

## **THE PUBLIC INVESTMENTS IN AZERBAIJAN: THEORETICAL AND PRACTICAL ASPECTS**

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### **Abstract**

The purpose of this article is an identification of theoretical and practical aspects of public investments and investigation of public investments in Azerbaijan republic. The research is made based on investigation methods like economic, statistical and systematic analytics, logical summary. As a result of implemented research we have clarified the nature of public investments, evaluated the opportunities of the government to finance such investments, estimated the role of the government in the investment activity and justified its further expansion. The limitation of the research is requirement for more expanded practical information. The practical importance of the research is elimination of some uncertainties incurred in application of terminology of “public investment”, justification for increase of the public investments in the country and application of the research results in conduction of state investment policy. The originality and scientific innovation of the research is that this is the first research in this area in Azerbaijan, detailed investigations were implemented based information obtained from state budget, System of National Accounts and construction sector, the opportunities of government to finance these investments and its role in investment activity was deeply studied.

**Key words:** public investment, national savings, foreign debt, capital expenditure, state budget.

**JEL Classification Codes:** H50; H54

### **Introduction**

There are some demands in society which cannot be provided due to some particular limitations. This due to the fact that it is impossible to limit the utilization of public goods, at the same time such limitation is

not quite desirable action [Joseph Eugene Stiglitz, 1997: 120]. In such conditions the market subjects who are directed by the economic interests have not any opportunities to get individual benefits by production of public goods. For this reason the government is responsible to investment at least into production of public goods. At the same time decision making in case of public investments is based not on financial efficiency, but on public one. In case the government invests in the project with low financial return but high social efficiency, it maintains and supports the social welfare of its population. Therefore public investment into the social and institutional infrastructure, which creates appropriate conditions for economic activity of government, increases the competitiveness of national economy, serves to social development of the population and leading realms of state's economy. On other hand the role of the government in the investment activity depends on savings made in other activities, the level of infrastructure provision, the level of development of realm providing infrastructure services and etc. At the same time the investment activity of the government may not be limited only by the investment into the infrastructure. Thus in some cases due to lack of economic interest particular projects with commercial nature can be undertaken by the government in order to maintain stability in respective sectors.

### **Approaches to the concept of “public investments”**

Before assessment of volume and role of public investments, it is more important to identify their nature and concept. In Azerbaijan different institutions have different approaches and definitions for public investment. Thus State Statistical Committee uses the wording like

“investment to fixed capital”. According to definition, investments to fixed capital consist of total sum of expenditures expended for building and construction works, purchasing and installation machinery and equipment which installation is required or not required and included or not included in estimate of buildings and establishments, purchasing plough and productive animals, planting perennial plants and forest belts, realization of design and survey works and other works (Azerbaijan statistical indexes, 2010: 826). At the same time in the Investment Law this definition was given to capital investment as well. This document indicates that “expenditure directed to creation of the funds and support of reproduction or is part of significant improvement process can be considered as capital expenditure” [Law on investment activity, 1995: article 1]. According to unique Azerbaijan budgetary classification capital expenditure and fixed assets are differentiated (Decree on Unique budgetary classification of Azerbaijan Republic, 2004). The state budget of Azerbaijan Republic uses both wordings capital expenditure and fixed capital investments. While in state budget capital expenditures include only basic repair expenditures, the unique classification treats the capital expenditures as internal part of total investments. This approach was also applied in Law on budgetary system. Thus, according to law, purchase of the assets, capital expenditures and acquisition of the shares are defined as internal parts of investments [Law on Budgetary system, 2002: article 10.1.2]. In our opinion, application of different definition in this area results in contradictions. Therefore, Azerbaijan State Statistical Committee, Ministry of Finance and Ministry of Economic Development should do

their best in order to eliminate these inconsistencies in their legislative acts, statistical statements and budgets.

From micro-economic point of view investments is a capital expenditure made by the economic entities in order to obtain the revenue (income) or satisfy social demand [Law in Investment activity, 1995: article 1]. The timing is one of the most important factors influencing the investments. From this point of view, during investment activity investor loses the control over the some particular funds in order to earn revenue (income) or satisfy social demand. As a result from micro-economic point of view investment is expenditure of some funds for maintaining or increase of positive value of the funds throughout the duration of the project. On other hand, resale of the goods and other items between the economic entities cannot be considered as investment. From macro-economic point of view investment category includes capital expenditures, construction works and investment into the increase in reserves [Albegova and others, 1998: 214]. Macroeconomists consider investments as funds directed creation of new capital [Nicholas Gregory Mankiw, 1994: 120]. From this point of view investments made on the individual basis are not accounted as investment category in the macro-economic level.

Considering all above mentioned point we conclude that public investment can be identified both on macro and microeconomic level. Thus governmental authorities are considered to one of the institutional structures of the economy. In case when investments are done in intergovernmental level it can be considered as investment on macroeconomic level and not considered as investment on macro-economic level. Due to this fact the volume of public investment should be identified based on both national accounts system and budgetary

classification. The difference between these two is that in the state budget planned investments consider the acquisition of necessary funds as well, however the national accounts system does not considers such investments, in other words only new investments are considered.

According to the state budgetary classification of Azerbaijan Republic the category of “capital expenditure” includes expenses incurred by the organization for repair and maintenance. This category includes also repair for following areas: living and military, social and cultural, administrative, authority and other civil buildings. The category of “Capital expenditures” consists of following articles: “Repair of apartment funds”, “Capital repair of production objects”, “Repair of social-cultural objects and welfare objects”, “Repair of authority and administrative objects”, “Repair of roads” and “Other capital repairs” [Law on Unique budgetary classification of Azerbaijan Republic, 2004]. In this situation it is quite hard to separate actual investment related expenditures with ordinary maintenance expenses which are not investment by the definition. In organizations expenses directed to maintenance of production units in working condition are classified as operating. However expenses directed to improvement of assets features, prolongation of their useful lives and increase of their capacities are considered as investment expenditures [System of National Accounts, 2009: 8-9]. In practice it is quite difficult to separate operating and capital expenditures and on most of cases they are classified as capital ones. According to Tax Code of Azerbaijan Republic depreciation charges in amount of 2% of year-end net book value of machinery, vehicles, buildings and constructions, 5% of year-end net book value of techniques and transportation means, 3% of year-end net book value of

other types of assets and 0% for zero year-end net book value assets is tax deductible from the income. In case when the factual amount of repair expenses is below the indicated limits, the total amount of repair expense is deducted from the income as operating expenditure during the year in which it is actually incurred; otherwise the total amount of repair expenditure is capitalized and added to year-end net book value for tax deductibility purposes. The repair expenses for the assets with zero net book value any repair expenses are not directly deducted, instead total expenditure is included into the net book value of such assets for depreciation purposes [Tax Code of Azerbaijan Republic]. As we can see the tax practice in Azerbaijan does not separate the operating and capital repair. At the same time System of National Accounts treats the capital repair expenses as expenditures increasing the book value of the assets [System of National Accounts, 2009: 8-9]. Note that all capital expenditures included into the budget are treated as investment both on micro and macro-economic level.

According to budgetary classification the category of “Acquisition of non-financial assets” includes the costs incurred due to purchase of non-financial assets. This category includes also following articles: “Fixed assets”, “Material production reserves”, “Precious materials” and “Non-productive assets” [Law on Unique budgetary classification of Azerbaijan Republic, 2004]. According to System of National Accounts costs incurred due to acquisition of non-financial assets can be treated as investment. Thus such assets are considered for acquisition or formation land, buildings or equipment. The “Fixed assets” article includes following sub-articles: buildings and constructions, machinery and equipment, agricultural equipment, acquisition of herd and other working

animal, purchase of seeds and other agriculture related expenses, license, patents, rights for usage for long-term usage of land areas and natural reserves, acquisition of trademarks, organizational expenditures and etc. These expenses cover the capital investments. However, part of such kind of expenses can be made both in respect of existing and new objects. Therefore some part of these expenses can be not treated as investments on macroeconomic level.

Expenses incurred in respect of acquisition of securities are treated as investment on microeconomic level. However on macroeconomic level such expenditures are not considered as part of investment category. For example, funds directed to purchase of shares are directed further to financing of some particular investment. From this point of view estimation of volume of public expenditures has several difficulties. Thus the state budget finances the direct investments done by the authorities and transfers the funds for investments of non-financial institutions. At the same time public agencies can finance their investment activities by the means of debt financing. In this condition classification as public investment of some particular investment made directly through the state budget or implemented by the government authorities is at some extend hampering. On other hand most of investments are realized by the government organizations. At the same time state uses government guaranties in financing of these investments and attraction of debt resources. At the same the companies under the public control are also act based on public decisions. All these points also hampered the estimation the volume of the government investments. These difficulties also rise during consideration of the Public Investment Program.

Nowadays the investment activity of the government is covered by the Public Investment Program. This program considers the financing and maintenance of commercial and non-commercial investments by the means of the state budget or other source during next and subsequent three budgetary periods. Investment expenditures are expenses directed to increase of assets in state and non-budgetary organizations and funds [Rules on establishment, execution, monitoring and evaluation of the State Investment Program of Azerbaijan Republic, 2010]. As we can see expenses directed to increase of assets within the public agencies forms the public investments. In our opinion, such approach covers the concept of public investments in wider range. At the same time identification of the “government investment” in this way abstracts it more. Thus, the State Oil Fund of Azerbaijan Republic may have extensive assets in form of foreign currency. For example in 2010 the State Oil Fund had foreign currency balance in different banks around the world in amount of 101.6 mln. AZN [State Oil Fund of Azerbaijan Republic, 2010: 92]. Cash cannot be considered as investment, due to the fact that it is affected by the inflation and does not participate in the revenue generation process [Gitman, 1997: 10]. At the same time the public investments cover only investments done by the public agencies and under the public guaranties. From this point of view investments implemented under the State Investment Program are financed by State Oil Fund and the state budget or by external debt financing. At the same time investments made under the program are ultimately transferred to the ownership of the respective public agencies. Thus, limited liability companies like “Azerenergy”, “Azersu”, “Azeryolservis”, State Oil Company, Baku Metropolitan and other similar institutions are provided by financing from the state budget

for development and investment purposes. These funds are usually transferred to their equity or created assets are transferred to their ownership. At the same time entities like “Azal” and “Azerenergy” joint-stock companies, State Oil Company make investments on their accounts as well. In this case there is not principal difference between investments made by injections from the state budget and these made on own account – the ultimate source is the same. From this point of view the public investments can be considered both in wide and narrow perspectives. In wide prospect total investments made in public sector can be classified as public ones, in narrow prospective only investments financed from the state budget and non-budgetary funds can be considered as the public investments. Thus the Organization for Economic Co-operation and Development public investments is defined as the sum of gross fixed capital formation (GFCF) and capital transfers payable to business or households [OECD, 2011:58]. On other hand this approach does not consider the investments made based on debt financing. This approach treats the public investments based on their source. The identification of the government investments influences the estimation opportunities of these investments within the Country. Considering all above mentioned factors we carried out our research based on classification of both state budget and National Accounts.

### **The role of investments in economic development: theoretical aspect**

The public investment made in respect of areas which are out of control and abilities of the private sector accelerates the material, financial and information flow and brings about increase in human

capital. These factors in their turn increase the investment activity and create appropriate opportunities.

In general, government investments affect the economic development in the following way [Pietro Toigo and Robert Woods, 2006: 66]:

- Constitute an intermediate input to private sector production that helps lower costs – partly through the effect on transaction costs, increased access to markets and market information and improved competitiveness in import/export markets;

- Raise the productivity of other factors (labor and other capital) by allowing use of complementary technologies and improving access and information flows, as well as may induce crowding-in of additional private resources;

- Have a structural impact on demand and supply; for example, public infrastructure contributes to the diversification of an economy (especially for open source technology such as communications, which allows the application of modern technologies to a wide range of sectors).

D. Sutherland and others consider that infrastructure can have additional effects through a number of different channels, such as by facilitating the division of labor, competition in markets, the diffusion of technology and the adoption of new organizational practices or through providing access to larger markets, new resources and intermediate products [Sutherland et al, 2009:13].

The researches of American economist David Alan Aschauer showed that reduction of the productivity after 1970 during subsequent 20 years is explained by the reduction of public investments [Aschauer, 1990]. At the same time the importance of the public investments is explained by inability or limitations of the private sector to invest into development of the some

particular areas. During the estimation of investment private sector considers the products to be produced, required raw materials and their provision, realization markets, organization of the production, its volumes and type of applied technologies, financing schemes, the risk level and other points. The lack of knowledge in this realm limits the realization of the investment projects. In most of cases this factor affects the investment more than the capital shortage. In relatively complex realms the evaluation of the investment projects and their realization requires more experience and knowledge. Lack of capital resources and knowledge limits implementation of large and long-term projects in the private sector. In such conditions the role of the government in development of specific areas and realms of the economy is exceptional. The government encourages the development of particular areas and at the same time participates in the production activities. From this point of view preparation of programs for development of complex realms of national economy and their realization is necessary. Such works are implemented in Azerbaijan as well.

### **The dynamics of public investment in Azerbaijan and their role in economic development**

In the recent years increase in oil revenue creates an opportunity to finance the majority of the investment programs at account of these revenues. Thus in 2010 the consumer price index increased 2 times in comparison with 2000, while nominal amount of gross disposable income increased by 7.9 times, nominal amount of gross disposable income of the general government increased by 33 times in nominal terms within the indicated period. As a result, the share of the general government in the gross disposable income increased from 10% in 2000 to 42% in 2010. In general, during the period from 2006 till 2010 sum total of general

government was equal to 37.1% from gross disposable income generated during the indicated period in Azerbaijan. Share of gross domestic product in amount of 52% in 2008, 42.4% in 2009, 45.8% in 2010 was generated by the oil and gas extraction sectors. Researches indicate that in 2008 the gross domestic product increased by 45.5%, in 2009 by 47.8%, in 2010 48.1% in comparison with 2000 basically due to increase of revenues in oil and gas sector. At the same time the specifics of the oil and gas industry is high return (income) rates. Thus, in total net mixed income accounted to 88% and 85.6% of output in 2009 and 2010 respectively (for example, the refining industry generated only 29.2% and 25% of total net mixed income in 2009 and 2010 respectively). Majority of this income is transferred to the government and this fact increases its investment opportunities.

**Table 1. Gross disposable income in Azerbaijan (mln. AZN)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Total</b>	<b>5,180.1</b>	<b>5,700.7</b>	<b>6,456.7</b>	<b>7,551.0</b>	<b>8,732.6</b>	<b>12,115.8</b>	<b>17,541.9</b>	<b>25,454.7</b>	<b>37,358.3</b>	<b>34,021.0</b>	<b>4,0811.1</b>
The non-financial corporations	1,102.5	1,326.6	1,505.6	1483	1,610.2	2,668.8	5639.2	8,315.6	5,067.6	5,342.5	5,402.6
The financial corporations	105.8	90.4	49	87	103.3	167	162.7	440.6	595.3	868.4	1,088.4
The general government	519.2	605.2	708	1083.3	1,539.4	2,357.4	3983.9	6,789.7	17,811.4	1,1982.7	17,146.9
The households	3,438.6	3,664.5	4,179.9	4885.2	5,445.9	6,883.9	7706.8	9,820.4	13,738.1	15,647.7	16,959.4
The non-profit institutions serving households	14	14	14.2	12.5	33.8	38.7	49.3	88.4	145.9	179.7	213.8

Increase in gross disposable income of the general government provides additional funds which can be directed to the financing of economic development of Azerbaijan. Thus, in 2010 nominal amount of national saving increased 13.7 times in comparison with 2000. The major part of this increase occurred owing to state governance. As we can see from Table 2, notwithstanding the fact that government saving was negative in 2000, in 2010 64.3% of national saving belonged to the

general government. In general during 2006-2010 53.7 of total national saving was reached owing to the government.

**Table 2. Institutional segregation of national saving in Azerbaijan**  
(mln. AZN)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Total</b>	<b>1,426.3</b>	<b>1,706.5</b>	<b>1,891.4</b>	<b>2,380.1</b>	<b>2,871.3</b>	<b>5,536.1</b>	<b>8,985.6</b>	<b>13,242.2</b>	<b>20,528.5</b>	<b>14,838.9</b>	<b>19,475.0</b>
The non-financial corporations	1,102.5	1,326.6	1,505.6	1,483	1,610.2	2,668.8	5,639.2	8,315.6	5,067.6	5,342.5	5,402.6
The financial corporations	105.8	90.4	49	87	103.3	167	162.7	440.6	595.3	868.4	1,088.4
The general government	-195.6	-120.2	-44	198	439	1,052.3	2,383	4,050	14,401.7	8,022.6	12,526.1
The households	465.7	464.8	439.7	655.2	748.2	1,673.4	833.8	445.8	451.9	598.8	431.1
The non-profit institutions serving households	-52.1	-55.1	-58.9	-43.1	-29.4	-25.4	-33.1	-9.8	12	6.6	26.8

As we can see from the Table 3 below the national saving significantly increased in during the recent years. Especially, in 2006 more than half of generated revenue was saved by the public agencies.

**Table 3. Saving rate on institutions in Azerbaijan (%)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Total</b>	<b>27.5</b>	<b>29.9</b>	<b>29.3</b>	<b>31.5</b>	<b>32.9</b>	<b>45.7</b>	<b>51.2</b>	<b>52.0</b>	<b>55.0</b>	<b>43.6</b>	<b>47.7</b>
The non-financial corporations	100	100	100	100	100	100	100	100	100	100	100
The financial corporations	100	100	100	100	100	100	100	100	100	100	100
The general government	-37.7	-19.9	-6.2	18.3	28.5	44.6	59.8	59.6	80.9	67.0	73.1
The households	13.5	12.7	10.5	13.4	13.7	24.3	10.8	4.5	3.3	3.8	2.5
The non-profit institutions serving households	-372.1	-393.6	-414.8	-344.8	-87.0	-65.6	-67.1	-11.1	8.2	3.7	12.5

According to data provided in the Table 3, during the recent years there was increase not only in public share, but also in whole sector. At the same time the saving rate of the households which pay important role in the formation of savings base in the developing countries was not high

in Azerbaijan. In such case the role of the government in the economic development and its financing increased.

**Table 4. Institutional segregation of gross fixed capital formation in Azerbaijan (mln. AZN)**

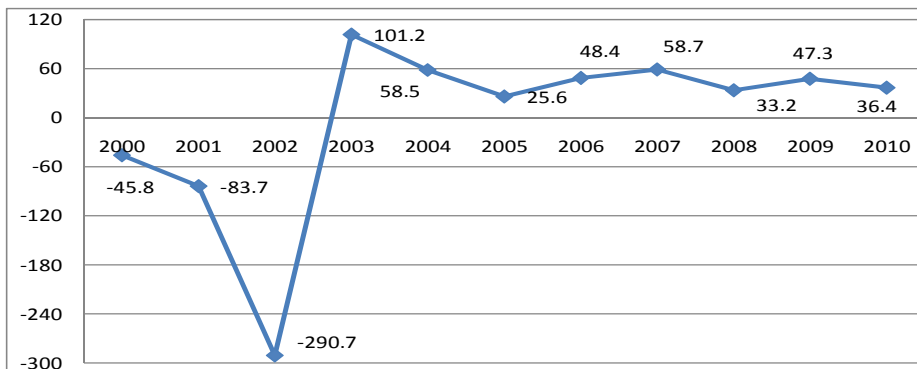
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Total</b>	1,091.6	1,216.3	2,066.1	3,779.1	4,922.8	5,172.9	5,567.8	6,069.0	7,457.0	6,700.0	7,714.5
The non-financial corporations	910.8	1,031.5	1,814.8	3,329.3	4,229.3	4,368.3	3,834.8	4,129.8	3,907.1	3,775.2	4,070.0
The financial corporations	0.6	10.5	20.7	37.8	54.2	56.9	61.3	61.4	62.1	59.4	61.9
The general government	54.6	60.8	103.3	189.0	246.2	261.2	1,147.2	1,341.2	3,004.0	2,251.0	2,923.4
The households	104.3	101.3	110.7	205.0	368.5	460.6	496.7	506.2	478.4	610.3	653.8
The non-profit institutions serving households	21.3	12.2	16.6	18.0	24.6	25.9	27.8	30.4	5.4	4.1	5.4

As we can see from the table above, in 2010 increased by 7.1 times in comparison with 2000, the authority realm this figure was equal to 53.5 times. As a result the share of the general government in the total value of the gross fixed capital formation increased from 5% in 2000 to 40.3% in 2008 and decreased to 37.9% in 2010. In general, during 2008-2010 the share of the general government in the sum total value of the gross fixed capital formation was equal to 37.4%. Notwithstanding the fact that the share of the government in total investment increased, the level of usage of public savings is still low.

**Table 5. The usage of saving of the general government in Azerbaijan (mln. AZN)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Saving	-195,6	-120,2	-44	198	439	1052,3	2383	4050	4401,7	8022,6	12526,1
Capital transfers, payable	35,5	35,8	24,4	11,3	10,5	8,4	12,4	1034,8	753,3	1527,9	1660,1
Gross fixed capital formation	54,6	60,8	103,3	189	246,2	261,2	1147,2	1341,2	3004	2251	2923,4
Changes in inventories	-0,6	4	0,2	0,1	0,1	0,1	0,1	0,4	18,6	19	-19,4
Acquisitions of non-produced assets and land	0	0	0	0	0	0	0	-7,3	0,6	0	0

As we can see from the table, during 2000-2002 the government authorities used the debt financing not only in investment, but also in coverage of some portion of consumption expenditures. In 2003 the government reached its first saving level, however it was lower than the required for the investments. Effective from 2004 the level of the public saving exceeded the volume of investments (see picture 1). During 2004-2010 40% of total savings were directed to the investment financing. The remaining part of the savings was directed to the increase of the public reserves and assets of the State Oil Fund. Thus the total assets of the State Oil Fund at the end of 2010 were equal to 22,766.8 mln.USD or 18,165.7 mln. AZN (Azerbaijan State Oil Fund, 2010: 8). We would like to note that unlike in the Central Bank, the reserves of the Oil Fund consist of goods and services produced within the country. Therefore they can be used directly in the financing of investments within the country.



**Picture 1. Public investments to public saving ratio (%)**

As we can see Azerbaijan has great opportunities to finance the investments by the means of internally generated funds and existing funds create appropriate conditions for realization of the investments.

During 1994-2010 the Azerbaijani government signed approximately 142 loan agreements in total amount of 8.92 mlrd. USD for realization of different project; 73 projects have been already realized, while the rest is under the progress. On January 1, 2011 total amount of utilized loans was equal to 4.67 mlrd. USD, which accounts for 52.3% of total obtained loans. Taken loan were basically directed to reconstruction and development of the infrastructure and other social realms. Thus total amount of loans obtained for these purposes was equal to 8,563.4 mln USD as of January 1, 2011 and it was equal to 96% of total loans obtained by the government; total amount of loan utilized as of indicated date was equal to 4,310.9 mlrd. USD (The report on the Cabinet's activity during 2010; 2011: 367). At the same time the volume of government debt is still relatively small. The volumes of foreign debt of the Azerbaijan Republic are presented in the table below:

**Table 6. Foreign debt of Azerbaijan Republic (mln. AZN)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Foreign government debt	1,328.0	1,270.0	1,356.0	1,575.0	1,588.0	1,650.0	1,972.0	2,441.0	3,001.0	3,422.0	3,860.0
Foreign debt to GDP ratio, %	25.2	22.0	23.0	20.5	18.7	13.0	9.9	8.33	6.4	7.95	7.5

As we can see from the table above, volume of public debt increased by 2,9 times during the period from 2000 till 2010. At the same time its portion to Gross Domestic Product decreased by 3.4 times. This index is quite favorable for macroeconomic stability and economic development as well as for attraction of foreign investments. Thus at the end of 2010 total internal and external debt of Azerbaijani government was equal to 8.2% of GDP. This index is one of the smallest in the world. For example, in such developed counties like Norway and Luxemburg this index is equal to 49.5% and 33.9% respectively. Such

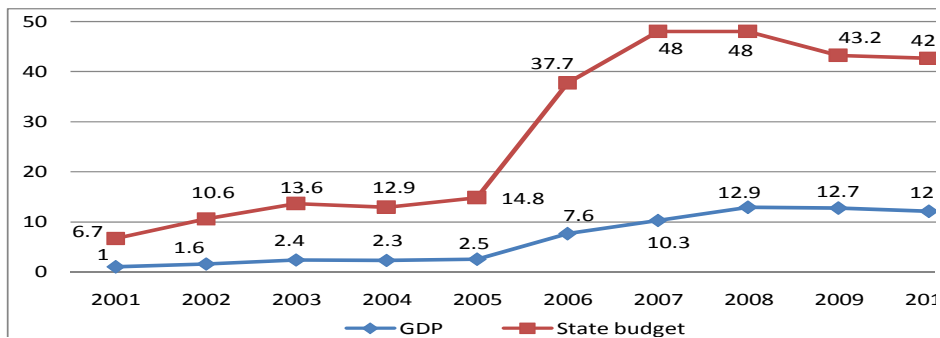
condition provides an opportunity to implement the investment projects on account of internally generated funds.

We would like to notice that internal debt sources are not used in financing of the investment projects. This factor eliminates the situations when public investments replace the private ones. In recent years most of investments are financed through oil revenues. At the same time increase in investments made the private sector assist the government in technical realization of these projects. Thus in most of cases, private sector was able to invest into the expansion of its capacity through public orders and projects.

**Table 7. The capital expenditures in the state budget of Azerbaijan Republic (mln. AZN)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Capital expenditure	68.6	54.3	99.1	168.0	193.1	316.8	1,428.7	2,920.4	5,170.3	4,538.9	5,027.9
Investment to fixed capital	26.5	25.3	31.9	86.9	96.9	159.9	879.6	1,902.2	4,275.2	3,553.4	4,132.4

As we can see from the table above, effective from 2006 there is increase growth temp in both capital expenditure and investments. Thus in 2010 the nominal amount of capital expenditures of the state budget increased by 92.6 times in comparison with 2001, while investment into the capital expenditure increased by 163.5 times. We have also noted that expenditures directed to the repair works decreased from 53.3% to 17.8% of total capital expenditure, which is explained by the fact that more funds are directed to construction of new objects, rather than to repair of existing ones. Such a great increase caused increases the portion of capital expenditures both in gross domestic product and the state budget. Thus during the period from 2001 till 2010 the portion of capital expenditures increased from 1% to 12%, during the indicated period its portion in the state budgeted changed from 6.7% to 42.7% respectively (picture 2).



**Picture 2. Capital expenditures to total expenditures of state budget ratio and capital expenditures to GDP ratio (%)**

The increase of capital expenditures in the state budget was in accordance with macroeconomic stability and “golden rule” of financial risks. According to the “golden rule” public investments should be implemented based in public saving or debt financing. At the same time budget expenses should be realized solely based on budget revenues (The role of public investment in social and economic development, 2009: 13). The “golden rule” was structured so that created assets act as guarantee for incurred debts and increase in debt brings about increase in of assets. As we can see from the Table 8, during 2001-2010 the budget revenues always exceeded the budget expenses. Such situation indicates proper implementation of “golden rule” in our country.

**Table 8. Budgetary revenues and expenditures (mln. AZN)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Revenues of the state budget	714.6	784.8	910.2	1220.9	1509.5	2055.2	3868.8	6006.6	10762.7	10325.9	11403.0
Expenses of the state budget	763.9	807.5	931.8	1234.5	1502.1	2140.7	3790.1	6086.2	10774.2	10503.8	11765.9
Also,											
Current expenditures	661.6	753.2	832.7	1066.6	1309.1	1823.9	2361.4	3135.2	5488.7	5812.3	6646.3
Capital expenditures	68.6	54.3	99.1	168.0	193.1	316.8	1428.7	2920.4	5170.3	4538.9	5027.9
Also,											
Investment to fixed capital	26.5	25.3	31.9	86.9	96.9	159.9	879.6	1902.2	4275.2	3553.4	4132.4

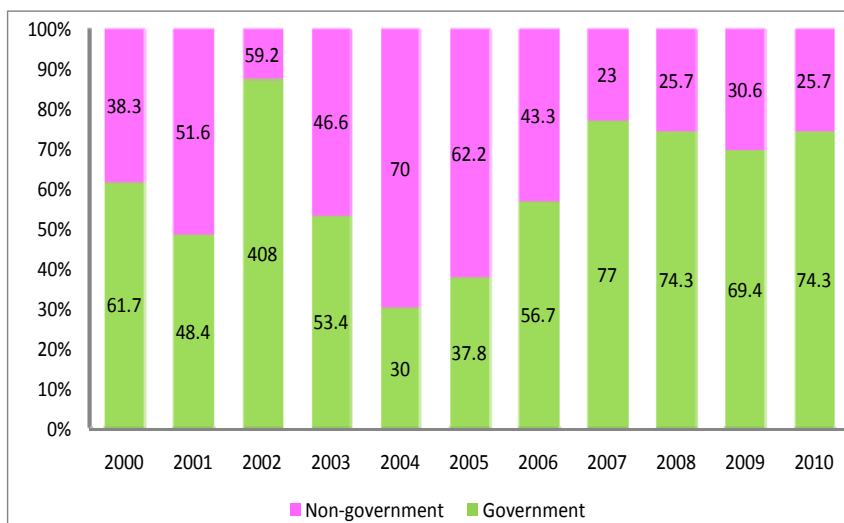
Due to the increase in budgetary capital expenditures increased the role of the government in financing of majority of large scale investment projects. Thus, the portion of the state budget in financing of capital expenditures increased from 2.3% in 2000 to 32.9% in 2010. If we consider the capital transferred from non-budgetary funds (basically Oil Fund) these figures will be 5.3% and 38.6% respectively. As we can see, the public investments account for majority of investment projects within the country. The similar situation can be observed in the System of National Accounts as well. Thus if in 2000 on 5% of total capital expenditure savings was implemented by the government agencies, in 2010 this index was equal to 37.9% (National Accounts of Azerbaijan, 2012).



**Picture 3. The share of state budget in financing of investment to fixed capital**

The portion of public investments in total internal investments is great as well. Thus if in 2000 the portion of investments done to the public property was about 61.7%, in 2004 this indicator decreased to 30% and in 2010 increased again to the level of 74.3%. In general, the portion of public investments in total internal investments during 2000-2010 was equal to 66.8%. If in 2000 only 8% of investments made by the public agencies were financed through the state budget, in 2010 this indicator increased to 58.4%.

The portion of state budget and non-budgetary funds in capital investments done to the state property during the indicated period was equal to 18.2% and 68.6% respectively. In general the role of the state budget in financing of capital expenditures during 2000-2010 can be estimated as 37.7% or 45.4% if non-budgetary funds are considered.



**Picture 4. The segregation of internal investments by property types (share in total investment, % )**

We would like to notice that the role of the government sector is great not only in investment into the capital expenditures but also in total investment.

**Table 9. The structure of investment to fixed capital by property types (share in total investment, % )**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Government	41,7	26,1	18,7	14,8	9,3	16,2	31,1	50,7	59,9	58,9	60,6
Private	18,3	16,7	13,1	8,3	11,7	15,4	13,4	8,3	16,8	20,0	14,5
Foreign and joint property	40,0	57,2	68,2	76,9	79,0	68,3	55,3	40,9	23,2	21,1	24,9
Municipality property	0	0	0	0	0	0,1	0,2	0,1	0,1	0	0

As we can see from the table above the share of government sector in capital investment in 2000 was equal to 41.7%, in 2004 it decreased to 9.3% and in 2010 it increased up to 60.6%. Such trend is explained by the foreign investments into the oil and gas industry. Thus, effective from 2004 majority of oil and gas projects started their production and this brought about significant increase in revenues, which provided opportunities to expand the investment activities of the government. Implementation of the oil and gas projects in Azerbaijan led to stability of foreign investments made to this sector. For example, in 2010 total nominal amount of capital investments done by the public agencies increased by 13.2 times in comparison with 2004, similar index for foreign and joint ventures decreased by 1.6 times. Therefore increase in this realm during the indicated period was basically due to government investment activities.

We would like to note that there are differences in capital expenditures indicated in the state budget and data provided by the Statistical Committee of Azerbaijan Republic. These differences are presented in table below

**Table 10. The volume of public investment (mln. AZN)**

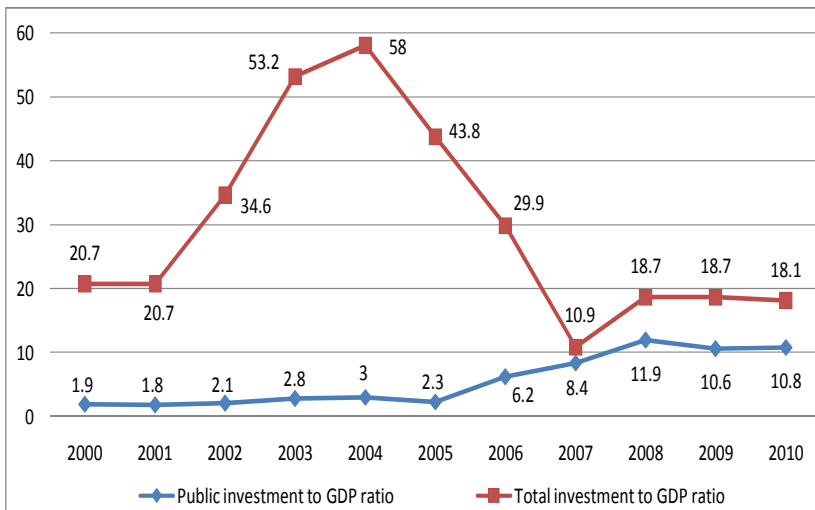
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Capital expenditures in the state budget <sup>1</sup>	68.6	54.3	99.1	168.0	193.1	316.8	1428.7	2920.4	5170.3	4538.9	5027.9
also,											
Investment to fixed capital from the state budget <sup>1</sup>	26.5	25.3	31.9	86.9	96.9	159.9	879.6	1902.2	4275.2	3553.4	4132.4
Budget funds provided for financing of investment to fixed capital <sup>2</sup>	22.7	23.7	47.4	110.6	118.5	193.6	883.5	1852.4	3859.9	2705.9	3255.3

Note 1. Considered in the state budget

Note 2. Provided in data of Statistical Committee

In our opinion, total capital expenditures directed to the investment projects by the public agencies should not exceed the capital expenditures considered in the state budget. In Azerbaijan, both public and some part of private investments are financed through the budget funds. Thus during 2006-2011 National Fund of Entrepreneurship Assistance received 453.1 mln AZN, in 2004-2011 “Agrolizing” Ltd received 317.6 mln AZN and the State Agency of Agricultural Credits received 40 mln AZN from the budget. We believe that discrepancies in the Table 10 are due to different approaches applied by both organizations.

In general, the role of the government in financing of large investment project is still increasing. For example, the share of the capital expenditures in total demand increased from 1.1% in 2000 to 9.9% in 2010. Such condition positively affects the industry of construction raw materials. In 2010 the total production of construction materials increased by 5.3 times in comparison with 2000. As we can see on the Picture 5 below, the share of public investments in GDP is increasing from year to year. At the same time effective from 2007 the public investments account for more than the half of total investments implemented in the country. Such a case can be explained by the increase of the savings under the public control and decrease in attraction of the foreign investments due to the fact that most of the oil and gas projects passed to production stage. Thus the share of capital expenditures in GDP increased from 10.8% in 2000 to 42% in 2004 and further decreased to 5.7% in 2010.

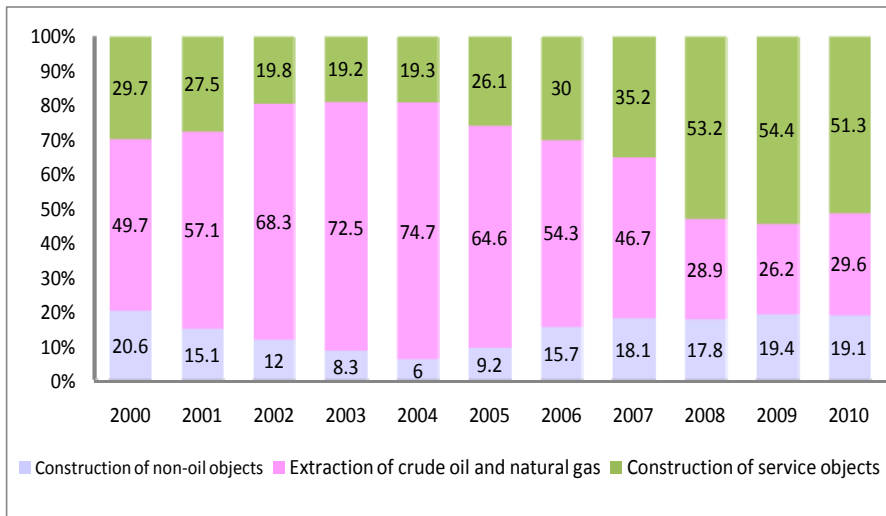


**Picture 5. Public investment to GDP ratio and total investment to GDP ratio (%)**

The stabilization of oil and gas extractions in recent years made the further economic development dependant on the prosperity of the non-oil sector. In this case economic development depends on not only investment into the non-oil sector and change in the investment structure, but also increase in investment ratio. The investment ratio in the country increased from 20.7% in 2000 to 58% 2004 and decreased to 18.1% in 2010. Decrease in the investment return rate negatively affects the economic development in the country. According to the recent researches countries with high investment returns experience high economic development. For example, in 2010 this indicator in China, India and South Korea was approximately equal to 50%, 35% and 30% respectively (World Bank, World Databank). In our opinion, decrease in investment return has significant impact on economic development of the country. Thus in 2005 the annual growth in GDP was equal to 26.4% in 2005, 34.5% in 2006,

25% in 2007, 10.8% in 2008, 9.3% in 2009 and 5% in 2010. One more reason for decrease in investment return was increase in total investment made by the public agencies. As it was mentioned above, effective from 2007 the public investments accounted for more than the half of total investments in the country. At the same time, total investment during 2000-2010, i.e. recent 11 years, accounted for only 5% of GDP. This index was below the average level for the countries participating in Organization for Economic Co-operation and Development (OECD). For example, during the recent 20 years (1990-2009) average share of government investments in GDP was approximately equal to 12% [OECD Regions at a Glance, 2011: 58]. In our opinion, increase in investment return is one of the necessary factors determining the economic development of the country.

From supply point of view, public investment indirectly affect the economic development. At the same time it is not possible to reach economic development only by upgrading and improvement of the infrastructure. The development of human capital plays crucial role here. In its turn this process depends on the level of operational expenses considered for education and healthcare. At the same time economic growth is affected by the investments into the production realm of the economy. In other words, newly established infrastructure should be used by the production sector and contribute to the economic growth.



**Picture 5. Structure of investment to fixed capital (% of total)**

As we can see from the picture above the share of investments into the service sector accounted for more than 50% effective from 2008. This is due to the public investments. For example, in 2010 69% of investments made into the transportation sector were done by the public agencies. Moreover, investments to the non-oil production sector were still at low level. In our opinion, due to the fact that the major part of national savings is under the public control, it is easier to manage the investments and direct them to production realms as well (Table 2). From this point of view connection of infrastructure and production sector is very important. Therefore along with direct investment activity of the government, it is very important to support the financial opportunities of private sector and develop collaboration between government and private sector. Nowadays role of the government in the development of the private sector is crucial. The government participates and assists the creation and establishment of large businesses with can assist the diversification of the economy.

Establishment of such companies provides great opportunities for the public investment activities. This increases the importance of project evaluation. It is very important to attract local private sector, foreign investors and international financial institutions to the investment activity in our county.

### **Conclusion**

Application of different definitions for “fixed capital investment” in public organizations in Azerbaijan hampers the process of economic analysis. Thus this terminology is called “capital investment” in the investment legislation, “investment to fixed capital” in statistical data, “capital expenditures” and “fixed capital investment” in budgetary classification. Therefore, Azerbaijan State Statistical Committee, Ministry of Finance and Ministry of Economic Development should generate the common approach in identification of this terminology.

Identification and definition of “public investment” is also complex process. Thus the Organization for Economic Co-operation and Development public investments is defined as the sum of gross fixed capital formation and capital transfers payable to business or households. This approach is similar to adding up investment funds generated both by the state budget and non-budgetary funds. At the same time approach considering only these two sources does not consider the investments implemented based in debt financing. At the same time according to Azerbaijani practice, all investments realized under the Public Investment Program are further transferred to the ownership of the public agencies. Thus investments implemented under the indicated program can be designated as public investments, while some part of investments implemented by such organizations may e not public ones.

All these factors hamper the process of identification of the public investments. Therefore in current article we used the classification of the Organization for Economic Co-operation and Development and added other investments made by the public organizations and institutions.

According to the implemented researches we have identified the major part of national savings is under the public control. Decrease in flow of foreign investments and limited opportunities of local private sector brought about decrease in investment return. This decrease also influenced by the increase of public investments. In our opinion, services and production, governmental and non-governmental sectors should be developed in accordance with each other. From this point of view, along with expansion of its investment activity, the government should encourage the collaboration with private sector as well.

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