2011-2012

NATIONAL COMPETITIVENESS REPORT OF ARMENIA

Agenda for Upgrading Management Practices

NATIONAL COMPETITIVENESS REPORT OF ARMENIA

2011/2012

CONTENTS

ACKNOWLEDGEMENTS

PREFACE

Tigran Sargsyan
Prime Minister of the Republic of Armenia

Dear reader,

The National Competitiveness Report of Armenia has its distinct role in the array of independent professional analyses dedicated to the key development issues of the Armenian economy.

Competitiveness is a multifactor phenomenon and its analysis requires application of specific methodological approaches, together with a comprehensive benchmarking with international practices. The approach applied in the report allows assessing Armenia's stance in the regional and global context, identifying the success factors and underlying reasons for significant drawbacks, as well as identifying the strategic options for economic policy.

The identified challenges highlight the urgency of improving competitiveness fundamentals of the economy. Based on this imperative the government of RA is currently undertaking a review of the economic policy accents. In addition to the efforts aimed at improving the macro and microenvironment of the economy, the government has initiated a more proactive and targeted economic growth policy. It implies a shift towards export oriented economic growth, setting more specific sector priorities, development of efficient PPP platforms and alignment of actions with the private sector. In this context it is especially vital for the private sector to increase its efforts towards improving competitiveness, in particular, the improvement of management practices, which is the central theme of the current report.

The report is by far the first attempt of the comprehensive assessment and comparative analysis of management practices in Armenia. The report brings forward the management practice improvement agenda and main directions for both public and private sectors in Armenia. We are hopeful, that the discussion of the proposed improvement directions, as well as other strategic issues laid out in the report will facilitate an efficient and informed dialogue between public and private sectors.

PREFACE

Nicholas Bloom
Associate Professor of Economics, Stanford University
Project Partner, World Management Survey

Management efficiency has become one of the central issues both in developing and developed countries. The World Management Survey spearheaded by a group academics at leading universities pioneered an initiative to actually measure management practices across countries. Since 2001 we have collected the first large-scale international management dataset, carrying out about 10,000 interviews across 20 countries. Our studies showed that management practices significantly vary across companies and countries and they explain large portions of differences in corporate performance.

We welcome the current issue of the National Competitiveness Report of Armenia which made a serious contribution to objective assessment of management practices in Armenia based on the methodology of the World Management Survey. This makes Armenia one of the few developing countries, where the measurement tool has been applied. It reflects the intellectual dynamism in the country.

It is especially encouraging that management practices have been analyzed in the context of the country competitiveness. This is an important peculiarity of the Report which not only assesses, but also puts forward a comprehensive agenda for improving management practices in the country. I am confident that the Report is well positioned to make a significant input in shaping of an intellectual platform for such an improvement.

EXECUTIVE SUMMARY

The competitiveness performance of Armenia steadily decreased since 2005, but reversed to the positive in 2011– reflecting structural shifts. This might be an early sign of drift towards a more balanced state of economic realities. The longer outlook of the Global Competitiveness Index dynamics reveals diverging trends in the economy, recording a "growth–competitiveness paradox" during the period prior to the economic crisis. The aggressive economic growth in the country was combined with a worsening competitiveness performance. The sharp decline in economic activity during the crisis period did not have similar reflections in the competitiveness ranking.

The economic crisis of 2009 smoothed the former aggressive growth of the economy and the aggregate growth of GDP per capita in the period of 2005–2011 totaled to a moderate 20%, positioning Armenia in average performance among the benchmark countries of CIS, Eastern Europe and the Middle East.

The dominance of sectors with lowest productivity in the GDP structure is contributing to the economic lag in Armenia. The top three most productive sectors in Armenia (financial intermediation, mining, and construction) account for just 9% of the total employment in the country. Whereas, exactly half of the labor force is concentrated in the three sectors with lower productivity levels.

The productivity growth in Armenia was led by growth of productivities of individual sectors as well as favorable relocation of economic activities towards sectors already achieved higher levels of productivity.

The real growth in the level of value added per employee in the economy comprised 17% during the period of 2005–2010. This change is attributed to three distinct effects:

- the static shift effect (responsible for +15% of change in total productivity) reflects the strong positive impact of the sectors with *higher levels of productivity* (as of the base year) expanding their share in employment.
- the dynamic shift effect (–8% change) indicates the failure of the economy to ensure the flow of employment to sectors with *high productivity growth*.
- the within shift effect (+10% change) reflects the general increase in productivity of individual sectors.

Since 2005 Armenia's rank in GCR by macroeconomic performance deteriorated significantly. Unfavorable developments in public finance and comparably high levels of inflation were the main contributors to this downgrade. Some other structural factors include:

- Still a large (however, improving) current account deficit maintained a key imbalance in the economy.
- The dependence on private transfers from abroad is persistent.
- The inequality in incomes and consumption levels is acute.

On a positive side, Armenia recorded impressive growth in investments, which may become a good ground for future growth. With the share of gross capital formation as a percentage of GDP, Armenia is among the leading countries in the world. However, the realization of this potential depends on the portfolio of current investments and areas of concentrations where the capital formation takes place at present.

During the past 5–6 years the economic policy underwent significant transformations in underlying logic.

- *Stage 1 (2005–2008) – Inertia***:** the public policies were concerned exclusively with creating a proper environment which was supposed to naturally lead to economic growth.
- *Stage 2 (2008–2010) – Firefighting:* the policy response to economic crisis was a mixture of traditional methods (such as easing monetary policy) and new ad hoc elements (such as financial support to individual companies).
- *Stage 3 (2010–2011) – Paradigm Shift:* a policy shift towards more proactive collaborative policy design and implementation. The cornerstones of the approach are PPP–platforms and sector–specific focus of initiatives spearheaded by the Export–led industrial policy.

The microeconomic fundamentals see gradual change in the country. Microenvironment became a policy focus with the launch of "second generation" reforms in Armenia. Reforms increased the efficiency of

administrative infrastructure, but tax and customs regulations still remain a stumbling block. Infrastructure improved steadily, though ground connectivity with key export markets remains unsolved. Armenia's advancement in mobile and internet connectivity is remarkable on a global scale.

A comprehensive study of management practices at Armenian companies identified significant gaps with the global best practice. The study based on the World Management Survey methodology carried out by EV Consulting at approximately 50 manufacturing companies assessed operational, target and talent management practices. Armenia lags behind the benchmarked 21 countries with an average score of 2.46 compared to the global average level of 2.99 and the benchmarked Ireland's level of 2.89. Its gaps with the best practices are larger in operations and target management, but substantially less in talent management where Armenia outperforms such countries as Argentina, Brazil, Greece and Portugal.

Structural factors explain the gap in management practices. Small company size, dominance of family–owned and –managed firms, shortcomings in managerial skills, imperfect competition, and weaker presence of MNC–s in Armenia are found to contribute to the underperformance of the Armenian firms on the global level.

There is a significant management–caused productivity gap between the local companies and the local MNC subsidiaries. The gap is caused by better practices in long–term strategic planning, its link to everyday operations, marketing, performance management, operations, HR and IT as well as corporate governance.

Management improvement is high return investment. Studies on management evaluation conducted in 21 countries demonstrated that 1 point improvement in management score results in 6% increase in productivity, 2.3% increase in sales growth, and 2.8% in return on capital employed.

The agenda for management practice upgrade in Armenia. Spreading better management practice in Armenia requires collaborative and synchronized efforts of both public and private sectors. In this context, a comprehensive conceptual framework is offered.
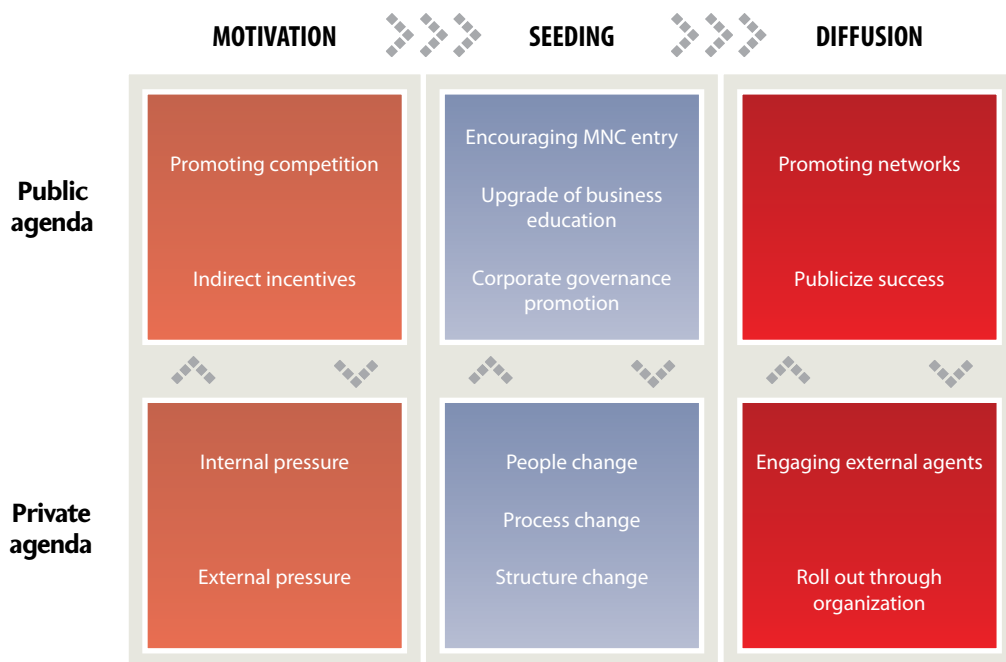
	MOTIVATION	SEEDING	DIFFUSION
Public agenda	Promoting competition / Indirect incentives	Encouraging MNC entry / Upgrade of business education / Corporate governance promotion	Promoting networks / Publicize success
Private agenda	Internal pressure / External pressure	People change / Process change / Structure change	Engaging external agents / Roll out through organization

Improvement in management practices is an evolutionary and long–term process. The success would be measured not by discrete metrics but rather by signals – early indications that we are on the right track. The most illustrative signals would be the change in the essence and nature of the dialogue that takes place between public and private sectors and within business community itself. One such illustrative signal might be when topics of productivity and efficiency, new management ideas dominate the discussions between public and private sectors.

INTRODUCTION

The current discourse between the public and private sectors in Armenia is heavily dominated by a few topics centered around regulatory environments, particularly tax and customs administration. These are critical issues, but the agenda and actions required for tackling them are largely straightforward. Action is required. Intellectual deliberations will not be very helpful.

The goal of the National Competitiveness Report of Armenia (ACR) 2011–2012 is to contribute to widening the agenda of that discourse. It strives to show the existence of issues fundamental to competitiveness such as productivity and management practice upgrade. National competitiveness eventually depends on the cumulative effect of every single company's productivity. Management practices are shown to play a decisive role for individual company productivity. For the first time, ACR makes the effort to estimate the management practices at Armenian companies and benchmark against global best practice. The Report shows the gaps, analyzes the causes and sets agenda questions for public and private sectors to address the identified issues. Very frequently, explaining low competitiveness only by the flaws in the business environment is a sign of externalization of essentially internal problems. ACR 2011/12 attempts to show that some of the fundamental constraints to productivity growth are ingrained in internal practices of companies, and the upgrade of the private sector itself is a critical challenge.

ACR looks at Armenia's competitiveness since 2005. This signals the need for looking at mid to long-term trends for better understanding competitiveness dynamics. Such a mid-term view of the analysis highlights the critical need for not only faster, but also structurally healthy economic growth.

CHAPTER 1: **OVERALL COMPETITIVENESS**

## COMPETITIVENESS STANCE AND DYNAMICS IN ARMENIA

❖ *The competitiveness performance of Armenia steadily decreased since 2005, but reversed to positive in 2011 reflecting structural shifts*

Armenia recorded remarkable improvement in its competitiveness ranking in 2011 compared to the previous study of the Global Competitiveness Report (2010). In 2011, the competitiveness performance of Armenia was ranked 92nd among 142 countries due to a 6-point improvement in the rank and a 4% increase in the score compared to 2010 results.

Overall, the longer outlook of GCI and GDP dynamics reveals diverging trends in the economy. While the former aggressive economic growth in the country was parallel to worsening competitiveness performance, the recent sharp decline in the economic activity did not have similar reflections in the competitiveness ranking. On one side, this implies that the previous impressive economic growth rates were not primarily nourished by the improvement of competitiveness fundamentals. From the other side, competitiveness signals mid-term developments in the economy, therefore, a sharp decline in 2009 was not caused by worsened competitiveness fundamentals.

On the backdrop of recessive trends since 2008, the year of 2011 reckoned to a moderate, but promising growth rate at 4.6%. This brings a reversal in the growth-competitiveness paradox observed in the previous reports of Armenian competitiveness. 2011 was the first year when the indicators of competitiveness and economic performance changed in the same direction in Armenia, which might be an indication of drift towards more balanced state of economic realities. Once more, this highlights the importance of tracking the changes in key competitiveness fundamentals for detecting early signals. In this report, we are focused on analyzing the single most important determinant of competitiveness – productivity.

FIGURE 1–1. **GDP dynamics and Global Competitiveness Rankings in Armenia, 2005–2011**
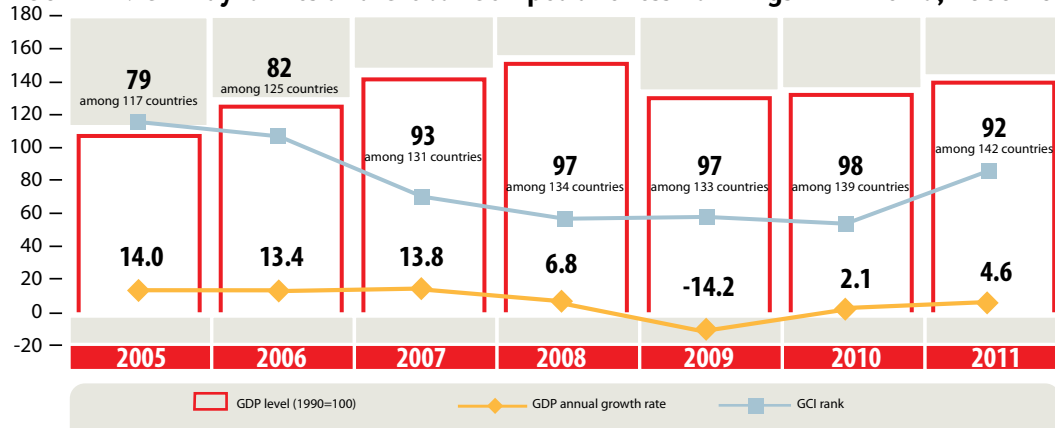
Source: NSS, WEF

In most cases, the changes of the competitiveness indicators were not homogenous.

The comparison of competitiveness performance (2011 versus 2005) by main pillars demonstrates quite uneven dynamics of competitiveness indicators. Several pillars, such as Institutions, Financial market sophistication and Market size recorded consistency in their rankings. The overall quality of Infrastructure showed steady improvement in the period of 2005–2011. Meanwhile, the dynamics of competitiveness indicators in some areas (Goods market efficiency, Business sophistication, and Innovation) can be broken down into two stages: decline until 2008–2009 and gradual improvement after that. The notable deterioration in the pillar of Macroeconomic stability since 2008 is the immediate reflection of worsening macroeconomic indicators affected by the global financial crisis.

Georgia's progress is outstanding on the regional landscape, especially in the areas with intensive policy reforms during recent years.

TABLE 1–1. **Changes in Competitiveness Pillar Rankings, 2011/05**

Pillar	Armenia		Azerbaijan		Georgia	
	Rank 2011	11/05 change, points	Rank 2011	11/05 change, points	Rank 2011	11/05 change, points
Institutions	83	0	68	–1	60	+27
Infrastructure	77	+8	73	–19	68	+25
Macroeconomic stability	114	–31	16	+7	137	–42
Health and primary education	94	–19	105	–15	67	+20
Higher education and training	76	–3	75	+1	88	–10
Goods market efficiency	108	–23	79	+13	74	+20
Labor market efficiency	34	0	14	+26	32	+21
Financial market sophistication	95	+8	94	–12	99	–4
Technological readiness	88	–1	74	+4	100	0
Market size	115	–15	75	–5	106	–5
Business sophistication	107	–34	73	–8	110	–4
Innovation	112	–46	60	–9	118	–28

Source: WEF

PRODUCTIVITY STANCE IN ARMENIA[1]

❖ *Armenia's prosperity gap with benchmark countries is largely explained by labor productivity gap*

The decomposition of GVA per capita to its components reveals that labor productivity (value added per employee) is responsible for the significant gap between Armenia and the benchmark countries – Ireland and Israel. More specifically, employment and demography factors substantiate just about 10% of the gap between prosperity levels (GVA). This means, that economic growth policies should heavily stress the importance of the labor productivity in creating value and address its bottlenecks in Armenia.

FIGURE 1–2. **Decomposition of Gross Value Added (GVA) per capita gap (in PPP USD), benchmark with Ireland, 2010**
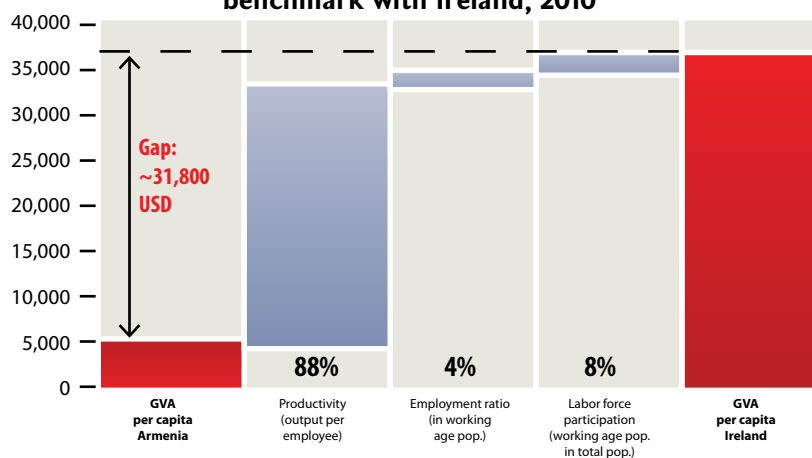
Source: NSS, ILO statistical database, OECD statistical database, Central Statistics Office Ireland, EV analysis
Note: The percentage shares show the contribution of each factor to the total gap, which is taken as 100%.
          The numbers may not sum up to 100 due to rounding.

---

[1]   Analyses are done based on the latest available data. For comparability reasons with other countries some of the data used is for 2010.

FIGURE 1–3. **Decomposition of GVA per capita gap (in PPP USD), benchmark with Israel, 2010**
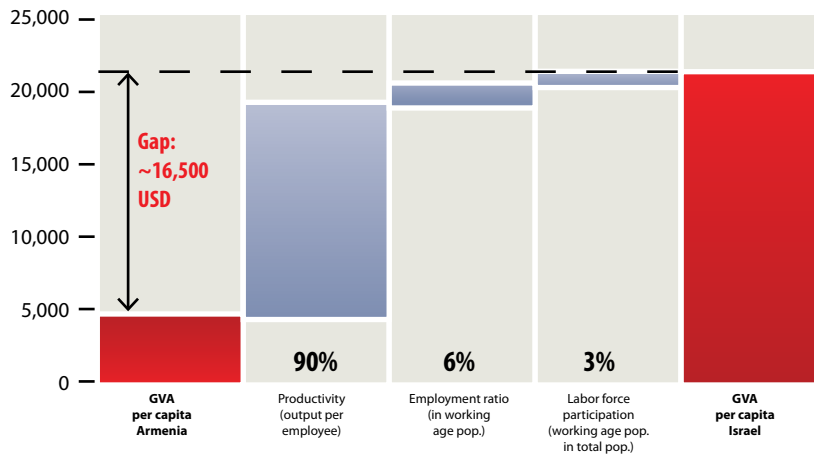
Source: NSS, ILO statistical database, OECD statistical database, the Central Bureau of Statistics of Israel, EV analysis
Note: The percentage shares show the contribution of each factor to the total gap, which is taken as 100%.
    The numbers may not sum up to 100 due to rounding.

Industry structure matters for productivity

When broken down by economic sectors, productivity indicators have significant variances across the Armenian economy. At present, the vast majority of the country's wealth is created in 2 broad sectors – services and agriculture but the industry increased its share significantly during the last years.

FIGURE 1–4. **The structure of Armenian economy, % of GVA, 2011**
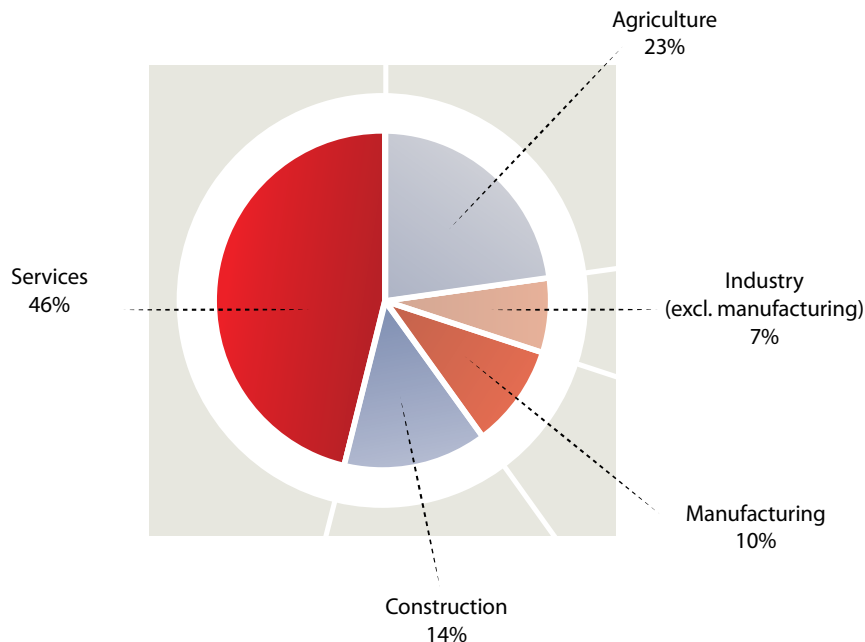
Source: NSS

The most productive sectors in Armenia are a few export-oriented industries, such as mining as well as sectors with a high presence of foreign ownership, such as the financial sector. The latter, with the highest productivity level in the economy, is distinguished by modern management practices and higher efficiency in labor utilization compared to other sectors.

Aside from individual productivity levels, the specifics of industry structure have a huge impact on the aggregate productivity level in the economy. Thus, the structure of the labor market plots a highly ineffective distribution of labor force within the sectors. Currently the top three most productive sectors in Armenia

(financial intermediation, mining, and construction) account for just 9% of the total employment in the country. Whereas, exactly half of the labor force is concentrated in the three sectors with lowest productivity levels (food and accommodation services, agriculture, and education).

FIGURE 1–5. **Productivity (value added per employee), at current prices, AMD and share in employment by sectors, %, 2010**
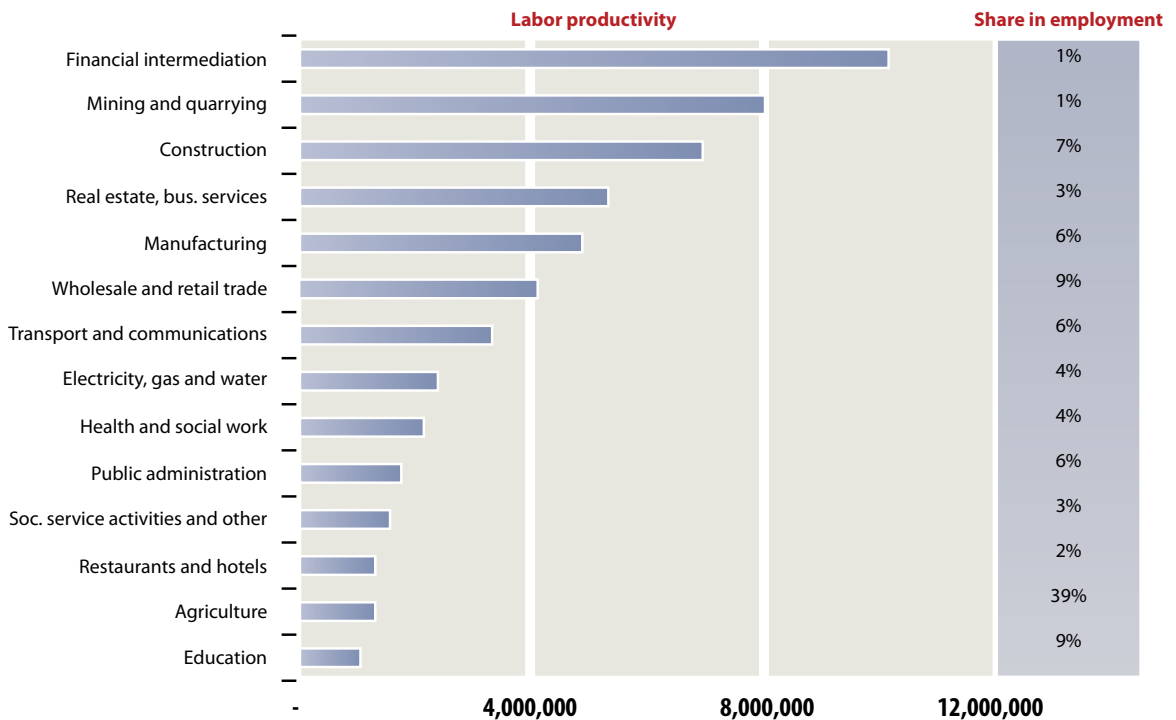
Source: NSS, EV analysis
Note: The calculations in this graph are based on Labor Market Indicators by Household's Survey Results, published by NSS. As Household survey results are not available for 2005, all other analysis of employment and productivity changes in this report is based on labor market statistics from company reporting (again published by NSS).

The comparison of Armenia's labor productivities with Ireland pictures significant gaps of over 80% in almost all sectors of the economy. Particularly, the outstanding high productivity levels in financial and industrial sectors of Armenia are predetermined with the prevalence of more productive foreign owned companies in these sectors. Armenia-Israel productivity gaps are more moderate compared to those of Armenia-Ireland. Notably, the construction sector in Armenia, among other economic sectors, has the narrowest gap from both Irish and Israeli comparable sectors.

FIGURE 1–6. **Labor productivity (value added per employee) by sectors, PPP, USD at current prices, 2010**
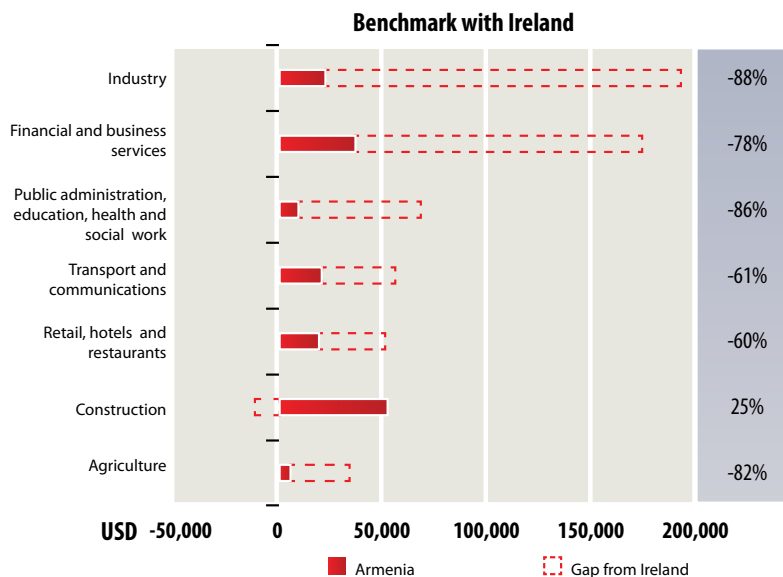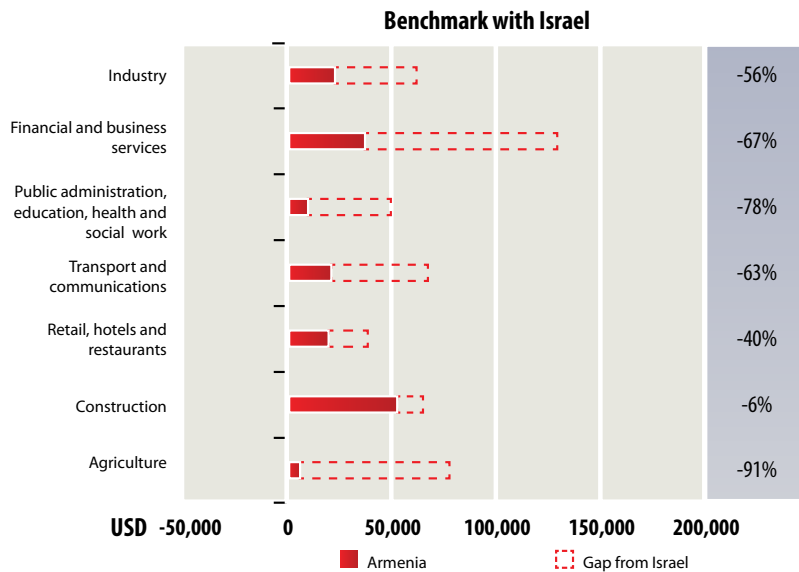
Benchmark with Israel

Sector		Gap
Industry		-56%
Financial and business services		-67%
Public administration, education, health and social work		-78%
Transport and communications		-63%
Retail, hotels and restaurants		-40%
Construction		-6%
Agriculture		-91%

USD -50,000   0   50,000   100,000   150,000   200,000

■ Armenia   ⬚ Gap from Israel

Source: NSS, ILO statistical database, OECD statistical database, Central Statistics Office Ireland, the Central Bureau of Statistics of Israel, EV analysis

The decomposition of Armenia's labor productivity gap with the benchmark countries shows the contributions that each of the sectors makes to the total gap. Furthermore, the calculations not only include the absolute differences between productivity levels in the sectors of Armenia and the benchmark country, but also illustrate the industry structure effects (that is the differences in the abilities of the two economies to concentrate more labor resources in sectors with higher productivities). The analysis from this perspective clearly portrays the notable contribution of the services sector to the total gap of Armenia's labor productivity, for both cases of comparisons with Ireland and Israel. The difference between the performances of Armenian and Israeli agriculture sectors is enormous, which makes the sector the dominant contributor to the total gap in productivity.

The unfavorable industry structure causes about one third of the gap between labor productivity levels of Armenia and Ireland. Meanwhile, the industry structure has a positive effect in comparison with Israel. This trend is caused by the role of the agriculture sector in the Israeli economy. With the highest productivity level across the economy, the sector has a negligible share of employment.

FIGURE 1–7. **Decomposition of labor productivity (value added per employee, in PPP USD) gap by sectors, including industry structure effects; benchmark with Ireland, 2010**

Gap: ~74,000 USD

Labor productivity in Total Economy Armenia	Gap in Agriculture	Gap in Industry	Gap in Construction	Gap in Services	Industry structure effects	Labor productivity in Total Economy Ireland
	17%	23%	-1%	33%	28%	

Source: NSS, ILO statistical database, OECD statistical database, Central Statistics Office Ireland, EV analysis
Note: The percentage shares show the contribution of each factor to the total gap, which is taken as 100%.
    The numbers may not sum up to 100 due to rounding.

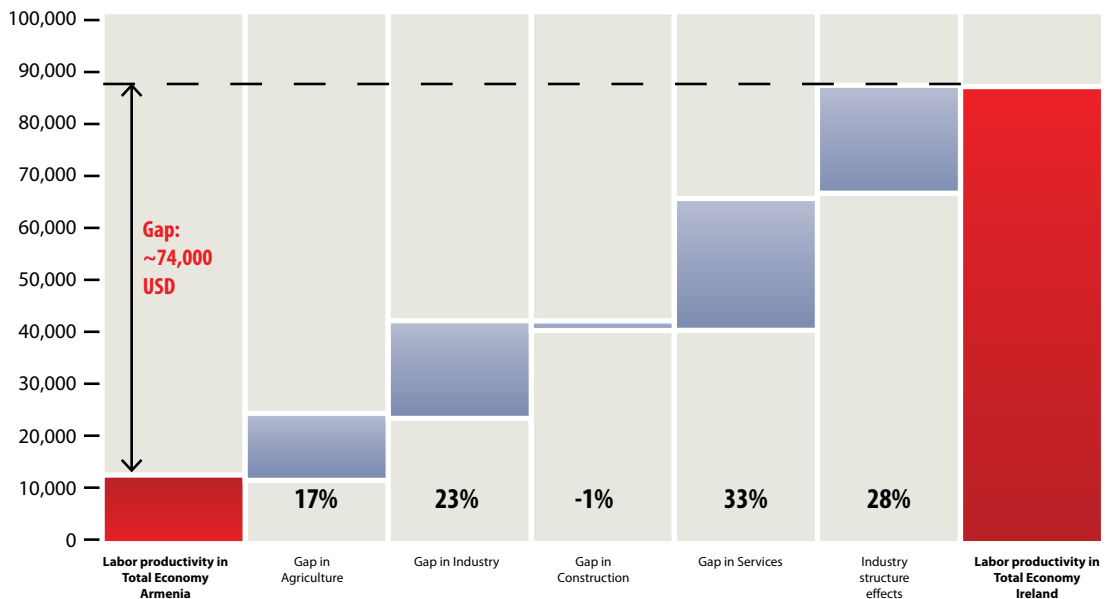FIGURE 1–8. **Decomposition of labor productivity (value added per employee, in PPP USD) gap by sectors, including industry structure effects; benchmark with Israel, 2010**
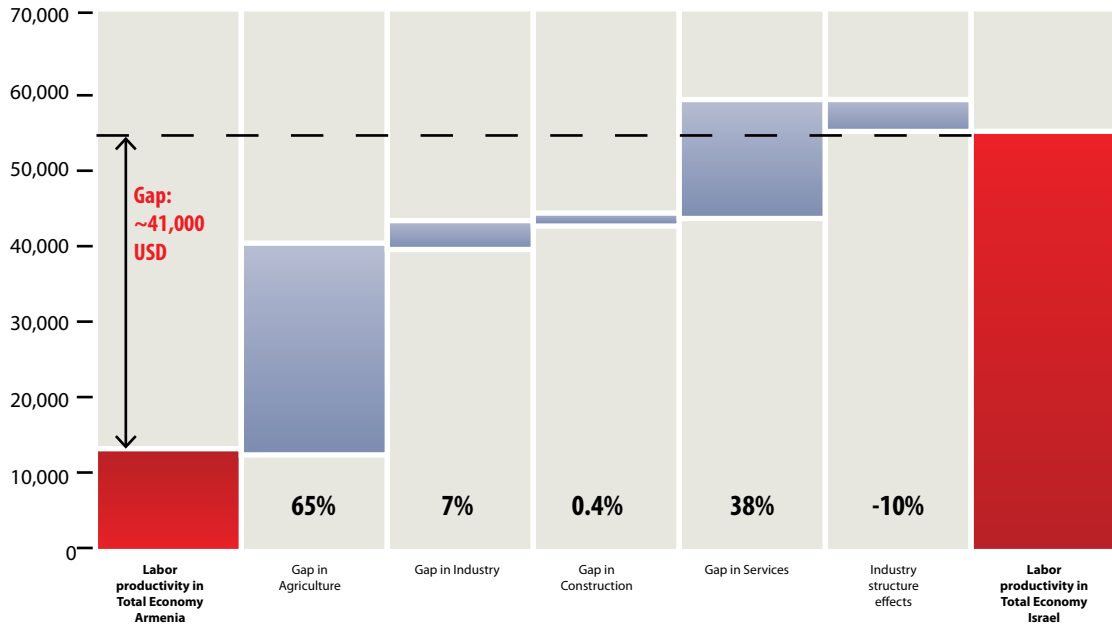
Source: NSS, ILO statistical database, OECD statistical database, the Central Bureau of Statistics of Israel, EV analysis
Note: The percentage shares show the contribution of each factor to the total gap, which is taken as 100%.
    The numbers may not sum up to 100 due to rounding.

❖ ***The productivity growth in Armenia was led by growth of productivities
of individual sectors as well as favorable relocation of economic activities
towards sectors already achieved higher levels of productivity***

As of 2010, the labor force participation rate comprised 53% in Armenia, which was down 5% from the analogous indicator of 2005. This decline was predetermined by rapid growth of economically non–active population, outpacing the growth of total labor forces (population over 15). In its turn, the main contributor to the increment in the absolute number of the non–active population was the increasing number of people engaged in households and others not participating in active labor force.

FIGURE 1–9. **Dynamics of labor market structure, 2010 change compared to 2005**

Key changes
Labor resources: +9%
Economically active pop.: -1%
Economically non-active pop.: +21%

■ Economically active population
■ Economically non-active pop. (engaged in households and other)
■ Economically non-active pop. (students)
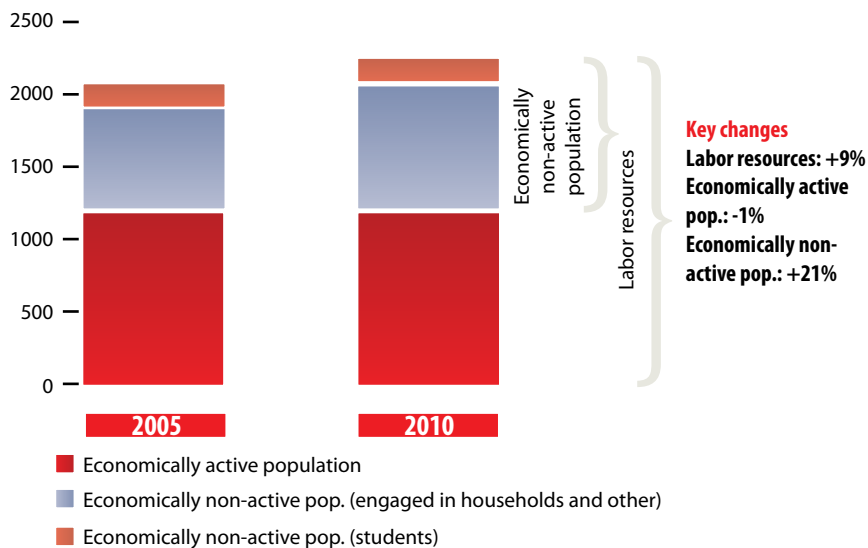
Source: NSS

Aside from the changes in broad economic categories the labor market also underwent significant structural rearrangements among economic sectors. Several areas, such as trade and financial services markets, saw tremendous increase in the number of persons employed. In the same time, the changes in the volume of value added created by separate sectors were often not proportionate to labor market trends, which brought uneven dynamics in the productivity levels across the sectors.

Overall, the real change in the level of value added per employee in the total economy comprised 17% (2010 compared to 2005). Sectors with the highest productivity growth are manufacturing, trade, transport, communication, financial intermediation, and mining. Again, export intensity and the inflow of foreign investments were main factors of such progress. Meanwhile, the level of productivity in public administration, construction[2], electricity, gas and water supply sectors contracted by more than one-third within the same time period.

FIGURE 1–10. **Real changes in productivity, gross value added and employment by sectors, 2010 change compared to 2005**

Source: NSS, EV analysis

The impact of industrial structure and its various effects on productivity growth are detailed via decomposition of productivity changes to its main underlying factors – labor force and its allocation among economic sectors. The possible effects are grouped into three categories, being the static shift effect, the dynamic shift effect and the within shift effect.
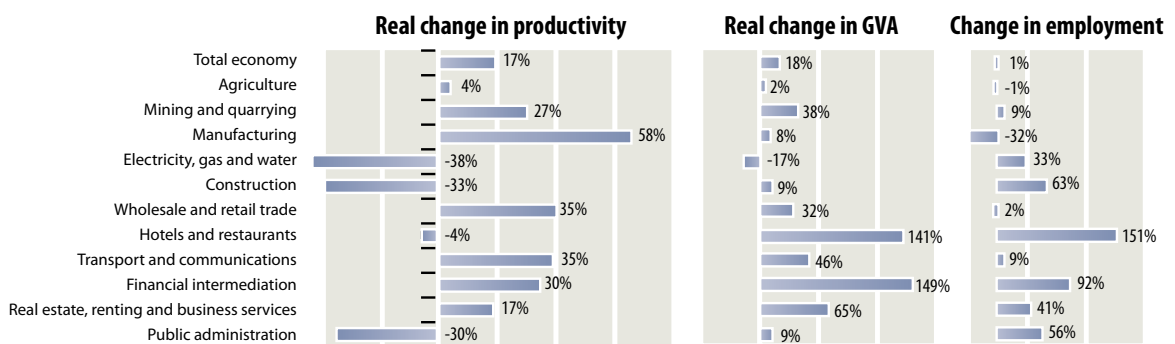
The static shift effect reflects the impact of structural changes in the economy; that is it takes the level of the labor productivity as constant (2005 base year) and tracks the effect of changes in the labor distribution across economic sectors. The positive static shift effect means that the sectors with higher productivity attracted more labor resources and expanded their shares in the total employment, leading to an increment in the aggregate level of productivity in the economy.

The dynamic shift effect observes the impact of two simultaneous changes – both in labor productivity and in the employment structure. The negative effect recorded for Armenia indicates reverse trends in changes of productivity and employment. In this particular case, Armenia's economy failed to ensure the flow of employment to sectors with high productivity growth. Under the assumption of prevalent low capacity utilization and overstaffing, this may also indicate that as sectors move towards efficiency frontier, particularly through technological upgrades, their growth is predominantly jobless. This holds true especially for manufacturing industries.

The third – within shift effect – looks at the productivity changes only, keeping the labor market structure stable. Thus, the general increase in productivity has been driven by increase in productivity of individual sectors as well as positive employment relocation to sectors with higher productivity, however, somehow restrained by negative employment relocation to the sectors with the growing productivity. The latter can be explained by the fact that productivity increase in these sectors could be achieved mainly through lay off of excess labor.

---

2   Productivity decline in construction might be caused by brisk increase in the number of employed persons, as a result of a decrease in the share of unregistered employees.

FIGURE 1–11. **Decomposition of real changes in productivity by industry structure effects, thousand AMD**
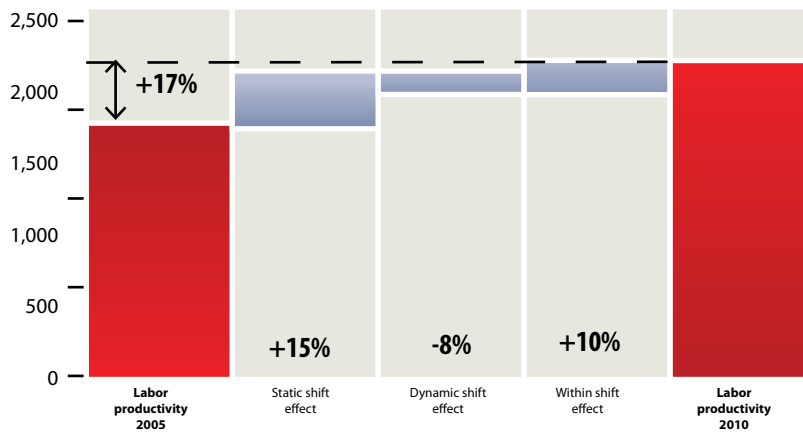
Source: NSS, EV analysis
Note: The percentage shares show the contribution of each factor to the total gap, which is taken as 17%.

Low salary levels – low unit labor costs

The unit labor cost (ULC), which is calculated as the ratio of total labor costs and value added (or alternatively – the ratio of labor costs per employee and productivity level) has several interpretations. On the one hand, the higher is ULC, the lower the economy's efficiency in labor utilization. It has to push up the productivity levels and bring the ratio to a balance.

On the other hand, the cost per labor unit is an indication of the labor participation in the country's production. In this case, the lower level of ULC often pinpoints comparably low level of wages in the country. From this perspective, this indicator is subject to continuous increase in the course of time. This trend is observed in the historic performance of the benchmark countries. Thus, the low ULC ratio of Armenia is a matter of development stage in the country which determines the level of wages.

FIGURE 1–12. **Unit labor costs (ratio of labor costs per employee and productivity), 2010**
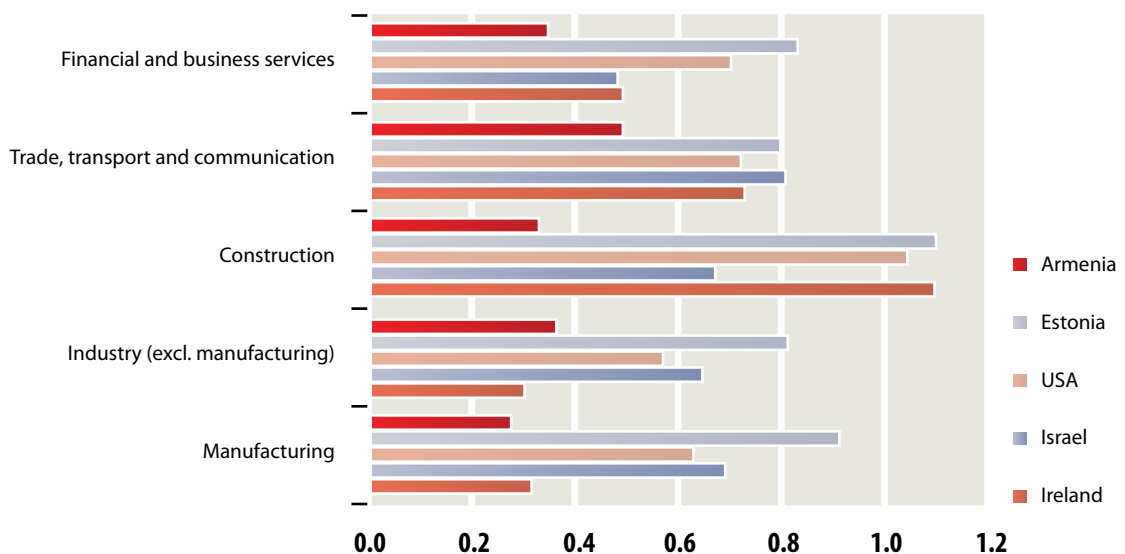
Source: NSS, ILO statistical database, OECD statistical database, Central Statistics Office Ireland, the Central Bureau of Statistics of Israel, EV analysis

CHAPTER 2: **MACROENVIRONMENT COMPETITIVENESS**

MACROECONOMIC FOUNDATIONS

❖ *Macroeconomic environment rank deteriorated in the last two years due to measures to combat economic crisis*

Armenia's performance by its macroeconomic stability has been quite volatile in the GCR rankings. It mainly reflected the developments in the performance of key macroeconomic indicators of the economy. Thus, the notable deterioration of Armenia's ranking by its macroeconomic stability in 2010 was the consequence of the sharp decline in the level of GDP in 2009, inflationary pressures and increased debt due to expansionary policy. Unfavorable developments in public finance and comparably high levels of inflation were the main contributors to this downgrade. At the same time, it is worth mentioning that the score indicator for macro-performance did not change much over the same period. This means that Armenia especially failed in the comparable performance, compared to the observed countries.

FIGURE 2–1. **Armenia's performance by Macroeconomic environment competitiveness rank**
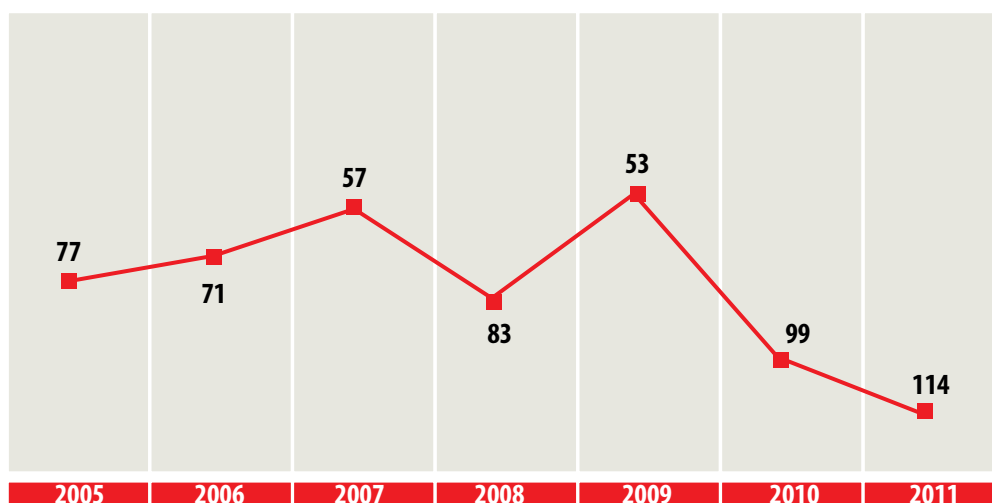
Source: NSS, WEF

TABLE 2–1. **Macroeconomic stability performance in the region**

Country	Rank 2011	Change in Rank 11/05 (points)	Score 2011	Change in Score 11/05 (%)
Armenia	114	–31	4.19	+0.4%
Azerbaijan	16	+7	5.89	+13%
Georgia	137	–42	3.65	–3.9%

Source: WEF

TABLE 2–2. **Macroeconomic environment competitiveness performance by subpillars**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank 2011	Change 11/05	Rank 2011	Change 11/05	Rank 2011	Change 11/05
Government budget balance, % GDP	92	–48	3	+18	87	–64
Gross national savings, % GDP	76	–13	6	+16	135	–37
Inflation	119	–32	101	–7	115	–40
Interest rate spread, %	114	–12	109	–41	129	–19
Government debt, % GDP	68	–38	11	–2	66	–16

Source: WEF

❖ *The trend of recovery continued in 2011 via more balanced growth*

Armenia's GDP dynamics illustrates positive signs of recovery after the economy dipped into recession in 2009. The deep contraction of GDP volume in 2009 was unprecedented within the passing decade not only in Armenia but in the regional countries, as well. Thus, Georgia experienced a much more moderate downturn; meanwhile Azerbaijan just saw a slowdown in the growth pace.

The economic crisis of 2008–09 smoothed the former aggressive growth of the economy and the aggregate growth of GDP per capita in the period of 2005–2010 totaled to a moderate 20%, positioning Armenia in average performance among benchmark countries. The recorded growth in 2011 is quite promising for Armenia given the growth structure rebalancing the economy.

FIGURE 2–2. **GDP real growth rate, %**
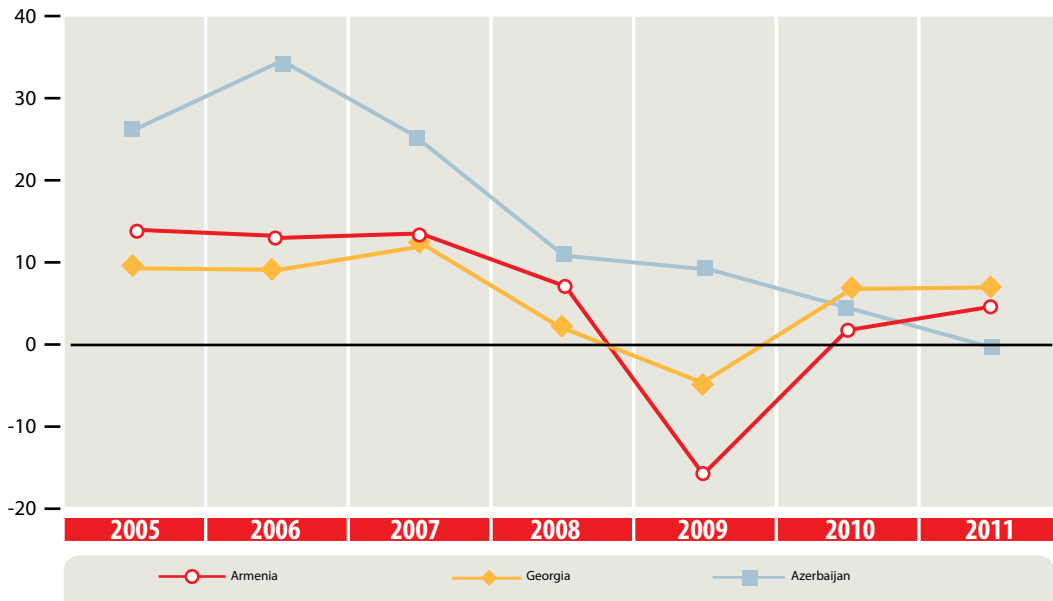
Source: WDI, WB , NSS, National Statistics Office of Georgia, the State Statistical Committee of Azerbaijan

FIGURE 2–3. **GDP real growth 2010/2005 and growth in 2011 (est.), %**
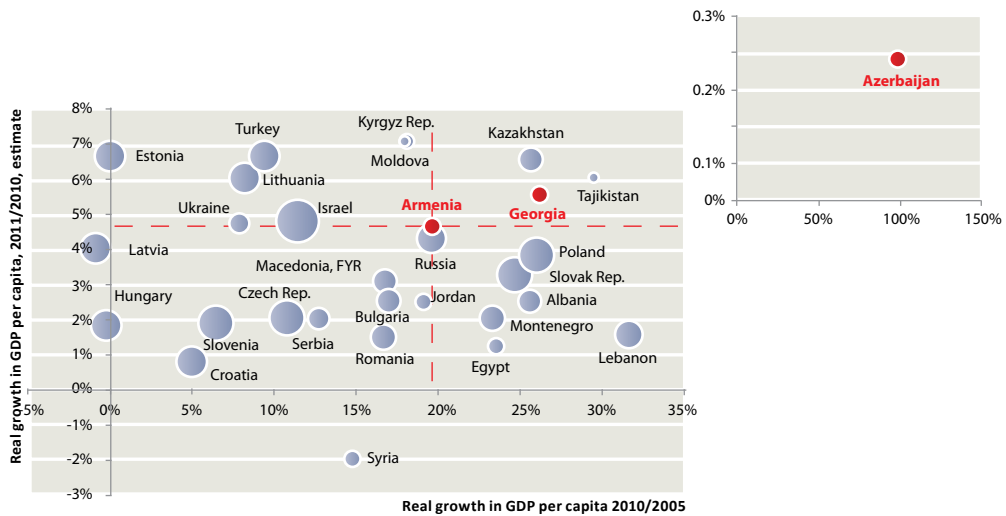
Source: WDI, IMF (estimates for 2011)
Note: Estimated growth rates, for Armenia – actual growth rate, bubble size – GDP per capita PPP, 2010, current USD

❖ *Economic structure unfavorably positions Armenia among regional peers through dominance of low productive sectors*

The economic crisis had its implications on the economic structures, as well. The recession suspended the superficial growth in several sectors of Armenia until 2008 and influenced the structure of the economy as a whole. Thus, the share of construction briskly declined after the crisis in the real estate market, shrinking its participation in the value added of the economy. Instead, the increasing share of the trade, financial services and industry compensated the contraction of the construction sector.

Noteworthy, the share of agriculture in the economic structure decreased both in Azerbaijan and Georgia, but not in Armenia. At present, this sector's contribution to GDP is the biggest in Armenia (compared to Georgia and Azerbaijan). Meanwhile Azerbaijan's heavily resource-dependent economy is mainly based on the industry, and Georgia's economy has a high concentration in the services sector. This is a highly unfavorable aspect of regional competitive dynamics for Armenia.

FIGURE 2–4. **Industry structure and its change: share of sectors' value added in GDP**
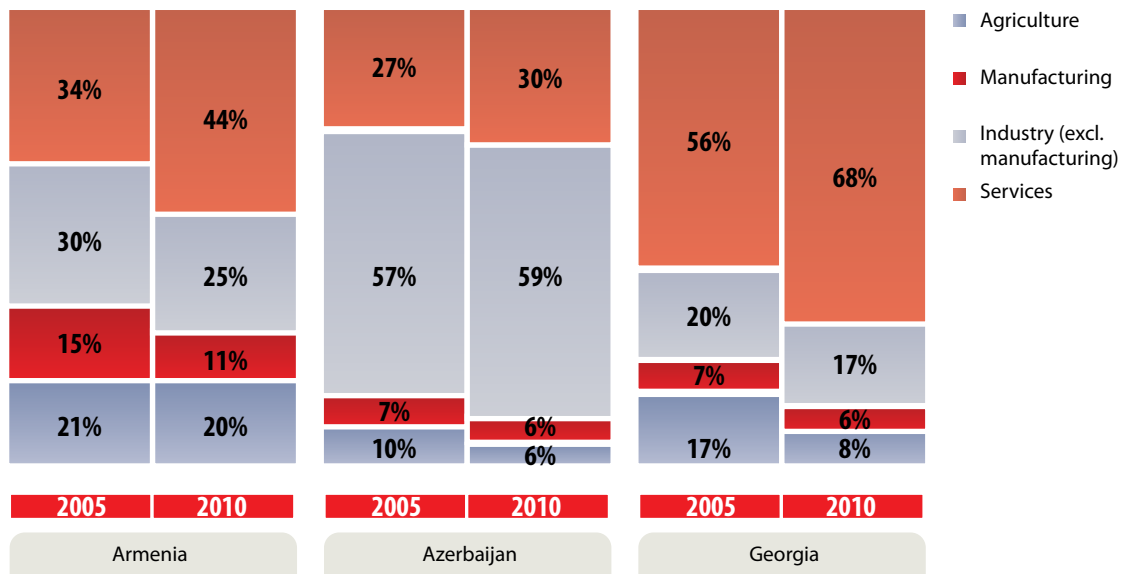
Source: WDI
Note: The numbers may not sum up to 100 due to rounding.

Armenia recorded a prominent growth performance in both GCF and FDI in the period of 2005–2010. The growth in FDI (140% 2010/2005) led to almost proportional growth in gross capital formation (110% 2010/2005) in Armenia.

FIGURE 2–5. **Growth in FDI and gross capital formation, current USD, %, 2010/05**
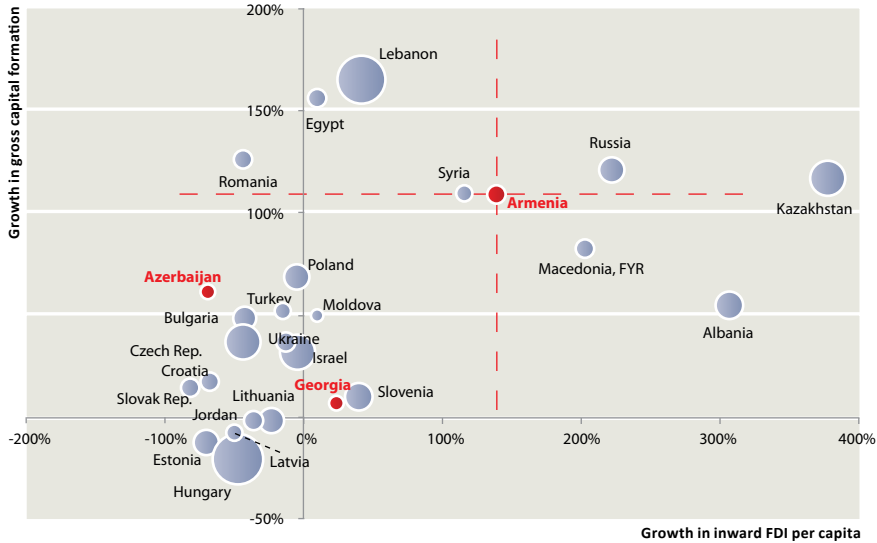
Source: WDI, UNCTAD
Note: The size of the bubbles: Inward FDI per capita (current USD)

With the share of gross capital formation as a percentage of GDP, Armenia is among the leading countries in the world. All factors equal, this may indicate that Armenia invests heavily in future growth. However, the potential of the accumulated capital to turn into productive capital depends on the portfolio of current investments and areas of concentrations where the capital formation takes place at present.

Foreign direct investments constitute a substantial share in the gross capital formation in Armenia. Again, distinguished among the benchmark countries by favorable positions in FDI performance, Armenia lags significantly in the level of domestic savings. The high share of foreign investments in capital formation is favorable, however it may increase the economy's dependence from external sources and may not promote the capabilities of the country to develop its own sources of capital accumulation. The situation is the opposite in Azerbaijan: the outstandingly high rate of domestic savings (% of GDP) is opposed by quite a low level of inward FDI (% of GDP).

FIGURE 2–6. **Gross capital formation and FDI in GCF**
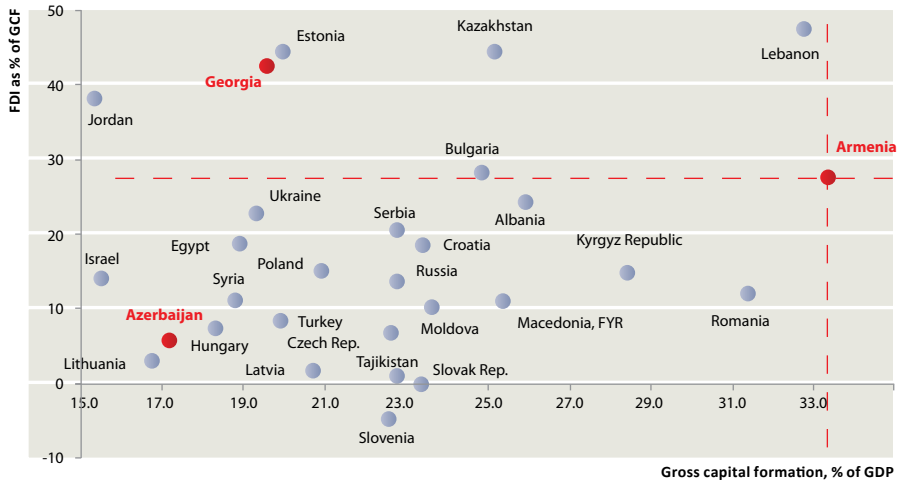
Source: WDI, UNCTAD

FIGURE 2–7. **Gross domestic savings and inward FDI, % of GDP**
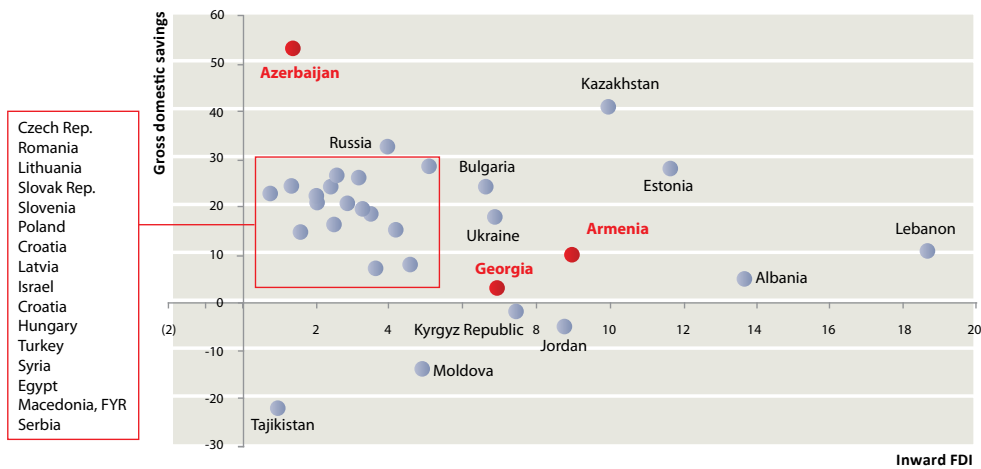
Source: WDI, UNCTAD

During 2010 Armenia attracted about 40% more FDI compared to the previous year, while in 2011 the growth was only 15%. The communications sector had a consistently high share in FDI, however, its contribution decreased significantly in 2011. In addition, the new influx of FDI into non-traditional investment sectors, such as energy supply and land transport infrastructure, triggered the rapid growth of foreign investments in the whole economy.

FIGURE 2–8. **The structure of foreign direct investments by the sectors of inflow, Armenia**
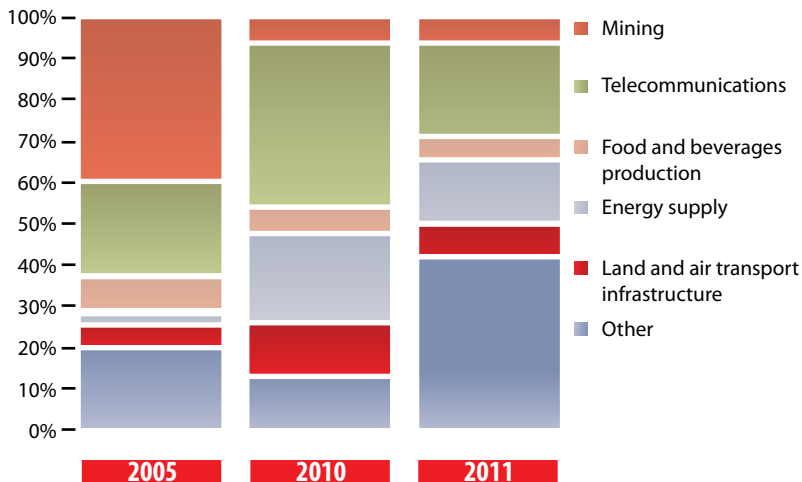
Source: NSS

❖❖ *While the current account deficit maintains a key imbalance in the economy, it has improved since 2010*

Armenia's export performance, which suffered enormously as a result of the global markets' downturn, is currently strengthening. Still, by the volume of exports per capita, Armenia lags behind nearly all comparator countries.

FIGURE 2–9. **Change in exports and imports volumes per capita, current USD**

| | 2005 | 2010 | | 2005 | 2010 | | 2005 | 2010 |
| Armenia | | | Azerbaijan | | | Georgia | | |

■ Imports of goods and services per capita   ■ Exports of goods and services per capita
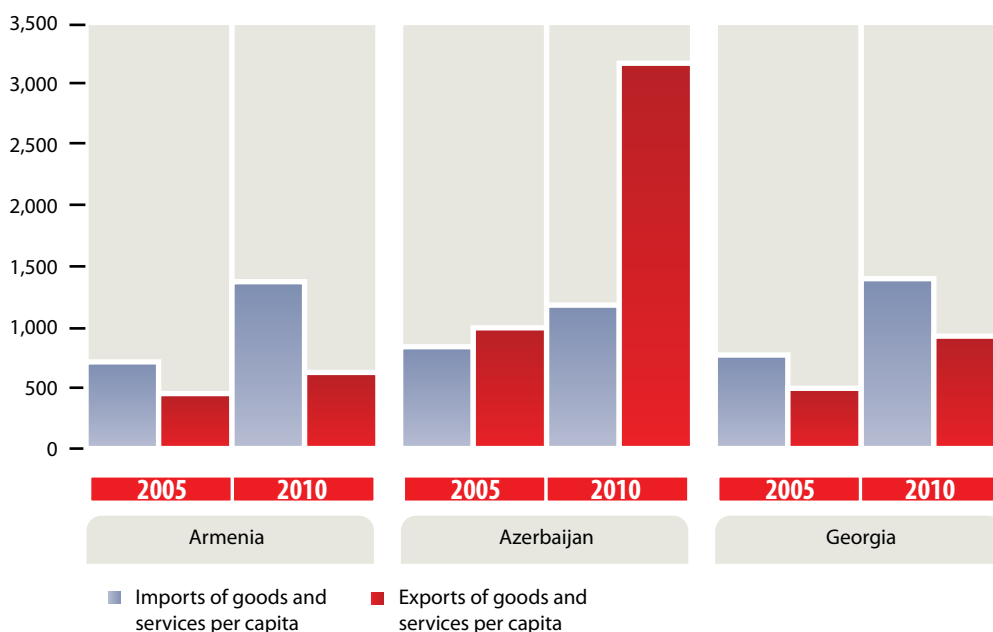
Source: WDI

Armenia employs an unfavorable current account with a significant negative balance – one of the biggest among the benchmark countries. The appreciating local currency until 2009 affected the current account balance significantly, the deficit of which increased from just 1.1% in 2005 to 16% in 2009. Furthermore, stronger growth pace of imports outpacing the increase in exports is also among the determinants of the deepened current account balance. However, starting 2010 the current account balance significantly improved comprising 11% in GDP in 2011.

FIGURE 2–10. **Dynamics of exchange rate and current account balance**

2005	2006	2007	2008	2009	2010	2011
458	416	342	306	363	374	373
-1.1	-1.8	-6.4	-11.9	-15.8	-14.7	-10.9

☐ Current account balance (% of GDP)   ■— Exchange rate (AMD/USD)
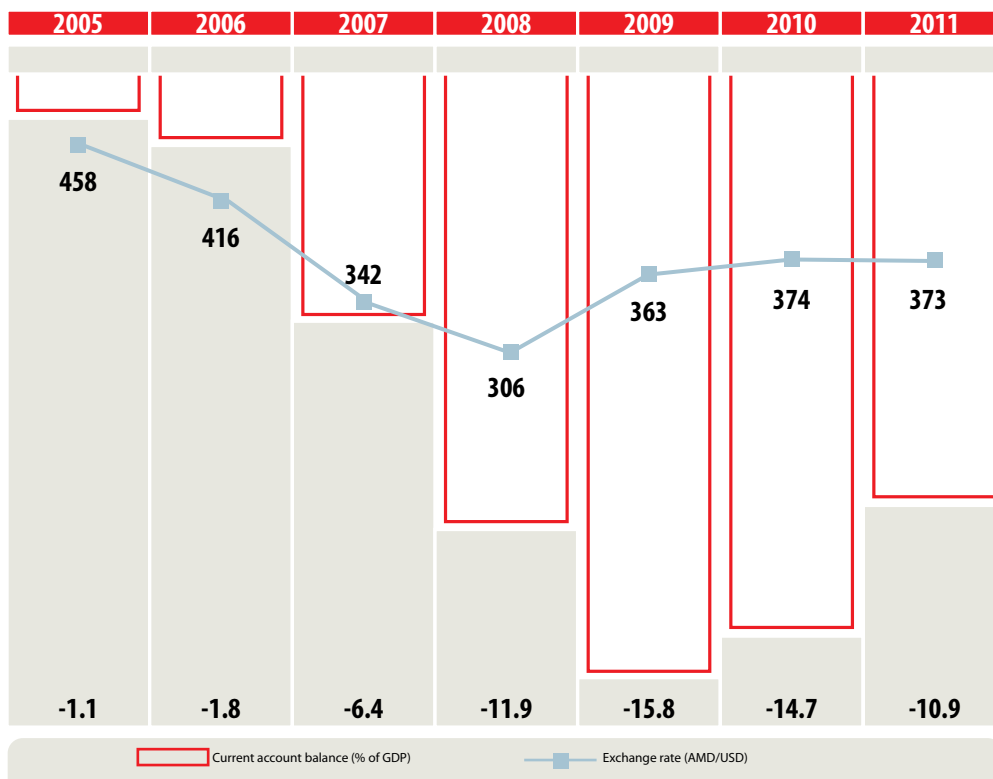
Source: WDI

FIGURE 2–11. **Current account balance and exports in benchmark countries**
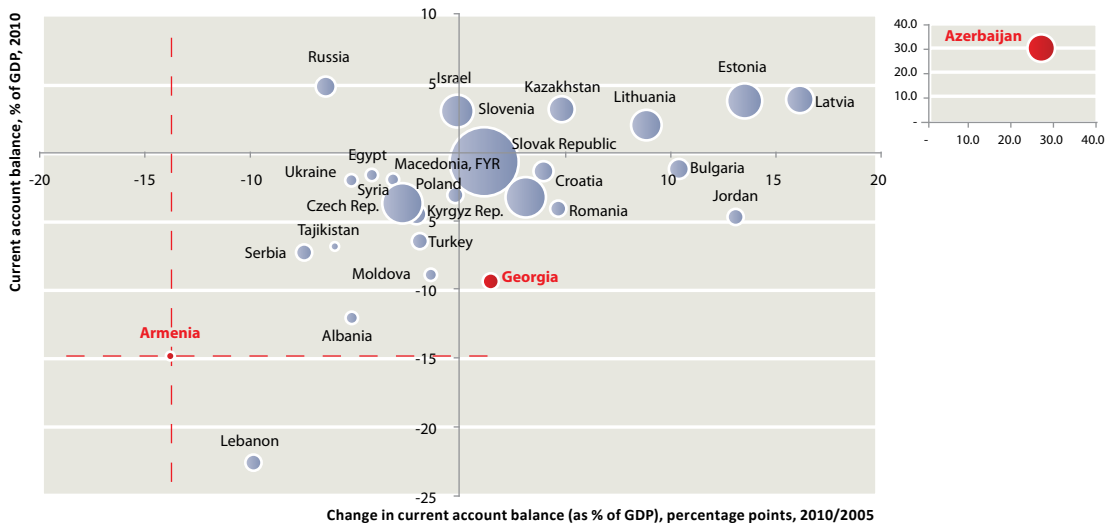
Source: WDI
Note: The size of the bubbles: Exports of goods and services per capita (current USD)

❖ *While export structure remains concentrated, in 2011 it improved significantly*

Since 2010 export increased its share in GDP. Armenia's exports remains yet highly resource intensive and highly concentrated in a few sectors. However, the share of the top three exporting sectors has been increasing in 2007–2010 and dropped to 72% in 2011 which is the best indicator in the observed period. Currently the major concern of the policy makers is to promote diversification of the export turning it into a source of economic growth. The recently designed export–led industrial policy of Armenia (discussed in the next chapter) is aimed at increasing competitiveness and enhancing export capabilities in the target sectors. The level of export concentration is expected to decrease significantly in the result of the planned initiatives.

FIGURE 2–12. **Share of exports in GDP and concentration of exports , %**
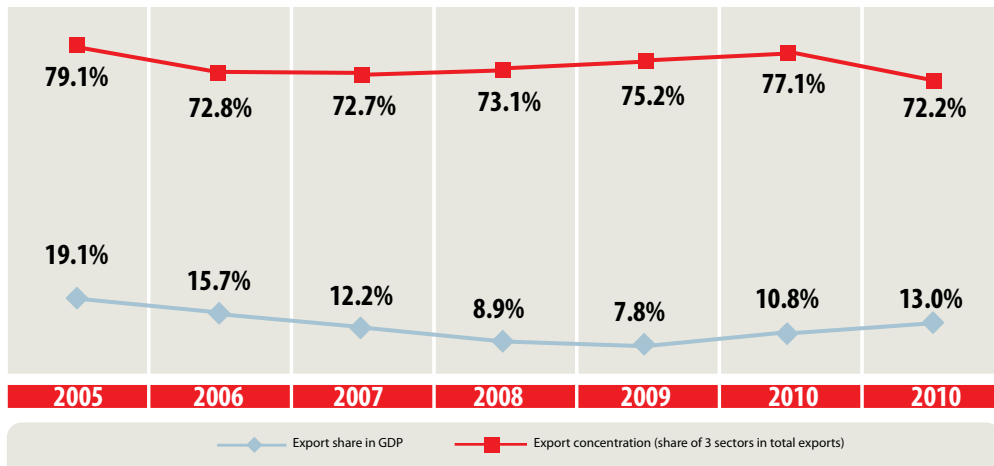
Source: NSS, EV analysis

❖ *Debt service levels remain in a manageable zone; however, deteriorated public finance is among key vulnerabilities of Armenia's macroeconomic environment*

Armenia's growing external debt is a major concern for public policy makers. Though the concessionary terms keep the debt burden on a moderate level in Armenia at present (the debt service as percent of GNI is among the lowest ones of benchmark countries), its growth is unprecedented. The share of the debt service in GNI increased 4 times in the period of 2005–2010 (from 1% to 4%). The increase was mainly the result of

the rapidly growing external debt of the country. As of 2010, it comprised about 47% of GNI (in the present value). Still, the absolute volume and the share of Armenia's external debt in GDP is still in manageable boundaries as defined by the local law, and Armenia is classified as a low-indebted country.

FIGURE 2-13. **External debt (present value) and total debt service (public and publicly guaranteed), % of GNI, 2010**
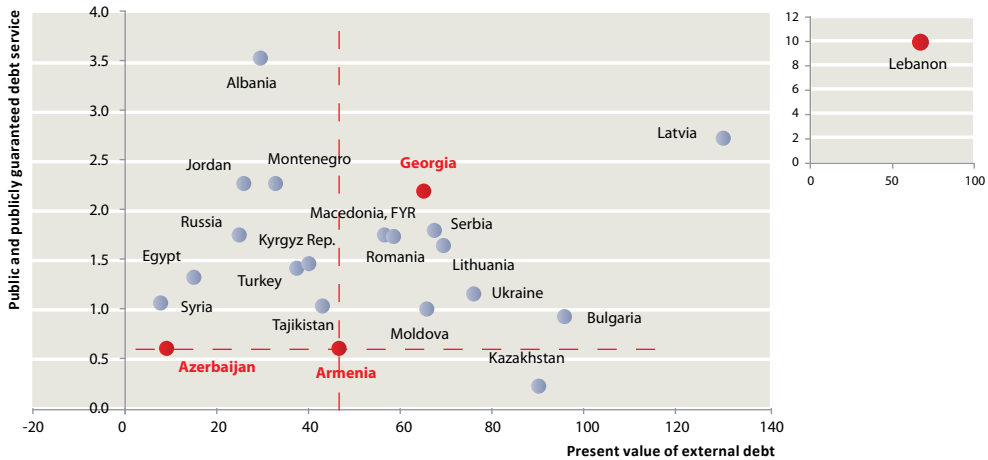
Source: WDI, IMF

POLITICAL INSTITUTIONS AND RULE OF LAW

❖ ***Reforms in state administration improved key aspects of public governance, but failed to keep the pace up to par with peers in selected areas***

Recent administrative reforms in the governance system ameliorated Armenia's competitiveness by political institutions, which were strongly undermined as a consequence of negative developments on the local political platform after the presidential elections in 2008. At the same time, the longer-term analysis pinpointed some groundwork problems in the areas of political institutions and rule of law.

2011 recorded notable improvements (compared to 2010) in the indicators of the political institutions in Armenia according to GCR. Several prominent changes were observed in the areas of Burden of government regulation, Efficiency of legal framework in settling disputes, Efficiency of legal framework in challenging regulations, and Transparency of government policy-making. In the Burden of government pillar, Armenia still lags behind neighboring countries, however it stands out with accelerated improvement in comparison to them. The launch of a contemporary e-governance system backed the significant improvements in government regulation. The system gradually covered various aspects of business regulations, reduced corruption risks, and released the burden of government regulation.

According to executives, unfavorable developments were observed in the diversion of public funds and property rights throughout 2005-2011. While the latter worsened in other South Caucasian countries, Georgia significantly improved its position in proper usage of public funds.

According to Transparency International, Armenia is 129th by the Corruption Perception Index 2011 among 182 countries. This means a notable deterioration compared to the results of 2005 when Armenia was ranked 88th among 158 countries (a decrease in the score by ~10% was also recorded). Furthermore, the recently launched ranking by Economist Intelligence Unit ranks Armenia 111th among 167 countries by the prevalence of democracy in the country.

The competitive stance is better by the 2012 Index of Economic Freedom released by the Heritage Foundation. Armenia performs consistently well with this ranking and stands 39th among 179 countries. Georgia is ahead with its 34[th]rank; meanwhile Azerbaijan is in an unfavorable position by economic freedom ranked 91st among the pool of observed countries.

TABLE 2–3. **Current stance and changes in the pillars of political institutions and rule of law in Armenia**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank 2011	Change 11/05	Rank 2011	Change 11/05	Rank 2011	Change 11/05
Property rights	95	–31	90	–17	120	–34
Intellectual property protection	96	+11	60	+22	105	0
Diversion of public funds	91	–19	95	–21	39	+40
Public trust in politicians	83	+10	45	+7	65	+2
Irregular payments and bribes	97	–	118	–	33	–
Judicial independence	108	–3	83	–5	91	+3
Favoritism in decisions of government officials	78	+25	60	–11	54	+32
Wastefulness of government spending	48	+14	67	–11	52	+20
Burden of government regulation	52	+4	33	–6	7	+74
Business costs of terrorism	17	+41	48	+28	69	–16
Business costs of crime and violence	25	+5	47	+6	49	+19
Organized crime	61	–24	76	–22	67	+11
Reliability of police services	105	–42	86	–12	42	+43

Source: WEF

SOCIAL INFRASTRUCTURE

The dependence on private transfers from abroad deepened, despite the notable growth in incomes

The level of gross national income (nominal) has nearly doubled in Armenia in the period of 2005–2010. This increase was accompanied by a lower level of inflation rates, with consumer price index comprising 130 in 2010 compared to 2005. It is noteworthy to add that all the countries from the benchmark list, which had higher growth in GNI, had also experienced higher inflation rates in the same period (except for Azerbaijan with the highest increase in GNI and moderate growth in CPI).

FIGURE 2–14. **Consumer price index and GNI growth**
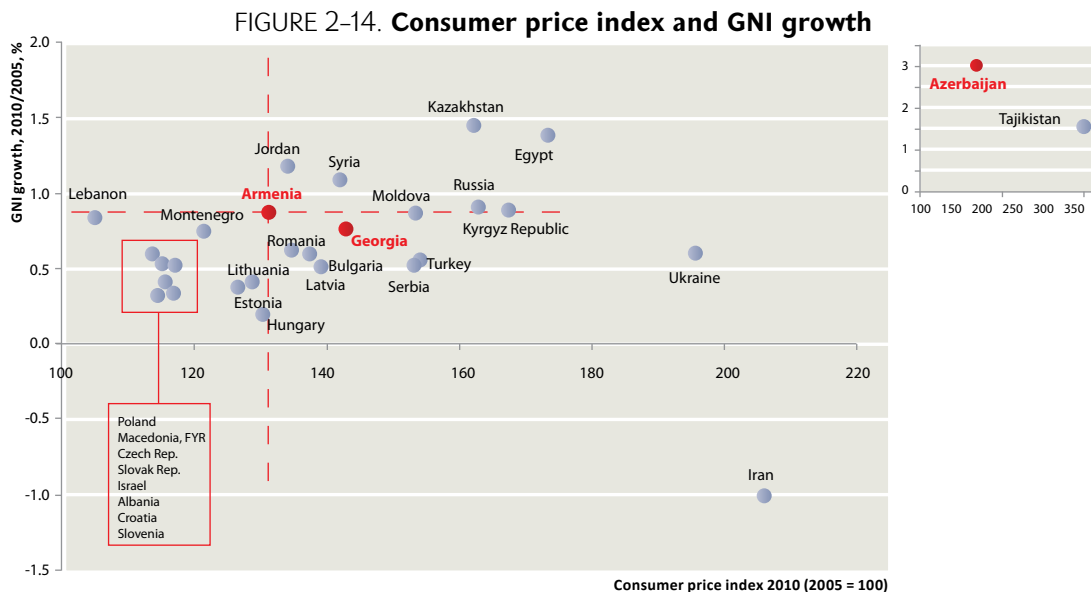
Source: WDI, IMF

The local income levels in Armenia strongly depend on external factors. Thus, according to official statistics, social private transfers from abroad constitute over 10% of the household income in Armenia. However, many experts believe that official statistics underestimate the real volume of transfers, hence, the share might be higher. Furthermore, despite the increasing levels of average salaries and minimum levels of salary, the share of transfers from abroad in the total income of the households increased since 2005, whereas incomes from labor remuneration have a decreasing share.

Armenia is the 20th country in the world with the share of remittances received from worker's abroad in GDP. In the period of 2005-2010 most of the countries with higher shares of remittances managed to decrease their dependence from the latter by limiting their participation in the economy. On the contrary, Armenia even recorded a slight increment in the share of remittances.

FIGURE 2–15. **The structure of household income in Armenia**
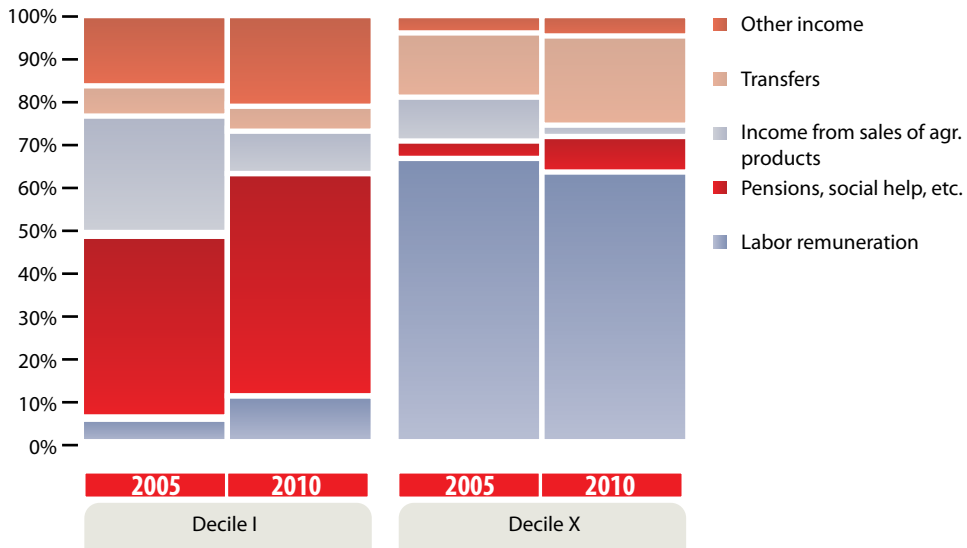
Source: NSS

FIGURE 2–16. **The dynamics of private transfers from abroad (non–commercial bank transfers by individuals), thousand USD**
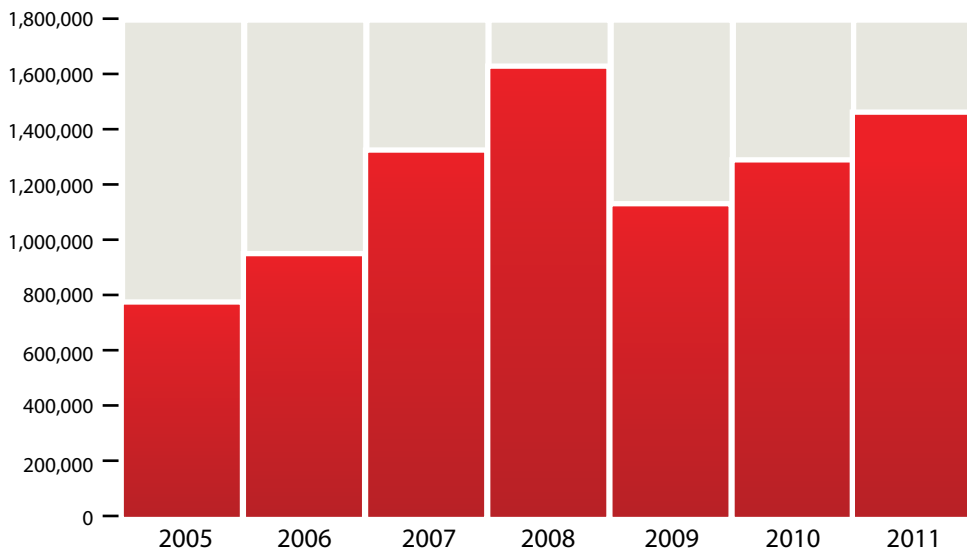
Source: CBA

FIGURE 2–17. **The dynamics of workers' remittances from abroad, top transfer-dependent countries**
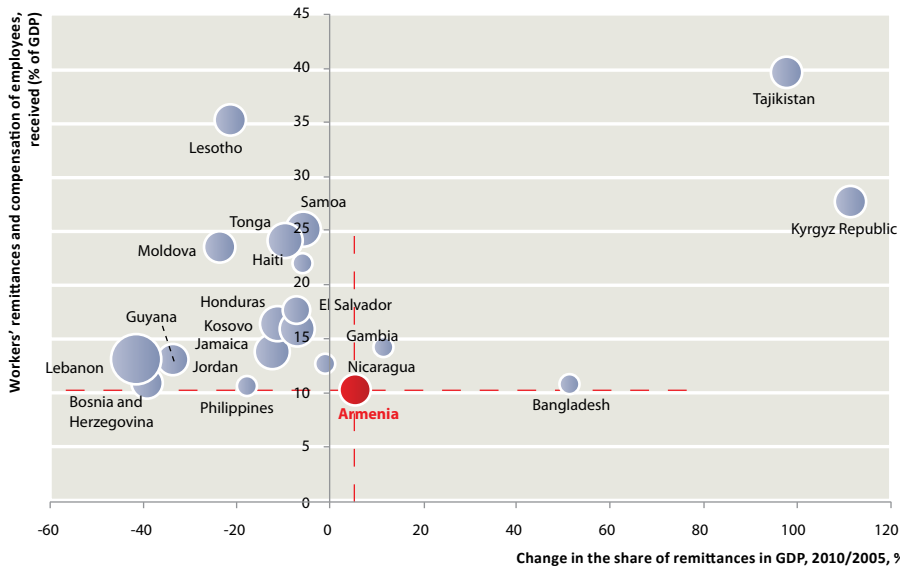
Source: WDI
Note: The size of the bubbles: Workers' remittances and compensation of employees, per capita, received (current USD)

❖ *The inequality in incomes and consumption levels is acute despite rising income levels*

The average income per capita has a tendency towards continuous increase in Armenia. Furthermore, both lowest and highest income groups recorded over 100% growth in the period of 2005–2010. However, the inequality of income distribution among the population is still immense and is evident by several aspects: different social strata, administrative regions, and genders.

FIGURE 2–18. **Change in the monthly nominal income by income groups, AMD**
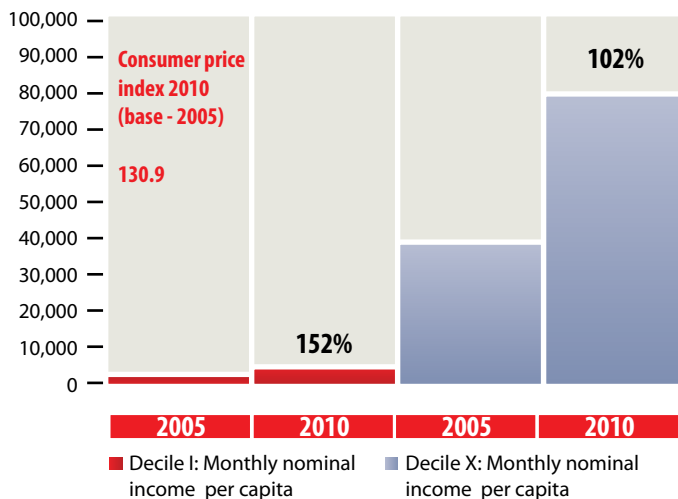
Source: NSS

The Gini indices[3] for both income and consumption inequalities remain almost unchanged from 2005–2009. Though still quite high, the inequality of wealth distribution is not as severe on the scale of international comparison. Thus, according to the data from 2008–2010, European countries such as Norway, Hungary and Montenegro led the chart by the least Gini indices, comprising 0.24–0.25. In the same time the highest level of Gini

---

[3]   Gini coefficient measures the inequality among values of a frequency distribution and is commonly used as a measure of inequality of income or wealth.

indices observed were around 0.7. Whereas, Armenia's reported index of income distribution was 0.3 as of 2008.

Both Georgia and Azerbaijan have greater income inequalities with higher shares of the highest 10% and lower shares of the lowest 10% of the population. In Armenia, the average monthly income per capita of households in the highest income decile is 14 times (down from 18 in 2005) the income in the lowest income group.

FIGURE 2-19. **Income distribution by income groups in regional countries, 2008**
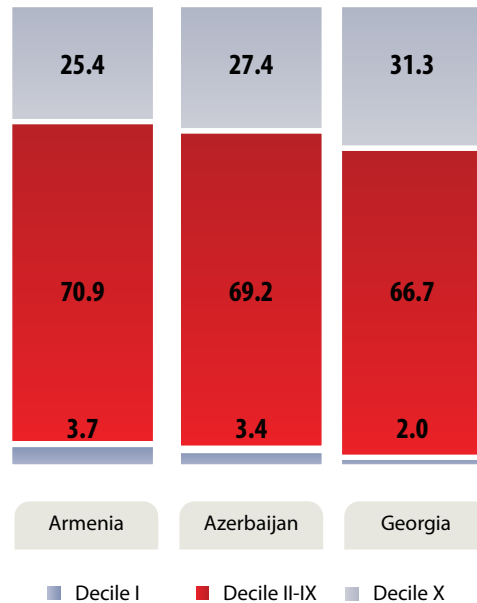
Source: WDI

The amplitude between the highest and lowest levels of average incomes in the regions of Armenia is quite significant. Yerevan reported the highest level of incomes which was twice the level of income in Vayots Dzor Marz – the lowest throughout the country.

The unequal distribution of economic opportunities and income is another issue. The Global Gender Gap index positions Armenia unfavorably – 84th among 135 countries. The gender gap is vivid also in remuneration levels. The average (formal and informal) salary of men in Armenia comprises 125,000 AMD, which exceeds the level of remuneration of women by ~1.5 times.

CHAPTER 3: **MICROENVIRONMENT COMPETITIVENESS**

Microenvironment became a policy focus with the launch of "second generation" reforms in Armenia. The government efforts aimed at improving it are facing serious challenges as they require structural and behavioral shifts in public and private sectors. This is also the area in which businesses see main constraints for development.

Microeconomic factors are directly affecting firms and their productivity. The quality of microeconomic business environment, state of cluster development, and sophistication of company operations and strategy[4] are the building blocks of microeconomic competitiveness.

Along with sophistication of company strategies and operational practices, which will be thoroughly discussed in subsequent chapters, the productivity of companies is determined by the business environment. To be productive, companies need to have access to a highly skilled labor force, efficient public administration, advanced research capacities, and an enabling logistics infrastructure.

Availability of clusters, agglomeration, and geographic concentration of interrelated and complementary businesses, represents a distinct driver of productivity. They enable the availability and access to cluster specific knowledge and infrastructure.

MICROECONOMIC BUSINESS ENVIRONMENT

❖ *Sound investments for infrastructure upgrade are on the way, though reliable connectivity with key export markets remains unsolved*

Despite large scale investment projects of updates and modernization in the energy and air and railroad transport infrastructure, the competitiveness of Armenia's overall infrastructure quality performed unsatisfactory on the global comparative scale according to GCR. The quality of roads and access to port facilities remains the main bottlenecks for Armenia. It is noteworthy that significant investments have been made in road construction in Armenia during the last 5 years, however, this is considered not to be enough by the business community to catch up with the rest of the world.

Among South Caucasian countries, Georgia has the most competitive logistics infrastructure due to its favorable geography and substantial investments in road infrastructure. It has also recorded the largest improvement since 2005.

TABLE 3–1. **Logistic infrastructure performance and change 2005–2011**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank 2011	Change 11/05	Rank 2011	Change 11/05	Rank 2011	Change 11/05
Quality of overall infrastructure	77	+1	64	–8	54	+51
Quality of roads*	92	–24	78	–15	57	+23
Quality of railroad infrastructure	69	+10	34	–7	35	+16
Quality of port infrastructure	132	–19	73	–30	68	–12
Quality of air transport infrastructure	74	+15	57	–15	88	+7
Quality of electricity supply	71	+10	78	+10	52	+59

Source: WEF
* Change for 2006–2011 due to absence of 2005 data.

---

[4]   The Global Competitiveness Report 2008–2009, WEF

Prominent developments were observed in the air transport infrastructure. Roughly $160 million was invested in the construction of new terminals and the modernization of Zvartnots airport which expanded the airport capacity to serve 3.5 million passengers annually, up from the previous 1.6 million.

In addition, there are initiatives to create a transportation hub adjacent to the airport. The government has already approved the program of developing an international logistics center, a free economic zone, and a railroad connecting to the airport.

Two logistic centers (one constructed and operated by Zvartnots airport and the other by Spayka Freight Forwarding Company) with modern refrigerating capacities for agricultural products, started operation in 2011. They have created modern infrastructure for exporters of fresh fruits and vegetables which will significantly reduce the spoilage of the goods during transportation. Fresh fruits and vegetables were the fastest growing export items from 2003–2010, up from $100,000 to $8.8 million.

There were moderate improvements in railway infrastructure as well, however, without solving the connectivity with global railway routes, its capacity will be underutilized. The future of the other large-scale infrastructure development project, Iran–Armenian Railroad, remains unclear. The current projects are directed to expand the railway connectivity within Armenia and increase the speed of trains.

The North–South Road Corridor (a highway running from the Georgian border to the Iranian border), cost approximately $1 billion and is one of the largest investments in road infrastructure development. It will enable significant savings on vehicle operating costs and travel time because of improved road conditions.

❖ ***Armenia's advancement in mobile and internet connectivity is remarkable on a global scale***

The rapid developments in telecommunications forced by strong competition boosted Armenia's competitiveness in this area. The recent report of ITU (International Telecommunication Union)[5] classifies Armenia's Information and communication technologies (ICT) sector among the most dynamic ones.

TABLE 3–2. **Communication infrastructure performance and change**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank	*Change*	**Rank**	*Change*	**Rank**	*Change*
	2011	*11/05*	**2011**	*11/05*	**2011**	*11/05*
Mobile telephone subscriptions/100 pop.*	**33**	*+68*	**75**	*+7*	**104**	*–28*
Internet users/100 pop.	**68**	*+17*	**73**	*+6*	**85**	*+4*
Broadband Internet subscriptions/100 pop.*	**86**	*+6*	**68**	*+26*	**72**	*–13*

Source: WEF
* Change for 2006–2011 due to absence of 2005 data.

The country improved its position by all indicators pertaining to ICT infrastructure elements. The number of mobile subscriptions tripled in the last 5 years, up from 1.2 million in 2007 to 3.3 million in 2011, putting Armenia in 33rd place in mobile subscriptions per 100 inhabitants among countries assessed by GCR. The internet service market followed a similar development path with a fourfold increase in the number of internet users within the last 4 years. With a 37% Internet penetration rate in 2010, Armenia is the leader in the region (Azerbaijan – 36%, Georgia –27% and a 29% average for CIS). The increased competition and the expansion of mobile internet services slashed the retail prices for internet services. The wholesale price for Internet services has declined from 1.2 million AMD per mbps in 2008 to 50,000 AMD in 2011.

The affordability of the ICT services improved measured by ICT Price Basket Index[6] drop to 5.9 in 2010 from 7 in 2008, however the prices remain still higher compared with the world. ITC Price Basket Index ranked Armenia 102nd among 165 countries in 2010. Azerbaijan, with the rank of 53, is the top performer in the

---

5   ITU, Measuring the Information Society 2011
6   A composite basket calculated based on 3 tariff sets and adjusted by monthly GNI per capita: fixed-telephony, mobile-cellular telephony and fixed-broadband internet services.

region largely due to higher Gross National Income (GNI) per capita.

The key technological upgrade for the previous year was the introduction of new 4G/LTE (Long Term Evolution) network by VivaCell-MTS. Armenia became the 10th country in the world with a 4G network.

The recent developments in the Internet services market report on the consolidation trends of the market through mergers and acquisitions of the small operators. During 2011, one of the key market players – Ucom – acquired 2 major retail Internet providers – Netsys and iCON Communications. At the beginning of 2012, Rostelecom, a leading Russian telecom company, entered into the Armenian market with acquisition of the major wholesale optic provider GNC Alfa. It is anticipated that the consolidation trend will accelerate. This may lead to increased scale efficiency and deployment of new technologies, though it poses some potential risks of weakening competition.

The postal sector improved significantly by a technological upgrading and renovation program.

The development of the ICT sector and e-society is one of the key priorities of the Armenian government. The introduction of e-government services (e-tax, e-registration, e-licensing, e-cadaster, and internal document management system) and the intention for deployment of a nationwide broadband backbone and government networks within WB "E-Society and Innovation for Competitiveness Project", will further facilitate the usage of ITC by the public sector, businesses and the general population.

Migration to digital radio and TV broadcasting, which is anticipated to be fully introduced by 2015, will reshape the current market. Digital broadcasting can contribute to more choices for the audience and more opportunities for broadcasters to impart information; furthermore it includes the development of new services. The appropriate regulation and high costs of transition are the key challenges.

❖ *Reforms increased the efficiency of administrative infrastructure but tax and customs regulations remain a stumbling block*

The ongoing Business Environment Reforms and e-government initiatives have led to notable improvements of Armenia's administrative infrastructure. Armenia ranked 55th in Doing Business 2012[7] though the gap with Georgia is still significant. Overall, in the result of implemented reforms, Armenia improved its position in the Doing Business Report by 6 points compared to 2010.

Currently Armenia is in quite a favorable position according to the pillars of Starting a business, Registering Property and Getting Credit while Getting Electricity, Paying Taxes and Trading Across Borders are lowest ranked factors.

TABLE 3–3. **Armenia's Doing Business rankings, 2012**

Attribute	Armenia		Azerbaijan		Georgia	
	Rank 2012	Change 12/11	Rank 2012	Change 12/11	Rank 2012	Change 12/11
Ease of Doing Business	55	+6	66	+3	16	+1
Starting a Business	10	+10	18	–2	7	+1
Dealing with Construction Permits	57	+38	172	0	4	+2
Getting Electricity	150	–2	173	0	89	+2
Registering Property	5	–1	9	0	1	+1
Getting Credit	40	+5	48	–3	8	+13
Protecting Investors	97	–4	24	–3	17	+4
Paying Taxes	153	+6	81	+24	42	+20
Trading Across Borders	104	–1	170	–1	54	–20
Enforcing Contracts	91	–27	25	0	41	–1
Resolving Insolvency	62	–6	95	–2	109	+2

Source: WB, Doing Business Report

---

7   Doing Business Report 2012, WB, 2011

The so called "second generation" reforms which started in 2008 are still among key priorities for the government. The program of Business Environment Improvement has covered a wide range of areas of doing business in Armenia starting from company registration and licensing to closing the business. So far, the major improvements included simplification of company registration, reduced time and costs for obtaining construction permits, number of tax payments and time spent on them, as well as time spent on exports and imports. In this framework, the key achievements of 2011 were the introduction of an e-government system and the establishment of a one-stop-shop for company registration. The new system resulted in diminishing the red tape for various business procedures. However, there are some limitations of using e-government services for regions other than Yerevan and they do not yet cover a number of aspects; cadaster and the tax system are only partially covered. The electronic tax reporting, which was obligatory for large sum taxpayers at the first stage, is now applied to a broader spectrum of business. The remaining part – micro and small businesses – are allowed to file taxes electronically on voluntary bases.

In light of the improvement of legal framework, the Armenian government initiated establishing a regulatory guillotine system in Armenia. In case of successful implementation, it is anticipated to reduce the number of regulations remarkably through the optimization of legal acts on different levels.

The introduction of a risk based control system in tax and customs administration, which has already started, may significantly improve the situation and reduce the administrative burden on taxpayers. This will be introduced in other governments' inspection spheres as well.

However, tax and customs administration remain stumbling blocks for the radical improvement of the business environment, ultimately being a defining factor for dissatisfaction by many businesses. Unless such radical improvements in these areas take place, improvement in other regulatory areas will be under a negative perceptual bias by the business and investor community.

❖ *Financial intermediation increased, however, it is still low on comparative terms*

According to the GCR, the overall financial market progress was moderate. The soundness of banks and accessibility of loans improved while underdeveloped equity market and lack of venture capital are pulling down Armenia in capital market competitiveness ranking.

The low level of development of capital markets is still one of the key vulnerabilities of Armenia's competitiveness. The most problematic areas of financial markets in Armenia are Financing through local equity market, Protection of minority shareholders' interests, Regulation of securities exchanges, and the availability of venture capital and general financial services.

TABLE 3–4. **Capital market infrastructure performance and change**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank	Change	Rank	Change	Rank	Change
	2011	11/05	2011	11/05	2011	11/05
Financial market development	95	+8	94	–12	99	–4
Soundness of banks	69	+17	135	–32	104	–28
Ease of access to loans	85	+13	69	+40	79	0
Venture capital availability	109	–11	54	+29	97	–8
Financing through local equity market	120	–14	77	+22	122	–14
Protection of minority shareholders' interests	120	–15	94	–11	119	–26

Source: WEF

During the period of 2005–2011, the banking sector in Armenia expanded rapidly, maintaining the development pace even during the global financial crisis. The favorable macroeconomic conditions for economic growth until 2008 complemented the government's anti-crisis measures through the significant influx of financial resources to banking sector with soft conditions. The banking assets to GDP ratio reached 54.1% in 2011 (it was only 19.6% in 2005) which shows more than a 650% increase of the loan portfolio from 2005–2011. Despite this large expansion, the lending activity of banks is still significantly low by international comparison. Armenia's domestic lending share to GDP indicator, which was 25.8% in 2010, is twofold less than the average of lower middle income countries (57.3%). Even with such a moderate financial intermediation level, many Armenian banks claim to face increasing difficulty in finding bankable projects and frequently practice refinancing schemes to attract customers. This points out the significant level of risks and vulnerabilities inherent in the economy.

A downward trend of interest rate spread was observed, which was one of the highest among GCR 2011–2012 countries (Rank 114). This could be explained by intensified competition in the sector and excessive supply of loan resources as a result of anti-crisis measures by the government. However, the rapid expansion and crisis negatively affected the loan portfolio quality. The share of prolonged loans increased significantly reaching its maximum 4.87% in the last quarter of 2010, which then gradually decreased down to pre-crisis level at the end of 2011.

The capitalization of the stock market remains very low. As of the end of 2011 it comprised 53.8 billion AMD which is lower than 2% of the GDP.

Pension and insurance reforms create hope for development of capital markets

The introduction of obligatory car insurance in 2011 was revolutionary for the Armenian insurance market. Since 2005, the insurance market size has quadrupled with more than 100% growth just in 2011. Another area which may become the next driver of insurance market development is health insurance. Despite extensive discussions on this topic there is no adopted strategy on it.

Pension funds are another area of intensive reforms. The government adopted the law on accumulated pensions at the end of 2010. The accumulated component of the pension system will become compulsory beginning January 1, 2014. Currently, employees can participate in the system on a voluntary base.

Despite the far reaching attempts to create a separate law on venture funds, the legislative framework of the venture funds was incorporated in the Law on Investment Funds which was recently adopted. The first venture fund will be established in the framework of the E-society and Enterprise Innovation Project financed by the World Bank.

The development of insurance markets and pension funds is expected to generate financial resources for long term investment comparable to the current volume of financial markets in a 10 year perspective. This may foster the activation of capital markets in Armenia in case the respective absorptive capacity in the real sector is created.

Armenia is losing its edge in the fast race of innovation

Innovation infrastructure is among the least competitive aspects of Armenia's overall competitiveness performance. In fact, ranks of key factors worsened compared to 2005.

The quality of the educational system is critical, especially in the field of engineering, but has not been fully addressed yet. Armenia's inherited advantages – the quality of math and science education, availability of scientists and engineers – are diminishing.

A similar trend was also observed in Georgia and Azerbaijan.

TABLE 3–5. **Innovation infrastructure performance and change**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank 2011	Change 11/05	Rank 2011	Change 11/05	Rank 2011	Change 11/05
Quality of scientific research institutions	107	–49	87	–43	117	–41
University–industry collaboration	125	–39	106	–54	126	–26
Quality of the educational system	97	–44	113	–34	116	–20
Quality of math and science education	81	–41	99	–19	100	–41
Quality of management schools	131	–36	125	–22	115	–11
Brain drain	103	–23	78	–25	102	–6
Availability of scientists and engineers	87	–58	53	+10	120	–76
Utility patents granted/million pop.	64	–8	90	–21	65	–21

Source: WEF

It is expected that with the recent adoption of the innovation strategy and the activation in the area of venture funds, the innovation infrastructure will obtain a good ground for development. The TUMO Center of Creative Technologies and Microsoft Innovation Center, Technopark in Gyumri, ANEL engineering laboratories in the State Engineering University of Armenia and several other educational institutions are going to facilitate innovational activities mostly in IT and adjacent fields.

❖ *Armenian consumers became more demanding, but the government's procurement policy is not stimulating technological development*

The demand conditions in home markets are the primary driver for growth and innovation. More sophisticated buyers demand better quality products and services forcing companies to continuous improvement. Governments may play a significant role by setting up demanding regulatory standards on quality assurance and by its public procurement policy creating demand for innovative and high tech products.

TABLE 3–6. **Demand conditions performance**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank 2011	Change 11/05	Rank 2011	Change 11/05	Rank 2011	Change 11/05
Buyer sophistication	74	+15	33	+51	93	–1
Gov't procurement of advanced tech products	124	–51	24	+39	76	+27

Source: WEF

The prosperity increase during the last decade reshaped the consumption pattern of Armenian consumers. The car market trend is a good illustration of this shift. From 2003–2008, the sales of cars tripled with increasing shares of more expensive cars. The crisis made some corrections in the sales volumes but didn't reverse the trend of consumption patterns.

The structure of consumption recorded growing shares of services at the expense of decreasing shares of food goods. This tendency is usually characteristic of economic stages with income growth dynamics. It is noteworthy that despite the drop in prices, the share of expenses on communication services increased significantly from 1.5% in 2004 to 5% in 2010, indicating intensified usage of ICT services.

FIGURE 3–1. **The structure of goods and services consumption, %**
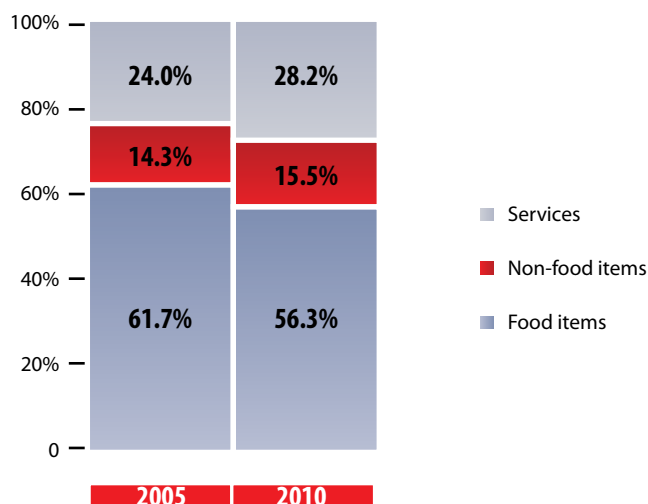
Source: NSS

The government's procurement policy in terms of promoting local innovation is ranked the lowest compared with neighboring countries. Azerbaijan leads the race with the greatest progress.

❖ *Anti–monopoly actions scaled up*

The competitive environment is the precondition of market efficiency and is the key driver for business development. According to the businesses the stance of the competition and effectiveness of the government's anti–monopoly policies are the key disadvantages of business. The situation in Georgia and Azerbaijan recorded similar developments in this aspect.

TABLE 3–7. **Competition environment**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank 2011	Change 11/05	Rank 2011	Change 11/05	Rank 2011	Change 11/05
Intensity of local competition	139	–28	133	–31	128	–37
Effectiveness of anti–monopoly policy	138	–30	113	–11	135	–50
Extent of market dominance	133	–22	82	–10	112	–10
Intellectual property protection	96	+11	60	+22	105	0
Prevalence of trade barriers	96	–14	128	–23	37	+22
Business impact of rules on FDI	95	–60	99	–22	53	+35

Source: WEF

The fundamental legislative changes in March 2011 granted the Commission of the Protection of Economic Competition of RA with more powerful tools to combat anti-competitive practices in the market This resulted in a dramatic change of the commission performance with 100% increase of the number of decisions

with imposing sanctions and a 5-fold increase in the amount of penalties. This is anticipated to bring in significant improvement and trust towards the anti-monopoly policy very soon.

Many of the factors destroying competition are outside of the jurisdiction of the competition committee. Unequally treated players by tax and customs administration have also unequal positions in the market due to different cost structures.

STATE OF CLUSTER DEVELOPMENT

❖ *Clusters are still not a critical part of the economic landscape*

According to GCR rankings, the clusters are underdeveloped in all South Caucasian countries which did not contribute to the development of specialized suppliers.

TABLE 3-8. **The stance of cluster development and change**

Indicator	Armenia		Azerbaijan		Georgia	
	Rank **2011**	*Change 11/05*	**Rank** **2011**	*Change 11/05*	**Rank** **2011**	*Change 11/05*
Availability of latest technologies	**116**	*–20*	**87**	*–14*	**99**	*+2*
Local supplier quantity	**111**	*–39*	**107**	*–18*	**138**	*–29*
Local supplier quality	**113**	*–33*	**102**	*–32*	**130**	*–23*
State of cluster development*	**108**	*–4*	**80**	*–19*	**102**	*+11*
Local availability of research and training services	**114**	*–24*	**59**	*0*	**115**	*–22*

Source: WEF
* Change for 2006–2011 due to absence of 2005 data.

The recently adopted export-led industrial strategy may trigger the cluster development in target sectors. The strategic initiatives based on public-private partnerships should tackle the critical gaps throughout the entire value chain and foster horizontal and vertical linkages.

❖ *Approval of export-led industrial policy marks a paradigm shift in economic policy making*

The overarching goal of the export-led industrial strategy adopted at the end of 2011 is increasing international competitiveness of sectors with export development potential and targeted at exports growth and diversification.

This indicates a fundamental paradigm shift in government policy focus. In fact, the macroeconomic environment which was the primary target for the government's policies was not enough for nurturing internationally competitive industries. The deficiencies in the microeconomic environment – poor public administration, dominance of unfair competition practices, underdeveloped clusters – are directly affecting the strategies and competitiveness of companies. The export-led industrial strategy is going to complement the government's efforts directed to business environment improvement and infrastructure by addressing issues at a sectoral level through strategic interventions and setting reform agenda for business environment reforms. These interventions are based on public-private partnership mechanisms addressing critical gaps in the entire value chains in target sectors.

The key principles of the strategy are:

- Export development vs. focusing only on export promotion.
- PPP starting from strategy development to implementation.
- Integration with the government's other sectoral initiatives (synergies) and policies.
- Long term development perspective with ensured quick wins.

Considering resource limitations, strategy sets the priorities by focusing on selected industries. Eleven sectors have been selected to be targeted in the jumpstart stage based on their extensive synergies with each another and current prioritized sectors. The overall strategy identifies 6 main clusters for export growth: food, health, tourism, jewelry and diamonds, and high tech and resource-based industries. It is anticipated that Armenia's export profile will gradually shift from resource-based industries towards skill-based and then knowledge-based sectors.

According to the strategy, the policy toolset will consist of 2 layers:

- Horizontal and cross-cutting measures aimed at creating a favorable environment and increase in productivity such as: setting up export financing tools, solving transportation and logistics issues, and the elimination of tariff and non-tariff barriers for export and import of goods;

- Use of a special toolset addressing specific issues at the sector level such as: upgrading quality assurance systems; support in building up industry specific training capacities, knowledge and technology transfer and innovation; and coordinating and facilitating actions for export market expansion.

The participative process and systemic approach ensured the overall consensus on the strategy. However, the success will largely depend on the efficiency of public-private collaboration, proper allocation of the resources in the implementation phase and overall execution capacity both on government and private sector sides.

Company operations and strategy

Company operations and strategy is the next pillar of the microenvironment competitiveness. The special focus of ACR 2012 is devoted to the management issues in business. The company operations and strategy performance will be discussed thoroughly in the next chapter.

INSERT 1: **POLICY SHIFTS SINCE 2005**

During the past five to six years the economic policy underwent significant transformations in underlying logic. The turbulence in external environments and mounting pressures (both externally and internally) led to changes and revision and additions of different policy elements in multiple dimensions. These revisions happened fragmentally but eventually accumulated in a diversion that can be identified as a fundamental policy shift. There can be distinguished three distinct stages with this policy logic.

Stage 1 (2005-2008) – Inertia

Policy Logic

Policy in this stage carried a significant inertia of the frameworks rooted in the previous periods. Generally, the logic relied on the assumption that public policies shall be concerned exclusively with creating a proper environment which will naturally lead to economic growth due to market mechanisms at play. The difference of the approach from 90s was the recognition of the bigger role of business environments along with macroeconomic environments. Within this "environmentalist" approach the key focus was on keeping macroeconomic stability and improving general environment and infrastructure build up. Inflation targeting introduced in 2006 as the major goal of the monetary policy (in line with the prevailing global practice) became a central factor forming the dominant design of the macroeconomic policies. Exchange rates faded as a priority parameter and a significant local currency appreciation trend started, supported by the increasing flows of private transfers. Important business environment improvement initiatives were conceived, without reaching inflection points and significant acceleration. The infrastructure build up across different areas was an important contributor to growth spanning from road building, residential construction to telecommunications. Institutional development was more incremental with some new ideas such as National Competitiveness Foundation and Pan–Armenian Bank.

Effects

The positive economic performance hid some of the structural economic deficiencies and policy flaws. Overstretched macroeconomic stability policies brought to significant currency overvaluation on the backdrop of increasing private transfers and rising incomes. This held back the rapid development of exports, but was relatively "unnoticed" in the context of rising GDP due to expansion of construction. The latter achieved record shares in GDP marking fundamental vulnerabilities. On the other hand, high prices on metals contributed to the growth of export volumes, but again bringing structural deformations and extreme concentrations of exports. All these contributed to complacency and delay in the radical change of policy until the global economic crisis hit severely.

Stage 2 (2008-2010) - Firefighting

Policy Logic

The global economic crisis found Armenia's economy largely unprepared and lacking inherent immunities both at policy and market response levels. Moreover, there was no good reference on the global scale as to optimal policy response – this was a crisis of unprecedented scale and the world lacked efficient mechanisms for responding to the contagion. Instead, traditional methods were put in place such as expansionary fiscal and monetary policies and massive support to financial institutions. In Armenia the crisis came not through the financial system but rather through different mechanisms. It was mostly through sharp declines in private transfers, significant contractions of construction and decreased volumes of key export products such as metals, diamonds and spirits.

The policy response was the mixture of traditional methods and new ad hoc elements. The traditional methods included a sharp devaluation of the national currency, easing monetary policy, expansionary fiscal policy running significant deficits, and the attraction of foreign debts. The new ad hoc elements included financial support to individual companies in the form of concessionary loans, sporadic equity investments, delay in VAT payments for sizeable investment projects and loan subsidies for agriculture (since 2008). Such ad hoc response brought also to formation of unorthodox governance structures (e.g. an operative committee under the Prime Minister evaluating

individual business projects). Over the course of time, some processes were channeled into better institutions. The creation of the state credit organization SME Invest with a mandate to provide affordable loans and equity investments marked one such move.

These events triggered the process of searching for new models of economic growth policy and revisiting some of the fundamental assumptions. The shift towards recognizing the critical role of exports, diversification of economic and export structure and new sources of growth opened the policy discourse to new approaches beyond environmentalism.

Effects

Anti-crisis measures eased the impact of the crisis and the economy started slow recovery after a sharp decline. Positive structural shifts were observable including the growth of manufacturing. Export rebounded with the recovery of the global economy. However, inflationary pressures also intensified threating to deepen the decline in prosperity in general and widen the inequality. Increase in corporate debt exposed the banking system to certain risks.

Stage 3 (2010-2011) – Paradigm Shift

Policy Logic

The search for new approaches towards economic growth policy led to the exploration of more proactive approaches. The concept of new industrial policy was coupled with the export imperative to form a demand for an export-led industrial policy. The new industrial policy concept advocates for the government to address market failures in areas such as internalization of coordination and information costs.

The government limited the mandate for an industrial policy approach only to manufacturing industries. While the developed concept took a more holistic approach by including linkages with other tradable sectors, a more comprehensive outlook shall take root in the design of the general economic growth policy.

The new policy marked a shift from only creating conditions for doing a business towards a more proactive collaborative policy design and implementation. The cornerstones of the approach are PPP-platforms and sector-specific focus of initiatives. PPP platforms will take the form of sector boards where government and private sector will coordinate actions, develop joint initiatives and discuss key issues. The sectoral focus is aimed at bringing more concentration and resource allocation effectiveness.

Anticipated Effects and Contingencies

The policy is expected to lead to a dynamic but balanced export performance and eventually formation of competitive clusters that compete in global markets. These clusters shall form the backbone of a competitive economic structure.

The success of similar policies requires three critical components:

- *Trust between the key actors across public and private sectors.* Such policies are trust-based policies implying tight coordination and synchronization of actions. Success requires positive dynamics in building trust with incremental actions and small gains. Such positive dynamics is even more important than a current level of trust at any given point of time.

- *First-class execution capacities.* This is one of those situations where first class execution with second class strategy is preferable to first class strategy , but with second class execution. Both the government and the private sector shall consolidate and devote the best resources to the implementation of the strategy.

- *Pockets of leadership.* The successful implementation of the policy will shift the policy making center from the government towards PPP-based collaborative platforms. Undertaking such responsibility will require true leadership across public and private sectors. That leadership will be different from the top-down command-and-control type, but rather be the one that empowers others to act and ensure joint success. The formulated goals and the mechanisms are conducive for emergence of such leadership centers.

Policy Making Process

Policy making also underwent notable transformations during the observed period. Public policy design and execution in the context of coalition governments, severe resource constraints and rapidly changing external environment is a very complex process and the trends are not easily identified. However, some of the key positive and negative factors can be singled out.

Key improved areas in policy processes:

- *Improved analytical capacities for policy evaluation and design.* The complexity of issues and multidimensionality of policy decision making requires very sophisticated analytical capabilities, and the improvement in this area during the observed period is substantial.

- *Own policy agenda setting.* The short track record in policy design in the conditions of market economy led to more reactive policy making largely driven by international organizations support programs. There has been significant leap in this area recently.

- *Transparency.* Public policy decision making process became significantly more transparent with the introduction of electronic platforms and procedural changes.

- *PPP-platforms.* The recent proliferation of different platforms where public and private sector representatives interact on multiple issues marks an important process change, however, the challenge for the next stage is to radically improve the effectiveness of such platforms.

Key policy process drawbacks:

- *Subscale resource allocation.* There were multiple occasions where a subscale allocation of resources jeopardized the achievement of programs and initiatives. In the pursuit to address multiple problems the government commits to diverse initiatives without sufficient resource (human, financial, time) commitments.

- *Consensus type of decision making.* In the environment with severe resource constraints and inevitable tradeoffs, the consensus type of decision making is the worst performer. Consensus tends to avoid a choice by accommodating multiple interests and pursuing incremental goals for each chosen option.

- *Lack of a "can do" culture.* One of the key drawbacks in the public sector is the lack of an achievement oriented, highly motivated performance driven culture. People tend to have low trust in the possibility of systemic changes which favors "low risk–low reward" actions and processes.

- *Weak consequence management.* Improved target setting at the policy making level is not always accompanied by improved consequence management at execution level. Policy process is considerably adversely affected by the lack of enforcement mechanisms.

CHAPTER 4: **MANAGEMENT AS A DRIVER OF COMPETITIVENESS**

COMPANY LEVEL COMPETITIVENESS

This chapter explores the company level management sophistication in Armenian manufacturing firms. The importance of this is due to the strong evidence that the competitiveness of a country is strongly influenced by the individual company performances and business sophistication levels, among other factors. Herein, management practice sophistication is analyzed in the context of the overall framework of competitiveness as depicted in Figure 4–1.

FIGURE 4–1. **Competitiveness determinants: conceptual framework**
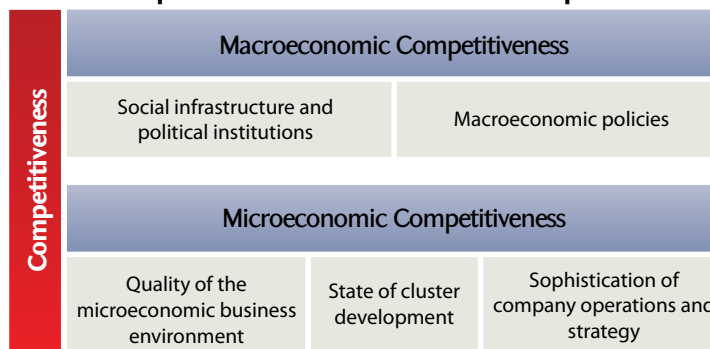
Source: WEF, M.E. Porter et al., 2007

Analysis of macroeconomic factors and the environmental contributors is the more common and widespread approach of understanding the economic performance of a country. However, the individual company level sophistication does play an important role in country competitiveness. In this chapter we assess the management practices and sophistication level of Armenian manufacturing companies. Along with interpretation of Armenia's results in the GCR, the analysis includes benchmarking the management practices to the global average levels as well as with Irish companies. The underlying reason for choosing Ireland (from the pool of countries that implemented a similar study) as the main benchmark country is the existence of relative structural similarities (size, role of Diaspora).

❖ *Armenia underperforms in a set of key areas shaping company competitiveness under the Global Competitiveness Index*

Individual firm level competitiveness has several underlying factors, some of which are assessed by the Global Competitiveness Report. A dedicated pillar of business sophistication is one of those where Armenia ranks at low levels.

Subpillars such as the production process sophistication lag behind to a large extent due to limited access to financing (considering the investments necessary for more sophisticated equipment and production facilities). Other subpillars have a softer nature, such as – willingness to delegate authority. The lower rank at factors of this nature is indicative of lower management sophistication and is to a lesser extent dependent upon environmental triggers.

TABLE 4–1. **Business sophistication indicators' comparison**

Indicator	Rank, 2011			
	Armenia	**Ireland**	**Azerbaijan**	**Georgia**
Production process sophistication	87	10	69	110
Willingness to delegate authority	113	20	85	116

Source: WEF

A serious shortcoming in the Armenian labor market is the poor reliance on professional management (see Table 4–2). This may be accounted by 3 factors:

1. Low awareness regarding the importance of professional managers;

2. Lack of trust;

3. Non–merit based hiring practices.

TABLE 4–2. **Labor market efficiency indicators' comparison**

Indicator	Rank, 2011			
	Armenia	Ireland	Azerbaijan	Georgia
Reliance on professional management	107	12	105	85
Brain drain	103	34	78	102

Source: WEF

Another grave area is the brain drain due to the inability of the economy and individual companies to provide competitive opportunities for talented professionals. This causes a substantial emigration from Armenia.

The availability of highly–educated and well–trained managers and other professionals is determinant for companies, and subsequently, economies to move up the value chain beyond simple production processes and products. As Table 4–3 illustrates, Armenia notably lags behind in nurturing high–quality executives, as well as, fails to provide necessary levels of employee training.

TABLE 4–3. **Higher education and training indicators' comparison**

Indicator	Rank, 2011			
	Armenia	Ireland	Azerbaijan	Georgia
Quality of management schools	131	29	125	115
Availability of research and training services	114	24	59	115
Extent of staff training	105	22	67	106

Source: WEF

Use of modern technologies enables companies to enhance their productivity, efficiency and the production process sophistication. It appears in Armenia there is limited use of new technologies (see Table 4–4). Furthermore, FDI levels have not been enough for becoming important source of new technology.

TABLE 4–4. **Technological readiness indicators' comparison**

Indicator	Rank, 2011			
	Armenia	Ireland	Azerbaijan	Georgia
Availability of latest technologies	116	32	87	99
Firm–level technology absorption	114	35	66	115
FDI and technology transfer	77	1	69	98

Source: WEF

While there is certain capacity for innovation in Armenia, a company spending on R&D is on a low level as presented in TABLE 4–5. This may potentially jeopardize company competitiveness in the future.

TABLE 4–5. **Innovation indicators' comparison**

Indicator	Rank, 2011			
	Armenia	Ireland	Azerbaijan	Georgia
Capacity for innovation	61	33	52	103
Company spending on R&D	117	21	83	124

Source: WEF

MANAGEMENT MATTERS FOR COMPETITIVENESS

With such an assessment and view of the role of company operations and strategy for the entire country's competitiveness, it is imperative to uncover the mechanisms of impact of specific management practices on company level competitiveness and productivity. Overall, company performance is formed by the different layers of both external factors and more internally controllable factors as shown in Figure 4–2.

FIGURE4–2. **Different layers of factors shaping company performance**
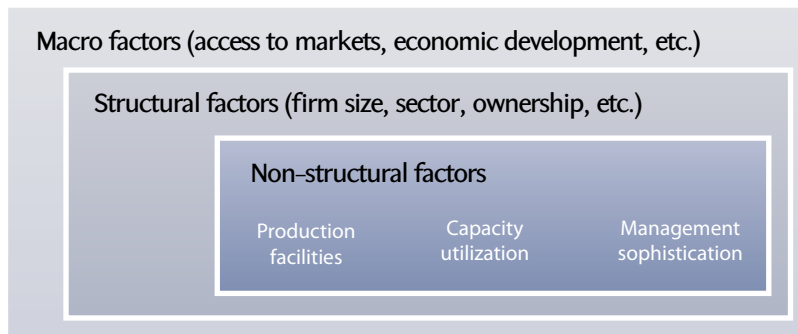
Source: EV analysis

The outer layer is composed of external macro factors, the detailed analysis of which was referenced in the former chapters. The inner structural and non-structural layers are the areas where firms can have direct impact.

It is noteworthy that performance differences between firms have long been attributed only to "hard" factors such as production machinery and technology variations. However, even in the case of completely transforming to fully automated production systems, local companies are still likely to suffer from lower productivity levels. Herein, an area that is generally paid relatively less attention to is the management sophistication level. Apart from the relative insignificance attached to it, challenges of effective and consistent measurement have held back the development and use of comprehensive analysis of management practices.

❖ *Our primary study of management practices was based on the World Management Survey methodology*

The assessment of management practices in Armenia was carried out by EV Consulting at about 50 manufacturing companies across different sectors. The study was based upon the methodology of the World Management Survey developed by a research team representing leading universities (London School of Economics, Stanford, Harvard and Cambridge), with the original measurement instrument being developed by McKinsey & Co. The detailed methodology of the study is presented in Appendix 2.

Overall, the focus of the hypothesis is on 3 main pillars in management as depicted in Figure 4–3.

FIGURE 4–3. **The 3 meshed pillars in management**

Operations management
Processes and efforts that enable optimization of production processes and generate maximal value.

Processes and efforts that align material and human potential of the whole company.

Target management

Talent management

Processes and efforts that enable optimization of human capital use.
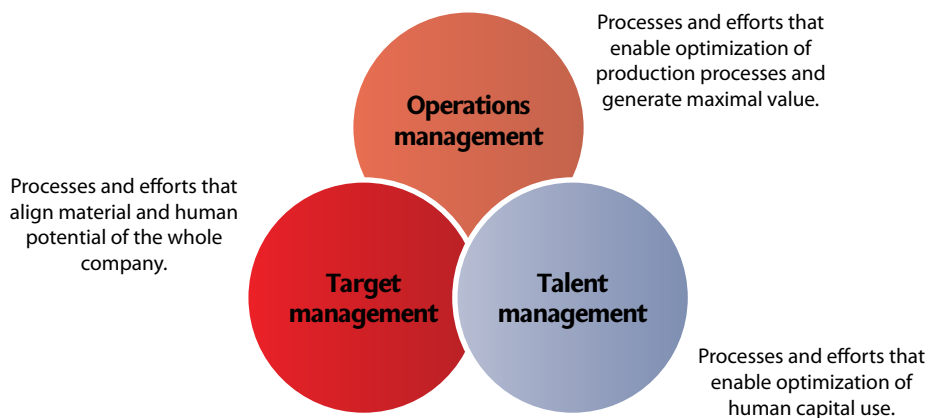
Source: Bloom and Van Reenen, 2010

The assessment methodology differs across sectors, hence, the choice of manufacturing industries for assessment in Armenia was based on a few factors (1) it is a tradable sector and the most exposed to international competition, (2) manufacturing industries are rapidly increasing their share in GDP in recent years, (3) it is currently a priority for export growth. The three pillars of management practices for assessment represent areas where the best global practices are easier to identify and, therefore, to compare across companies and countries. However, we complemented this analysis with the assessment of softer management subsystems as well.

Since 2004, studies on management evaluation have been conducted in 21 countries over 4 continents engaging more than 10,000 managers at firms between 100–5,000 employees. The results supported the early hypothesis demonstrating the strong correlation between management practice and company performance. Considering all the resource limitations imposed on Armenian companies, further enhanced by the pressures of economic downturn, good management practice may well be a major potential and a hidden resource of performance improvement.

❖ *Armenia ranks last among the benchmark countries in management practices*

According to the study Armenia ranks last among the 21 countries, where management performance has been assessed (see FIGURE 4–4). It should be noted that many of the benchmark countries are developed countries with a long history of corporate development and, therefore, the comparative results of Armenia shall be viewed with a discount of this factor.

FIGURE 4–4. **Average management practice score by country**

Country	Score
USA	3.35
Germany	3.23
Japan	3.23
Sweden	3.20
Canada	3.17
Australia	3.02
France	3.02
Italy	3.02
UK	3.02
New Zealand	2.93
Mexico	2.92
Poland	2.90
Ireland	2.89
Portugal	2.87
Chile	2.83
Argentina	2.76
Greece	2.73
Brazil	2.71
China	2.71
India	2.67
Armenia	2.46
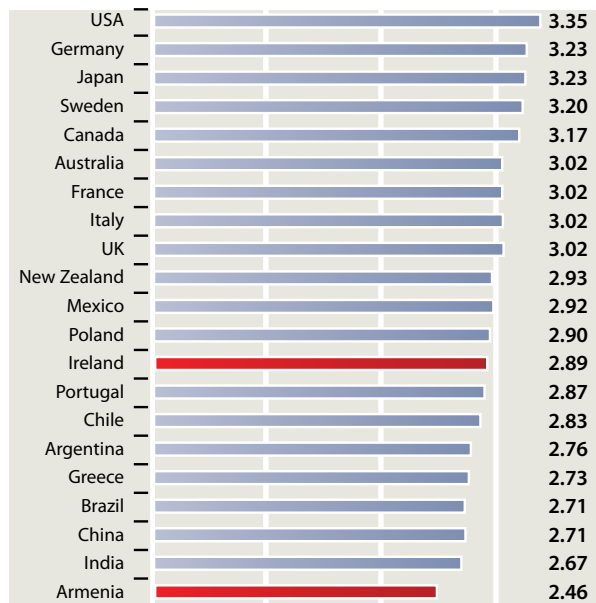
Source: Bloom et al., 2012, EV analysis
Note: the management practice score ranges from 1 to 5.

US companies have long been considered as having the best management practices in the world and are the natural leader of the ranks. These are closely followed by Germany and Japan.

Overall, countries with lower ranks are mainly non-European countries on the Asian and South American continents, where management has a long way to go before matching global best practice.

Ireland's performance lies in the mid-to-bottom of the list. Difference between the management practice scores of Armenia and the benchmarked country – Ireland –may be attributed to a set of non-structural and structural factors.

NON-STRUCTURAL FACTORS THAT IMPACT THE MANAGEMENT SCORE

The three main components of management sophistication in Armenia and their gap with Ireland and the world average are scrutinized in Figure 4–5.

FIGURE 4–5. **Management practice pillar scores, Armenia's gap with Ireland and global best practice***

Legend:
- Remaining gap with global best practice
- Gap with Ireland
- Armenia

	Operations management score	Target management score	Talent management score
Remaining gap with global best practice	0.49	0.53	0.46
Gap with Ireland	0.76	0.80	0.19
Armenia	2.38	2.01	2.60
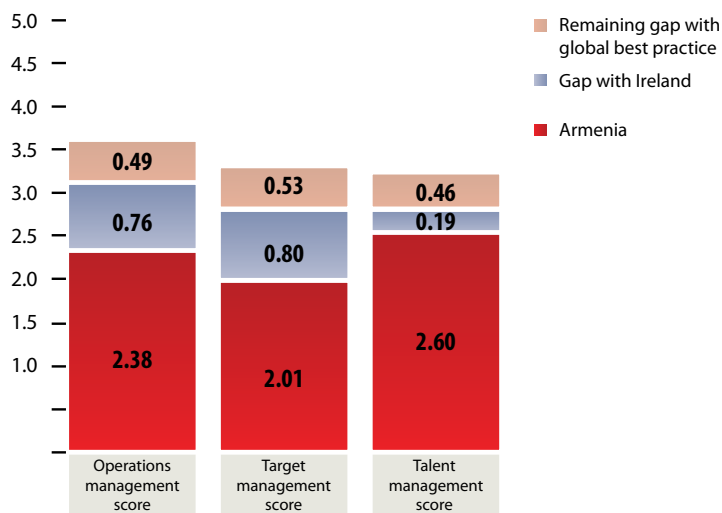
Source: Bloom et al., 2012, Management Development Council et al., 2009, EV analysis
* Global best practice in operations, targets and talent management are found in Sweden, Japan and USA, respectively.

Armenia did not perform as well as Ireland in all 3 pillars of management practice, particularly target and operational management. This illustrates the shortcomings with adopting lean or other contemporary manufacturing techniques in Armenia coupled with comparably ineffective target-setting measures. On the contrary, the area of talent management in Armenia is just shortly behind that in Ireland, conditioned by a satisfactory level of labor market flexibility and better practices in this area in Armenia.

The same pattern holds when comparing Armenia's scores with the global average. Table 4–6 presents the rankings of the 21 countries having implemented the management survey. It appears that Armenia is behind all of them regarding operational and target management.

TABLE 4–6. **Management practice pillars' scores by country**

Country	Operations management	Target management	Talent management
Armenia	**2.38**	**2.01**	**2.60**
Argentina	3.08	2.67	2.56
Australia	3.27	3.02	2.75
Brazil	3.06	2.69	2.55
Canada	3.54	3.07	2.94
Chile	3.14	2.72	2.67
China	2.90	2.62	2.69
France	3.41	2.95	2.73
Germany	3.57	3.21	2.98
Greece	2.97	2.65	2.58
India	2.91	2.66	2.63
Italy	3.25	3.09	2.76
Japan	3.50	3.34	2.92
Mexico	3.29	2.89	2.71
New Zealand	3.18	2.96	2.63
Poland	3.12	2.94	2.83
Portugal	3.27	2.83	2.59
Ireland	3.14	2.81	2.79
Sweden	3.63	3.18	2.83
UK	3.32	2.97	2.85
US	3.57	3.25	3.25
Global average (excluding Armenia)	**3.28**	**2.94**	**2.82**

Source: Bloom et al., 2012, EV analysis

The top scorer in operational management is Sweden (3.63) with nearly all of the rest of the countries scoring above 3. Sweden ranks 3rd in Global Competitiveness Index among 142 countries, (WEF, 2012) and is in 2nd place regarding technological readiness, business sophistication, and innovation. The USA, Germany, Canada, and Japan also scored high in operational management. They are generally characterized with high ranks in the aforementioned pillars of GCI (for instance, Japan and the USA rank 1st and 10th in business sophistication). Japan, particularly, is a star performer in managing process operations with a high-class lean across manufacturing industries. On the other hand, China (the worst performer after Armenia in operational management) scores low in technological readiness. Even though multinational companies bring strong management practices with them, Chinese firms tend to be subject to certain hierarchical organizational structures with restricted managerial control (LSE Centre for Economic Performance, 2008). The same problem exists in India – the next poor performer in the operational management area.

Armenia scored the lowest in target management with a score of just over 2, whereas the top performer, Japan, has a score of 3.34. The next best performers were the US, Germany, and Sweden.

The situation is a bit different with the pillar of talent management, where Armenia scored much better. With a score of 2.60 Armenia outperformed Argentina, Brazil, Portugal and Greece. Those countries lagged behind in the labor market rankings in GCI as well. The distinguished champion is the USA with a score of 3.25, whereas Armenia's performance is in the same tier with India and New Zealand. In the area of talent management Canada, Germany, and Japan follow the USA's performance. The high scoring countries are also characterized with low levels of labor market rigidity. It is noteworthy to add that in Northern American countries, the manufacturing plants operate with relatively flat hierarchies where the plant managers have significant control over hiring and firing. On the other hand, in Central and South American countries like Mexico and Argentina, cultural aspects present notable obstacles for achieving best practices in talent management.

Overall, management style and priorities vary in different continents. In the USA, India and China the use of talent management tools seems to exceed that of performance management and target-setting. On the contrary, in Japan, Sweden, and Germany, performance management and target setting is relatively stressed compared to the talent management area.

STRUCTURAL FACTORS THAT IMPACT THE MANAGEMENT SCORE

The set of structural factors responsible for a certain proportion of the gap in management practice between Armenia and Ireland is presented below and will be explained:

1. Company size

2. Ownership type

3. Skills level

4. Sector type

5. Labor market flexibility

6. Competition level

7. MNC presence

❖ *The bigger the company the better the management sophistication level*

The size of the companies (measured mainly by employee numbers) matters. The bigger the company becomes, the more sophisticated management practices become. The company scale allows the managers to invest more in adopting various systematic approaches to achieve better results. Additionally, the complexity of bigger companies pushes them to rely on more than just intuitive management tools.

FIGURE 4–6. **Management practice score and firm size, Armenia vs. Ireland**
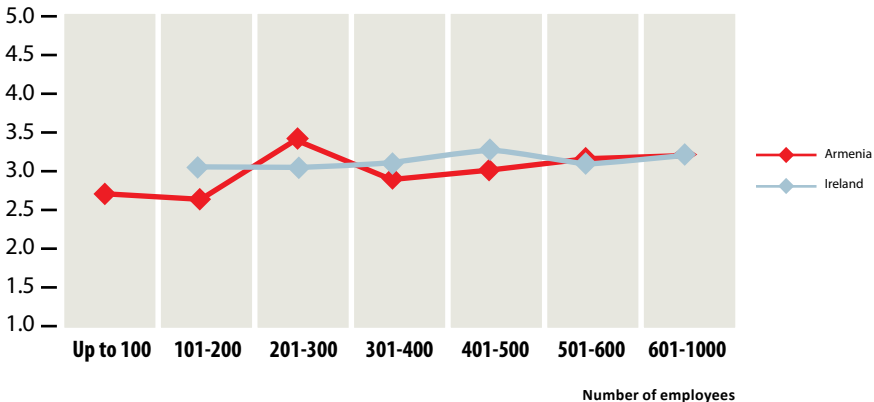
Source: Management Development Council et al., 2009, EV analysis
Note: The abnormal variation in management practice score of the firms with 200–300 employees in Armenia is largely due to the best performer an MNC branch results in that tier.

The share of large sized companies (defined in terms of number of employees) is rather insignificant in Armenian economy[8] – by 1st of January, 2010, small and medium size enterprises (SMEs) made 97.7% of the registered entities and sole proprietors in Armenia (SME DNC, 2011). Overall, small companies are outnumbered Armenia. In Ireland, the distribution of SMEs in the total number of firms is similar to that in Armenia – around 95% (Enterprise Ireland, 2011). Nevertheless, it is the medium size firms that dominate in Ireland – around 83% in total.

Bearing in mind the structural pattern of the Armenian economy, the current study attempts to reflect the approximate distribution of companies by size according to the real economic situation in Armenia. The comparison of the distribution with Ireland is presented in Figure 4–7.

FIGURE 4–7. **Distribution of firms under the management practice survey in Armenia and Ireland[9]**
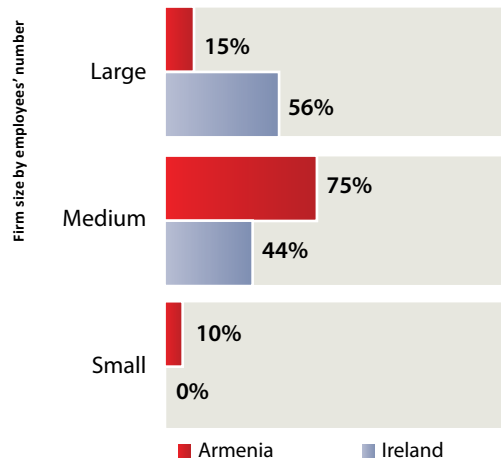
Source: Management Development Council et al., 2009, EV analysis
Note: For the purpose of Figure 4–7, firm size has been categorized according to the 'employee number' component only.

Thus, about one-quarter of the surveyed firms in Ireland had more than 600 employees compared to only 4% in Armenia. On the other hand, more than half of the firms that took part in the study in Armenia had from 30–100 employees, whereas none participated in Ireland in that range.

The management score is also positively correlated with the company size measured by approximate sales values as illustrated in Figure 4–8. However, due to the confidentiality of that figure in most Armenian companies, we were able to only check the hypothesis for 14 of the sampled companies.

---

[8] According to RA legislation, company size is defined as following:
small companies have up to 50 workers and revenue or asset balance value of up to AMD 500 mln Medium size companies have up to 250 workers and revenue or asset balance value of up to AMD 1,500 mln or 1,000 mln respectively.
[9] In Ireland, company size is defined within the same range of employee numbers as in Armenia, however, the values of firm annual turnover and balance sheet differ with those in Armenia.

FIGURE 4–8. **Sales revenue and management practice score of selected companies in Armenia**
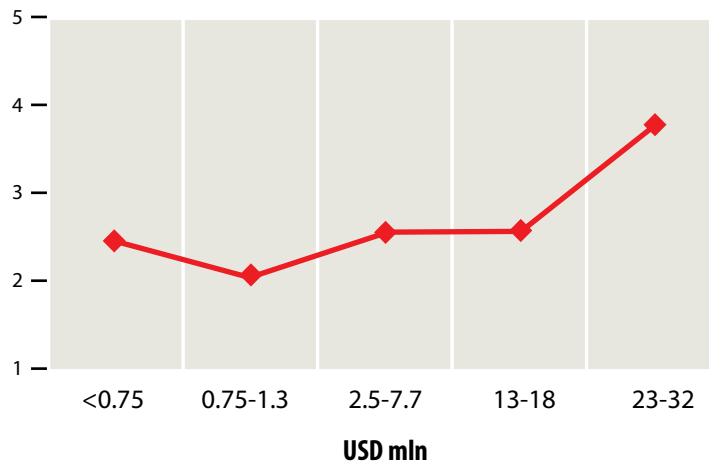
Source: EV analysis

❖ *In family–owned and –managed businesses the management practice is worse*

The management sophistication level at family owned firms is generally worse than in companies with diversified ownership structure. One of the prime causes of this is the widening gap between the required skills of the founder as a start–up entrepreneur and as a manager of an ongoing business as it grows larger and larger. The shift of management is also a rather traumatic transition, and in family owned companies takes the form of transfer to the next generation family representatives.

The situation in Armenia is illustrated in Figure 4–9.

FIGURE 4–9. **Management practice score by ownership, Armenia**

Source: EV analysis

These above–depicted differences are conditioned by the more effective approach of professionals managing the firm rather than owner's family–affiliated management measures. In this context, the placement of family members lacking necessary knowledge and skills in top positions jeopardizes the management performance of the firm.

Overall, choosing managers only from family reduces the potential talent pool to effectively manage the firm. In addition, the belief that family members will hold management positions in the future can potentially lead to a so called Carnegie effect, i.e. unsatisfactory efforts and time invested in education and early stages of career–building which generates low levels of human capital (University of Technology of Sydney and LSE Centre for Economic Performance, 2010). As global research has found, the worst case is that of primogeniture (the eldest son of the owner of the business acting as the CEO).

On the other hand, family ownership can lead to better monitoring of the managers. Also, in developing countries, founders often encounter difficulties in selling off the firm to outside investors. In addition, when minority investor rights are not decently protected, the founder may face additional problems in diversifying ownership. Furthermore, there might be a desire to retain family control over the management.

In the above discussed context, Figure 4–10 depicts the ownership type of the surveyed firms in Armenia and Ireland. In Armenia more than half of the firms are owned by founder, whereas in Ireland the largest ownership type is of a dispersed nature.

FIGURE 4–10. **Ownership type of the surveyed firms in Armenia and Ireland**
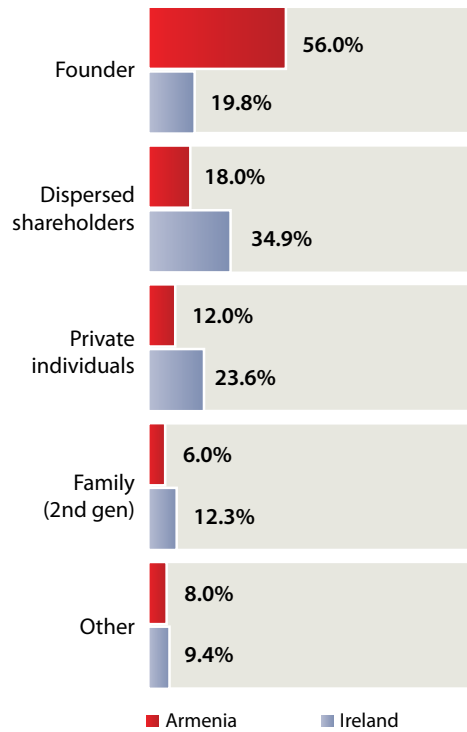
Source: Management Development Council et al., 2009, EV analysis

❖ *Higher skills deliver better management practices*

The studies on management practice in other countries have found a strongly positive correlation between the skill levels at the firm and its management practice. Particularly, the availability of educated and skilled managers at all levels in the respective specialty is an important contributing factor. As discussed earlier, Armenia has recorded notably poor results regarding research, training, and quality of management schools according to the GCR.

❖ *Better management practice is found in high–value manufacturing sectors*

High–value manufacturing is defined as that of high–skilled, knowledge intensive manufacturing operations which compete on unique value proposition and innovation. It is of course, provisional classification generally used by researchers. The categorization of sectors in Armenia into high– and low–value for the purpose of the management performance survey is presented in Table 4–7.

TABLE 4–7. **High– and low–value manufacturing sectors, Armenia**

High–value manufacturing	Low–value manufacturing
Engineering	Food manufacturing
Pharmaceuticals	Beverages manufacturing
Chemicals manufacturing	Construction materials
	Glass manufacturing
	Textile
	Carpets making
	Mining
	Printing

Source: EV analysis

Past studies have revealed that there is a certain gap regarding management practice between firms engaged in traditional sectors and firms operating in high–value industries. This is largely due to the knowledge-intensive nature of the operations and larger stock of well-educated workforce. Figure 4–11 presents the above-average performance of the high value manufacturing firms in Armenia.

FIGURE 4–11. **Average management practice score of high– and low–value manufacturing firms, Armenia**
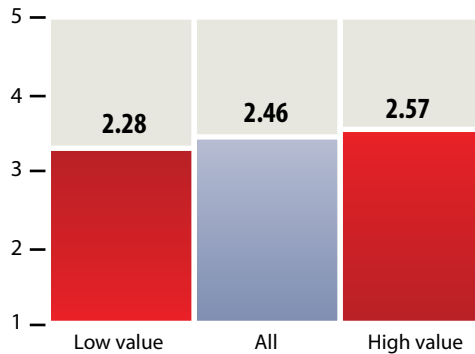
Source: EV analysis

Overall, Armenia has a long way to pass to nurture significant amount of firms in high–value sectors along with the currently dominating low value sectors in the economy.

❖❖ *Armenia recorded much better results both in terms of labor market flexibility as well as talent management at company level*

Overall, higher levels of labor market flexibility are correlated with better talent management. As shown in Figure 4–12 Armenia enjoys above-average ranking in employment flexibility among the benchmarked countries. While, its talent management score falls behind a number of countries with higher degrees of labor rigidity, it is Armenia's best performing management practice area where it outperforms some of the more developed countries.

FIGURE 4–12. **Talent management score and labor market flexibility, Armenia and world**
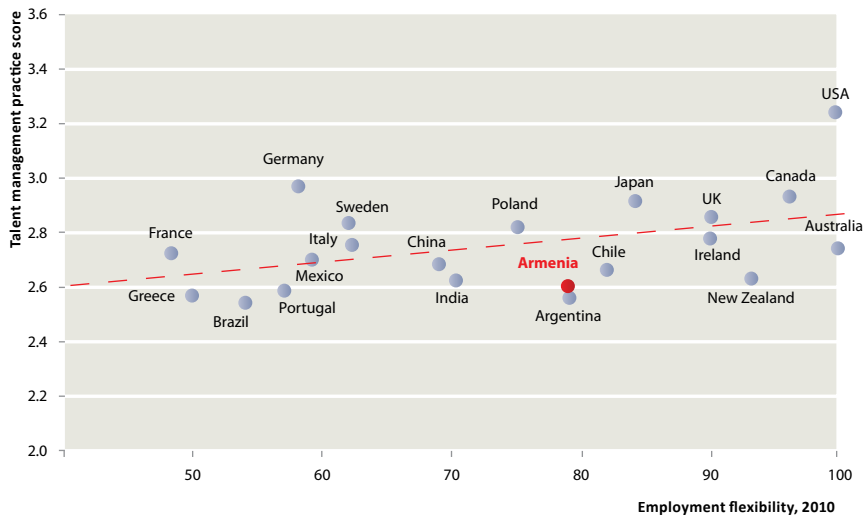
❖ *Management practices are better at companies facing tougher competition*

Unsurprisingly, the tougher the competition is, the better management is practiced at the examined firms worldwide. This is mainly conditioned by two factors:

1. Survival need – generally, the Darwinian selection process drives inefficient firms out of the market.

2. Adoption of the best practice in the competitive environment.

As the management survey in Armenia results reveal, companies facing 5 competitors in the market record an average management score of 2.1 whereas companies facing 10 competitors and more achieve an average score of 2.75.

In this context, logically, as Figure 4–13 shows the Armenian exporters (facing much higher levels of competition) perform better in management practice compared to the non-exporter firms.

FIGURE 4–13. **Management practice score of exporters and non-exporters, Armenia**
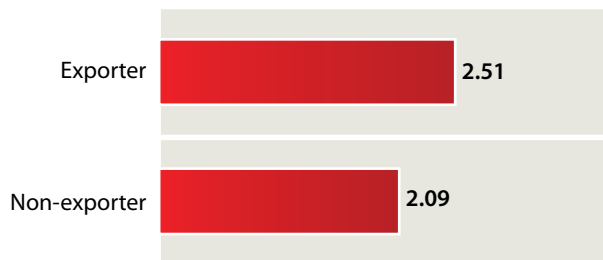
While over 90% of the surveyed companies in Ireland faced 3 competitors and more, only 73% of the respondent companies in Armenia perceived to have 3 and more competitors.

❖ Multinational companies generally have more sophisticated management systems

The branches of multinationals score higher for several reasons:

- Multinationals have the separation of ownership and management, which most of the local companies yet have to achieve.

- Multinationals replicate the management systems of their parents, which have been tested on efficiency by time and experience of parent companies.

- An important factor is also the push from the parent companies towards increasing the efficiency: thus the performance improvement with clear benchmarks is never off the agenda, which is a facilitator to the management efficiency.

Even if not multinational, the companies that have interaction with external markets and/or foreign ownership of some kind, have the agenda of complying with certain standards.

Ireland hosts a vast range of MNCs whereas very few are present in Armenia. For indicative purpose, only 4% of the surveyed companies in Armenia are MNCs contrasted to over half in Ireland.

Even though the existence of such companies in Armenia is scarce, the available few were closely studied in Armenia.

❖ Scores are mostly determined by dominant average firms in Armenia and Ireland

It appears that the variations in management practice are more vivid in the same country and even in the same sector than when compared globally. This indicates that good management practice can also be subject to individual firm case rather than due to exemplary economic climate in the country. In this context, Figure 4–14 illustrates the distribution of management practice scores among Armenian and Irish surveyed companies.

FIGURE 4–14. **Distribution of management practice score, Armenia vs. Ireland, % of companies**

Armenia

Average management practice score

Ireland

Average management practice score
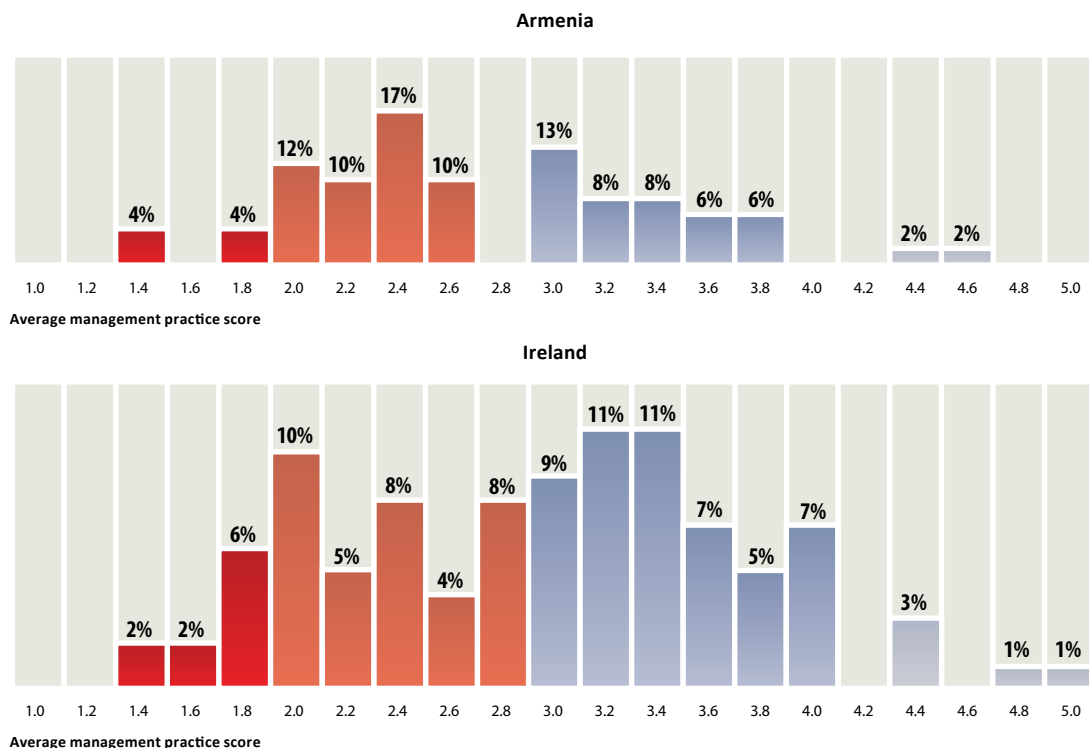
Note: Standard deviation of Armenia's and Ireland's results is 0.67 and 0.80, respectively.
Source: Management Development Council et al., 2009, EV analysis

It appears that Armenia has less diverse companies than Ireland in terms of variance in management score. However, while in both countries the worst managed firms are with scores below 2 (8% and 10% in Armenia and Ireland), the average score was driven by companies with close to average results.

The major characteristics of the average Armenian worst managed firms are: it operates in regions outside the capital and in sectors of food &beverage, textile and they are owned and managed by the founder or 2nd generation family member.

Likewise, in Ireland, the tail is composed of firms mainly involved in low value sectors (such as food production). More than one third of those worst managed firms are owned by the founder or family.

Nevertheless, the above-discussed tail is not a determinant factor for the average management practice score in both countries. It is mostly the notable distribution of firms between scores of 2 and 3 that holds back the average score going higher.

❖ Management practice performance is different by sectors

The high-value pharmaceuticals & chemical manufacturing sector have the highest average management score in Armenia (see Figure 4-15). This is partly due to the introduction of certain modern manufacturing processes to be compliant with regulatory requirements as well as relative stress on the importance of skilled human resources compared to other sectors.

FIGURE 4-15. **Average management practice score by sectors in Armenia**

Sector	Score
Pharmaceuticals & chemicals manufacturing	2.79
Mining	2.69
Food & Beverage	2.55
Engineering	2.49
Construction materials	2.28
Textile and carpets making	2.17
Other	2.50
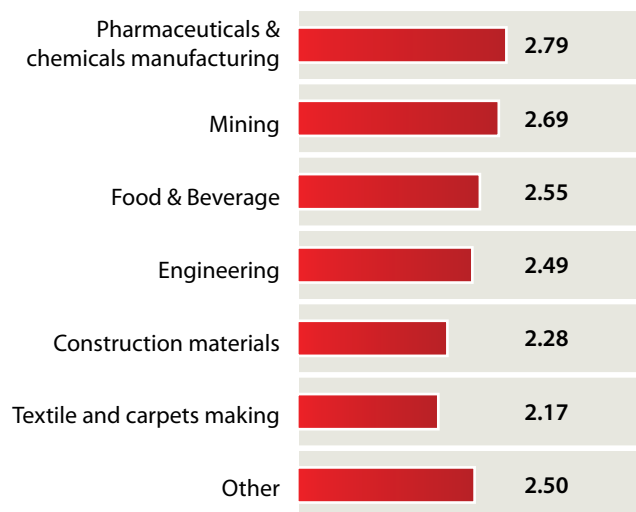
Source: EV analysis
Note: 'Other sectors' include battery production, glass manufacturing, jewelry and printing.

The food and beverages sector score is enhanced by the performance of the 2 multi-nationals in the sector, i.e. Coca-Cola Hellenic Bottling Company Armenia and Yerevan Brandy Company (part of the French Pernod Ricard group). Interestingly, the two sectors lagging behind are more of low-value manufacturing category – textile & carpets making and construction materials manufacturing.

❖ Worst managed firms are in the regions outside the capital city (in Marzes)

The management practice scores in the capital city of Yerevan outperform that in the regions (Marzes, see Figure 4-16). This holds true for all of the 3 areas of management practice examined.

FIGURE 4–16. **Variations in management practice score, Yerevan vs. regions in Armenia**
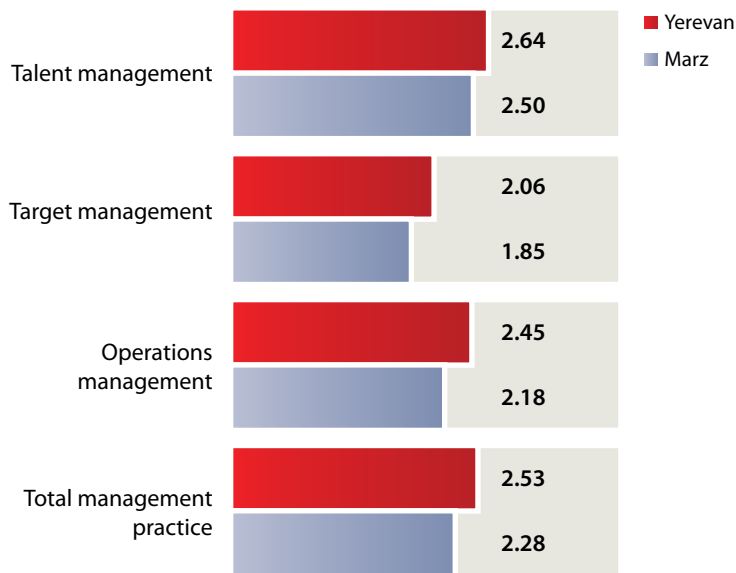
Source: EV analysis

The above-discussed pattern is mainly due to the larger concentration of skills and knowledge in Yerevan as well as overall advanced business environment positively affecting management practices.

HIGH SELF–ASSESSMENT OF ARMENIAN TOP EXECUTIVES

Self–assessment tends to be higher compared to management score

The Armenian managers tend to have a higher self–assessment compared to the management score derived from the study. This is a global trend, which is more acute in Armenia. According to managers' self–assessment,their performance is rated 3.89, which exceeds the management score by as much as 60%.

FIGURE 4–17. **Managers' self–assessment vs. survey overall assessment in Armenia**

Source: EV analysis

It is particularly the family owned and managed firms where managers' self–assessment is substantially higher than the management score. This is mainly due to lack of necessary knowledge of best practices.

❖ Low awareness on contemporary strategic management practices

We further assessed the awareness of company managers on contemporary strategic management systems and practices to validate the hypothesis that high–self assessment is driven by low awareness of global best practices. For this purpose we conducted an additional survey of companies on the usage of strategic planning tools.

1. Our study showed that the annual financial budgets are the main and the most widespread management tools used by the local companies. However, not all the companies have a systematic and well defined budgeting, monitoring, and revision processes. This eliminates the role of the budgets substantially.

2. Strategic planning is one of the most misunderstood concepts. Most Armenian companies claim to have in place an elaborate strategic planning system. Whereas, the cross checking questions reveal that the local companies lack the vital components of a long term strategic planning:

   - The companies generally lack long-term goal setting;

   - The competitive analysis is done either partially or not carried out at all;

   - A market strategy is rarely formulated.

3. Strategy execution is perceived as one of the less problematic areas of management. The link between long-term strategy and the everyday operations to deliver it is considered one of the major management problems worldwide. According to studies, companies worldwide typically realize only 60% of their strategies (Mankins and Steele, 2005). In contrast, only a small portion of local companies surveyed perceives strategy execution as a problematic area – a vivid indication of low awareness level on strategic planning and execution in Armenia.

CONCLUSION

❖ *Armenia has a long way to improve management at companies*

Similar to the global experience, management practice sophistication appears to be among the factors determining company performance in Armenia and contributing to the overall country competitiveness. Armenia lags behind the benchmarked 21 countries due to the ineffective practice of management at companies. Structural factors such as small company size, family-owned and –managed firms, shortcomings in managerial skills, imperfect competition, and weaker presence of MNC-s in Armenia contribute to the underperformance of the Armenian firms on global level. There is significant need for improvement in operations, performance management areas, as well as long-term strategy and execution practices. Executives' exposure to the best global practice is seen to be an important factor to consider. On a positive side, with flexible labor markets and relatively better talent management practices, Armenia is well posed to achieve this.

❖ *Management improvement is high return investment*

The payback of investment into building more effective management systems will be substantial. Since 2004, studies on management evaluation conducted in 21 countries demonstrated the strong correlation between management practice and company performance, namely:

FIGURE 4–18. **Correlation between improvement in management score and company performance**

1-point improvement in management score

2.8% increase in return on capital employed
6% increase in productivity
71% higher market share growth
26% increase in market cap
2.3% increase in sales growth

Increases in output equal to about growth caused by

- 25% increase in labor
- 65% increase in invested capital
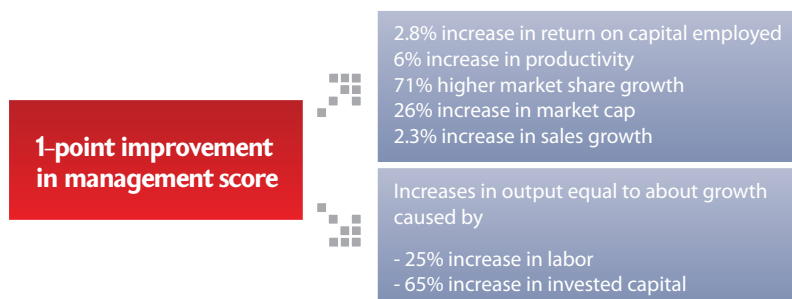
Source: London School of Economics, Centre for Economic Performance, 2011

❖ *Management practice improvement shall be a priority matter on the private and public sector agenda*

Considering the resource limitations imposed on Armenian companies, further enhanced by pressures of economic downturn, good management practice in Armenia may well be a major potential and a hidden resource for enhancing competitiveness of the private sector. This should be recognized widely across the business community and then promoted to turn into priority on the competitiveness agenda of the country.

There is a significant management–caused productivity gap between the local companies and the local MNC subsidiaries, i.e. difference in productivity that cannot be explained by environmental and other external factors, but is mainly due to difference in management sophistication levels. A closer observation was carried out of the two main company types: a local leading food processing company that represents best practice locally and a local subsidiary of a multinational company. For this purpose, we used extensive interview sessions with key executives of the companies. This allowed us to get a deeper understanding for the comparative analysis of the management systems of both companies.

The following analysis, however, is not a mere comparison of two specific companies. The analysis builds upon a broader study and experience of local company management systems and draws the main contours of an average local company.

The management is carried out differently in MNC subsidiaries and local companies and that is one of the causes leading to the productivity gap.

The gap defined

The productivity in the current context is defined as the sales per production employee. Given that the compared companies had similar product lines, such metrics is largely comparable across two companies. The productivity level of the local company is compared to the best practice of an international company, while the productivity of the MNC Armenian subsidiary is compared to the same MNC global average level. The comparative analysis shows that the MNC's Armenian subsidiary is considerably closer to the benchmark level than the local food processing company, which has a wide gap with its international best practice comparator.

INSERT Figure 2–1. **The gap analysis of a leading local food processing company and a local branch of a multinational to respective best practices, % (ratio of total sales to number of production employees)**
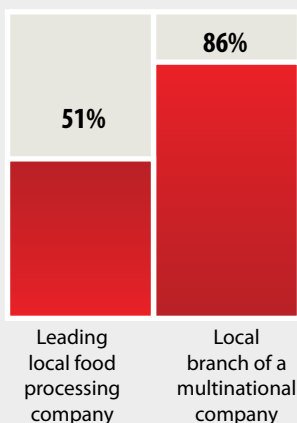
Source: Company annual reports, interviews with top management.
Note: The productivity is calculated as sales revenue divided by the number of production employees. The indicator of a local food processing company is compared to that of same sector international best practice company. The same comparison analysis is carried out for the indicator of the MNC's Armenian subsidiary with its global average levels. In both cases, the best practice benchmark levels are the 100% bar line on the chart.

Such a comparative outlook principally neutralizes the impact of environmental factors on productivity and, hence, the productivity gap can be largely attributed to internal factors among which management practices play a significant role. Some of the "hard factors" still need to be taken into account such as

- *The levels of production automation*: The local companies yet lag behind the international companies on the level of automation and technological upgrade. Notably, this is not the case for all companies anymore, as a growing number of local companies is investing in up to date technologies and equipment.

- *The scale effect and the capacity utilization*: MNC branches commenced operations on a larger scale.

With such carve outs, generally management practices tend to explain a large portion of differences in productivity between MNC branches in Armenia and local companies.

Areas where local companies lag behind, while MNCs master:

1. Long term strategic thinking and planning

On average, local companies have a short-term mindset and generally lack the long-term planning systems. Local companies generally stick to daily and at best, to annual planning horizons. Fast changes in the environment are quoted by local company top managers to be the main reason for such a short term outlook. However, markets and environments are generally turbulent in almost all countries that do not prevent many companies from executing efficient strategies and long-term planning. Armenia cannot be an exception. Long-term thinking can prepare the company to cope with current and emerging challenges and set an effective platform for flexible strategic decision making.

Lack of awareness on the contemporary elaborate strategy development tools contributes to the issue.

2. Market strategy

Having a production oriented mindset is one of the weaknesses of the local companies. The market maturity of major food products has reached the point where without an elaborate market strategy and with mere imitating tactics, the companies enter intro cut-throat price-based competition eroding profits and threating long-term commercial viability. Some of the most common shortfalls are the lack of clear market segmentation and respective value proposition to each segment, product proliferation (offering too many product varieties with little differentiation), missing to provide clear product differentiation, sporadic advertising and market campaigns, little use of non-conventional communication channels, poor competitive intelligence and knowledge of competitors, and ineffective organization of distribution and sales force compensation schemes. This is a difficult to match area for local companies as the MNCs have sophisticated market positioning which have been developed and tested in many countries throughout years and most often coordinated by the headquarters. The problem is exacerbated due to a lack of high quality marketing specialists.

3. The link of strategy to everyday operations

With vague or no strategic plan at all, the local companies generally allow the everyday operations to define their long-term direction . However, the sustainable growth of the MNCs is largely defined by their ability to link their long-term strategy to the everyday operations with the help of long-term goals, targets and strategic initiatives.

4. Performance management

The main performance management and planning tools used in local companies are financial budgets. The key performance indicators (KPIs) or other measures are exclusively financial and short-term in nature. KPIs that would monitor the non-financial performance of the companies are usually not used in local companies. Whereas, non-financial metrics in areas such as customer service, operations efficiencies, and human capital development are critical for uncovering underlying causes of company performance and spot weaknesses and strengths. While the MNC branches in Armenia do not always use performance management systems of comparable sophistication as their headquarters or branches in more advanced countries, they have more comprehensive and elaborate systems. Some of them use it to track customer satisfaction and

product quality measures. This makes their performance management more balanced, without the perils of one-sided financial goal setting only. The financial target setting can turn the company focus on short-term profits only, sometimes at the expense of sustainable product quality or market presence. Another major disadvantage of local company performance management systems is the failure to link the company and individual performances to compensation and bonus systems. The major motivational performance trigger worldwide is known to be the elaborate compensation system of executives and general staff in more developed systems. Best practice in these areas has efficiently aligned motivational systems throughout the entire organization. In sharp contrast to this, it is not uncommon among local manufacturing companies to execute a penalty-based system, i.e. penalizing employees and executives for underperformance. The negative motivation is a more powerful tool undermining the health of the company.

5. Operations management

The local companies are generally handicapped with the lower quality equipment and facilities. However, the abundance of operational management tools, for enhancement of productivity, efficiency levels, and elimination of loss, are underutilized in Armenian companies. The lack of awareness and the low exposure to global best practices are main underlying causes.

6. HR and IT infrastructure

Main disadvantages of local companies compared to multinationals are the low level of investments into both systems: namely HR trainings and motivation systems based on appraisals and other qualitative factors. IT systems of local companies are also lagging behind the MNC systems that have access to resources adopted by the parent companies. Local companies have in best cases Russian enterprise resource planning (ERP) systems.

7. Division of ownership and management

Evidence shows that in local companies where the shift from owners to professional management has taken place, the level of management sophistication is higher. The involvement of owners in daily operations has a dubious effect on the overall company health. The very common practice of appointing relatives to senior management positions compromises the professionalism level in the company. The main reasoning of the owner involvement is the trust and transparency issue, which, can be resolved through an intact system of reporting and control advocated by contemporary management systems.

However, we should also note that in some cases the added rigidity and bureaucracy of the MNC global management imposed on the local branches becomes an obstacle to flexibility and eventually growth. This indicates that a blind imitation of global practices by local companies is not the message of this comparable analysis.

CHAPTER 5: **SETTING AN AGENDA FOR MANAGEMENT PRACTICE UPGRADE IN ARMENIA**

INTRODUCTION

The previous chapter outlined the serious deficiencies in the management practices in Armenia and made a case for improvements in management practices to increase corporate performance and overall country competitiveness. The current chapter sets a broad agenda for disseminating better management practices in Armenia. The main target is the management performance in the private sector whereas management practices in the public sector require a much more subtle and multi-layered discussion[10].

The current chapter pinpoints the role of both public and private sectors in a mutual formal/informal partnership to enact and synchronize actions to achieve notable and sustainable improvements in management practices in the private sector. In this context, a comprehensive conceptual framework is offered as depicted in Figure 5-1.

Figure 5-1. **Conceptual framework for spreading better management practices in Armenia**
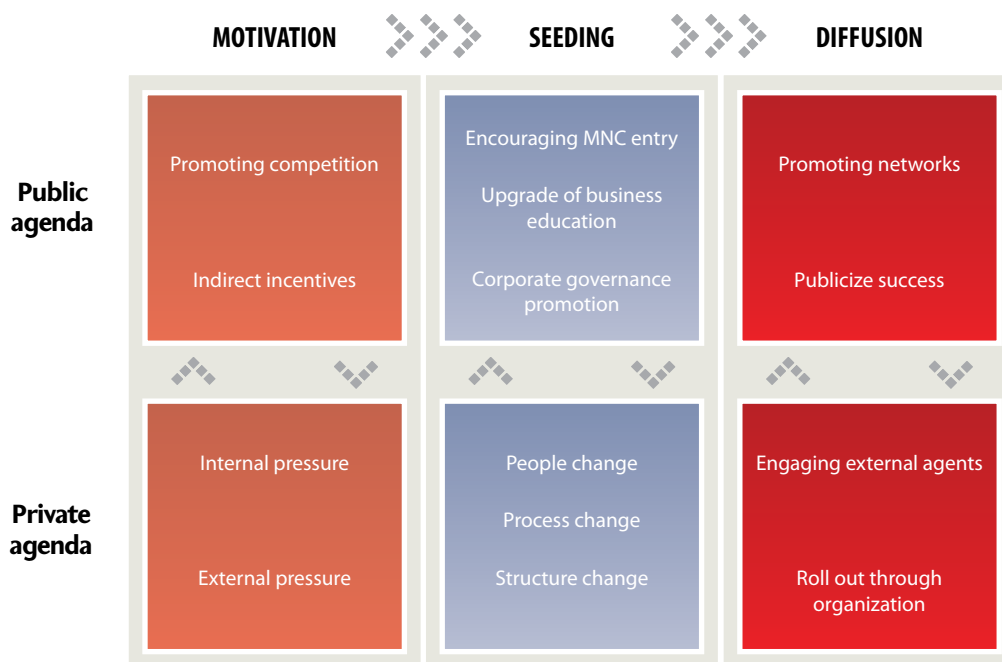
Source: EV, 2012

The framework distinguishes three distinct yet inter-linked stages defined by various focus areas and initiatives on two levels of execution – in both public and private sectors. Any management upgrade shall be driven by strong motivational factors. The latter will need to be followed by seeding initiatives at different entities (early movers) to translate into concrete results. The change will be systemic only if effective diffusion mechanisms leverage individual efforts and disseminate the practices across larger sets of companies.

Dissatisfaction with the current status quo coupled with developments in the internal and external environment act as motivational triggers for companies. The public sector is in charge of providing opportunities and incentives whereas actions by the private sector can be driven by internal and external

---

[10] "Management practices in Armenia" refers to practices in the private sector only unless mentioned otherwise.

threats and opportunities. Specific initiatives by both sectors are to convert motives into actions and seed enhanced management practices at firms. The state's infrastructural and institutional resources are to be combined with the potential of the companies as well as the support industries (management consultancies, private sector technical assistance programs, experts, etc.).

Once there are changes within the companies, the information needs to be disseminated. A common culture of diffusing the new best practices in management is a prerequisite; otherwise, a few separate good approaches will remain scattered failing to deliver notable mass results.

Overall, management system change is a highly complex, multi-dimensional process. Effects of separate actions are often impossible to predict given the complex web of interlinkages between subcomponents of the management system at company level and their interaction with external environment. The framework allows identifying broader areas of initiatives in a structured way with an important caveat that no framework can exhaust the wealth of factors and interactions in the world of management.

CREATING MOTIVATION

The government should comprehensively promote competition to foster management upgrade

Agenda for the government

- *Can the government promote competition only through the State Commission for Protecting Economic Competition (SCPEC)?*

- *Why public procurement is not viewed as an instrument for rewarding efficient management?*

- *Why tax cannot be viewed as an instrument stimulating fair competition rather than as fiscal or punishment instrument?*

- *Are companies ready to face tougher competition as the government prioritizes export promotion?*

As shown in the previous chapter, competition is a major enabler of seeding better management practices at firms. Particularly, the need for survival in the competitive environment is associated with the emergence of more effective management system in the companies. While the firms themselves are ultimately responsible for practicing maximum competitiveness, a great deal of work is under the state responsibility to protect and promote competition in the overall market. In this regard, Armenia has a long way go. Some of the key focus areas are described next.

Balanced, comprehensive and non-selective execution is a key. The recent legislative changes that led to the enhancement of the functions of SCPEC intensified its activities and increased its role. The business is getting stronger signals about the possible consequences of unfair competitive practices. The commission needs to establish its credibility by using a cautious, balanced and non-selective approach and enforcement of its duties.

Tax and customs shall be applied non-selectively. The competition environment in Armenia is adversely affected by shortcomings in tax and customs administration. Many companies gain competitive advantage through preferential treatment by tax and customs rather than direct violation of competitive rules. The improvement of this fundamental drawback in the regulatory environment is an absolute prerequisite for instituting fair competition.

The government can lead by improving public procurement. Unless the government is not a fair buyer, it cannot demand from businesses to be fair competitors and partners. The government needs to show leadership in instituting fair practices of public procurement which will be a strong signal to the business sector.

Triggering exports is a major contributor. Export promotion is a major vehicle to enhance competition. Exporters facing tough competition in global markets are naturally incentivized to upgrade their management

systems to stay competitive. The state's aggressive promotion of export-oriented sectors in terms of enabling legislative and infrastructure as well as direct intervention can potentially be a key contributor. The latest significant move of the RA Government in approving and adopting the export-oriented industrial policy of Armenia is a dedicated approach on the state level to implement a comprehensive strategy aimed at boosting Armenian exports in a sustainable manner. However, the success requires that companies synchronize their efforts to improve management practices in parallel.

Extensive use of indirect incentives by the public sector should become more comprehensive to motivate companies to employ better management practices

Agenda for the government

- *Why not expand the range and caliber of tools that can indirectly act as stimuli for practicing better management in the private sector?*

- *Can a multi-stakeholder coalition be built to actively promote companies to make use of indirect incentives?*

- *Can a long-term plan for defining the role and mechanisms of indirect incentives be elaborated?*

The public sector may exercise a range of tools which will indirectly provide benefits for companies with better management practices. Currently, this set of tools includes company ratings by Central Bank (see Insert 3 for details) and tax incentives for companies doing initial public offering (IPO). Along many factors Central Bank's rating incorporates assessment of company management systems. The rating provides not only image building benefits, but also reduces risk classification of loans taken by these companies as well as bonds issues by rated companies that can serve as collateral for REPO transactions by CBA. IPO implies that companies need to have the most important elements of sound management in place. Therefore, incentives for IPO act as indirect incentives for good corporate management.

In the short-term CBA ratings can be deepened and expanded, in the long-term there will be need to transition to a third party professional rating system. The CBA rating has already gained some traction, however, its role is still very limited, especially, after the halt of bond issuance in the market. In the short-term, the expansion of its role will require a larger volume of practical work with targeted group of companies including building awareness, motivating and educating. Long term, however, there will be a need to withdraw and outsource the function to a third-party, independent professional institution. Given the high costs of rating by the world leading rating agencies, Armenia may need to explore alternative solutions.

Providing powerful incentives for companies to raise capital in public markets may become a strong motivational force. While there are tax incentives for participating in IPO, they proved to be not enough to stimulate companies to go public which is a serious decision for any company. It requires a track record and experience of transparent corporate governance, reporting and usage of financial instruments. Generally, entry into public equity markets is preceded by active work in public debt markets that help companies to gain experience and develop appropriate culture and financial discipline. The next step might be private placements of equity or partial listings. Transforming into full public companies is a serious milestone, particularly in the current business environment.

The government needs to elaborate feasible options for providing powerful fiscal and non-fiscal incentives to encourage at least a few large companies to undertake such phased transitions. The incentives shall be well-tailored to the specifics of each phase and instrument. The incentives will work and make a difference only provided the advantages surpass the associated disadvantages and costs (e.g. transforming into fully transparent companies, compliance costs). The feasibility of such incentives may be enhanced by the anticipated fundamental developments in financial markets due to the introduction of an obligatory pension system in 2014.

INSERT 3: **RATING SYSTEM AS A VITAL COMPONENT TO FOSTER COMPETITIVENESS**

Central Bank of Armenia, Statistical department

The Central Bank of the Republic of Armenia made a decision on introducing a rating system for companies in 2004 based on the study of best cases in a number of European countries. Based on a detailed analysis of the quantitative and qualitative indicators and the credit history of companies the Central Bank provides a rating grade, which is published on the web site of the Central Bank with the company's written consent.

The introduction of a rating system pursues a number of goals. Currently, CB is more focused on the following issues:

- **Facilitate loans for companies with higher ratings.** For this purpose the Central Bank reduced the risk weighting of loans given to these companies indirectly motivating the commercial banks to attract higher rated client-companies.

- **Foster formation of the market of corporate bonds in the Republic of Armenia.** For this purpose the Central Bank announced that it is now ready to accept bonds of companies with high ratings as a subject of sale and re-purchase in repo agreements.

At the initial stage of ratings the decision was mainly based on financial results of companies. CB conducted a thorough analysis of assets, liquidity, capitalization, debt coverage and other key financial metrics. A qualitative analysis of the company performance was also carried out (covering sections not subject to quantitative measurement) accompanied with the analysis of the company's credit history. After these stages a rating grade was provided to the company.

Based on the economic developments in the country, currently more importance is granted to the assessment of the management systems and practices in companies. Organizational structure and policy adopted by the company's management in a number of areas are subject to thorough analysis. Clarification of the company strategy's is of primary importance, after which a detailed study will be conducted to identify whether its actions are aligned to its strategy.

Companies need to realize that the effectiveness of their performance is to a great extent preconditioned by internal factors. As a rule, all complications are largely attributed to external factors: deterioration of competitive environment, tax legislation and administration. However, it is clear that an effective management and planning system will significantly increase performance effectiveness.

In many cases absence of a strategy and a planning system are said to be a consequence of business environment instability and large number of risks in Armenia. However, we are convinced that adoption of a strategy in medium and large enterprises is very topical and planning is a necessity, even in the case of instabilities and possible deviations.

For more detailed information on the goals of system introduction, as well as on offered services and rating methodology please visit the web site of RA CB (http://www.cba.am "Other Operations" section).

Companies need to build systems that create internal pressures for management upgrade

Agenda for executives

- *Do you have executives who stay abreast with the current management practices?*

- *Are your company managers incentivized to think of improving management every working day?*

- *Does your company have a practice of framing important issues as micro-crises?*

Pressure within the company by internal agents (i.e. managers) can effectively catalyze the emerging motivation for upgrade in management practices. Dissatisfaction with the status quo at the firm may be conditioned by a variety of reasons ranging from daily operational practices to strategic threats. In this regard, internal pressure is a direct result of a specific challenge and motivation for practicing better management comes through necessity rather than experimental/innovational approach. Many organizations successful in building pressure for management change frame serious challenges as micro-crises to consolidate the entire team. Such practice shouldn't be stretched to turn the company into an emergency state and paralyze the daily routine.

The use of a specific toolset is critical for early identification of managerial issues. Building internal pressure requires also specific mechanisms to detect performance gaps and adverse trends. In this regard, proliferation of sound performance measurement systems is critical and this is where many Armenian companies lag behind. Continuous benchmarking also creates strong motivations for change and sound grounds for objective assessment of the situation. In the last years, the increasing use of Balanced Scorecard as an integrative management system is an example of a dedicated mechanism for early and objective detection of issues. Usage of similar tools adjusted to company specifics shall be promoted inside the corporate sector.

Having a committed management team is key. A sound management team who is aware of modern management practices and is motivated to consistently execute new and feasible approaches is critical for build-up of internal pressure where necessary. This group of professionals or specific individuals within the entire management is expected to catch early signals in potentially problematic areas and notify the organizational stakeholders (company shareholders, employees, etc.).

Intentional exposition of the company to external pressures can help build the case for management upgrade

Agenda for executives

- *Do you know what is going on with your peers in the market?*

- *Are you aware of the differing management approaches exercised by your industry global leaders?*

- *Do you look at the external professional community as a valuable source to help your company in practicing efficient management?*

Apart from internal origins, pressure for improvements in management practices may also come externally. This external pressure may range from the performance and better management practices of peer or competitor firms to the new trends in the industry. This external pressure may either come to augment the existing internal discontent with the status quo or will break the organizational perception of seemingly optimal performance.

Benchmarking helps identifying shortfalls and target best practices. Over-performance of the peers in the sector will identify the organization's shortcomings sooner or later. Regular and continuous benchmarking on regional, national and global levels will put the company a step ahead in time in identifying its possible under-competitiveness and taking necessary measures to enhance competitiveness.

Openness to make contributions outside the company and building open partnership platforms can become an important lever for companies. The closeness of Armenian companies to external input and experimentation on management issues is disappointing in the backdrop of intensifying trends of

opening corporate management subsystems in the most advanced countries.   One such example is the open innovation concept under which companies construct their product and process innovation closely tied to the web of external collaborators and partners (e.g. Procter & Gamble's "Connect & Develop" platform). Open and flexible platforms (many of which are influenced by digital business models such as crowdsourcing, wikis, etc.) will be a definite trend in management in the next decade or so. Openness and willingness of the company to build relations with the external partners and apply an organizational culture of valuing the resources and potential inputs of the management innovation-setting industry will benefit the organization in staying competitive.

SEEDING BETTER PRACTICES

Armenia shall execute aggressive MNC attraction policy

Agenda for the government

- *Is the current business environment in Armenia conducive to attracting MNCs?*

- *What are the value propositions for different types of MNCs?*

- *Is the government providing necessary resources to pursue an active foreign direction investment attraction policy?*

Attraction of MNC's to Armenia is one of the most direct and influential methods to improve management practices. The state has focal duties not only to create appealing economic environment and business climate, but also to directly target and facilitate MNC entry.

Choice of Armenia by MNC's as a new point for operations can be built on different value propositions.

TABLE 5-1. **Potential formats of MNC's entry to Armenia in processing industries**

Type	Value Proposition	Potential sector	Precedent
1. **Market seeking MNC**	Looking to enter the Armenian market and realize the goods and services produced in Armenia. Also, in selected cases Armenia may be a starting point to expand to regional markets such as Georgia and CIS.	• Telecommunications • FMCG sectors	*Coca-Cola Hellenic Bottling Company Armenia* *HSBC Bank Armenia*
2. **Resource seeking MNC**	Seeking to utilize specific natural and competent human resources of Armenia.	• Agriculture (water, fruits, vegetables) • Mining • Energy (hydro power)	*Cronimet Mining*
3. **Efficiency seeking MNC***	Seeking to minimize costs and achieve greater efficiency by utilizing the natural and human resources of Armenia.	• Engineering and high tech (skilled but low cost specialists)	*National Instruments*
4. **Strategic asset seeking MNC**	Seeking to utilize a specific asset of strategic importance with established expertise/ reputation/potential.	Alcoholic beverages (wine and cognac)	*Pernod Ricard Armenia*

*Note: Free economic zones as a supporting factor to the attraction of efficiency seeking MNC-s to Armenia. The planned creation of at least 2 free economic zones in Armenia by 2012 (as accepted by RA government) is considered as a trigger to bringing MNCs to Armenia. This is due to the attractive economic environment to be offered within the free zones (e.g. tax and customs privileges).

Overall, the topic of attracting MNC's to Armenia is of a much more extensive essence and scope requiring discussion on a different level and format than under the current Report.

A fundamental upgrade of business education is required to meet the market demand for professional managers

Agenda for the government

- *Is it possible to have a good business education without having an advanced business sector?*

- *Can business education be upgraded without upgrading the entire higher education system?*

- *What elements of the current higher education in business need scalable improvements?*

- *What is the role of executive and professional development programs?*

The enhancement of business education in Armenia is considered to be a cornerstone to the delivery of better management performance at Armenian firms and vice versa. Good business education is very much practice-based. If it doesn't reflect prevalent practices in the local economy, its value will diminish significantly. This creates a negative reinforcing loop which can be broken down by two streams of effort: (1) parallel and synchronized actions both in education and the business sector and (2) internationalization of business education. The current discourse within the government on how to improve business education doesn't fully reflect this maxim.

Fundamental upgrades of business education is hardly achievable when separated from the more overarching pursuit to upgrade the entire higher education system. The latter still carries a significant imprint of Soviet era and destructive influences of the transition period. The state of the general higher education in Armenia was thoroughly discussed in the previous "National Competitiveness Report of Armenia, 2010 – Higher education challenge" (EV Research Center, 2010). On the other hand, business education is a good candidate to become a change trigger for catalyzing the chain of upgrade throughout the entire system. Business education touches wider areas of economic activity, greater student cohorts and the demand for it is larger. However, the success of such a process requires a focused approach to create one or more centers of excellence and "detonate" the system through competition and demonstration effects.

Comprehensive upgrade of business education needs to address some of the key challenges such as:

There should be an increasing of the relevance of teaching content. The prevalent practice in Armenia is to entirely base the teaching content on textbooks (in best cases Western textbooks, but usually – Russian "correlates"). The upgrade will require the content to be based on Armenian cases studies, assignments reflecting Armenian business practices, internships turned from formalities into real learning and career building exercises.

Faculty upgrades is imperative if students don't interact with at least one world class teacher during their study period, it will be hard to maintain the value of higher education. The advantage of business education in Armenia is that it attracts many practitioners (business managers, public sector officials) on part-time basis who provide suitable content. However, strong teaching corpus requires full time faculty who are also engaged in research, publishing and advising students. Unless a business school or MBA program attracts full time, strong faculty with research capabilities the quality of teaching will be far from world class.

The learning experience shall be transformed through constant experimentation with methods and integration with global centers. There is a need for a creative and flexible teaching environment and methods in business education. It is vital to expand the frame of teaching instruments outside the classroom to benefit from interacting with the real business environment in the Armenian economy as well as other countries. Global integration requires joint international programs, international internships, travels, visiting professors, online collaboration tools, etc.

Successful business education requires more experienced students. In Armenia management students are relatively younger compared to their global peers. The modern business education requires interaction and application of individual experiences in the classroom. The system where undergraduates can immediately start MBA is unproductive. Moreover, the lack of executive MBA programs in Armenia deprives the corporate sector the chance to quickly improve its managerial capacities.

The support of professional development programs is a relevant public sector support vector. Professional development (short-term courses, training programs) has been a focus of some donor-funded projects many of which had a significantly positive impact. However, the greater efficiency requires that companies themselves formulate the demand and co-fund them rather than accept whatever is offered free of charge.

This will substantially raise the requirements from such courses and induce more quality supply to emerge in the market. In a mid-term perspective the state can turn this into a steady pipeline of various professional development support programs as opposed to relying on fragmented donor support.

Promoting good corporate governance in the private sector may be a valid public-private partnership effort

Agenda for the government

- *Can the public sector institutions employ support schemes to companies for instituting effective corporate governance*

- *How an institute of independent non-executive directors can be formed?*

Corporate governance code of RA approved by the government recommends a model code for companies. State-owned companies, listed companies, banks, insurance companies and pension funds are encouraged to adhere to it, or explain why they have not followed a particular recommendation. This sets expanding its adoption and usage.

Larger scale adoption of the code requires consistent and intensive work with the private sector. International organizations such as EBRD and IFC are at the forefront of promoting it, and this work may be scaled up through building larger partnerships across public and private sectors. Elaboration of consultative, technical assistance support schemes can be a viable option.

Corporate government best practices require that companies have non-executive, independent directors. This is a specific professional activity requiring expertise and dedicated approach. In some countries establishing non-executive director's institutes or associations significantly supports the corporate governance adoption processes. Such an initiative in Armenia will need to come from interested process stakeholders and consolidate leading support institutions.

Successful management improvement efforts require system builders: changes shall happen in people, process and structure.

Agenda for executives

- At *what level does change begin in your company – people, process or structures?*
- *Do you have system builder managers?*
- *To what extent does process governs your organization?*
- *Is the power of stru*cture recognized to induce efficient behavior?

Spurring any change successfully and improving efficiency levels requires a systemic approach; otherwise the change will be incomplete and won't be absorbed in all layers of the company. This requires that companies have at least a few "system-builder" top managers. Many Armenian companies fail to upgrade due to lack of system-builders.

Change can start from different points, but eventually should address all three subcomponents. Change at some companies starts with hiring new enthusiastic people. At some companies it is associated with process change and others – structural change. There is no general prescription for all types of companies, but successful upgrades encompass eventually all three layers.

The management system improvement is a company-specific exercise. Simply replicating a separate best practice management sometime leads to a disaster, e.g. some Armenian companies replicate heavy budgeting processes inherent to large companies and imbue unnecessary rigidity in decision making and operational processes. When the processes are not mature enough and are not compatible with the structure and/or the human competences– the system breaks down.

Successful cases eventually build on compatible corporate culture. Every change eventually is sustainable if it is supported by internal culture. Apple's turnaround by Steve Jobs provides an illustrious example of systemic approach. The company's innovative culture is supported by a lean and efficient structure of processes uncommon in other companies of relative size (the company is said to be "the biggest start-up in the world").

DIFFUSING BEST PRACTICES

Networks can be extensively used to disseminate good management practices

Agenda for the government

- *Are networks recognized as valid governance structures?*

- *How the public institutional and infrastructural resources can be used to develop and promote networks?*

- *How the Diaspora resources can be leveraged to further develop and promote professional networks?*

Networks are excellent tools for disseminating ideas and approaches. Unless there are feasible mechanisms of diffusing management best practices in the industry, a few good approaches will carry on. In the contemporary world, networks have become an increasingly important tool in spreading exemplary practices in different spheres; and the area of management is not an exception.

The logic of functioning of networks is not compatible with "command-and-control" type of governance approaches, they are based on horizontal interactions among multiple actors. The state can be only one actor, and not necessarily a central node. Therefore, efficient functioning of networks requires public-private partnership models.

The state can be an actor in networks. Dissemination of management practices requires deeper interactions among network members. Therefore, relevant platforms shall be constructed on the logic of facilitating such deep interaction which in its turn requires focus, specialization and trust that is lacking in many current network structures. Some of the possible platforms may include professional associations, sector boards or unions, managerial contests, functional workshops, managerial conferences, or brokering of connections. The state and leading private sector representatives can champion to make management practices a relevant and focal theme for various network activities.

Networks are well suited for leveraging the Armenian Diaspora untapped resources. Highly successful Diaspora top level managerial networks practiced by Scotland and Chile demonstrate the role of the public initiative and support in building and developing such networks which enhance the management culture and practices in home countries. These successful initiatives extensively employed mentorship and cross-membership in corporate boards as the efficient mechanisms of transfer of managerial knowledge and social capital. Most of the Armenian networks currently lack such efficient mechanisms and rather rely on weaker and diffused interactions. The recent trend toward establishing more specialized professional associations marks a positive shift that still needs to be complemented with new, richer and more efficient initiatives. One such approach advocates for the creation of a network of Diaspora executives working at large corporations focused on brokering of connections, mentorship and knowledge transfer[11].

Public recognition and reward of business excellence will facilitate the diffusion of best management practices in the country

Agenda for the government

- *Can the Government create a vibrant atmosphere/platform of praising the role model companies?*

- *Can management assessment become criteria in granting various state support programs?*

Recognizing the efficient management practice of companies at the state level is an additional motivation that will help the diffusion of the management practice improvement across all the sectors of the country's economy.

Business management excellence awards can be instrumental for creating notable demonstration effects if designed and executed according to the best international standards. Business excellence awards are practiced in many countries. Most of them are formalistic and have little resemblance to real reflection of

---

[11] The proposal has been developed by EV Consulting at the request of the German Agency for International Cooperation (GIZ) in late 2011 in the context of attraction of Diaspora-connected FDI to Armenia.

management practices of assessed companies. However, a few of the best examples have become powerful motivational tools for development and support agencies. The Singapore Business Excellence Awards, executed by Spring Singapore (the business development agency operating under the Ministry of Trade and Industry) is one of the prominent examples known for successful track record in promoting competitive management practices.

The demonstration effects are created not only through recognition, but the assessment process itself becomes a self-diagnostic and benchmarking exercise. These will help the companies to raise profile, enhance their reputation and promote their management systems as benchmarks for others.

Motivational aspects may be enhanced by linking recognition with some state support programs. The enterprise development support schemes are proliferating with the activation of SME development, export promotion and industrial policy. Management advancement is critical for such support to be directed towards more fertile areas. It can be enhanced by linking some of the state support schemes (development loans, loan guarantees, grants) to the excellence in corporate management. Ingraining the management system improvement as a critical factor in those policies will help the diffusion of good practices especially for SMEs.

Leveraging external agents may expose Armenian companies to dominant management trends and diffuse best practices

Agenda for executives

- *Does your company feel a need for fresh ideas or external sources to improve your management?*

- *Are you self-sufficient in adopting best practices?*

- *Do you seek opportunities to learn from peers, experts and consultants on proven or new practices?*

Nowadays, the role of the management community (management consultants, industry and functional experts, technical support programs, academia) in diffusing best management practices is hard to over-estimate. These external agents possess multiple layers and broad knowledge, as well as, skills and expertise in different sectors and companies. Furthermore, due to their web of interactions and networks they contribute to the circulation and spread of different management tools and practices.

Management consulting slowly but steadily moves up in practice and significance in Armenia. Yet it seems to be far from becoming an indispensable tool of mass use within the business community. International technical support programs have played a significant role in facilitating access of many SMEs to modern management practices. Their role is critical in catalyzing the use of external expertise and they need to increasingly rely on building the local expertise and facilitate partnerships between Armenian and local consultants and be tied to clear exit plans to allow the development of commercial sector of management consulting. Programs of bringing international experts and subsidizing consulting fees such as TAM/BAS of the European Bank for Reconstruction and Development constitute models that proved their effectiveness.

Appointment of professional management on top positions at the companies can increase the demand for external consultants, experts and peers due to the increase in awareness of different management tools. However, the management consulting industry itself should invest in the aggressive buildup of skills and expertise to be able to match it.

While the role of academics as change agents for upgrades of management practices in advanced countries is critical, in Armenia it is marginal due to the huge gap between educational content and practice. Best circulated practices in management should make their way to be rooted within the business educational system. Leading higher educational institutions in Armenia in business sphere are expected to integrate the industry's best practice components within theory in textbook and in classroom to raise a new generation of better-informed and knowledgeable future managers.

Improvement can originate in the management of one functional area of the company: the ability to roll out throughout the whole company can be decisive

- *Do you have a mechanism to replicate the success in one part of organization into others?*

- *Are the communication channels inside your company running efficiently?*

- *Are the managers rewarded for instilling novel ideas throughout the whole company?*

Transformation is rarely possible to do all at once in the company. The effort generally starts at key functional areas, where the managers with the right mind set are key. Recognizing the success of one area is the starting point for the roll out plan across the company.

Successful roll out of improved practices throughout organization requires dedicated effort to fight against inertia and execution paralysis. It is not a specific-to-Armenian phenomena when new practices are quickly swallowed by organizational inertia and inability of managers to establish them even if they are more effective. There are numerous examples of failed attempts to introduce new management approaches even having the full commitment of top level management. The failure may come not only due to an intentional boycott by certain levels of management, but rather systemic rigidity, knowledge and motivational gaps.

Generally, quick wins stem from improved finance function but more comprehensive changes require incremental build up. Financial discipline and streamlined reporting make other functions improve accordingly. This is a natural place for many Armenian SMEs to start. However, further improvements in more sophisticated management subsystems require higher levels of consolidation and synchronization throughout the company. For example, enterprise resource planning (ERP) installment requires reshaping all the functional areas and usually is successful if a company has already gradually built up the culture of operating sophisticated IT systems. Only by gradual improvement of internal resources can companies achieve consistency, which is critical during execution, progress tracking and capability building across all company divisions.

CONCLUDING REMARKS: FUTURE OUTLOOK

Spreading better management practices in Armenia requires a collaborative and synchronized effort of both the public and private sectors. The efforts should be directed towards motivating, seeding and diffusing better approaches. The public efforts aimed at promoting competition, providing indirect incentives will effectively motivate companies only if leveraged by companies' own efforts to use external and internal pressure mechanisms to induce changes. The government's role in encouraging MNCs to enter the Armenian market, fundamentally upgrade business education and help companies adopt corporate governance practices will be enhanced by private companies' proactive upgrade of processes, corporate structures and engaging best managerial talent. In order for improved practices not to remain isolated diffusion mechanisms shall be effectively utilized including extensive promotion of professional networks, publicizing and recognizing the success of the best companies, engaging external agents of change such as management consultants, experts, business development service providers and create conditions for spillovers of improved practices throughout organizations. A constructive and consistent dialogue between the public and private sectors is a starting point. This assumes a collective action where the span from public sector to private is anchored on a new model of leadership – one which is not imposed from the top but rather is rested on a network of "pockets of leadership" executed on a micro-level. These networks will transcend traditional boundaries of public and private sectors and will unite people from both sectors on the merits of a common mission and concrete tasks. This model of leadership and change probably will not be quick in delivering results, however, it will be more fundamental in impact and sustainability.

A set of key factors, which are collectively responsible for facilitating the ultimate success of changes in management practices in Armenia:

- Existence of a questioning culture open to positive changes;

- Build-up of a capacity for low-risk experimentations;

- Seeking analogies from benchmark environments and making sufficient use of external agents;

- Nurturing a generation of serial management reformers.

Signals of success

Improvement in management practices is an evolutionary and long-term process. The success would be measured not by discrete metrics but rather by signals – early indications that we are on the right track. The most illustrative signals would be the change in the essence and nature of dialogue that takes place between public and private sector and within the business community itself. One such illustrative signal might be when topics of productivity and efficiency, new management ideas dominate the discussions between public and private sectors.

APPENDICES

APPENDIX 1. METHODOLOGY ASPECTS

The analysis of the fundamentals of economic prosperity is done within the following framework developed by M. Porter.
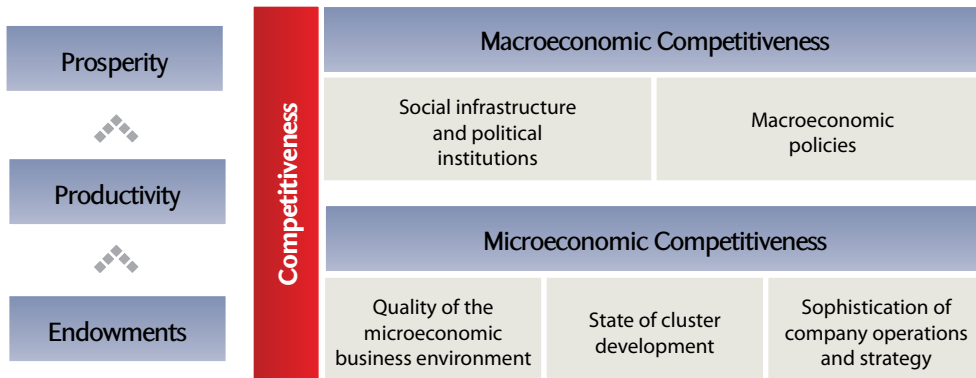
The benchmark analysis was based on a pool of selected comparator countries. The productivity comparison is done with two countries – Israel and Ireland. Such a comparison is justified by several analogies between these countries and Armenia: small size of the population, scarcity of natural resources and the observed abrupt leap in the performance.

All other competitiveness pillars are compared to the regional countries – Azerbaijan and Georgia, to spot the differences in the progress of the regional countries. Selected indicators of macroeconomic performance are benchmarked with countries from 3 major groups – Eastern Europe, CIS and European Crossroad (Middle East country).
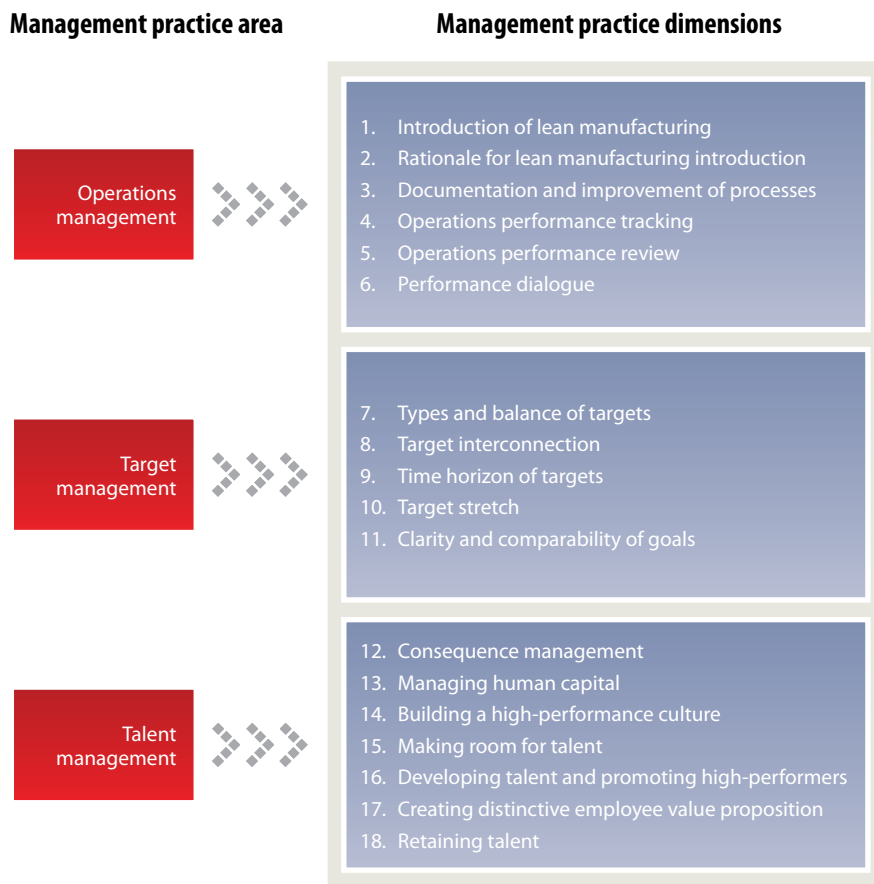
The dynamics of Armenia's competitiveness and economic performance is captured in the comparison of performance indicators of 2005 and 2010 mainly. 2005 is selected as a base year, as it is a "middle" year between double-digit growth stage and before the economic crisis. Furthermore, 2005 is the first year Armenia was assessed by WEF.

APPENDIX 2. METHODOLOGY OF MANAGEMENT PRACTICES STUDY IN ARMENIA

The objective of the research was the assessment of the management practices within medium and large size companies in Armenia in comparison with global practice. The Republic of Ireland has been considered as the main benchmark country for comparison.
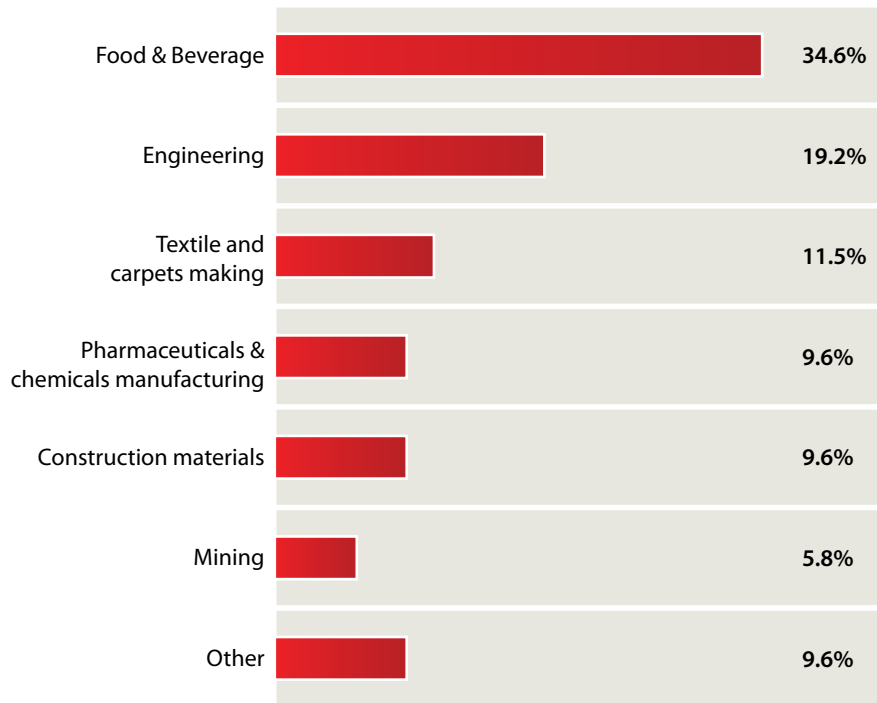
To be consistent with global results, the management practice data collection in Armenia has been based on the World Management Survey methodology, an international research project spearheaded by a consortium of leading academics at London School of Economics, Stanford, Harvard and Cambridge Universities (the original methodology was developed by McKinsey & Company). The central aspect of the research method is the survey evaluation tool: conversation-based interviews with a scoring grid on a scale from 1 (worst practice) to 5 (best practice) across 18 key management practice dimensions. These dimensions were collected into three distinct management areas: monitoring management, targets management and incentives management (Appendix Figure 2-1). The overall management score for each company was measured through averaging the consolidated average scores of all 18 dimensions. The country score is the average of the all companies' scores included in the research.

APPENDIX FIGURE 2-1. **Topics and areas covered in the survey**

Management practice area　　　**Management practice dimensions**

Operations management
1. Introduction of lean manufacturing
2. Rationale for lean manufacturing introduction
3. Documentation and improvement of processes
4. Operations performance tracking
5. Operations performance review
6. Performance dialogue

Target management
7. Types and balance of targets
8. Target interconnection
9. Time horizon of targets
10. Target stretch
11. Clarity and comparability of goals

Talent management
12. Consequence management
13. Managing human capital
14. Building a high-performance culture
15. Making room for talent
16. Developing talent and promoting high-performers
17. Creating distinctive employee value proposition
18. Retaining talent

The survey sample comprises of 52 medium and large-sized manufacturing companies (with more than 30 employees) across different sectors of industry (Appendix Figure 2-2).

Distribution of companies by industry under the management survey in Armenia

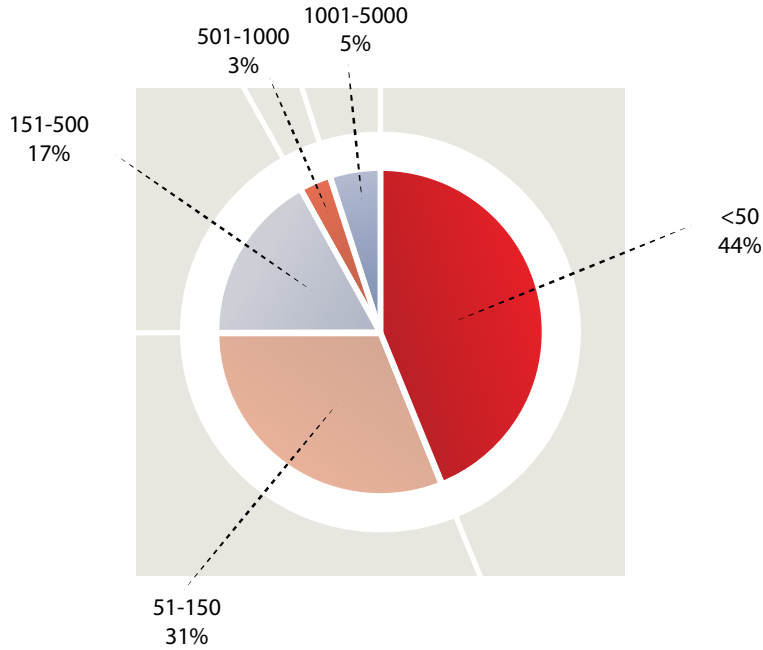| Industry	Percentage
Food & Beverage	34.6%
Engineering	19.2%
Textile and carpets making	11.5%
Pharmaceuticals & chemicals manufacturing	9.6%
Construction materials	9.6%
Mining	5.8%
Other	9.6%

Source: EV analysis

The survey was conducted through telephone interviews, lasting 50 minutes on average, and mostly targeting plant or senior managers, highly competent of day-to-day production process management. The interviews were conducted by highly professional researchers through a series of structured open-ended questions. For each practice area the discussion started with a broad question on the topic and continued with follow-up questions in the form of conversation to adjust the final score.

In order to obtain unbiased responses from the respondents a "double blind, double scored" technique was applied for the interviews. The "double blind" interview means that the managers were not aware of scoring grid, as well as the interviewers were not provided background information about the companies except contact name and contact details. This survey technique eliminated the influence of a manager's individual perceptions or interviewer's opinion on the final scores. All the interviews were "double scored": while the interview was run and scored by the main interviewer, it was also silently listened to and independently scored by the second team member. This approach also diminished the influence of individual perceptions of each interviewer on the final scores. The quality control was assured by collecting detailed information on interview process, recording interview date, time, interviewer details as well as by recording the whole interview.

APPENDIX 3. INFORMATION ON THE ADDITIONAL SURVEY ON STRATEGIC PLANNING TOOLS IN ARMENIAN COMPANIES
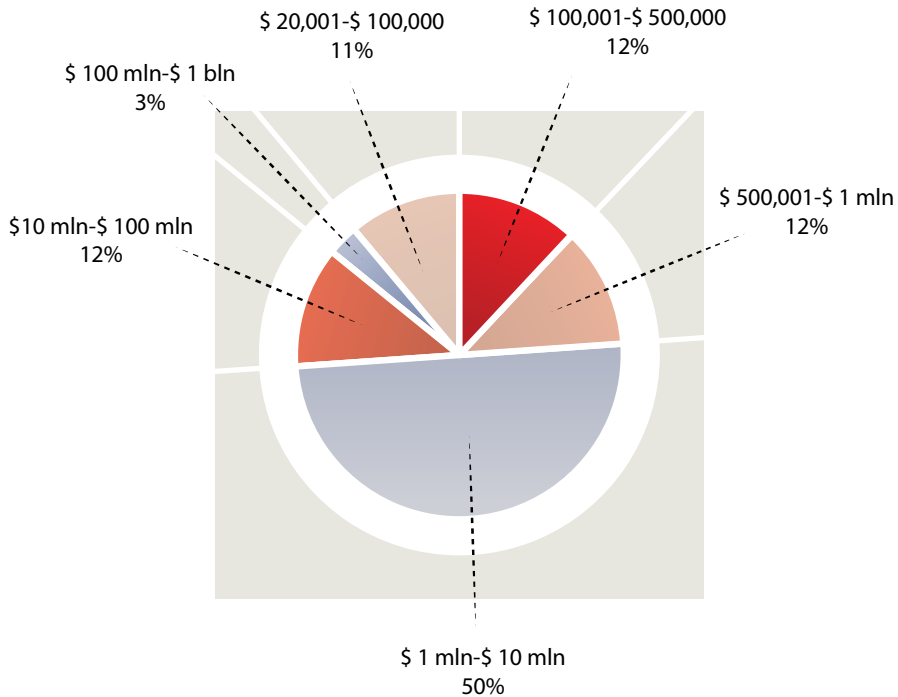
As discussed earlier, along with the World Management Survey in Armenia, an auxiliary survey was conducted in Armenia to test the awareness of 36 local companies on modern strategic planning systems and practices. The main findings have been analyzed in the chapter while information on the sample of the survey is presented next.

APPENDIX FIGURE 3–1. **Firms' distribution by employee numbers**

1001-5000
5%

501-1000
3%

151-500
17%

<50
44%

51-150
31%

Source: EV analysis

APPENDIX FIGURE 3–2. **Firms' distribution by 2011 revenues**

$ 20,001-$ 100,000
11%

$ 100,001-$ 500,000
12%

$ 100 mln-$ 1 bln
3%

$ 500,001-$ 1 mln
12%

$10 mln-$ 100 mln
12%

$ 1 mln-$ 10 mln
50%

Source: EV analysis

APPENDIX FIGURE 3–3. **Exposure to competition**

International
competition
39%

Domestic operations, only
domestic rivals
25%

Domestic operations, both
domestic and foreign rivals
36%
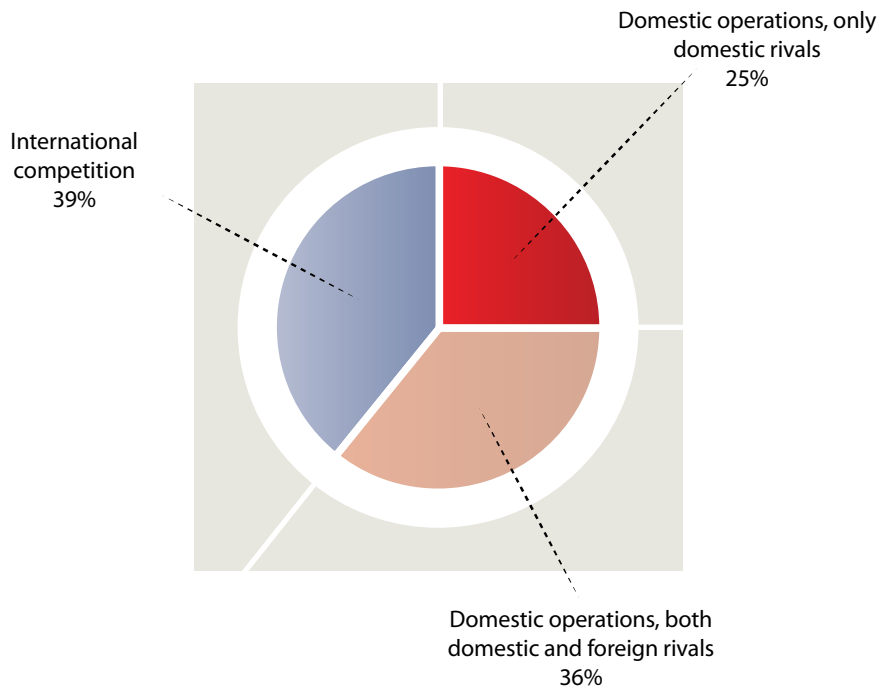
Source: EV analysis

APPENDIX FIGURE 3–4. **Surveyed firms' distribution by economy sectors**

Other
17%

Manufacturing
28%

IT &
telecommunication
19%

Wholesale & retail
trade
11%

Business & financial
services
25%
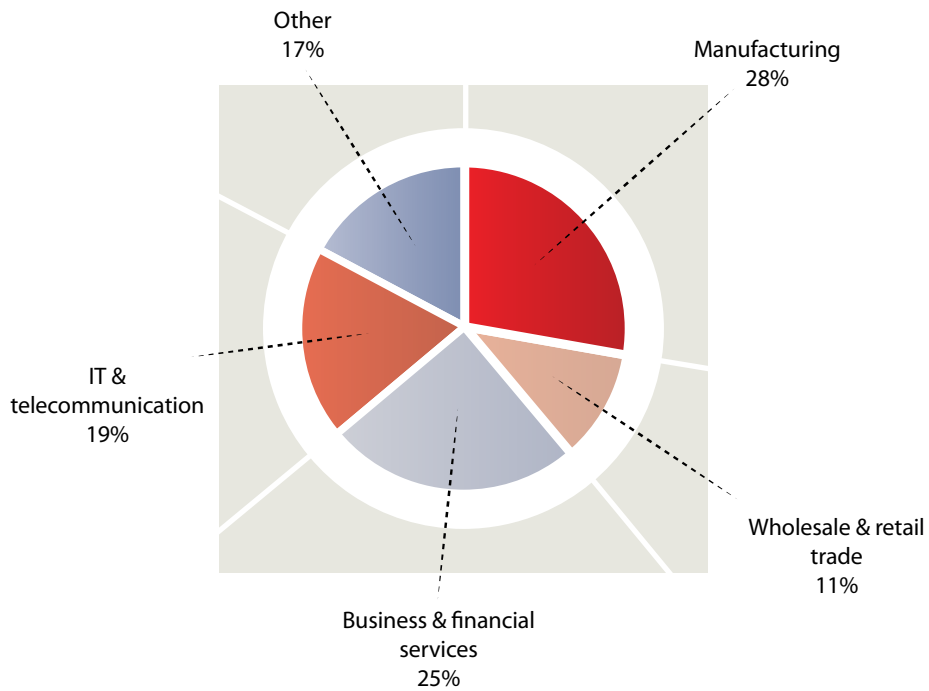
Source: EV analysis
Note: Other sectors include agriculture, hotels and restaurants, transport and logistics, travel and tourism.

APPENDIX 4. ABBREVIATION LIST

ACR	National Competitiveness Report of Armenia
AMD	Armenian Dram
CBA	Central Bank of Armenia
CEO	Chief Executive Officer
CIS	Commonwealth of Independent States
EBRD	European Bank for Reconstruction and Development
EU	European Union
FDI	Foreign Direct Investments
FMCG	Fast–moving consumer goods
GCF	Gross Capital Formation
GCI	Global Competitiveness Index
GCR	Global Competitiveness Report
GDP	Gross Domestic Product
GIZ	German Society for International Cooperation
GNI	Gross National Income
GVA	Gross Value Added
HR	Human Resources
ICT	Information and Communications Technology
IFC	International Finance Corporation
ILO	International Labor Organization
IMF	International Monetary Fund
IPO	Initial Public Offering
IT	Information Technologies
ITU	International Telecommunication Union

KPI	Key Performance Indicator
LSE	London School of Economics and Political Science
LTE	Long Term Evolution
MBA	Master of Business Administration
MNC	Multinational Corporation
NSS	National Statistical Service of the Republic of Armenia
OECD	The Organization for Economic Cooperation and Development
PPP	Purchasing Power Parity
PPP-platform	Public-private partnership platform
R&D	Research and Development
RA	Republic of Armenia
SCPEC	State Commission for Protecting Economic Competition
SME	Small and Medium Size Enterprises
SME DNC	Small and Medium Entrepreneurship Development National Center of Armenia
TAM BAS	TurnAround Management and Business Advisory Services of the European Bank for Reconstruction and Development
ULC	Unit labor cost
UNCTAD	The United Nations Conference on Trade and Development
USD	US dollar
VAT	Value Added Tax
WB	World Bank
WDI	World Development Indicators
WEF	World Economic Forum
WMS	World Management Survey

REFERENCE LIST

Bloom, N. and Van Reenen, J., 2010. Why Do Management Practices Differ across Firms and Countries. Journal of Economic Perspectives, 24 (1), pp.203–24

Bloom, N. and Van Reenen, J., 2006. Measuring and Explaining Management Practices Across Firms and Countries. Centre for Economic Performance, London School of Economics, Discussion Paper 716

Bloom, N., Genakos, C., Sadun, R. and Van Reenen, J., 2012. Management Practices Across Countries and Firms (research report). Centre for Economic Performance, London School of Economics

Central Bank of Armenia (CBA)

Central Bureau of Statistics of Israel

Economy and Values Research Center, 2008. National Competitiveness Report of Armenia, 2008. Yerevan

Economy and Values Research Center, 2009. National Competitiveness Report of Armenia, 2009. Yerevan

Economy and Values Research Center, 2010. National Competitiveness Report of Armenia, 2010. Yerevan

Enterprise Ireland, 2011. SMEs in Republic of Ireland

Hargrave, T. and Van de Ven, A., 2006. A Collective Action Model of Institutional Innovation. Academy of Management Review, 31, pp. 864–888

Heritage Foundation, 2012. 2012 Index of Economic Freedom

Hull, K., 2009.Understanding the Relationship between Economic Growth, Employment and Poverty Reduction. OECD publication, Promoting Pro-Poor Growth: Employment

International Labor Organization, Laborsta Internet, 2011

International Monetary Fund (IMF), World Economic Outlook database, 2011

London School of Economics Centre for Economic Performance, 2008. Manufacturing Management Global Study

Management Development Council, Forfas, Department of Enterprise Trade and Investment, InvestNI, the Department for Employment and Learning and Intertrade Ireland, 2009. Management Matters in Northern Ireland and Republic of Ireland

Mankins, M. C. and Steele, R., 2005. Turning Great Strategy into Great Performance. Harvard Business Review, July–August, pp. 64–72

McKinsey Global Institute, 1998. Driving Productivity and Growth in UK Economy

National statistical offices of the benchmarked countries

National Statistical Service of the Republic of Armenia (NSS)

NSS, ADB, 2011. The Informal Sector and Employment in Armenia 2010

Organisation for Economic Co-operation and Development, Statistical Database, 2011

Peneder M., 2002. Industrial Structure and Aggregate Growth. Austrian Institute of Economic Research (WIFO)

Porter, M. E., 1990. The Competitive Advantage of Nations. New York: The Free Press

Porter, M. E., 1998. On Competition. Harvard Business Review Book Series, Boston, MA, United States

Porter, M.E., Ketels, C. and Delgado, M., 2007. The Microeconomic Foundations of Prosperity: Findings from the Business Competitiveness Index. In: The Global Competitiveness Report 2007–2008, World Economic forum

RA Ministry of Finance of the Republic of Armenia, Medium–term Expenditure Frameworks

RA Ministry of Economy, 2011. Export–led Industrial Strategy of Armenia

Sastre, M. and Trannoy, A., 2002. Shapley Inequality Decomposition by Factor Components: Some Methodological Issues. Journal of Economics, Suppl. 9, pp.51–89

Shorrocks A., 1999. "Decomposition Procedures for Distributional Analysis: A Unified Framework Based on the Shapley Value", University of Essex, Institute for Fiscal Studies

Small and Medium Enterprises Development Center of Armenia, 2011. SMEs in Figures

Transparency International, 2010. Corruption Perceptions Index 2010

UNESCO Institute for Statistics, Online Database, 2011

United Nations Commodity Trade, United Nations Commodity Trade Statistics Database, 2011

United Nations Conference on Trade and Development, UNCTAD Handbook of Statistics On–line, 2011.

University of Technology of Sydney and London School of Economics Centre for Economic Performance, 2010. Management Matters in New Zealand – How Does Manufacturing Measure up

World Bank, 2012. Doing Business Report 2012

World Bank, 2009–2010. Doing Business 2009–2010

World Bank. Job Generation and Growth Decomposition Tool: Understanding the Sectoral Pattern of Growth and its Employment and Productivity Intensity. Reference Manual and User's Guide, WB PREM Poverty Reduction Group

World Bank, World Development Indicators Online, 2011

World Economic Forum, 2005. The Global Competitiveness Report 2005–2006: Policies Underpinning Rising Prosperity, Creating an Improved Business Environment. Hampshire: Palgrave Macmillan

World Economic Forum, 2006. The Global Competitiveness Report 2006–2007: Creating an Improved Business Environment. Hampshire: Palgrave Macmillan

World Economic Forum, 2007. The Global Competitiveness Report 2007–2008. Hampshire: Palgrave Macmillan

World Economic Forum, 2008. The Global Competitiveness Report 2008–2009. World Economic Forum. Hampshire: Palgrave Macmillan

World Economic Forum, 2009. The Global Competitiveness Report 2009–2010. World Economic Forum. World Economic Forum. Switzerland: SRO–Kundig

World Economic Forum, 2010. The Global Competitiveness Report 2010–2011. World Economic Forum. Switzerland: SRO–Kundig

World Economic Forum, 2011. The Global Competitiveness Report 2011–2012World Economic Forum. Switzerland: SRO–Kundig

World Economic Forum, 2011. The Global Gender Gap Report 2011–2012