terms of domestic credit provided by the banking sector and of interest rate spread is among the worst in transition countries. The average size of credits in Armenia in 2006 was 880,000 drams (less than $2,500), very low compared to other countries. Armenia’s indicators regarding banking sector participation in the economy lag behind all countries of all three regions (Figure 19).

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36 Source: USAID/ Armenia, Financial Sector Strengthening Program, 2007
37 Source: World Bank, WDI-Online (last accessed: October 2007)
38 Source: World Bank, Investment Climate Survey, 2005
Recognizing the urgent need to speed up the development of the financial sector, including the banking system, the Government and CBA initiated a comprehensive reform program for 2006-2008 aimed at enhancing the development of the banking sector, insurance (including mandatory insurance), mortgage and consumer lending and other sectors of the financial market. Since 2006, regulation and supervision of all segments of the financial market have been consolidated under the Central Bank, including banking, the securities market, insurance and other financial institutions. A number of new initiatives are being pushed by the Central Bank, including new legislation for the securities market and insurance, which have been developed in line with European directives. The Central Bank is also actively promoting creation of private pension funds.

The figure below summarizes some of the reasons for low financial intermediation in Armenia, and problems that need to be addressed by all participants of the financial market, including Government and the business entities in the financial sector.
However, recent initiatives and events in the financial sector indicate a positive trend. The acquisition of the Armenian stock exchange by the Swedish OMX company is expected to revive the Armenian stock market. This is reinforced by several successful placements of corporate bonds in 2007. The entry of several international banks through acquisition of Armenian banks will also contribute to the sophistication of the financial sector and introduction of new instruments. The proactive policy of the CBA in attracting key international players into the Armenian market has played an important role in this process.

**Demand Conditions**

Sophisticated customers are an important factor that demands high standards of companies to undertake innovations and constantly upgrade the quality of products. At the same time, stringent Government regulations related to safety and quality of products and services, and environmental requirements also put pressure on businesses to upgrade.

Armenia’s position in the GCR worsened in terms of sophistication of customer demand. According to Armenia’s businesses, customers in Armenia are driven mostly by price considerations rather than quality and other additional attributes. In the case of the Government’s purchase of advanced high technology products, priority is also given to the low cost of the products, rather than performance attributes (94th in the GCR). Low quality of demand, conditioned by low purchasing power of Armenian consumers, does
not create the necessary motivation/pressure for businesses to be innovative and increase the quality of
t heir products. Increasing the quality of demand depends largely on the purchasing power of consumers,
which can not be increased in a short period of time. In terms of Government regulations and require-
ments on product quality and safety, Armenia improved its positions in the GCR slightly due to Govern-
ment efforts to improve the regulatory framework, but is still ranked only 105th.

In these circumstances, businesses, especially those that are or intend to become exporters, could be
motivated by the needs of foreign clients. However, Armenian businesses are not adequately informed
about the knowledge and preferences of foreign markets, which is largely related to weak marketing
performance (discussed below).

Related and Supporting Industries

As the private sector reported, Armenia lacks a “network” of established related and supporting indus-
tries. To be productive and utilize sophisticated business practices, the availability of high-quality related
and supporting industries is a key to efficient supply chain management, staff training, and specialized
research that enable the companies to build competitive advantages over competitors. Locally available
suppliers and specialized research and training service providers also foster cluster formation processes
in each economy. The private sector reported its dissatisfaction regarding the lack or non-existence of
locally available suppliers (110th in the GCR, down 18 positions) for required materials and components,
equipment and machinery. In general, companies tend to import the equipment and machinery (94th), and
when using local suppliers, tend to believe their quality is poor (114th, down 19 positions). These low
rankings could partially reflect the growing awareness on the part of the private sector regarding interna-
tional best practices and the need to produce competitive products. The local availability of specialized
research and training services was ranked at 111th (down 12 positions) in terms of their availability, as the
private sector reported. This service will enhance the capacity of employees in the companies to be more
productive.

Currently, understanding of the importance of clusters is in the infant stage in Armenia. While there are a
few successful examples of consolidation and collaborative efforts by businesses (diamond, IT, tourism,
wine industries) the overall perception of the importance of clusters is to a great extent lacking. The
cluster approach is promoted by international donor organizations such as USAID and World Bank. The
USAID-funded CAPS project selected three sectors (IT, tourism and pharmaceutical) for cluster-oriented
development assistance. It is too early to evaluate the effectiveness of such “exogenous” efforts since
cluster building takes decades, but the expectation is that such efforts may catalyze the cluster building
processes in the country through success stories and showcasing of tangible results in selected areas.

Context for Firm Strategy and Rivalry

Incentives

Lax corporate governance practices and non-transparent public institutions do not motivate Armenian
companies to be more competitive. Armenia recorded moderate performance in terms of employer-
employee relations, which are reported to be generally cooperative, and help managers to advance so-
plicated practices. However, Armenia demonstrated poor performance with regard to corporate govern-
ance practices, driven by a low degree of accountability of top managers, and, especially, by weak
protection of interests of minority shareholders. Another very important disincentive that jeopardizes
business development in Armenia is the Government’s tendency to display favoritism in decision making
or policy making processes (110th in the GCR). These lax practices negatively affect the competitiveness of
Armenia, as they create an unequal competitive environment and discourage investors and companies to
become innovative and productive.

Competition

Armenia succeeded in establishing a liberal foreign trade regime, suggesting that tariff barriers do not
impose serious restrictions on imported goods, for having access to local markets and competing with
local goods.
According to Transparency International, in 2007, Armenia’s corruption index ranking fell six spots, continuing a trend started in 2003 and indicating a deterioration of the condition of corruption in the country relative to other countries measured in the index. However, according to the GCR, corruption costs (or so-called “facilitation fees”) were not a major distorting issue for businesses. This could be explained by the fact that businesses have learned to deal with officials and, with time, develop “streamlined” and “mutually satisfactory” relations with them. However, this behavior may lead eventually to businesses expending more effort on developing relationships with government officials than upgrading their products, resulting in inefficient allocation and use of resources.

**Table 6: Corruption Perception Index, 2004-2005**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI Index Rank</td>
<td>99</td>
<td>93</td>
<td>88</td>
<td>82</td>
<td>78</td>
</tr>
<tr>
<td>CPI Index Score</td>
<td>3</td>
<td>2.9</td>
<td>2.9</td>
<td>3.1</td>
<td>3</td>
</tr>
</tbody>
</table>


Note: The ranking is among 179 countries. The maximum score is 10. The lower the score, the more corrupt is the country.

The GCR indicates also that there are serious distortions in local markets that do not promote fair competition. Major disadvantages included low intensity of local competition; the dominance of the same “power group” leaders in industries and markets over time (here Armenia was ranked the last among 131 countries in the GCR); and low efficiency of antimonopoly policy to advance strong competition in the selected local goods markets (only 130th in the GCR). Despite the developed legislative (Law on Protection of Economic Competition adopted in 2000) and institutional framework (State Commission on Protection of Economic Competition), there has been limited success in enforcing measures aimed at promoting competitive environments in some industries.

**Sophistication of Company Operations & Strategy**

Due to the small local market size, Armenian businesses need to be able to export successfully in order to ensure sustainable development and growth. According to trade data, European countries are becoming important trade partners for Armenia. However, Armenia exports mostly raw materials (ores and mines) and cut diamonds. If Armenian companies want to enter and maintain market shares in European or any other developed country markets, where international competition is increasingly intense, they will have to continuously increase the quality of their products and services to internationally accepted standards and to use efficient operations and modern techniques of positioning and marketing. Otherwise, there is a danger to lose market shares even in such traditional markets like the Russian market of alcoholic beverages. In 2006, exports of alcoholic beverages to Russia decreased by USD 11.7 million in relation to 2005.

Company operations and strategy emerge, according to the GCR, as one of the main disadvantages of Armenia. In the GCR, Armenia’s company operations and strategy was ranked 115th, down 23 positions compared to the previous year. Armenian companies need to make serious efforts to raise the efficiency of their operations to internationally competitive standards.

**Management**

The lack of professionally trained and globally experienced management and the unwillingness to delegate authority to professionals are significant impediments for Armenian businesses in gaining the ability to choose the most efficient operations and effective strategies and, hence, to increase the productivity and competitiveness of companies. This situation may, particularly, be caused by (a) a lack of awareness of the importance of professionally trained managers, which, in its turn, could be a result of the lack of knowledge, or of imperfections in competitive environment due to absence of strong pressures towards increasing efficiency and management capacities (b) lack of trust; (c) a “non-merit based” culture of hiring
managers and other key professionals, i.e. managerial and other key positions in companies are most frequently held by relatives or friends independently of their professional qualifications. Whatsoever, poor management and a non-merit based system of hiring employees are priority problems that have to be tackled if Armenian companies want to become productive and competitive in global context.

Production Operations and Productivity

Armenia’s private sector doesn’t employ or utilize efficient, sophisticated, production processes. Businesses tend to practice labor-intensive production processes that rely on old generation equipment and machinery since licensing of foreign advanced technologies is rare in most Armenian industries.

Armenian companies have relatively strong, but considerably worsening performance for readiness of technology absorption. This particularly relates to export oriented companies that recorded a moderate showing in the GCR in terms of ability to produce unique final goods that require sophisticated skills or processes and producing final goods, applying new product design rather than relying on the production of low value added basic commodities.

The World Bank’s Knowledge Economy Index (KEI), which measures the capability of a nation to acquire and transform knowledge both into tangible and intangible benefits, supports these findings. In a knowledge economy, a nation “utilizes knowledge as the key engine of economic growth”. Over the recent 12-year period (1995-2006), Armenia improved its rank on the KEI, moving up 13 positions to 57th rank out of 140 countries (Figure 21). This improvement was largely supported by an improved economic incentive regime, pointing to efforts of the Government to manage macroeconomic stability and improve legislation, but it was not supported by private sector performance. The score on innovation improved slightly, however, the ICT score fell substantially, suggesting that Armenian businesses and people are not aggressive in gaining, using and transforming knowledge into the high value-added products that could be globally competitive.

Figure 21: Armenian Knowledge Economy Index


39 Chen and Dahlam, “The Knowledge Economy, the KAM Methodology and World Bank Operations”, World Bank, 2005, Chen et al., 2005
While Armenian businesses express willingness and readiness to absorb new technologies, the “readiness” has to be complemented by real action and investments. However, new foreign technology acquisition and/or licensing is a rare practice, and Armenian businesses tend not to spend resources on R&D activities (which is necessary if they want to develop their own technologies). In 2005, R&D expenditures of companies accounted for only 0.3 percent of sales revenues, although 71.8 percent of companies reported that they “undertook innovation” (Table 7). This discrepancy between “readiness” and “action”, may suggest a “low” innovation effort. It may also be explained by misunderstanding and/or misinterpretation of the term “innovation” in Armenia’s business circles.

**Table 7: Investment Climate Survey Results (2005)**

<table>
<thead>
<tr>
<th>Selected Indicators</th>
<th>Armenia</th>
<th>Company Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Labor Market Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Firms Offering Formal Training</td>
<td>64.8</td>
<td>63.3</td>
</tr>
<tr>
<td>% of Skilled Workers Offered Formal Training</td>
<td>16.5</td>
<td>14.9</td>
</tr>
<tr>
<td>Managers/Professionals (as % of Total Workforce)</td>
<td>37</td>
<td>39.6</td>
</tr>
<tr>
<td>Skilled Production Workers (as % of Total Workforce)</td>
<td>43.2</td>
<td>41.4</td>
</tr>
<tr>
<td><strong>Finance Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Firms Identifying Access to Finance as a Major Constraint</td>
<td>18.1</td>
<td>20.7</td>
</tr>
<tr>
<td>% of Firms Identifying Cost of Finance as a Major Constraint</td>
<td>22.6</td>
<td>25.7</td>
</tr>
<tr>
<td>% of Investments Financed by Internal Funds</td>
<td>64.2</td>
<td>65.3</td>
</tr>
<tr>
<td>% of Investments Financed by Banks</td>
<td>19.5</td>
<td>18.2</td>
</tr>
<tr>
<td>% of Investments Financed by Informal Sources</td>
<td>9.2</td>
<td>10.6</td>
</tr>
<tr>
<td>% of Investments Financed by Other Sources</td>
<td>6.6</td>
<td>5.7</td>
</tr>
<tr>
<td><strong>Courts and Crime Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Firms Identifying Legal System/Conflict Resolution as a Major Constraint</td>
<td>12</td>
<td>14.2</td>
</tr>
<tr>
<td>% of Firms Resolving Disputes through Court Action</td>
<td>7.6</td>
<td>5.6</td>
</tr>
<tr>
<td>% of Firms with Confidence in Legal System to Enforce Contract/Property Rights in Disputes</td>
<td>52.5</td>
<td>49.8</td>
</tr>
<tr>
<td><strong>Innovation and Technology Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Firms Undertaking Innovation</td>
<td>71.8</td>
<td>69</td>
</tr>
<tr>
<td>R&amp;D Expenditures (% of Sales)</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>% of Firms Using E-mail to Interact with Buyers/Suppliers/Customers</td>
<td>45.6</td>
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<td>% of Firms Using Web site to Interact with Buyers/Suppliers/Customers</td>
<td>26.2</td>
<td>19.5</td>
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Marketing and International Distribution

Low use of sophisticated modern marketing techniques to market products globally and low efforts to control global distribution of the products are also reported by the GCR to be weaknesses of Armenian companies (123rd for the extent of marketing). In order to market products efficiently companies need to first focus on customer satisfaction and retention. To a large degree Armenian companies tend to export their products through foreign retailers and/or partners rather than controlling their own distribution channels, and, thus, companies tend not to learn target market needs and preferences, understand global markets trends, position their own goods and services, and utilize modern marketing tools and techniques to promote sales of their products. Moreover, most exporting companies are dependent on the intermediary to explore and access the markets and define their strategy. This is a risky approach in the long term perspective and prevents Armenian exporters from earning high returns.

Human Resources

Without continuous upgrading of the qualifications of employees, it is hardly possible to absorb or assimilate new production and marketing technologies. As indicated in the GCR, there are few opportunities for Armenian employees to get on-the-job training. Armenian private companies tend not to invest or invest little in training and employee development (dropped to 114th from 100th), and there is a lack of high quality specialized research and training services. Although, according to the World Bank Investment Climate Survey, about 65% of companies reported that they offer formal training to their employees, only 16.5% of skilled workers were offered formal training. Many companies do provide in-house training since they cannot get trained people in the marketplace. This is expensive and rarely constitutes world-class training.

There are only a few good examples in Armenia’s information technology (IT) sector, where IT companies in collaboration with universities have designed and implemented educational and training programs for training of students and employees. This refers, particularly, to programs initiated by Lycos Armenia and Synopsis together with Yerevan State University and the State Engineering University of Armenia.
CHAPTER IV: TOWARDS A COMPETITIVE ECONOMY

Armenia has made solid macroeconomic progress during the last decade, as illustrated by its GDP growth rate. There has also been significant growth in several sectors of the economy such as construction, retail and food, as well as some niche sectors with high performance such as information technology. Furthermore, unemployment and poverty have dropped notably. Armenia has also made important achievements in institution building and development: much of Armenia’s primary legislation has been harmonized with WTO and other internationally accepted requirements and standards, and serious steps have been undertaken to improve institutional capacities and to ensure transparent and efficient governance and a more open market economy in the country.

However, there are several key realities that arouse concern regarding the medium to long term sustainability of Armenia’s development.

Although the country’s economy has been growing annually by double digits, this growth must be viewed against a very low GDP base. Economic growth in Armenia has not resulted in adequate increase of wages and living standards; in 2006 wage levels were less than half that in 1990. Armenia’s domestic market is small, and competition in this small market is limited due to the dominance of a few powerful players. Armenia’s exports are highly concentrated and are driven by a limited number of resource-based products with low value-added. Investment performance has been moderate compared to peer countries, but is driven by large privatization deals, primarily in infrastructure. Levels of poverty and unemployment remain high. There is significant inequitable distribution of wealth in the country; much of country’s wealth is concentrated in the hands of few. There is a large regional disparity in the country; much of country’s wealth is concentrated in Yerevan, the capital. Armenia’s businesses and, by extension, the country, still suffer from a lack of sophistication and low international competitiveness, and the business environment still has serious drawbacks.

These realities should be viewed against the backdrop of international realities, where competition in international markets has become more and more severe and demanding; more and more countries understand the importance of and make considerable efforts toward increasing their international competitiveness; technological development has been increasingly rapid; and product safety and quality requirements and standards in world markets have become higher and higher. Sustaining its economic growth rates, then, will require that attention be paid to the state of the country’s competitiveness.

Dynamics of Policy Contexts in Armenia

We believe that Armenia has yet to adopt a development-driven policy context. Today Armenia faces a serious challenge of rethinking and reshaping the context of its policies in order to introduce a truly development oriented agenda, which would enable Armenia to become a competitive player in the global marketplace.

Immediately following independence, Armenia undertook comprehensive reform efforts toward establishing a market economy and democratic society. This was a period characterized by dramatic economic decline, disruption of trade, the Nagorno-Karabakh conflict and transportation blockade, shortage of energy, food, and other consumer products, hyperinflation, and high levels of unemployment and poverty. Under these circumstances, the government grew accustomed to governing in “crisis mode”, forced to find quick solutions to urgent, short term problems. Armenia’s policy context became a “survival context”, which resulted in a short-sighted view of policy and a general lack of policy coordination and of an overall strategy toward policy development, as well as lack of understanding of global economic realities and tendencies and lack of due attention to the country’s international competitiveness. This has been exacerbated by very weak public and private institutional capacities. There was an initial perception that price liberalization, liberalization of trade, and privatization would bring with them “magic market forces” that would pave the way to prosperity and development.
In a 2-3 year period, Armenia implemented one of the most comprehensive land reforms in the transition countries. The objective of the reform was to allow the peasants to produce their own food. However, even today, Armenia’s agricultural sector is based on a subsistence farming model. Under those circumstances, the policy was appropriate; however, it soon became outdated. Only after a decade, did Armenia start the “second phase” of the land reform and begin to contemplate more sophisticated agriculture.

After achieving economic stability and reaching a ceasefire in the Nagorno-Karabakh conflict in the mid 1990s, the nature of Armenia’s policies became more redistributive. Economic decline stopped; positive GDP growth began; there was a recovery of energy supply; trade re-started; inflation was gotten under control and relatively stable exchange rates were achieved; and a manageable fiscal deficit was reached. However, unemployment and poverty remained high, with agriculture the major contributor to economic growth. Under these circumstances Armenia started to reconstruct its economy. However, the underlying context of economic reconstruction was the redistribution of the country’s wealth among its citizens. Mass privatization of small and medium entities was the major direction of reforms. The privatization has been highly inequitable and resulted in the concentration of the country’s productive assets in the hands of a few power groups. The context continued to be characterized by a “fire fighting” approach, with remaining elements of the “survival context”. The “redistribution context” implied better, but still weak coordination. The state and businesses started to realize that “market forces” by themselves are not a panacea, and that liberalization and privatization alone are far from being enough for establishing a competitive market economy.

Starting at the beginning of this decade, Armenia adopted a poverty reduction approach (“social context”). This period has been characterized by high rates of GDP growth, increasing retail trade, low inflation, and a high rate of export growth, although exports have been of low value-added and low technology intensity. Armenia has expanded its trading partners geographically. Agriculture has gradually decreased in importance due to the recovery of other sectors such as food processing, mining, diamond cutting, and construction, which has become the major contributor to GDP growth. Some niche sectors, such as IT, have become more sophisticated. Armenia’s budgetary mechanisms have become more sophisticated and incorporated a mid term (three year) planning horizon. The Government initiated a wide range of legislative reforms aimed at ensuring compliance with WTO requirements. There has been significant improvement of living standards, but still high rates of unemployment and poverty, and high dependency of the economy on money transfers from abroad; high and increasing disparities between regions of Armenia. In 2003, Armenia adopted the Poverty Reduction Strategy Paper (PRSP), which became an overarching strategic document based upon which the Government developed its policies and programs, and designed its medium term budgetary expenditures. The PRSP has become a single comprehensive framework that established long term measurable objectives and established important linkages between different aspects of social, economic and institutional life.

In contrast with previous approaches to policy development, policies during this period have been characterized by the introduction of elements of strategic thinking, longer-term planning, better coordination of policies and operations, improved institutional capacities, and an attempt to set out priorities, such as prioritization of the IT and tourism sectors. However, policies have remained primarily “inward looking”, without regard to the international context in which they are being made.

Additionally, the PRSP and hence, the government’s policies have not made economic development a centerpiece of their approach. While the PRSP contains objectives related to economic development, it remains unclear what the drivers of Armenia’s competitiveness and economic development are. It fails to deal with fundamental questions, such as the sectors in which Armenia can successfully compete globally, what its value proposition is, or what its competitive strengths and weaknesses are. Most fundamentally, the question of how Armenia is to maintain its high rates of growth remains unaddressed.

We believe that these can be best addressed if Armenia adopts an economic development-focused strategy. Policies and projects should be viewed and measured against their implications for economic development. This will require a higher level of coordination of the country’s policies and projects and clear linkages and concerted interaction between numerous sectors and aspects of economy. The recent creation of the National Competitiveness Council of Armenia is a promising step towards establishing an effective mechanism for the such coordination and interaction.
Such a strategy should be based on a realistic and honest assessment of the nation's capabilities and its opportunities in the global marketplace, which would permit Armenia to identify the unique strengths upon which the country can compete internationally, and which would set out a road-map to development, enabling effective coordination of activities and establishing priority areas or sectors. This would allow for more efficient use of scarce financial and other resources.

Under this approach, both the public and private sectors need to adopt an outward looking strategy, one that would focus on exports to global markets in an effort to achieve economies of scale and to thereby overcome the challenges presented by its small size. This will require achievement of international competitiveness of Armenian talent, products, firms and industries.
Figure 22: The Evolution of Armenia’s Policy Context (1991-2007 and beyond)

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- Independence declared (1991)
- Introduction of dram (1993)
- Market reforms started
  - Liberalization of prices
  - Liberalization of trade
  - Privatization
  - Land Reform
- Karabakh conflict
- First presidential elections
- Stabilization program launched (1994)
- WTO accession process started (1994)
- Tight monetary policies
  - Law on CB. Law on Banks (1996)
  - IMF Article VII (1997)
- Cease fire in Karabakh conflict (1994)
- Mass privatization of small & medium enterprises
- ArmTel privatization Deal
- Creation of ADA (1998)
- Parliament Assassinations (1999)
- 1995 Debts of quasi-fiscal sector = 80% of budget deficit
- Adoption of a large package of legislation (customs, IPR, competition, standards, technical regulations, etc) for WTO compliance
- Creation of SMEDNC (2002)
- Creation of the Commission for protection of economic competition (2001)
- Introduction of a unified social payment system (1999-2000)
- Adoption of PRSP (2003)
- Adoption of Sustainable Agricultural Development Strategy (2004)
- MTEF application (early 2000s)
- EU Neighborhood Policy & Action Program
- Improvement of fiscal discipline (quasi fiscal debts issue solved through privatization of electricity distribution networks)
- Launch of large infrastructure building projects (eg. Lincy Foundation)
- Entry of second mobile phone operator (breach of monopoly)
- Increased private transfers from the Diaspora
- Heated property market in Yerevan
- Revision of PRSP
- Elaboration of economic development strategy
- Creation of integrated implantation mechanisms
- Creation of National Competitiveness Council
- War for Artsakh
- Economic decline
- Disruption of trade
- Energy shortage
- Shortage of food & basic necessities
- High unemployment
- Intensive emigration
- Stabilization & economic growth
- Inflation under control
- Large debts of quasi-fiscal sector
- Recovery of energy supply
- Agriculture as a major contributor to growth
- Recovery of trade; retail trade growth
- Nation’s productive assets redistributed & concentrated
- High unemployment & poverty
- Intensive emigration
- High rates (double digit) of GDP growth since 2001
- Growth of exports: expanding geography of trade partners
- Net positive migration balance
- Stable macroeconomic environment
- Agriculture as a major contributor to growth
- Increasing social spending (focus on social issues)
- Intensive emigration
- “Fire fighting” / reactive
- Short sighted view
- Lack of coordination
- Lack of strategic approach
- Lack of institutional capacity
- “Inward looking” view
- Lack of concentration on economic development
- “Fire fighting” / reactive
- Short sighted view
- More coordination, but still very low
- Lack of strategic approach
- Better but still weak institutional capacity
- Lack of due attention to business environment
- “Inward Looking” view
- Focus on macroeconomic stabilization
- Lack of concentration on economic development
- PRSP is the overarching policy document (strategy)
- Longer-run views
- More coordination, but still low
- Concentration on social issues
- Concentration on infrastructure development
- Prioritization in few sectors announced, but not enacted with adequate projects
- Some elements of “outward Looking” view
- Economic development mentioned, but not realized
- Due attention to international competitiveness
- High level of coordination
- Strategic approach
- Prioritization based on development objectives
- Large scale projects
- New institutions
The Competitiveness Quest

An adequate response to the competitiveness challenge requires approaches and actions that transcend conventional understandings of successful strategies. Simple imitations of the past successful examples of others will only lead to stagnation and cut-throat competition. On the other hand, unsubstantiated and risky innovations without an appropriate foundation, may lead to experiments with negative consequences. Armenia has already undergone elements of similar experiment at the start of the reforms in the early 90s. Therefore, there is a great demand for an original, and at the same time, balanced approach for enhancing Armenia’s competitiveness. Such an approach needs to stress key sources of national competitive advantage and provide principles on how it should compete, while also incorporating flexible platforms for tactical differences in implementation. Approaches to implementation are successful only if they take into account the interests and motivations of key stakeholders.

The structured approach to enhancing Armenia’s competitiveness proposed in the ACR tries to capture these realities. The proposed approach distinguishes two layers of action, namely “Quick Wins” and “Strategic Breakthrough”. The approach also calls for the creation of integrated executive mechanisms and vehicles.

The Quick Wins are targets that are achievable in a short time period within the limits of current resources and competencies, while actions in the Strategic Breakthrough sections define factors that may move Armenia to the next level of competitive position vis-à-vis other countries and direct competitors. Their detailed description is provided below, but one of the main issues in such a distinction is a factor of motivation. Any initiative aiming at targets achievable in the long term face motivational challenges; that is, the key stakeholders need to be motivated to show necessary commitment and, sometimes even make some short term sacrifices before those goals are achieved. One of the major roles of “quick wins” is to motivate people to stay committed and continue to pursue strategic goals. Even small achievements create strong motivating forces; they help people translate their efforts into tangible realities. Quick wins are also important for consolidating allies and creating coalitions for reforms and changes. This sometimes becomes the most crucial issue in any similar endeavor. Any brilliant plan is doomed to failure, if there are not sufficiently committed people supporting it. Quick wins may become the basis for motivating people to collaborate.

Generally, strategy implies a planning horizon beyond the present. The notion of perspective or vision constitutes a key part of any strategic thinking. At the national level, taking a long-term perspective is often made more difficult by the political cycle (not necessarily coinciding with the electoral cycle) which is shorter in countries with young democracies and emerging market economies. Competitiveness is a more fundamental measure than many other economic measures, including economic growth, and cannot be achieved with uncoordinated and short term interventions; however, it is also an incremental phenomenon and can be built with small but consecutive and coordinated actions. These two facts served as a basis for structuring the strategy formulation section in the ACR.

Strategic breakthrough refers to the necessity to radically change the drivers of growth and nurture sustainable competitive advantages. It helps to shape a holistic picture of the intended reality, while proposing a consistent set of actions to achieve it. Its primary value is to allow the user of the framework or the approach to see multiple initiatives, players and actions using a common platform. Armenia’s policy-making environment is currently very fragmented and inconsistent. The integration of goals, actions and institutional capacities is viewed as a major challenge from the competitiveness perspective. Strategic targeting also allows applying common criteria to different actions by key players in different domains. What is wrong and what is right can be assessed using the same criteria if the policy makers have a common “practical guide”. The reform initiatives, thus, will become more comprehensible, taking into account multiple factors and their influences on different aspects of economic and social life. Finally, strategic targeting allows creation of sustainable competitive advantages. Having a strategy is a prerequisite to success in achieving competitiveness.

Strategic breakthrough and quick wins address different types of issues. Certain improvement of the current competitiveness position can be achieved very quickly through several initiatives and improve-
ments. However, increased regional and international competitiveness requires other, “higher level” actions with the timeframe of at least 10-12 years.

A strategic breakthrough can be achieved in 10-12 years. Armenia has the opportunity to become one of the most competitive countries in the region. However, this requires consistent strategy, focused efforts, and committed leadership.

Armenia can also improve its competitiveness in a number of areas with focused and concentrated interventions in 3-4 years. The biggest issue is the identification of the areas of intervention and concentration of resources in those areas. The next section proposes a methodology for the selection of those areas.

**Strategic Breakthrough**

Armenia is in need of new growth drivers based on sustainable sources of competitive advantage. These economic fundamentals can be changed only through a well designed, realistic and shared vision and strategy. The vision and strategy have to be pragmatic and feasible, yet ambitious. Without ambition, nations will not win the competitiveness battle. Given current trends, this calls for real strategic breakthrough which leaves the decision makers with two fundamental questions:

1. What should be the role of Armenia in the regional and global economy?
2. What are the tools to achieve it?

**Strategic Positioning of the Armenian Economy**

The experience of many resource-scarce but highly successful economies that managed to transform their early acceleration into sustainable economic growth suggests that clear positioning of a country is a key ingredient of success. Such positioning implies defining a unique and sustainable set of local conditions, skills, products and services that will lead to the creation of competitive advantages. At the heart of the positioning is the definition of a country's value proposition. A core value proposition points to the specific role the country plays in the world or regional economy. These can include its value as a business location, the range of businesses, functions and competences for which the country can become a base for globally competitive companies. Value proposition inherently incorporates the notion of competitive arena – the region, range of countries, competitors or the entire world. One successful example of a distinct value proposition is that of Ireland, which positioned itself as a base for multinationals to expand into Europe using its cheap but highly educated workforce, preferable location and attractive incentives system. Singapore exploited similar positioning with respect to the Far East, while also leveraging its location as a transportation hub. On the other hand, Israel's value proposition was completely different given its different geopolitical situation. Rather than being a base or platform for expansion, it tried to become a home for unique competences centered in high tech industries which attracted multinationals to tap into those resources. To do this it invested heavily in the university system, applied and military-related science; provided significant incentives for R&D activities through subsidies, grant schemes, venture funding and other mechanisms; promoted business-science collaboration; tapped into its large Diaspora network for skill transfer, connections and finance; and targeted global leading multinationals to attract their R&D activities.

Four major factors shape the nature of value proposition: (1) aspirations, (2) opportunities, (3) constraints and (4) capabilities.
Aspirations define the level of ambition that a country has. Becoming an outpost for Russia or a regional leader in high tech are two different goals with totally different levels of ambition. The aspirations of a nation are rooted in its values and perceptions of identity and destiny.

Opportunities provide a chance to conquer a niche or undertake a role that is not fulfilled yet. Opportunities are more prevalent where change is faster and deeper, which particularly characterizes the region, suggesting huge untapped potential.

Constraints help shape aspirations and provide certain forms to them. They bring unrealistic ambitions down to earth. The geopolitical and economic constraints around Armenia will likely have a long term and very deep impact on Armenia’s choice. The latter is becoming harder because it leaves Armenia with a limited number of positioning alternatives.

Finally, capabilities constitute the core of choice. The choice must rest on existing capabilities and those that can be realistically developed.

As the value proposition assumes the specific role that the country may play in the system of value creation at the regional or international level, this role in many cases is “assigned” to small countries by global players such as governments, international organizations and MNCs. However, even small countries can, to a large degree, formulate this role for themselves. Given the interplay of the factors mentioned earlier in and around Armenia, it has a narrow menu of possible choices for its positioning and value proposition. It must rely on its resources and capabilities that can be exploited to create a competitive position at a global or international level. As such, unique human capital represents the key ingredient for such a value proposition. At the same time, human capital can hardly represent a competitive advantage unless it has unique characteristics. For a country like Armenia, a few unique characteristics of human capital deployed in areas producing high value added products and services may become an economy-wide source of advantage and key differentiating feature. For that, the targeted areas need to be narrow enough to enable focused efforts, greater leverage and larger impact.

Armenia may strive to become an R&D center at the regional level and use it to become a leader in a few areas. Those areas could be either technology-intensive (such as selected segments in software programming or “green” mining and metallurgy), network and knowledge-intensive (for example selected niches in financial and educational services) or creativity-intensive (including selected areas of culture-related commercial activities (cultural tourism centered around key established cultural events/artifacts of global or regional significance). Becoming an R&D center requires development of key competencies and skills that may have business appeal for regional and global players to attract investments and technologies into Armenia. The effort should capitalize on past tradition, selected functioning R&D and scientific institutes and emerging trends in some areas (such as IT). Utilization of the Diaspora resources as a global commercial network may become one of the competitive advantages in realizing this vision.

Such positioning will require re-definition of a notion of region as Armenia’s perceived positioning arena. Re-defining “competitors” should become a core theme for the country’s branding and image building. That theme should dominate all key communication efforts and be shared by the government, private sector, academia and society at large.
Currently, it is most common to consider Armenia as a part of the South Caucasus, CIS or Eastern Europe. However, none of these groups of countries alone provide favorable positioning settings for Armenia. An unfavorable location in the South Caucasus and the conflict with Azerbaijan make the chance of favorably positioning Armenia in this region highly unlikely. The South Caucasus is likely too small to be perceived by global players as a separate region. Effective positioning requires a broader definition of region.

The CIS is not perceived to be a region, but rather a group of countries with a common recent historical context and close economic and political ties. Russia naturally dominates the group with its economic and political power. Armenia may still strive to become one of the top performers among this group of countries and capitalize on it while executing communication strategies targeted at MNCs and global institutional players. However, building its positioning within this group will not provide necessary differentiating features.

Eastern Europe is perceived to be an effective platform for many countries to position themselves in a number of fields. It is perceived to be a dynamic region, a part of one of the most developed regions in the world. Integration into Europe is Armenia’s officially proclaimed policy and it tries to bring all its legislative and institutional settings into compliance with the European Union. This creates strong incentives for effective domestic reforms, and generally the direction of the country’s development is becoming more clear and comprehensible for global players. However, Armenia is not unambiguously perceived as a part of Eastern Europe and, moreover, has relatively few resources and capacity to capture significant and distinct roles within this group of countries. European integration will not be inhibited if Armenia complements it with other regional platforms for economic positioning and country branding. Moreover, the European integration process will be facilitated if Armenia can independently create and offer values relevant to Europe’s geopolitical, economic and cultural aspirations.

Armenia may consider building its communication strategy utilizing the notion of “Eurasian Crossroad”. While the latter is not a well defined region in the political, economic or geographic sense, it has multi-layered and meaningful connotations which are exploitable for positioning purposes. The concept of “Eurasian Crossroad” has deep cultural, historic, economic and political roots. It appeals to the idea of intersection of civilizations, cultures, religions and political systems. While the interpretation as to its geographic frontiers may be voluntary, it provides countries with greater flexibility for positioning and communication purposes. Turkey and Central Asian countries (primarily Kazakhstan) are already trying to exploit the notion of Eurasian crossroads for their own economic and geopolitical positioning, though the effort has been sporadic. Even as the mentioned countries consider themselves to be a crossroad, the region will provide more effective positioning platforms if it includes countries such as Turkey, Georgia, Azerbaijan, Armenia, Iran, Iraq, Syria, Jordan, Lebanon and Israel (Central Asian or Gulf countries can be considered a part of the region in a much broader sense). The strategic positioning based on the concept of a crossroad will also help overcome the perception of Armenia as a country in a landlocked location without significant natural resources. The region defined in this way provides opportunities for Armenia to capture leading roles in a few selected areas that demand highly developed human capital, access to global networks and a tradition of science and technology. This option will imply positioning Armenia as an R&D center in skill-intensive areas in the Eurasian crossroad region. As such a claim or vision is highly ambitious given the competitive positions and claims by direct competitors in the region, this will require an organized effort with an integrated strategy framework and identification and deployment of key levers.

Key Levers for Breakthrough

Strategic breakthrough refers to the creation, nurture and development of internationally competitive industries that will make Armenia’s value proposition to the world well-shaped and visible. As resources are scarce, this calls for identification of a few selected strategic levers that could be deployed to attain high impact. The latter does not eliminate the need for broad-based public and private sector reforms, improvement of general business environment, provision of general pro-development economic policy, etc. Instead these two streams need to reinforce each other.

As in mechanics, levers are deployed using a base or platform. Base in this case may be an effective sector-specific, micro-level policy platform. Such a platform will direct the levers’ energy and impact to specific
sectors, technologies and locations. The combination of levers and the bases can be called a leverage system. The leverage system that has been identified for the purposes mentioned above will have a three-tier hierarchy as described in Figure 24. The Leverage Platform will consist of three sets of policies and initiatives — cluster policy, innovation policy (which is related to and mutually reinforces cluster policy) and regional development policies. The Key Levers are targeted foreign direct investment (FDI), formation and development of Diaspora entrepreneurial networks and strategic initiatives in education.

**Figure 24: System of Levers**

![System of Levers Diagram]

The central role in shaping the leverage platform will belong to cluster initiatives (or policies). This will be called the policy nexus. The cluster initiatives in potentially internationally competitive clusters will be enhanced by supportive innovation and regional development policies which can be called policy add-ins. The combined and integrated application of this platform is intended to create an efficient and conducive context for applying the levers.

**LEVERAGE PLATFORM**

**Policy Nexus - Cluster Policies**

The concept of clusters has become very popular in many countries during recent years. As its practical manifestation, a large number of cluster initiatives at national and regional levels have been initiated with massive public support and resource infusions. It is particularly popular in Europe with several extremely successful examples of large scale implementation of cluster-based microeconomic development policies in such countries as Finland, Ireland and Spain. The most widespread concept of clusters focuses on the understanding of clusters as a geographically proximate group of companies, suppliers and other adjacent industries, research, training and other supporting institutions (Porter, 1990). The geographic proximity is a central idea, as it causes the most important benefits deriving from clustering of firms such as labor pooling, supplier specialization, knowledge specializations and spillovers. However, proximity can be understood also in terms of similarity or complementarity of skills, markets and social linkages between businesspeople and workers.

Clusters are an important tool for enhancing competitiveness. Clusters improve productivity of individual firms by providing access to specialized inputs (raw materials, human resources, etc.), diffusion of knowledge, best practice, technologies and know-how as well as fostering innovation through imitation and
stimulation of entrepreneurship. Cluster-based economic development policies are efficient when clusters are seen as a way of organizing economic development rather than as a set of individual initiatives to boost the competitiveness of selected industries. If the economy is viewed as a composition of clusters, then the cluster concept can become a useful framework for understanding the fundamental structure of the economy (especially regional economies) and help devise an efficient and coordinated public policy. The key implication for public policy is that it should deal with a group of companies rather than individual firms and the tools and measures should be aimed at specific clusters rather than being broad-based without specific targets.

The cluster policies can create an overarching policy context where different functional or sector specific policies can be incorporated and implemented. At the current stage the most urgent competitiveness policy ingredients with strong synergies are seen to be innovation and regional development. As highlighted in the diagnostic sections of this report, the regional disparity impedes competitiveness by skewing the benefits of economic growth. Fortunately, regional policy is an emerging policy priority for the Armenian government; however, it should be incorporated into the right mix of measures and broader economic development policy context. Another emerging policy domain is innovation policy that is supposed to energize Armenia’s potential to become a location for producing high value-added products. The effectiveness of these two policy priorities is dependent on their optimal combination and coordination as well as their targeted deployment. The cluster policies can provide an appropriate context to assure these two aspects, as clusters are the ultimate development targets incorporating both geographical as well as technological dimensions.

Generally, cluster development is more effective when driven by the private sector while enjoying the public sector’s effective support. Given that most of Armenia’s competitive disadvantages lie in the microeconomic realm and, especially, in the businesses’ strategic and operational competencies, the microeconomic focus of cluster-based initiatives fits well with the current needs of Armenia’s business sector development.

The leadership, in promoting cluster development, may stem from both private and public sectors in any industry. Currently, in Armenia, cluster-oriented development initiatives are promoted mainly by international organizations, particularly the USAID-funded Competitive Armenian Private Sector Project (CAPS) that supports the development of three pre-selected clusters (IT, tourism and pharmaceuticals). Generally, well designed frameworks of collaboration can be worked out by the government so that these efforts don’t overlap and result in a waste of resources. However, it should be noted that different clusters require different strategies and different sets of interventions; therefore, those frameworks should be flexible enough to capture these differences. They must also take into account location-based specifics of the clusters which can be part of regional development policies. In the case of technology intensive industries, support can be channeled through innovation policy.

In addition to this, a very focused and intensive cluster development effort is required in selected areas to raise Armenia’s international competitiveness. Currently, from the perspective of competitiveness, one of Armenia’s key challenges is the development of a few internationally competitive industries that will set the economy on the path to innovation. No country can be competitive in all industries. Specialization is at the heart of competitiveness. Only a handful of industries can become drivers of Armenia’s international competitiveness. Given also the limited public and private resources that can be mobilized, the efforts should be highly focused and deliberately designed.

The selection of such industries is a challenge for any country as it implies political considerations and advocacy. However, if Armenia formulates a clear vision and strategic value proposition, the choice becomes less exposed to political influences. The value proposition and strategic targeting become key criteria for selecting the clusters. Moreover, the internationally competitive clusters cannot be created from scratch, at least in a short period of time. While there is a need for thorough research for short-listing the promising clusters there is already a high degree of consensus around some clusters among key stakeholders as to their potential as priority areas. The Armenian government has already prioritized IT and tourism; however, despite some strategic approach is emerging, this still requires a political will and competence to commit necessary resources.
Innovation Policies

As Armenia strives to build a knowledge-based economy, the creation and development of innovation-supporting infrastructure becomes a critical challenge for the next 5-10 years. The international competitiveness of the Armenian economy depends greatly on its companies’ abilities to create and market innovative products and services in foreign markets. While still sporadic and inconsistent, there is an emerging debate about the creation of elements of a national innovation system in Armenia. The government has adopted a program on the formation of an innovation system for 2005-2010; however, the committed funds are extremely small, the framework is not yet developed and there is no adequate understanding of its role and place in the overall policy context.

The recent trends in design and implementation of innovation strategies by most of the advanced countries, particularly in Western Europe, point to a shift towards cluster-oriented measures. Innovation policies become increasingly cluster-based as opposed to traditional, cross-cutting approaches aimed at creating country-wide National Innovation Systems (NIS) relying on the strength of spillover effects and positive externalities of innovations. Firms innovate not in isolation, but through networks, including allies, suppliers, R&D institutes, etc. Cluster development processes are naturally stronger in industries, where innovation activities are intensive. In those sectors, clusters can be seen as small-scale innovation systems. Innovative clusters are stronger if driving forces are market-led and market-induced; however, the role of the government is becoming increasingly important with the increasing role of knowledge and innovation in economic growth. In many countries the successful government interventions focused mostly on the role of networking facilitator and developer of institutional frameworks for support and collaboration. This induced many of the governments to shift their support schemes to innovative activities from direct measures to indirect interventions mainly targeted at spurring collaborative behavior and creating favorable institutional settings.

The general cluster approach to organizing and stimulating innovative and productive entrepreneurship can become a coherent platform for innovation policy in Armenia. The cluster-oriented platform will allow the discovery of answers to three fundamental challenges of innovation policies:

1. Where to intervene (priority areas and sectors)?

Cluster priorities should become priorities for innovation policy based on the need for support of innovative process by specific clusters. Thus, policy measures will be consistent and mutually supportive. As the cluster priorities will shift over a period of time, so the innovation priorities should. Thus, the innovation policy measures will become focused, which is extremely important in the view of severe resource limitations and intensifying competition by Armenia’s competitors.

2. How to intervene (which tools to utilize)?

The selection of a mix of tools of innovation policy requires a deliberate study. One of the key disadvantages of Armenia’s business environment is lack of incentives and public support measures for innovative and collaborative activities. While this is not a sufficient factor for becoming an attractive location for internationally competitive companies, it has become an important stimulating factor exploited by many “benchmark” or peer countries. The cluster-based approach provides an advantage in designing the right mix of policy tools from a wide array of possibilities. These may include measures in the following four broad areas:

a) Critical infrastructure development – creation and support of research laboratories, research and professional associations, techno- and science parks, business incubators, innovation and venture funds, etc.

b) Knowledge and information centers – targeted support to universities and R&D institutes, apprenticeship and training schemes, libraries, databases, consultancy services, etc.

c) Incentive schemes – support for collaborative projects between academia and business, research grants, subsidies, cost-sharing arrangements, loan guarantees, export credits, tax incentives, etc.

d) Procurement policies – state procurement of technology intensive products, public corporations R&D contracts, prototype purchases.

3. Which should be the implementing agencies?

The distribution of responsibilities and competencies for implementing innovation policies among the relevant public institutions differs dramatically in different countries. Typically, the involved agencies are those responsible for science and education policy, general economic development, and fiscal policies, as well as different institutions based on the principles of public-private partnership. In Armenia, the suggested logic of policy context as well as the size of the country and peculiarities of public policy processes call for creation of highly consolidated and effectively integrated implementation vehicles. Therefore, even if the design of policy measures can be done with the current setting of responsibilities between different government agencies with the overall coordination by the cabinet, the actual application of most of the schemes and tools should be consolidated in an institution responsible for channeling most of the public support to the private sector.

Regional Development Policies

As mentioned in Chapter 3, one of the major economic challenges of Armenia is disparity between regions and, especially, between Yerevan and regions. While this is a key struggle even for many advanced economies, in Armenia the problem is exacerbated by the size of the economy, its security concerns, and unprecedented concentration of economic life in the capital city of Yerevan. Despite the fact that the government has already prioritized this issue, there is still a vague understanding of how to combat the problem. The key pitfall here is that it may be dealt with as if it is a purely social problem. As the experience of EU and OECD countries showed that the implementation of purely infrastructure and social programs, even if they are large enough, do not result in long-term economic development and increase in competitiveness. Meanwhile, sustainable development is possible only if it is driven by commercially viable projects based on key specializations of each region. Specializations should be based on the right mix of comparative advantages of regions that can be gradually developed into competitive advantages. Specialization naturally caters to the concept of clusters. Thus, instead of current infrastructure building projects implemented in isolation without complex development plans, this approach calls for highly coordinated, deliberately crafted public-private collaborative efforts to create regional clusters. On the part of the government this may still include infrastructure development; however, in this case well tailored to the needs of emerging business sector in the region and enhanced by private investments.

For the policy makers, it is imperative to work out the design of such policies. The challenge is not only in the need for integrated policy, but also for due process that ensures high levels of coherence and compatibility. The key principles of such policy design processes are proposed in Figure 25.

Figure 25: The Architecture of Regional Policy Design

Cluster-based policies require deliberate analysis and strategy to hedge against many risks associated with the approach. As such, two types of comprehensive studies are required. Cluster mapping is an examination of the economic output, employment data and other key indicators across the entire economy to
identify geographic concentrations and agglomeration of businesses. This requires quite detailed data on different industries at least at the NACE 4-digit classification level. Currently, such data is not available and there is a need to put this on the immediate agenda of the National Statistical Service of Armenia. The study will allow the identification of current and emerging clusters in the economy. This will give the current snapshot of geographic distribution of economic activities. The study should be complemented by an analytical effort aimed at assessing the potential of each region given its current economic fundamentals and specialization opportunities. Based on these studies the strategic profile of each region can be worked out that will feature future realistic economic characteristics of each region. Based on such profiles, action programs for public and private sectors can be developed. The key interventions by the public sector will be designed to create necessary prerequisites for realization of commercially viable projects in regions and to trigger the initial interest by the private sector. The urban and rural development plans should be worked out in accordance with the strategic profiles and economic development plans of each region.

The strategic profiles and action plans of each region should be synthesized and integrated into the general cluster-based economic development policy. This approach will help introduce elements of a bottom-up and top-down, business-oriented process to the design of economic policies. It will also ensure a shift from a macroeconomic focus toward a microeconomic focus, which is an absolute imperative for public policy in the economic area in Armenia.

**KEY LEVERS**

The three-component leverage platform will create a pro-business economic development policy context, within which different reform initiatives can be implemented. However, there are three key factors that can be deployed to bring a true breakthrough. In the context of Armenia these are: (1) technological FDI, (2) Diaspora networks and (3) superior education. These factors were determined taking into account three criteria: (1) Armenia’s possible value proposition alternatives suggested in this report, (2) Armenia’s comparative advantages that can be developed into unique competitive advantages, and (3) the need for mobilization and prioritization of primary tools for strategic breakthrough.

**FDI**

Despite the fact that Armenia declared an open-door policy to FDI, this has not become a major driver of technological upgrade and specialization in the Armenian economy. In order to achieve this, Armenia should pursue a clearly targeted FDI attraction strategy. It is easier for Armenia to avoid the widespread pitfalls that many resource-intensive countries fell prey to while attracting large FDI. In many developing countries, most FDI was related to the extraction of resources without creating many spillover effects throughout the economy. Until now Armenia’s FDI attraction efforts have followed the same logic. However, as Armenia is a resource-scarce country, such opportunities are already exhausted. The top priority has become the attraction of high value-added activities of multinational companies. Contrary to conventional wisdom, Armenia is able to attract selected elements of global value chains of medium and high technology multinationals, particularly “second-tier” multinationals (see the recent research by EV Center on Attracting Multinationals into Armenia (2007)41). Supporting evidence exists in the IT industry in Armenia. In order to achieve this on a large scale a superior and unique effort is required. The building blocks of such an effort should be:

- well defined target markets – right mix of target multinationals
- clear priorities deriving from policy context (fit with cluster priorities, applying innovation incentives)
- initial “seed” public investments in creating fundamentals/basic infrastructure in targeted clusters (in many cases specially tailored to certain multinationals’ needs)
- aggressive marketing and targeted promotion plans supported by an adequate budget

41 Economy and Values Research Center, 2007
- involvement of a few world renowned top executives (preferably non-Armenians) as leaders in promotion and communications
- utilization of the Diaspora executives holding key positions at targeted companies
- upgrade of institutions involved in FDI attraction.

**Diaspora**

The Diaspora may become a unique source of competitive advantage for Armenia that can be matched only by a few other nations. The globalization and unprecedented technological changes increase the role of ethnic entrepreneurial networks. The Diaspora is still a mostly untapped resource for Armenia (while the opposite is also true – Armenia’s potential is underutilized by the Diaspora). The major causes are the lack of realistic assessment of its resources, lack of strategic prioritization of areas of collaboration and underdeveloped modes and mechanisms for effective collaboration.

An effective partnership can be built on a “hub-and-spoke” model. Within that model Armenia should be viewed as a center (hub) for global Armenian business and other partnership flows. The gradual move of HQs, coordinating units, information centers and other resources of pan-Armenian organizations and networks to Armenia is only one of many ways to create such a model. Connections and competences are the most critical resources that Diaspora can invest into Armenia’s economy (its role as a market for Armenian products is another important subject of a thorough study). It is a unique source for creating training and innovation centers, bringing in world-class expertise, and accessing the most sought-after corporate leaders of global companies. This calls for a set of coordinated activities as well as highly efficient institutional forms of engagement. The Diaspora’s contribution to attracting and nurturing globally competitive companies is contingent on the creation and development of global Armenian business networks. The networks can be institutionalized in different ways. This calls for a comprehensive study of the experience of other countries known for successful examples of Diaspora involvement, such as Israel, Ireland, Scotland, India and China. Such a study should highlight key success factors and be adapted to Armenian reality. The most pressing need is in the creation of a network of top Diaspora executives holding key positions in multinational companies. Their connections and influence can be leveraged for attracting selected activities of multinationals, establishing alliances, getting outsourcing contracts, etc.

Generally, the direction of Diaspora involvement should be tightly coordinated with FDI and education initiatives and should be guided by cluster, innovation and regional development policy priorities. Thus, the efforts will mutually reinforce one another.

**Education**

Education must be made a priority if Armenia’s competitiveness is to be based on knowledge and skill-intensive characteristics and if its regional value proposition will be based on unique human capital. Education has always been an important family value for Armenians and it can become a fittingly deployable factor for building strategic competitive advantage. However, since an ever growing number of countries make large investments in education to increase the quality of human resources, education may become a powerful lever for increasing competitiveness only if it equips the country’s human resources with unique knowledge, skills and tools in specific areas of its specialization beyond general literacy. This leads to several preconditions (principles) that need to be satisfied for a successful deployment of education as a competitiveness lever:

1. Very high standards of primary education matching the best international practices. Basic education should not be biased towards any specialization, but should provide comprehensive knowledge, creative thinking and high ethical values. However, mathematics (and some natural sciences) should be a high priority as a basic discipline for all natural sciences, since Armenia’s competitiveness strategy will be dependent to a large degree on developing S&T potential.

2. Basic education should become a key communication channel of national ideals and major aspects of national identity. Such values will constitute the fundamentals of competitiveness thinking as they will define common national goals and aspirations.
3. Stress on specialization in special and higher education congruent with cluster development preferences. Those areas shall receive most of the resources.

4. Leadership aspirations in 2-3 areas of specialization in the region. Armenia should strive to become a leader in the provision of special educational services in a few areas linked with overall cluster and specialization preferences.

5. Creation and development of a few “centers of excellence”, scaling them up, leveraging them and replicating them on a larger scale to achieve spillovers throughout the entire system.

The Government of Armenia (through the Ministry of Education and Science) has initiated the development of a strategy concept paper outlining key priorities and strategic principles of educational policy until 2015. Quite progressive ideas are under discussion in line with the above mentioned principles; however, the concept needs to be shared with a large number of key stakeholders and complemented by concrete actions. This can be achieved by doing rather than persuasion. Therefore, there is a need for strategic initiatives in the education sphere as catalysts for change. Those initiatives can become building blocks of “centers of excellence”, and they can be initiated by both public and private actors, including partnership opportunities with the Diaspora and global players such as multinational companies. This will reinforce the proposed linkages of FDI-Diaspora-Education as competitive levers.

Quick Wins

In an effort to identify quick wins for achieving country competitiveness, three basic questions have been put forward:

1. What competitive areas should be addressed?
2. How will the quick wins be selected?
3. How will the quick wins bring the intended impact?

**Question #1. What competitive areas should be addressed?**

In the context of country competitiveness the list of factors used by the GCR provides a good foundation for developing an exhaustive list of possible areas of intervention. The list is quite comprehensive and reflects the experience of the World Economic Forum and its academic contributors in assessing different economies during almost 30 years. It embraces almost 110 parameters, from broad macroeconomic to specific management issues at the company level. The list serves as a foundation, which must be adjusted to the country's specifics. From the list we identified the factors that comprise competitive disadvantage for Armenia. We also added an interpretation (sometimes paraphrased) for some factors, taking into account the opportunity to formulate concrete actions to address the competitive disadvantage on a given factor.

**Question #2. How will the quick wins be selected?**

We developed a special analytical tool to identify short-term priorities and select the quick wins. The tool has been entitled the “Prioritization Filter”. The competitive disadvantages or areas where Armenia trails most nations are assessed from the viewpoint of feasibility of rapid improvements given the current resource and competence constraints as well as its overall impact on the entire economy. The Prioritization Filter incorporates four key criteria applied to assess and prioritize different competitive areas. Thus, the mentioned four criteria are:

- Resource Restrictions
- Competence Gap
- Time Span
- Spillover Effect
The factor of “Resource Restrictions” assesses the availability of all types of resources (excluding human) necessary to address a certain competitive disadvantage in the short term. The “Competence Gap” factor assesses the existence or lack of required knowledge, expertise, experience and will to mitigate a specific disadvantage. The “Time Span” is the most important factor as it assesses the feasibility of improvement of a certain issue in 2-3 years, while the “Spillover Effect” provides an assessment of the potential positive effects such improvements might have on the entire economy at the current stage, i.e. positive externalities of specific actions. Each criterion is assigned a weight and assessed using a 1-5 scale (the detailed description of scoring methodology is provided in Annex 4).

Figure 26: The Logic of the Prioritization Filter to Identify Quick Wins

Using this methodology, 10\(^4\) factors have been identified as possible quick wins, grouped into three distinct areas:

– Energizing financial sector
– Improving selected elements of business environment
– Promoting technology usage (see Table 8).

In addition, the problem of appreciation of the exchange rate, though not identified as a quick win, is specially highlighted as a key factor that needs to be addressed at this (though the GCR removed this as a factor for country competitiveness).

\(^{42}\) Originally, 14 factors have been identified from the disadvantage list, but 5 of them (related to tax system) have been aggregated into one single factor.
Table 8. Identified Quick Wins

| Energizing Financial Sector | 1. Easing access to loans and expanding credit activity by banks |
|                           | 2. Reduction of interest rate spread |
| Improving Selected Elements of Business Environment | 3. Raising effectiveness of antitrust policy |
|                                                      | 4. Improving the effect of taxation (creating tax incentives, total tax rate, burden of customs procedures, non-wage labor costs) |
|                                                      | 5. Introducing incentives for FDI in prioritized areas |
| Promoting Technology Usage | 6. Spreading the use of cellular telephones |
|                           | 7. Encouraging the use of personal computers |
|                           | 8. Encouraging Internet usage |
|                           | 9. Regulatory framework encouraging use of ICT |
|                           | 10. Government procurement of technology products |

Question #3. How will the quick wins bring the intended impact?

**Energizing Financial Sector**

1. **Easing access to loans and expanding credit activity by banks.** It is anticipated that terms for private companies obtaining loans will improve in 2-3 years. This is being driven primarily by increasing competition, entry of new banks and expansion of their activities. Some legislative change can facilitate the process further, such as the streamlining of collateral requirements. The development of business advisory and intermediation markets will also help drive the development of sound business projects that can be evaluated based on the potential for profit rather than the degree to which they are backed by assets. Again, a more proactive policy of attracting key international players will contribute to the process. Channeling some of the international assistance program resources to support the business sector in getting prepared for structuring better projects and dealing with financial institutions will also be of great benefit.

2. **Reduction of interest rate spread.** Interest rate spreads are already trending downwards due to the entry of new players and expansion of current players in the market. The overall expansion of the sector, particularly the banking sector, is an emerging trend. This will drive an increase in the capital and total assets of banks and, hence, increased competition and the reduction of the spread. The Central Bank has started to play an active role in attracting big players to the banking sector; several new banks have already entered the market, while others are considering entry. The current reshuffling of the banking sector will also lead to dominance of larger players, which will create economies of scale and utilization of better technologies. This trend should be reinforced with further, more aggressive measures; it is likely that Armenia will ameliorate this disadvantage soon.

**Improving Selected Elements of Business Environment**

3. **Raising Effectiveness of Antitrust Policy.** Monopolistic practices in Armenia represent a huge challenge given the comprehensive web of interests of different power groups. Nevertheless, effective antitrust policy is a critical element of enhancing competitiveness. One way to make inroads might be to identify selected high profile cases that, while not promoting immediate systemic change, may at least send a message that the problem is being taken seriously and making clear the potential ramifications.

4. **Improving the effect of taxation.** This entails introducing elements to encourage investments and innovative activities via the tax system, lowering the overall tax burden, streamlining customs procedures, and reducing non-wage labor costs on businesses such as payroll taxes (income taxes and social security payments). Though the current Armenian formal tax regulation is quite liberal, the business sector reports that it is burdensome in terms of both tax rates and administration. Moreover, the system doesn’t provide much incentive for investment in tangible and non-tangible assets. For example, many Armenian technology companies that send their staff for training abroad are at a financial disadvantage due to a cap on such expenses that can be deducted from taxable income (a...
similar cap exists on marketing and promotional expenses). While the low tax rates are not a sustainable source of competitive advantage, it is important to offer attractive terms for innovative businesses to locate their operations in Armenia. Streamlining customs procedures is one of the key ingredients for such attractive conditions. Incremental changes may send positive signals highlighting the general trend of the tax policy; however, more comprehensive reforms of the tax system should be derived from the strategic priorities and general principles of economic policy.

5. **Introducing incentives for FDI in prioritized areas.** As high value-added FDI will be considered a strategic lever, incentives in prioritized areas will be necessary for making Armenia more attractive for MNCs. The choice of optimal combination of the types of incentives will depend on the possible synergies with cluster, regional and innovation policy interventions. Such a choice also can take into account the experience of other highly successful countries in this area, so that they don’t become another loophole in the law.

**Promoting Technology Usage**

6. **Spreading the use of cellular phones.** After the abolition of the monopoly on the mobile industry in Armenia, the market has expanded rapidly. There are market incentives pushing the two competitors to introduce new services and improve quality and coverage. Therefore, it is anticipated that basic cellular phone usage will spread quickly in Armenia, given also that the Government plans to grant a license to the third operator in 2008. The challenge is to move beyond the basic usage and integrate “m-development” into general e-development. This will require the availability of more value-added services through mobile and online platforms. The latter implies effective collaboration and coordination among key players in the telecom and content development sectors and the government.

7. **Encouraging the use of personal computers.** ICT development requires personal computers and encouraging their spread will be critical. The government and donor institutions may encourage their use through subsidized loan and leasing schemes in the least developed areas.

8. **Encouraging Internet usage.** Improving access to digital technologies, particularly the Internet, is one of the strongest tools available to Armenia to boost its competitiveness. It is a natural choice for Armenia given the country’s severe economic constraints. Fortunately, the current income and educational level of the population enable rapid take-off in this area. While the effort requires a holistic e-development concept (including an e-government component), quick results can be achieved through selected high leverage interventions. One such measure could be the creation of 300-400 public access points (PAPs) in rural areas coupled with the introduction of selected public services online. This could be a public-private joint effort.

9. **Regulatory framework; encouraging use of ICT.** Prior to the development of a comprehensive e-development action plan, the government may introduce pilot services to boost ICT usage. One such example could be allowing the application for simple licenses online. This will require effective application of the mechanism of digital signatures. Another might be a move toward an online tax reporting system.

10. **Government procurement of technology products.** The government can create a powerful mechanism for stimulating the growth of a domestic technological sector via the creation of explicit demand and setting appropriate standards. While the defense sector is best positioned to benefit from this, there should be appropriate policy that encourages spillover effects into other areas of the economy. The state procurement policy may incorporate a bias towards the domestic products and services with intensive technological components.

While these measures are not designed to build comprehensive change, they may create the impetus for it. There is an additional issue (though not selected as a quick win) that needs to be addressed as it poses significant threats to the exporting sector of Armenia in the short term. The issue is the rapid appreciation and volatility of the Armenian dram. The appreciation of the Armenian dram is a complex problem and the solutions are not obvious and easy. Among the fundamental issues that complicate the problem are the uncompetitive environments in selected sectors of the economy, the absence of enough absorptive capacity by the economy and lack of financial instruments. While the effect of the first two factors can not
be alleviated very quickly, the third factor can be addressed in a relatively short period of time. The introduction of financial instruments to absorb the foreign exchange liquidity will lead to the increase of state debt; therefore the most important issue becomes the effective use of liquidity. Some of the most promising alternatives could be investment in projects that entail excessive import of up-to-date technologies into Armenia as well as long-term and strategic projects outside of Armenia. This may include large infrastructure projects, even in the neighboring countries that have relevant connotations to the Armenian economy. These alternatives, of course, require very accurate estimates on possible costs and benefits as well as substantial management skills.

**Concluding Remarks**

Armenia still has a long way to go in order to create a highly competitive economy. It has already recorded notable achievements in ensuring basic conditions for economic development. However, the next stage requires more focused efforts, greater skills and higher aspirations. Success will depend on the nation’s firm choice, its ability to set clear goals, achieve consensus, mobilize resources and work diligently towards those goals. The energizing force will have to be the country’s leadership since “if a man knows not what harbor he seeks, any wind is the right wind”. (Seneca).
Can Small Countries Compete in the Global Economy? - Insights from Irish Experience.

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This brief paper looks at a country not much bigger than Armenia - Ireland with circa 4 million population.

Ireland as a country and an economy has transformed itself over the last three decades and stands as an example of and a testament to the fact that size does not matter. What mattered, firstly, was quality; quality of vision provided by governments and public institutions; quality of economic and fiscal planning; quality of education at all levels; and, lastly, the quality of business support provided to existing entrepreneurs and new start companies. Secondly, what mattered was setting the right agenda and priorities. In the case of Ireland, with a very small domestic market, few industrial assets, little or no minerals and some offshore gas, this essentially meant focusing on people and skills and more specifically on research, technological development and innovation.

Ireland has continuously exhibited determination and commitment in these areas, in particular, support and cooperation with the private sector driven by quasi-autonomous public sector economic development agencies, encouraging economic development at the national and regional levels, e.g.

- Enterprise Ireland
- Industrial Development Authority (for Foreign Direct Investment)
- Irish Tourist Board, and
- Food Board Ireland.

Need for Private and Public Partnership

As can be shown elsewhere in the more developed, democratic, expanding economies, there is a recognised and vital need for partnership between the private and public sector. In Europe, countries such as the United Kingdom and Ireland, the pivotal mechanisms developed over the last thirty years have included regional economic development initiatives of one kind or another. There is of course no optimal model for such initiatives. Each European country has different cultures, different economic cycles and growth rates and different employment, social and developmental needs and priorities. However, one thing is common to the more successful regional economic development mechanisms in countries like Ireland; that has been a sustainable concordat between the public and private sectors, i.e. amongst cabinet politicians, key line ministries and a wide range of representatives from the business community.

In Ireland senior politicians and businessmen have recognised the need and/or desirability for planned economic development of one kind or another, both at national and regional levels; in particular, to create new mechanisms and to change the status quo in addressing economic crisis. In the 1960’s and 1970s, Ireland still remained too dependent on its traditional agrarian economy and suffered dramatic out-migration of its educated youth. Over that same time, it was also witnessing a slow restructuring of its industrial base with the decline of traditional primary and secondary manufacturing, a rapid increase of unemployment, and double-digit inflation that created large-scale social and urban problems. In part, this is what led to the establishment of a new regional economic development mechanism (agencies). These have now evolved into sophisticated, market driven networks of business development organisations at the national, regional and local levels, resulting in measurable positive economic impacts.
This has helped move Ireland from the bottom of the European GDP per capita table in 1970 to the top. Ireland now is ranked second only to Luxembourg, above France, United Kingdom and Germany.

That is not to say that such regional/economic development agencies can take all the credit, far from it, but they did and do assist greatly in creating the development, business and promotional infrastructure required to compete successfully in the global economy. The lessons learnt by Ireland have a resonance for the future development of Armenia. In 2006, arguably, Armenia has similar characteristics to Ireland in 1970:

- Peripheral populations dominated by larger neighbours
- Decades of outward migration (USA, Canada, Australia)
- Best educated population migration (skilled young people)
- Public sector dominated economies
- Small domestic markets
- Unexploited export potential into larger “near” markets
- Low GDP/per capita compared UK & Europe
- Growing disparity between rich elite and growing unemployed and under-employed
- Local businesses “non-competitive” (poor productivity)
- Primary traditional manufacturing sectors in rapid decline
- Underemployed and poorly productive labor force.

Ireland has taken over thirty years to position its economy in such a way as to more effectively secure success in the global economy. Ireland, in particular, has proved itself more adaptive than probably any other European country and is seen often as a template for others to follow. But it is only one of many. Each country must not only utilise its own particular strengths but also assess and address as frankly as possible its own weaknesses.

**Ireland Today**

In 2006 Enterprise Ireland produced an analytical overview of Ireland’s recent economic performance. The key facts, including trade indicators, are impressive and illustrate just how far the country has moved from, in 1960, a once traditional agrarian based, low income, dependent1 defensive economy to an independent, proactive, independent modern economy in 2007.

- Global Exports: Ireland’s total exports are similar in value to much larger countries such as Brazil, Australia and greater than India
- Strong Export Growth: Ireland has export growth twice the average of the EU and three times the rate of total world trade
- Leading exporter2: Ireland is one of the leading software and bio-pharmaceuticals exporters
- Irish Companies Global leaders: in selected niche sectors, Irish Companies regarded as world leaders including pharmaceuticals biotech, IT software, telecommunications and medical devices.
- Entrepreneurial Culture3: Per capita, Ireland has one of the highest rates of new start companies in the world

As a result, especially in the last decade, the country as a whole has benefited.

- GDP: € 36,000 - second highest in Europe
- GDP Growth: 5.5% per annum compared with EU average 2.2%
- Open Economy: Exports are 86% of GDP and imports 70% of GDP
- Low unemployment: at 4.2% lowest unemployment rate (EU average 8.8%)
- Priority for R&D: Currently committed to spend B€3.5
- Pro business culture4: Ireland is ranked 6th in the world as a country in which to do business (UK 7th and USA 8th)
• Quality Education: Ireland ranked 4th from 60 countries worldwide, important having 40% of population under 25 years and rapidly expanding labour force, 2 million at work.

So what caused this transformation of a once peripheral, outward migrating, insular country into one of the most dynamic economies in Europe if not the world, and in a relatively short period?

<table>
<thead>
<tr>
<th>Ireland Growth between 1994 – 1998</th>
<th>Ireland</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>9.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Employment</td>
<td>5.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Consumption</td>
<td>6.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Exports</td>
<td>17.1</td>
<td>7.5</td>
</tr>
<tr>
<td>Imports</td>
<td>14.2</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Source: OECD, CSO.

The Government explains the reasons for Ireland exceeding the EU average growth in GDP, employment, consumption, export and imports as follows:

- Ireland’s high birth rate in the 1970’s leading to large increase in work-age population in 1990’s
- Combination of falls in unemployment and increases in population reaching retirement (65 years) leading to positive demographics and a large fall in dependency ratios, i.e. in turn leading (partially) to a rise in per capita incomes
- Substantial investment in all levels of education and hence increased quality of the workforce
- High levels of public investment in physical as well as human capital and with substantial help from EU structural and Cohesion funds, net gain of B€12.5 over twenty years.
- Relatively low interest rates encouraging strong private sector investment
- Decreasing tax burden on employees and companies.

However, there are additional explanations to the rapid success of the Irish Economy, especially in the 1990’s.

For thirty years, since 1960, Ireland has had a focused industrial policy on high value-added manufacturing essentially achieved through foreign direct investment and positive fiscal policy offered as an incentive.

Proactive rather than reactive approach to foreign inward investment leading to a more selective and sector specific policy with high returns.

Introduction of free secondary education and more recently emphasis on upper and tertiary education increasing the skill levels of the young workforce very rapidly (to above the UK) on a par with EU average.

High quality of labour relative to its higher costs thus still ensuring competitiveness despite influx of skilled labour (increasingly from new accession countries).

Advent of the European Single Market in 1992 and increased freedom of movement of goods and services.

The maximisation of EU structural funds and also through the CAP (Common Agricultural Policy), increased external assistance to farm subsidies in agricultural sector.

Improvements to fiscal policies, and reduction of public sector expenditures and restructuring of employment in public sector.

Fiscal realignment occurred alongside the increased economic activity worldwide boosting the economic performance of Ireland.

Ireland economy was “catching up” from a much lower base than the average in EU.

In 2007 Ireland is continuing to move forward from considerable strengths and continued weaknesses.
Strengths

- The Continuation of the stability-orientated macroeconomic polices over recent years
- Broadly based consensus on economic and social policy
- Growing, well educated labour force
- Favourable demographic structure
- Attractive location for investment.

But also it continues to recognise transparently its underlying weaknesses:

Weaknesses

- Deficits in transport infrastructure
- Congestion in major urban centres
- Growth imbalance between and within regions
- Housing shortages
- Certain human resource and skill shortages
- Still underdeveloped indigenous industrial sector
- Concentrations of deprivation and lack of opportunities.

The past and current National Development Plan (NDP) is based on the above strengths and weaknesses.

The plan from 2000-2006 had six priority areas:

- Economic infrastructure, primarily roads, public transport and environment
- Employment and human resources
- Productive sector
- Rural development
- Social inclusion
- Social capital (housing and health)

| Economic and Social Infrastructure | 22,361 | 41 |
| Employment and Human Resources Development | 12,000 | 22 |
| Productive Investment | 5,668 | 10 |
| Rural Development | 8,554 | 15 |
| Regional Development (2 priority regions) | 6437 | 12 |
| Total | 55,020 | 100 |


Having focused previously and primarily on key cities such as Dublin, Cork and Limerick and on Foreign Direct Investment, the Irish clearly now recognise the need for regional as well as national economic and social development and for rural as well as urban development. But this is only recently and after the success of national economic and fiscal policies providing the basis for sustained growth, increased employment and, crucially, a sustainable tax base. It is the increased tax base that allows investment in the regions and in rural development. Yet the continued and overarching emphasis for Ireland remains the development of its international export capacity.

**Enterprise Ireland**

Under the National Development Plan, the Irish Government has established a broad direction for the country's industrial and economic development and continues to invest in the country’s economic infrastructure and the education system at all levels; all this within a positive fiscal policy that supports selected inward investment and, now increasingly, export by and internationalisation of its industrial base.
The primary development vehicle for the promotion of employment and human resources development and targeting of productive investments is **Enterprise Ireland**, under the Ministry of Trade and Industry. Enterprise Ireland is the Trade and Technology Agency of the Government of Ireland. It comprises 1000 people in 34 offices throughout the world and has an annual budget of €250. The key role of the agency is to stimulate growth, develop and internationalise Irish Companies and to assist companies to grow and export.

**Half of the country's economic growth is now based on exports of goods and services.**

**Per capita exports in Ireland are 7 x USA, 6 x Japan and 4 x UK.**

Enterprise Ireland provides the fundamental building blocks for industry in Ireland.

- Financing capital to bridge key stages of the business either directly to companies or indirectly through Irish Venture Capital Funds
- Marketing advice to optimally target and position products
- Operational infrastructure including incubation centres and technology support
- Network of 34 global offices to provide instant access to international marketplace
- Channel services to stimulate new business opportunities, networking & clustering.

**Growth Sector and Territorial Targets**

The key for Ireland, given its very small population is successful, sustainable export into growth sectors and growing economies.

The selected **growth sectors** are at the core of business development support including the support to existing and the creation of new sector clusters, i.e. Software and Software Services; Telecommunications; Pharmaceuticals and Biotechnology; Engineering; International Traded Services; E-learning; Medical devices and diagnostics; Aviation Industry; Agriculture machinery; and Giftware and furniture.

The **geographic targets** for the EI business support, originally US and Europe are now also the emerging markets - India, China, Japan and Gulf States. These countries currently represent only 4% of export development for Irish Companies yet now represent nearly 50% of the global GNP. There is a perceived exponential export market in these emerging economies.

**Practical Business Support**

Enterprise Ireland has developed successful operational activities based on a wide range of support to the private sector, especially abroad via its 34 offices spread throughout the target territories.

- Introducing potential customers and partners to Irish Client Companies (one to one basis)
- Bringing buyers to Ireland to meet Irish client companies
- Organising Trade Fairs as well as arranging individual selling/marketing itineraries
- Implementing market profiles, study tours and inward / outward learning missions
- Promoting Ireland as a source of high quality products and services
- Providing on-the-ground support to companies in order to internationalise businesses
- Assisting the development of company networks and sector clusters
- Facilitating links for client companies with global companies for technology and intellectual property exchange.

The important point is that all of the above support is provided **only** to small and large companies in the identified growth sectors and those who are seeking to internationalise. Financial, technical and human resources can and is also provided but recipient companies must make a financial contribution.
The current success of the Irish Economy and in particular its export performance is founded on education and skills and the innovation and energy of people (individual risk-takers, entrepreneurs and the employees of growth companies). Similarly, the economic success of the last three decades is based on the commitment of those people providing business advice and support in the target sectors, industry clusters and to individual companies.

Enterprise Ireland draws its 1000 staff from the widest skills and career base in the country. It also cultivates and trains not only its graduate entrants but all staff on annual basis, directly feeding new skills and human resources continuously into its own structure as well as indirectly into individual companies in growth sectors. The culture of the organisation is based on competitiveness, innovation, risk taking and team building. Few are from a traditional civil service background and many are from specialist technical backgrounds\textsuperscript{12}. The essential capacities are the ability to understand the needs of business, to provide practical assistance and, most important, to provide added value to the companies assisted.

Fundamentally, Ireland’s economic success has been through continued, complementary partnership between the public and the private sector. The beneficiaries have been the Irish people. For the first time in 200 years, descendants of those who previously left the country are now returning to live and work; there is now a net in-migration\textsuperscript{13}.

The Irish story (so far) provides food for thought for other similar countries seeking to develop long-term sustainable economies in an increasingly competitive market place. It is not that Armenia should copy all that Ireland has done or is doing, for the external and internal circumstances and culture of Armenia are different.

But the example set by Ireland is worth understanding. What has been achieved has taken more than 30 years. Over that period, it has required the dedication of many to understand the country’s real economic strengths and weaknesses. It has then required common purpose and committed partnerships and the ability to focus and develop practical economic and social programmes with the necessary priority and enough resources. It also has required, as Ireland has clearly shown, the ability to be adaptive to changing circumstances and, despite mistakes, to always learn lessons, thus to remain confident in the ability to succeed.

\textsuperscript{1} In the 1960 Ireland was over dependent on the UK; representing 60\% of all export trade and the supply low paid migrant unskilled workers. In 2006, UK represented only 17\% of Irish export trade.
\textsuperscript{2} IDC, Gartner and Forrester.
\textsuperscript{3} GEM Report.
\textsuperscript{4} Economist Intelligence Unit.
\textsuperscript{5} IMD World Competitiveness Year Book, 2006.
\textsuperscript{6} National Development Plan 2000-2006.
\textsuperscript{7} BSL (2000) “What can the Irish Teach Us?”.
\textsuperscript{8} Tax relief on profits earned in Ireland and allowing repatriation of such profits, employment grants and assistance with machinery and related infrastructure costs.
\textsuperscript{9} The identification of global growth sectors and also the development of sector cluster approach.
\textsuperscript{10} Fiscal consolidation and reduction of deficit of –2.5 \% to surplus of 3.75\% in 1995; lowering of effective personal and corporation taxes the latter from 38\% to 24\% and increase of personal allowances.
\textsuperscript{11} See Enterprise Ireland Strategic Development Plan 2008-12.
\textsuperscript{12} Marketing, research IT, software, health care, industrial relations, finance, banking, engineering etc.
\textsuperscript{13} The enlargement of the EU has of course encouraged also migration from countries such as Poland, Hungary, and many other eastern European countries. These migrants mostly seek to return home one day. The in migration of those young people of Irish descent, from USA, Australia is the true testament to the economic success of Ireland.
As far as Ireland's absolute and relative economic performance is concerned, the period since the early to mid 1990’s has been unique and exceptional against almost any economic benchmark one could care to use. An economy described by the Economist magazine as “the poorest of the rich” in 1988 was transformed in the words of the same publication to “Europe's shining light” by 1997. Irish living standards (GNP per capita) that fluctuated between 58% and 65% of EU-15 levels over the period 1960 to 1990 climbed steadily over the following decade to surpass 100% by 2000. The extent of the transformation, strictly from an Irish economic history perspective, is evident from Table 1, where the strong growth rates of output, living standards (GDP/cap), employment, productivity (GDP/worker) and the employment-population ratio contrast starkly between the pre and post 1993 sub-periods.

Table 1: Irish Average Annual Growth Rates of Real GDP, Population, Living Standards, Employment and Productivity: 1926-2005 (%).

<table>
<thead>
<tr>
<th>Period</th>
<th>GDP</th>
<th>Population</th>
<th>GDP/capita</th>
<th>Employment</th>
<th>GDP/worker</th>
<th>Empl/ Pop ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926-47</td>
<td>0.9</td>
<td>0.0</td>
<td>0.9</td>
<td>0.0</td>
<td>0.9</td>
<td>0.0</td>
</tr>
<tr>
<td>1947-60</td>
<td>2.3</td>
<td>-0.4</td>
<td>2.7</td>
<td>-1.3</td>
<td>3.6</td>
<td>-0.9</td>
</tr>
<tr>
<td>1960-80</td>
<td>4.1</td>
<td>0.9</td>
<td>3.1</td>
<td>0.5</td>
<td>3.5</td>
<td>-0.4</td>
</tr>
<tr>
<td>1980-93</td>
<td>3.3</td>
<td>0.4</td>
<td>2.9</td>
<td>0.0</td>
<td>3.3</td>
<td>-0.4</td>
</tr>
<tr>
<td>1993-00</td>
<td>8.3</td>
<td>0.8</td>
<td>7.4</td>
<td>4.7</td>
<td>3.5</td>
<td>3.8</td>
</tr>
<tr>
<td>2000-05</td>
<td>5.2^</td>
<td>1.7^</td>
<td>3.4^</td>
<td>3.0~</td>
<td>2.2^</td>
<td>—</td>
</tr>
</tbody>
</table>


An intriguing feature of Ireland’s metamorphosis from a surplus-labour economy with a chronic shortage of job opportunities to one of full employment and labour scarcity is the remarkably swiftness of the transformation. The ‘jobless growth’ problem had finally been solved. The extraordinary change of fortune earned the country the enviable designation of the Celtic Tiger reminiscent of the East Asian Tigers of Hong Kong, Singapore and South Korea, so called because of their rapid economic growth of the 1980s and 1990s.

A breadth of analysis has focussed on identifying the root causes of the emergence of the Tiger and there are grounds to believe that it may be attributed to catch-up or convergence reasons, restructuring and adjustment, business cycle explanations or development in the Schumpeterian tradition where innovation, entrepreneurship and availability of credit give rise to economic transformation. While there is lack of consensus on the ‘cause’ of the process that gave birth to the Tiger, a set of factors are considered to be among the explanations or rather preconditions which, when taken together, set the fertile context that explains how, if not precisely why in the sense of timing, the Celtic Tiger came about. These include:
• Enhancement of Ireland’s attractiveness as a location for subsidiaries of multinational businesses, particularly from the United States, seeking an export platform into European markets. (The US Bureau of Economic Analysis reports that the percentage rate of return of US subsidiaries in Ireland between 1995 and 2002 was 20.1% (and it was 25% throughout the 1990s), highest among a set of benchmark EU countries). The main multinational players are found in the electronics, pharmaceutical and financial services sectors.

• Availability of skilled, educated and English-speaking labour at competitive wage rates within an open labour market

• Macroeconomic stabilisation including reduced inflationary pressures, credible commitment to monetary stabilization, replacement of competitiveness through exchange rate devaluations by national wage agreements, lower taxes and a social consensus model of wage determination

• Adoption of a more business friendly culture evident in some initial steps towards acceptance of the need for incentives and rewards for entrepreneurial risk taking and inventiveness.

If one considers more of the potential underlying reasons, factors with longer-term explanatory power include the emphasis on outward orientation of industrial policy outlined in Economic Development (known as the Whitaker Report) published in 1958. This was the first unified policy programme which laid out the policies deemed necessary for economic growth i.e. further industrialization that could only be ensured through targeting export markets, which entailed a reorientation of the Irish development strategy away from a highly protectionist import substitution and infant industry policy to an export-oriented trade policy with foreign direct investment (FDI) playing a central role. The establishment of the Industrial Development Authority in 1949 was a key early element in Ireland’s FDI promotion phase. The aim of the export-oriented trade policy was to use imported private capital and technology to establish an extensive and sophisticated industrial base, having a high export to sales ratio (to minimize competition for domestic market shares with local firms), which would absorb some of the surplus labour, reduce emigration, utilize natural resources more efficiently, augment capital formation, stimulate economic growth, diversify merchandise exports ….. to provide the impetus for the transformation of the Irish economy from its excessive reliance on the agriculture … sector to a more vigorous and expanding industrial base (O’Sullivan, 1995: 140).

Particular sectors were targeted for foreign investment particularly electronics, pharmaceuticals and medical devices. Irish industrialization was late relative to other industrialized countries and the reorientation away from primary products towards manufactures became apparent only from the 1960s onwards. Industrial and trade policies were inextricably linked as a result, as the focus successfully supported a switch from traditional exports from the agriculture sector to exports from the industrializing sector.

A decisively outward orientation of industrial policy is evident in the introduction of an Export Profits Tax Relief (EPTR) in 1956 which was extended in 1958 to exempt 100% of profits derived from exports from taxation. The 1932 Control of Manufactures Act was repealed in 1964, which removed remaining restrictions on foreign direct investment in Ireland. Capital grants to companies producing for export, whether foreign or indigenous, was another business support facilitating production for external markets. Financial supports were also made available to companies willing to restructure to compete with imports. Although outward policies were consistent, it is fair to say they were introduced slowly and steadily. Entry into the European Community in 1973 is further evidence of Ireland’s outward orientation.

In the late 1980s and early 1990s Ireland became one of the main locations preferred for inward direct investment in the European Community, particularly for high-technology electronics firms. Leading international firms were attracted into Ireland including Ericsson, Hewlett Packard, Motorola, Siemens, etc. The success of the IDA in attracting the firms of Intel and Microsoft to invest in Irish plants and the subsequent success of these firms’ operations in Ireland generated ‘demonstration effects’ that essentially proved that Ireland was a competitive international location in these sectors and created a record of performance in which other firms had confidence. Initial successes generated further successes in FDI terms. The establishment of the Irish Financial Services Centre in Dublin in 1987 was one key success story which enhanced Ireland’s outward orientation, generated substantial employment and exchequer revenues.
Despite an expansion in the share of foreign operations operating in Ireland, in the manufacturing sector in particular, the 1980s were far from successful as Irish-owned companies experienced significant competitive difficulties. Even into the Celtic Tiger phase of development, a distinct difference in the productivity performance of Irish-owned and foreign-owned plants is evident and generates substantial debate about the extent of linkages between international and domestic businesses and the sustainability of Irish productivity in the future.3

Table 2 presents ratios of Ireland’s performance relative to other countries in terms of trade and investment which indicate the importance of openness in Irish economic performance and development.

Table 2: Trade and Investment Openness: % of GDP, 1970-2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium/Luxembourg</td>
<td>45.5</td>
<td>56.9</td>
<td>60.9</td>
<td>66.2</td>
</tr>
<tr>
<td>France</td>
<td>13.0</td>
<td>18.9</td>
<td>18.9</td>
<td>23.0</td>
</tr>
<tr>
<td>Germany</td>
<td>17.4</td>
<td>23.5</td>
<td>25.1</td>
<td>28.0</td>
</tr>
<tr>
<td>Italy</td>
<td>13.1</td>
<td>19.9</td>
<td>16.1</td>
<td>22.1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>42.8</td>
<td>50.4</td>
<td>45.5</td>
<td>55.7</td>
</tr>
<tr>
<td>Denmark</td>
<td>24.0</td>
<td>26.6</td>
<td>25.3</td>
<td>28.7</td>
</tr>
<tr>
<td>Ireland</td>
<td>33.8</td>
<td>48.7</td>
<td>48.8</td>
<td>67.8</td>
</tr>
<tr>
<td>UK</td>
<td>16.7</td>
<td>21.0</td>
<td>21.0</td>
<td>21.8</td>
</tr>
<tr>
<td>USA</td>
<td>4.2</td>
<td>8.9</td>
<td>8.2</td>
<td>10.3</td>
</tr>
</tbody>
</table>

As might be expected, the smaller countries in the table exhibit greater trade openness, but Ireland’s performance stands out. Ireland’s relatively low ratio in investment openness may appear surprising but until relatively recently – the last decade or so - no outward FDI occurred. Most investment in merchan-
dise goods lead to production for Ireland's export markets and much of the productive inputs must be imported, hence the strong relationship between Ireland's performance in terms of trade and investment openness.

Ireland’s success in attracting FDI from the US, in particular, appears to be an important component in the Celtic Tiger development phase. Table 3 indicates that Ireland’s share of US FDI (to Europe) is nothing short of exceptional given the small size of the Irish economy. The attractiveness of Ireland for US FDI in electronics is pronounced.

**Table 3: Manufacturing FDI to Ireland as a Share of European FDI from the US, 1994-2003**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>8</td>
<td>3</td>
<td>11</td>
<td>14</td>
<td>12</td>
<td>8</td>
<td>13</td>
<td>6</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td>Electronics</td>
<td>8</td>
<td>5</td>
<td>18</td>
<td>40</td>
<td>54</td>
<td>13</td>
<td>11</td>
<td>-2</td>
<td>93</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: Ruane and Ugur (2005) Table 7.7.

1 This figure is negative as the net flow in electronics FDI was negative.

A further long-term cause of Ireland’s recent growth spurt includes the introduction of free universal secondary level education in 1968. So although older Irish workers are not particularly well educated by international and Western European standards, approximately 35% of younger cohorts (25-34) have some third level education which compares well to the EU average of 26%.

A traditionally low level of female labour force participation effectively created a pool of untapped resources which was available to meet expanding demand over the Celtic Tiger period. The female participation rate increased substantially throughout the 1980s and 1990s (from 43% in 1990 to 58% by 2003) but this remains well below OECD average rates. The increased rates are largely due to higher participation of married females in the workforce, in particular those with children.

Hence, rather than there existing any single identifiable ultimate cause of the process that resulted in the Celtic Tiger, there is evidence of what Myrdal described as a process of *cumulative and circular causation* in the sense that each of the above reasons can reasonably provide an element of explanation of positively reinforcing effects that together help us understand how the Celtic Tiger emerged. What we cannot explain is what caused all the elements to generate such a positive outcome at that precise point in time, however.

A key issue for Ireland in today is how to capitalize on the dramatic economic transformation so that the Celtic Tiger phase is not simply catch-up potential that has been exhausted, but is a springboard for ongoing economic development. Recent rankings from *The Global Competitiveness Report* reveal some issues of potential relevance. In the most recent Report, Ireland maintained its 21st position in the main ranking on the Global Competitiveness Index (GCI) and Ireland’s scores for the main sub-components in the Index (Basic Requirements, Efficiency Enhancers and Innovation Factors) are presented in Table 4 across the nine ‘competitiveness pillars’ that underpin the Index.

Despite, or perhaps in spite of, the phenomenal recent achievements in economic growth, the infrastructural deficit evident across all types of national infrastructure has failed to close and years of under-investment still requires substantial additional funding to reach international standards.
Table 4: Global Competitiveness Index and Sub-indices, Ireland: 2006.

<table>
<thead>
<tr>
<th>GCI (RANK)</th>
<th>BASIC REQUIREMENTS</th>
<th>Infrastructure (rank)</th>
<th>Macroeconomy (rank)</th>
<th>Health/primary education (rank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Institutions</td>
<td>23</td>
<td>17</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>REQUIREMENTS</td>
<td></td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFFICIENCY ENHANCERS</td>
<td>Higher education and training (rank)</td>
<td>18</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Market efficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technological</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>readiness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>INNOVATION FACTORS</td>
<td>Business sophistication (rank)</td>
<td>Innovation (rank)</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Innovation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


From a business perspective, Ireland’s ranking on the complementary Business Competitiveness Index (BCI) is also of interest as it is a useful relative indicator of competitive strengths and weaknesses of businesses operating in the local environment.

Table 5: Business Competitiveness Index and Sub-indices, Ireland: 2001-2006.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BCI</td>
<td>22</td>
<td>21</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>QBE*</td>
<td>23</td>
<td>21</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Soph.^</td>
<td>17</td>
<td>16</td>
<td>21</td>
<td>17</td>
<td>16</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: Table 1 Chapter 1.1 in The Global Competitiveness Report 2006-7, Palgrave Macmillan.

*QBE denotes Quality of the Business Environment

^Soph. Denotes the sophistication of company operations and strategy.

In 2006, those competitive disadvantages identified as most severely limiting the performance of business and which must be addressed to improve the rankings were reported as Inadequate supply of infrastructure, Inefficient government bureaucracy, Restrictive labour regulations and Inflation.

In 2006, specific weaknesses identified from analysis of company operations and strategy are presented below, followed with the top 3 performers in each category:

- Control of international distribution and marketing (Ireland rank 50): Japan, France and Switzerland
- Prevalence of foreign technology licensing (Ireland rank 31): India, Singapore and the Netherlands
- Capacity for innovation – the extent to which companies conduct formal research and pioneer their own new products and processes (Ireland rank 21): Germany, Japan and Sweden.

These causes for concern might more usefully be interpreted as directions to be targeted by policymakers (both business and public) and as signals for required changes to increase the likelihood that Ireland’s competitive potential might be enhanced and improved. However, there are some signs that the fundamental character of the economy is undergoing some change. For example, while inward Foreign Direct
Investment (FDI) has been acknowledged as a key ingredient in the Irish success story. Irish latest data on outward FDI (from 2004) indicates that overseas investment by Irish companies reached its highest level ever (of €12.7 bn) and Ireland has become a net contributor for investment flows (when excluding those investments in property and real estate). US Department of Commerce figures also show that the gap between the figures of US company employees in Ireland at 100,000 while still larger than the figure for Irish company employees in the US of 65,000 is closing. While it would be too soon, and perhaps naïve, to think in terms of an international invasion by the Celtic Tiger the increasing internationalization of Irish firms in terms of trade, market penetration, international localization and business development broadly-defined, appears to be more than a blip in the economic landscape. The probability of continuation of these trends, however, and the factors that will determine them are open to debate.

Furthermore, as with any phase of economic development, some regions inevitably grew faster or slower than the national average. Using living standards data, it appears that income dispersion has increased in the period from 1993 to 2002 (the last year for which regional data are available) and the rate of dispersion increased between 1999 and 2002. This has largely been driven by labour productivity differences. Despite the policy interest in dispersing economic activity away from the major growth centre of the Irish capital city of Dublin due to its high land values and growing congestion, evident in the National Spatial Strategy announced in 2002, there appears to be no political appetite to implement it. Centralized political governance in Dublin and no real local government power also hinders any significant regional development. A new mindset towards economic development and the role of regional development would be required to bring about a more balanced economic landscape but the signals to indicate any such development are lacking to date, at least.

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1 Fanning, C. and Murphy, C. (2002).
2 See Figure 77 in the annual Irish Competitiveness Report, 2006.
3 An interesting survey of international literature by Bellak (2004) on performance differences across domestic and foreign firms indicates that performance gaps disappear between these two categories of firms when firm and industry characteristics are controlled for. Where such differences do persist, multi-nationality rather than foreign ownership appears as an explanatory variable.
4 See Gallagher, Doyle and O’Leary (2002).
5 O’Leary (2002/3).
ANNEXES
ANNEX 1. What is Competitiveness and Why is it Important?

The tendency to compete is in human nature, and we live in a world where competition is one of the main ways of interaction between nations, firms and humans. They compete for attaining more advantages or victories, more power and stronger leverages, more market share or profits, better living conditions and higher levels of development. In this day and age, with increasingly higher levels of factor mobility, technological development and wider and faster communication, competition becomes more and more intense and complex. And so, the notion of “competitiveness” becomes highly important and is widely used and interpreted.

The very basic and simple explanation to “what is competitiveness?” includes in itself a key for more comprehensive understanding of the notion - competitiveness is the ability to compete, i.e. to attain and sustain more advantages and victories against others. The word “ability” is the key for understanding the notion and for avoiding misinterpretation.

There has been much fuzzy thinking about competitiveness and the term is used in many ways. So it is important to first take a minute and understand what one is talking about. Competitiveness is not simply about having a positive trade balance. It does not help a country to export more if it does so at the expense of its own standard of living.

Some associate the competitiveness of a nation with abundant and/or cheap endowment factors and labor force, and favorable geographic location. They tend to relate competitiveness to outsourcing or relocation of manufacturing production units of multinational corporations (MNCs) as a result of cheap endowment factors, labor force, and devaluated currency; or to growing export shares of raw materials, basic commodities and low-tech products. Driven by this, governments can heavily subsidize exporters, provide favorable tax treatments or holidays, and remove duties to boost international competitiveness of the domestic companies in the global market based on low prices of basic goods and/or commodities.

Competitiveness is not about having abundant natural resources. Although many countries are currently benefiting from higher prices for oil and other natural resources, the long term trend in natural resource prices has been downwards. Most countries relying primarily on natural resources for their wealth have not gotten richer over time. It is good to have abundant natural resources, but these have often been a curse rather than a blessing.

Competitiveness is also not about having cheap labor. It is incorrect to say that a country is competitive because its labor force is willing to work for lower rates. Competitive countries have high wage levels. Uncompetitive countries have low wage or declining wage levels. This is because in a globalized economy competing on the price of labor means competing with very low cost labor in countries such as China and Indonesia.

Some speak of competitiveness relative to the exchange rate of the national currency. The way to achieve competitiveness in the long-run is not merely to depreciate the currency. Still others speak of the need for competitiveness as a justification for government protection or subsidies. While both provide temporary satisfaction to some businesses, neither are long term sources of competitiveness.

However, this approach makes domestic companies more reluctant to building their competitive edge versus international peers, and over the long-run requires more subsidies and even payroll cuts to sustain the current level of export volumes. It makes countries to compete in keeping their resources and labor force cheaper as much and as long as possible. In other words, it leads to a situation where countries compete “to see which country can stay the poorest the longest” (Fairbanks, 2000), thus, failing to produce prosperity for citizens and to create grounds for technological development. And so, comparative advantages such as abundant raw materials or cheap labor force can not guarantee competitiveness of a nation in long-run. They “began to erode and competitive advantages changed rapidly” (Mytelka et al., 2004; Ernst et al., 1998).
The overall productivity of the economy can be boosted by utilizing more of its labor force—something that Ireland has done to great effect. Beyond this, it is important to boost the productivity of the average worker. Productivity can be boosted by efficiency and this is often called operational productivity. Productivity can also be boosted by the strategic choices made by businesses as to where and how to compete. This is often called strategic productivity. If a company can change a product slightly or sell it in a different country and double its price, it has effectively increased its productivity by making astute strategic decisions. If a company makes a joint venture with an international firm resulting in better technology, better training and access to new markets, it has boosted productivity by making good strategic choices. If a government improves the business environment, enhances the efficiency of its infrastructure and reduces transaction costs and red tape, this also increases productivity.

Competitiveness involves increasing efficiency as well as innovation. Competitiveness drives global technological development and global value creation, and, hence, it creates better frameworks for cooperation.

Dr. Porter and other researchers have noted that competitiveness is often associated with the development of industry clusters. Over time, a number of companies develop supported by related and supporting industries. Silicon Valley is associated with the IT industry. Northern Italy is associated with high end clothing and footwear. By creating an excellent business environment, governments can help create a national platform for the emergence of competitive industry clusters.

Competitiveness, thus, is more about a nation’s ability than its resource endowments. It is about the nation’s ability to create a system or an environment which enables firms and citizens to utilize nation’s resources and factors productively or effectively and efficiently. It is about the ability of the nation, its firms and citizens to design, adopt and implement sophisticated operations and strategies which allow effective and efficient utilization of available resources and factors. In other words, competitiveness is about the ability to be productive.

Stable macroeconomic environment, abundant endowment factors and geographic location are necessary, but not sufficient conditions for the competitiveness of a given nation, since “prosperity is not inherited, it is created” by the strategic choices the companies of a particular nation make (Porter, 1990). The macroeconomic stability will enable the individual companies to operate in a predictable environment, and the abundance of raw materials or basic commodities will provide quick access to necessary inputs. The productivity by which the company utilizes the available resources and networks, etc. based on sophisticated operations and strategies adopted, depends on the quality of the national business environment that fuels the competitiveness of the private sector to create prosperity for the citizens of a particular country (Porter, 1990). Therefore, only the co-existence of both stable macro and microeconomic foundations will enable a company to constantly undertake innovations (new product design; production process; marketing approach, etc.) and sustain this competitive advantage through upgrading (better product quality) (Porter, 1990).

The competitive companies managing to survive tough local competition tend to export much. The globally competitive, “sophisticated” (productive) companies create unique and sophisticated products, invest in learning foreign customers’ preferences and in training and retaining a skilled workforce, are integrated into global market, use modern marketing tools extensively and control the international distribution channel of their products and services (Fairbanks, 2000; Porter 1990, Sala-i-Martin et al., 2004). The growing export earnings of these “sophisticated” (productive) companies provide higher returns on “productive investments” and create wealth for the nation they are located in. The urge to reach highest international standards and to adopt most up-to-date technologies leads to innovation and continuous and sustainable development.

Thus, competitiveness is about creating prosperity for the citizens of a particular country and about sustaining grounds for future development. It enables an improvement in the well being of “average citizens”, and is a unique toolkit for economic development that all members of the society will benefit of.
The aspiration of competitive nations and/or firms for innovation and continuous development, as well as for being competitive globally, in its turn, enhances international competition, and leads to rising international standards, upgrading product and service quality, and contributes to technological development in the world. Thus, competitiveness is about contribution to global technological development and participation in global value chain creation.

Selected definitions of competitiveness

Competitiveness is determined by the productivity with which a nation, region, or cluster uses its human, capital, and natural resources. Productivity sets a nation’s or region’s standard of living (wages, returns on capital, returns on natural resources).

Michael Porter (1990, 1998)

National competitiveness is that set of factors, policies, and institutions which determine the level of productivity of a country. Raising productivity—i.e., making better use of available factors and resources—is the driving force behind the rates of return on investment which, in turn, determine the aggregate growth rates of an economy. Thus, a more competitive economy will be one which will likely grow faster in the medium and long term.


Competitiveness is the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the sustainable level of prosperity that can be earned by an economy. In other words, more competitive economies tend to be able to produce higher levels of income for their citizens. The productivity level also determines the rates of return obtained by investments in an economy. Because the rates of return are the fundamental determinants of the growth rates of the economy, a more competitive economy is one that is likely to grow faster over the medium to long run.

World Economic Forum (2007)

A nation’s competitiveness can be defined as a nation’s relative competitive position in the international market among the nations of similar economic development.

Moon and Cho (2000)

A nation’s competitiveness is the degree to which it can, under free and fair market conditions, produce goods and services that meet the test of the international markets while simultaneously expanding the real incomes of its citizens. Competitiveness at the national level is based on the superior productivity performance.

The Report of the President’s Commission on Competitiveness, written for Reagan administration (1984)

National competitiveness refers to a country’s ability to create, produce, distribute goods and/or service products in international trade while earning rising returns on its resources.

Scott and Lodge (1985)
ANNEX 2. Additional Details on WEF Methodology

Global Competitiveness Index (GCI)

According to WEF methodology, three stages of economic development are defined (see Figure 1). In the first stage of development (resource-driven stage), the competition is based on the availability of abundant natural resources, cheap labor force, etc.; companies produce low value-added goods (basic commodities, unsophisticated goods); the share of extractive industry commodities in merchandise export comprises a very high percentage; the competition is based on low cost reflecting the low level of productivity of the particular nation. To stay competitive over the long-run, the countries in this stage of development need to boost the efficiency of institutions (Pillar 1), modernize the physical and air infrastructures (Pillar 2); increase the stability of the macroeconomic conditions (Pillar 3); and invest in the health and primary education of the workforce to be able to provide the functionality of the whole economy (Pillar 4) (see Figure 2).

Figure 1: The Three Stages of Development


Figure 2: The Twelve Pillars of Competitiveness

As the countries advance, they move into the second stage of development (efficiency-driven stage). In this stage, companies need to modernize the production processes, invest in the training of the workforce to upgrade the skills to produce high-quality goods and services. To maintain the competitiveness over the long-run, the companies need: to rely on the high quality of the higher education system that produces the graduates to be hired by the private sector (Pillar 5); a competitive environment urging enterprises to keep customers needs first (Pillar 6); a flexible labor-market regulation (Pillar 7); well-functioning and sophisticated financial markets to get access to funding to modernize production processes and upgrade the quality of products (Pillar 8); the ability to adopt new technologies (Pillar 9); and large foreign markets as an untapped potential to reach sophisticated consumers worldwide (Pillar 10).

In the third stage of development (innovation-driven stage), the private sector needs to sustain the high living standards and rising wages by boosting the productivity through heavily investing in R&D to market innovative high value-added, knowledge-intensive products and services (Pillar 12) along with upgrading the level of sophistication of business processes and strategies (Pillar 11).

Depending on the stage of development, different weights are assigned to the pillars for each stage. Higher weights are assigned to pillars that are crucial for the countries in each development stage (See Table 1).

### Table 1: Weights of the Three Main Groups of Pillars at Each Stage of Development

<table>
<thead>
<tr>
<th>Stage</th>
<th>Basic requirements</th>
<th>Efficiency enhancers</th>
<th>Innovation and sophistication factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-driven stage</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>Efficiency-driven stage</td>
<td>35%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Innovation-driven stage</td>
<td>5%</td>
<td>10%</td>
<td>30%</td>
</tr>
</tbody>
</table>


The classification of countries by stages of development is done based on two criteria: GDP per capita at market prices as a proxy of wages (see Table 2); and the share of exports of primary goods in total exports as a proxy of “extent to which countries are factor driven” (WEF, 2007). If the country exports of primary goods exceed 70% of the total exports, the given economy is considered as a largely resource-driven nation. The countries that fall in between two stages are considered to be in a “transition period”, and weights of pillars differ as the nations advance. The list of countries that are placed in each development stage is provided in Table 3.

### Table 2: Income Thresholds for Establishing Stages of Development

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>GDP per capita (in US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1: Factor-driven</td>
<td>&lt;2,000</td>
</tr>
<tr>
<td>Transition from Stage 1 to Stage 2</td>
<td>2,000–3,000</td>
</tr>
<tr>
<td>Stage 2: Efficiency-driven</td>
<td>3,000–9,000</td>
</tr>
<tr>
<td>Transition from Stage 2 to Stage 3</td>
<td>9,000–17,000</td>
</tr>
<tr>
<td>Stage 3: Innovation-driven</td>
<td>&gt;17,000</td>
</tr>
</tbody>
</table>


The Global Competitiveness Index is calculated based on hard data and soft data. 73 of the 110 variables used in calculating the GCI index come from the Executive Opinion survey conducted by WEF’s partner institutes among leading domestic and foreign companies operating within the borders of a given country/economy. WEF Global Competitiveness Network’s partner institute in Armenia is the Economy and Values Research Center. The remaining variables comprise statistical data published by the World Bank, International Monetary Fund, International Telecommunication Union, Economist Intelligent Unit, National Statistical Sources, United States Patent and Trademark Office, World Trade Organization, International Labor Organization, UNESCO Institute for Statistics, etc. For calculating soft variables, moving average techniques were applied (weighted average of 2007 and 2006 survey results).
<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Transition from 1 to 2</th>
<th>Stage 2</th>
<th>Transition from 2 to 3</th>
<th>Stage 3</th>
</tr>
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<td>Armenia</td>
<td>Albania</td>
<td>Algeria</td>
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<td>Australia</td>
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<td>Argentina</td>
<td>Barbados</td>
<td>Austria</td>
</tr>
<tr>
<td>Benin</td>
<td>Bosnia and Herzegovina</td>
<td>Brazil</td>
<td>Croatia</td>
<td>Belgium</td>
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<tr>
<td>GDP growth, %</td>
<td>-11.7</td>
<td>-41.8</td>
<td>-8.8</td>
<td>5.4</td>
<td>6.9</td>
<td>5.9</td>
<td>3.3</td>
<td>7.3</td>
<td>3.3</td>
<td>5.9</td>
<td>9.6</td>
<td>13.2</td>
<td>14.0</td>
<td>10.5</td>
<td>14.0</td>
<td>13.4</td>
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<td>Wages, monthly average, USD</td>
<td>_</td>
<td>7.2</td>
<td>7.0</td>
<td>5.9</td>
<td>17.4</td>
<td>22.9</td>
<td>24.2</td>
<td>30.6</td>
<td>35.2</td>
<td>40.2</td>
<td>43.8</td>
<td>47.5</td>
<td>58.8</td>
<td>81.4</td>
<td>113.7</td>
<td>154.5</td>
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<td>Inflation, CPI change (average)</td>
<td>174</td>
<td>729</td>
<td>1823</td>
<td>4962</td>
<td>176</td>
<td>14.0</td>
<td>8.7</td>
<td>0.6</td>
<td>-0.8</td>
<td>3.1</td>
<td>1.1</td>
<td>4.7</td>
<td>7.0</td>
<td>0.6</td>
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<td>Inflation, CPI change (end of period)</td>
<td>204</td>
<td>1240</td>
<td>10996</td>
<td>1762</td>
<td>32.2</td>
<td>5.5</td>
<td>21.8</td>
<td>-1.3</td>
<td>2.0</td>
<td>0.4</td>
<td>2.9</td>
<td>2.0</td>
<td>8.6</td>
<td>2.0</td>
<td>-0.2</td>
<td>5.2</td>
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<td>Nominal exchange rate AMD/USD, average</td>
<td>_</td>
<td>193.1</td>
<td>1733.2</td>
<td>297.74</td>
<td>405.88</td>
<td>413.44</td>
<td>490.77</td>
<td>504.89</td>
<td>535.06</td>
<td>539.52</td>
<td>555.07</td>
<td>573.35</td>
<td>578.77</td>
<td>533.45</td>
<td>457.69</td>
<td>416.04</td>
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<td>Real effective exchange rate, 1997=100</td>
<td>100</td>
<td>107.4</td>
<td>112.3</td>
<td>111.9</td>
<td>108.0</td>
<td>98.4</td>
<td>88.4</td>
<td>91.4</td>
<td>99.6</td>
<td>106.3</td>
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<td>Export growth, USD, nominal, %</td>
<td>-24.4</td>
<td>37.9</td>
<td>25.8</td>
<td>7.2</td>
<td>-19.9</td>
<td>-5.1</td>
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Source: NSS, various publications
### ANNEX 4. Prioritization Filter Methodology and Application

The list of factors employed by GCR was used to develop the “populace” of possible areas of intervention. The list is quite comprehensive and reflects the experience of the World Economic Forum and its academic contributors of assessing different economies during almost 40 years. The list served for ACR as a base, however, adjusted to address the country’s specifics. From the list we identified the factors that comprise competitive disadvantages for Armenia. We also added specific interpretation (sometimes paraphrased) to some factors taking into account the mentioned specifics as well as the opportunity to formulate concrete actions to alleviate the competitive disadvantage that a certain factor presents. Thus, we identified and assessed 84 factors spanning from broad macroeconomic to specific management issues at company level. The assessment has been done using four criteria: resource constraints, competence gap, time horizon and spillover effect. We used 1-5 rating scale and adjusted with corresponding weights for each factor to derive the total weight. The factors that received higher than 3.5 total rate have been identified as quick wins. The table below shows the results of the assessments.

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</tr>
<tr>
<td>management</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Company spending on R&amp;D</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
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<tr>
<td>IP protection</td>
<td>4</td>
<td>0.8</td>
<td>3</td>
<td>0.6</td>
<td>2</td>
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<tr>
<td>State procurement of</td>
<td>2</td>
<td>0.4</td>
<td>3</td>
<td>0.6</td>
<td>5</td>
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<tr>
<td>technology products</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Quality of scientific</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
</tr>
<tr>
<td>research institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University/industry</td>
<td>3</td>
<td>0.6</td>
<td>2</td>
<td>0.4</td>
<td>3</td>
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<tr>
<td>research collaboration</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Availability of</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
</tr>
<tr>
<td>scientists and engineers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utility patents</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
</tr>
<tr>
<td>Capacity for innovation</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
<td>0.4</td>
<td>2</td>
</tr>
</tbody>
</table>

| Capacity for innovation   | 2 | 0.4 | 2   | 0.4 | 2   | 0.7 | 5   | 1.3 | 2.8 | no  |    |
### Rating Explanations

**Resource Constraints**

<table>
<thead>
<tr>
<th>Rate</th>
<th>Meaning of the Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Full availability of resources to combat the disadvantage</td>
</tr>
<tr>
<td>4</td>
<td>Wide availability of resources to combat the disadvantage</td>
</tr>
<tr>
<td>3</td>
<td>Partial availability of resources to combat the disadvantage</td>
</tr>
<tr>
<td>2</td>
<td>Very limited availability of resources to combat the disadvantage</td>
</tr>
<tr>
<td>1</td>
<td>Total unavailability of resources to combat the disadvantage</td>
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</tbody>
</table>

**Competence Gap**

<table>
<thead>
<tr>
<th>Rate</th>
<th>Meaning of the Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Competence is fully available for removing the disadvantage</td>
</tr>
<tr>
<td>4</td>
<td>Competence is widely available for removing the disadvantage</td>
</tr>
<tr>
<td>3</td>
<td>Competence is partially available for removing the disadvantage</td>
</tr>
<tr>
<td>2</td>
<td>Competence is very limited for removing the disadvantage</td>
</tr>
<tr>
<td>1</td>
<td>Competence is totally unavailable for removing the disadvantage</td>
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</table>

**Time Span**

<table>
<thead>
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<th>Rate</th>
<th>Meaning of the Rate</th>
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</thead>
<tbody>
<tr>
<td>5</td>
<td>The disadvantage can be removed in 5 years</td>
</tr>
<tr>
<td>4</td>
<td>The disadvantage can significantly be removed in 5 years</td>
</tr>
<tr>
<td>3</td>
<td>The disadvantage can partially be removed in 5 years</td>
</tr>
<tr>
<td>2</td>
<td>The disadvantage can not significantly be removed in 5 years</td>
</tr>
<tr>
<td>1</td>
<td>The disadvantage can not be removed in 5 years at all</td>
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</tbody>
</table>

**Spillover Potential**

<table>
<thead>
<tr>
<th>Rate</th>
<th>Meaning of the Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Removal of disadvantage will have very big spillover effect on the entire economy</td>
</tr>
<tr>
<td>4</td>
<td>Removal of disadvantage will have big spillover effect on the entire economy</td>
</tr>
<tr>
<td>3</td>
<td>Removal of disadvantage will have limited spillover effect on the entire economy</td>
</tr>
<tr>
<td>2</td>
<td>Removal of disadvantage will have little spillover effect on the entire economy</td>
</tr>
<tr>
<td>1</td>
<td>Removal of disadvantage will have no spillover effect on the entire economy</td>
</tr>
</tbody>
</table>
References


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