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**Distributive Impact of Social Security and Tax Systems on Income  
Distribution: Case of Azerbaijan.**

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Subject: **IEPS**

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# **THESIS PROJECT**

## Master Thesis Proposal

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### Proposed Topic:

**Distributive Impact of Social Security and Tax Systems on Income Distribution: Case of Azerbaijan.**

### Topic Characteristics

The research area of this thesis will be an impact of the Social Security System (SSS) and Tax System (TS) on income distribution in the Republic of Azerbaijan. Importance and actuality of this topic is stipulated by the fact that development and economic growth of any country, in particular of a developing state, is in high correlation with distribution of the income across population. Today considerable speed of development and integration into the global economy of the Republic Azerbaijan generates necessity in equalizing income distribution among population. Consequently, state policy aimed to reduction of the gap in the income distribution contains reforms conducted in SSS and TS of Azerbaijan within last years.

The study will explain different types of incomes levels with respect to the taxes and social benefits in the Azerbaijan Republic. The research will examine the different levels of income affected by the components of tax and social benefits. In addition, the research paper will show the efficiency of various social programs, which supports the net income of households and costs of these programs.

In recent years, for financing social programs and public spending in the Azerbaijan government, has become more interested to collect:

1. Mandatory state social insurance dues, which include:
  - 1.1 From budget financed organizations;
  - 1.2 From employees in budget financed organizations;

- 1.3 Inpayments from off-budgetary resources of budget-financed organizations;
- 1.4 From other insurers including;
2. Inpayments from partial cost of sanatorium-and-spa passes;
3. Allocations from the state budget (transfer))

Moreover, many studies analyze the efficiency of social programs, where these studies conclude that Azerbaijan government has been highly developing efficiency on expenditures in the social security system. The State Social Protection Fond of Azerbaijan Republic emphasizes that targeting of social programs was successful in the last 3 years, where 97% of the total expenditures went to pensions payment and rest of expenses was divided among payments for temporary disability, pregnancy and delivery, Childcare benefits and unemployment benefits.

While analyzing the social security system, the research paper focuses on the following social benefits: pensions payment, childcare benefits, unemployment benefit and temporary disability.

In this thesis the analysis will refer to the data from 1996 – 2010. For the reason this period is characterized as stable and no shocks experienced, data from this time is expected to provide more reliable results. The evaluation will be conducted by comparative analysis method, implementing the graphical confrontation of the trends and changes in the social benefits, taxes and income distribution.

The thesis will discuss change and patterns of income distribution within the given time period. The analysis will be based on the social benefits, taxes and income distribution evaluation and be intended to determine their correlation. With this purpose, comparative analysis of the trends in social expenditures, taxes and income distribution will be performed. Furthermore, main findings of the thesis will be summarized and proposals on adjustments in the SSS and TS, which could reduce the gap in income distribution more efficiently, will be provided.

## **Hypotheses**

1. The poor and middle class pay less and gets benefits more; while rich people pay more but get less social benefit from government.
2. The social programs implemented by government are more beneficial for the older aged households.
3. Tax deduction is less effective policy in income distribution equalization in comparison with social transfers increase.

4. TS and SSS policies have implicit effects as well, i.e. increase in taxes and social transfers is expected to affect income distribution through labor supply adjustment.
5. Implementation of investment-based social security system may be an efficient innovation in the Republic of Azerbaijan.

## **Methodology**

It is not easy to analyze the combine effects of social programs, where there are not exist exactly estimation techniques to measure impact of social benefits in different types of income levels. In order to get representative data on households' income, the research will be based on the household survey, which will be provided by the State Statistical Committee of the Republic of Azerbaijan. Using statistical data, the research will summarize the distributive impact of various social benefits on Azerbaijan households using descriptive type of analysis. The study will discuss the budgetary cost of these social programs as well as the attempts to measure efficiency of various social programs using comparative analysis, where analysis will compare the different types of social programs, and will conclude the effectiveness of these social programs. Analyzing the efficiency of different social programs will give us tentative policy recommendations for the Republic of Azerbaijan.

## **Outline**

- I. Introduction
- II. Literature review
- III. Tax and Social System in Republic of Azerbaijan.
  - A. The types of taxes
  - B. Social benefits
- IV. Income distribution and its trend within certain time of period In Azerbaijan.
- V. Comparative (graphical) analyses of the social benefits, tax systems and income distribution
- VI. Conclusion
- VII. References

## References:

- Adam S., Brewer M., & Shephard A. (2006), "The poverty trade-off Work incentives and income redistribution in Britain", Bristol, Great Britain: Institute for Fiscal Studies.
- Caminada K. & Goudswaard K. (1999), "Social policy and income distribution: An empirical analysis for the Netherlands", Munich Personal RePEc Archive.
- Cubero R. & Hollar I.V. (2010), "Equity and Fiscal Policy: The Income Distribution Effects of Taxation and Social Spending in Central America", Washington D.C.: IMF.
- Feldstein M. & Liebman J. (2002), "The Distributional Effects of an Investment-Based Social Security System", University of Chicago Press.
- Ministry of Taxes of the Republic of Azerbaijan (2000), "Tax Code of the Republic of Azerbaijan".
- "Pension Reforms In Azerbaijan Republic" (2001), Official site of State Protection Fund of Azerbaijan Republic, retrieval date: 16.04.2013  
<http://www.sspf.gov.az/view.php?lang=en&menu=76>
- "State Program on Socio-economic development of regions in the Republic of Azerbaijan for 2009-2013 years" approved by the Decree of the President of the Republic of Azerbaijan dated April 14, 2009.
- Center for Economic and Social Development (CESD) (2011), "Policy Recommendations on Tax System of Azerbaijan"
- International Social Security Association (2010), "Efficient Governance through application of ICT, A case of the State Social Protection Fund of the Republic of Azerbaijan (SSPF), 2010.
- OECD (2007), "Consumption Tax: The way of the future?" Policy Review.
- Schneider, O. & Jelínek, T. (2005), "Distributive Impact of Czech Social Security and Tax Systems: Dynamics in Early 2000s." Prague Economic Papers, 3

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Author

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Supervisor

## **Declaration:**

1. I declare that this MT is free from any sort of plagiarism.
2. I declare that this MT draft contains 92575 characters (including spaces).
3. I assess that my own ideas contribute by approximately 70 % to the presented text

Hikmat Aliyev

May 16, 2013

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## **Abstract**

The research scope of the given thesis is the impact of the Social Security and Tax systems on the income distribution among population in the Republic of Azerbaijan. The study is constructed on the comparative analysis of the changes in taxes, social benefits and income among different groups of the local population. The findings of the thesis propose that while reforms in social security system may stimulate positive impact on the reduction of the gap in income distribution, tax security system in Azerbaijan does not have distributive power. Consequently, in comparison with tax reduction, an increase in social benefits is proposed as a policy with higher efficiency for the Azerbaijan. Furthermore, the analysis established that initially large gap in income distribution between older and younger families may gradually be decreased as a result of policy implementations in the social security system in Azerbaijan. Another important idea developed in the given work is possibility of applying innovative investment-based social security system in Azerbaijan.

**Keywords:** social security system, tax system, income distribution, gap in income distribution, Gini Index.

## Introduction

The research area of this thesis is an impact of the Social Security System and Tax System on income distribution in the Republic of Azerbaijan. Importance and actuality of this topic is stipulated by the fact that development and economic growth of any country, in particular of a developing state, is in high correlation with distribution of the income across population. According to data for 1949-1950 the shares in GDP of the low income and high income group in the less developed countries, namely India, were correspondingly 28 percent and 55 percent, in the United States these percentages were 34 percent for low income group and 44 per high income groups. Consequently, the data is evidencing that income distribution is tend to be less unequal in developed countries in comparison with developing ones (Kuznets S, 1955).

Today considerable speed of development and integration into the global economy of the Republic Azerbaijan generates necessity in equalizing income distribution among population. Consequently, state policy aimed to reduction of the gap in the income distribution contains reforms conducted in Social Security System and Tax System of Azerbaijan within last years.

A number of researches and politicians, who addressed the analysis of the efficiency of social programs, conclude that Azerbaijan government has been developing efficiency of Social Security System by the means of increasing the social transfer to the population (Məhərrəmov, 2008). The State Social Protection Fond of the Republic of Azerbaijan emphasizes that targeting of social programs was successful in the last 3 years, where 97% of the total expenditures were directed to pension payment and rest of expenses were divided among payments for temporary disability, pregnancy and delivery, as well as childcare benefits and unemployment benefits. While analyzing the social security, the thesis focuses on the following social benefits: pension payment, childcare benefits, unemployment benefit and temporary disability (State Social Protection Fund of the Republic of Azerbaijan, 2012, 2011, 2010). The main purpose of the thesis is to assess whether social security programs conducted in the Republic of Azerbaijan are effectiveness in redistribution of social benefits among households with different level of incomes.

Another crucial issue discussed in the thesis is impact of the reforms in the Tax System on income distribution among domestic households. Currently, the main source forming government budget and stipulating economic growth in Azerbaijan is consumption tax (State Social Protection Fund of the Republic of Azerbaijan, 2011). Consequently, the

evaluation of the Tax System effect on income distribution is captured by the impact of consumption in particular.

In this thesis the analysis is addressing the data from 1996 – 2010. For the reason this period is characterized as stable and no shocks experienced, data from this time is expected to provide more reliable results. The evaluation is based on comparative analysis, implementing the graphical confrontation of the trends and changes in the social benefits, taxes and income distribution.

The evaluation conducted in the thesis defines several important outcomes. For instance, the comparison of the tax amount, paid by the richest and poorest groups of population, and the social benefits, received by them, demonstrates that in both cases individuals from higher income groups are on the higher trend line than representatives of the lower income group. Along with this, assessment of the pensions paid to old aged people and social aid provided to young families eliminates the possibility of old aged people to get higher social benefits than young families. Furthermore, within evaluation process the fact that tax reduction does not have any implicit impact on income distribution was established. In contrary, data indicated that social reforms in security policies might have an indirect influence on income distribution, being more precise reduction in social benefits is expected to reduce income inequality via reduction in unemployment. Another hypothesis, proposing an efficiency of the investment-based social security system implementation, could be acceptable given currently existing conditions in the Republic of Azerbaijan. This hypothesis along with the one, suggesting that tax deduction is less efficient policy in income distribution equalization in comparison with social transfers increase, could not be verified by the empirical evidence.

This thesis consists of four chapters. The first chapter, which is Literature Review, presents results and findings of the previous works, discussing the impact of Social Security System and Tax System on income distribution. Further, conclusions derived from these papers are referred to in order to support the main findings of this thesis. The second chapter – Social Security System and Tax System in the Republic of Azerbaijan, describes types of taxes and social benefits in Azerbaijan. Furthermore, the structure and configuration of the Social Security System and Tax System as well as the difference of these systems in Azerbaijan from other Post Soviet Union are presented. The third chapter is Income distribution and its trend within 1996-2010 of period In Azerbaijan, where distribution of the income across domestic households is graphically represented. Moreover, this chapter depicts

the change and patterns of income distribution within given time period. The fourth chapter, Analyses of the social benefits, taxes and income distribution, is intended to assess the correlation of the social benefits, taxes and income distribution. With this purpose, comparative analysis of the trends in social expenditures, taxes and income distribution is performed. Finally, in Conclusion main findings of the thesis are summarized and proposals on adjustments in the Social Security System and Tax System, which could reduce the gap in income distribution more efficiently, are provided.

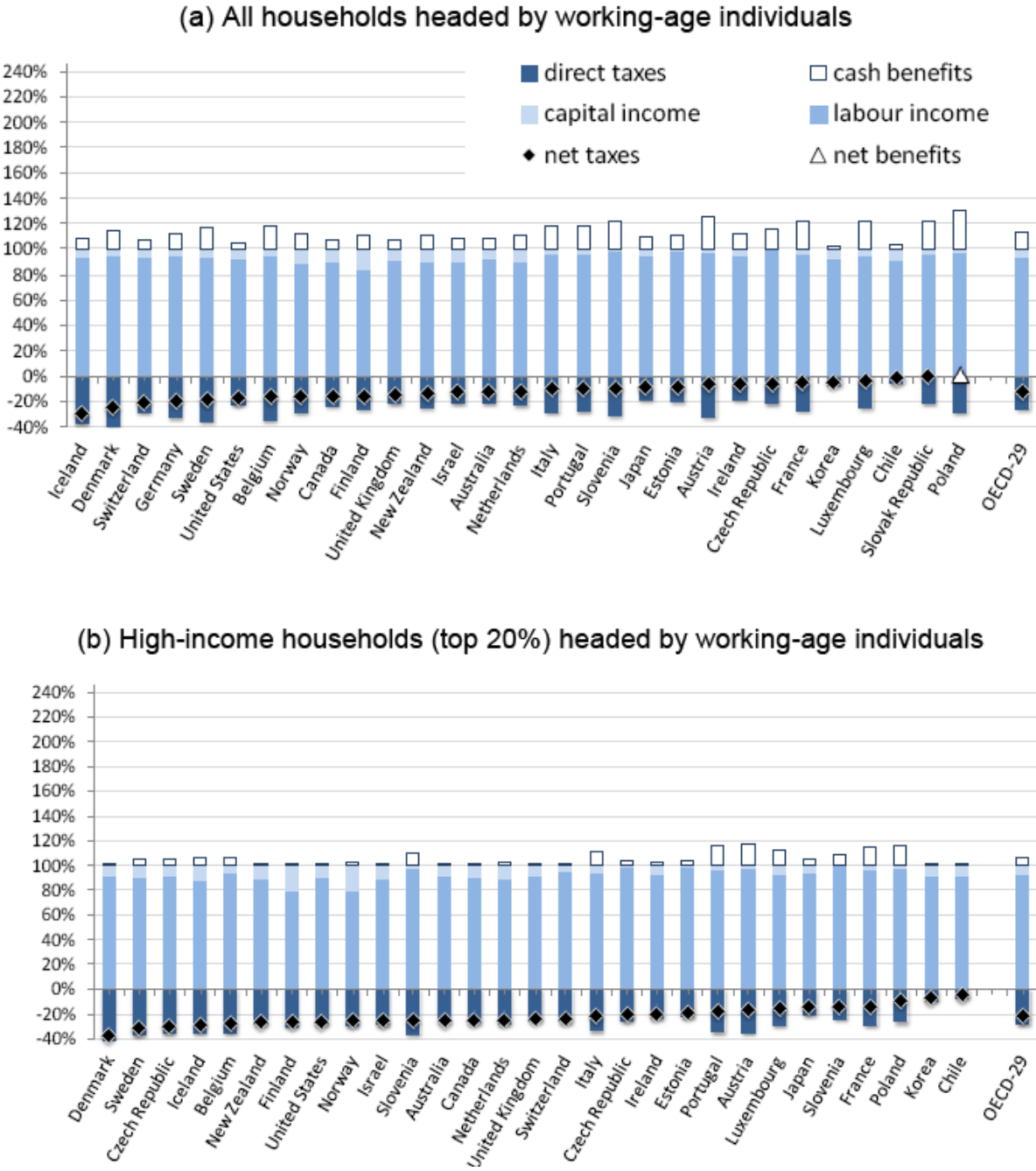
## Literature Review

Social security system is a state program, which is intended to redistribute resources not only from young to old, but from high-income groups to poor income groups. The redistribution process includes providing social benefits to unemployed, retired or incompetent and funded is usually funded by payroll taxes and government tax revenues. A number of studies addressed the topic of impact of Social Security System and Tax System on the gap in income distribution among population.

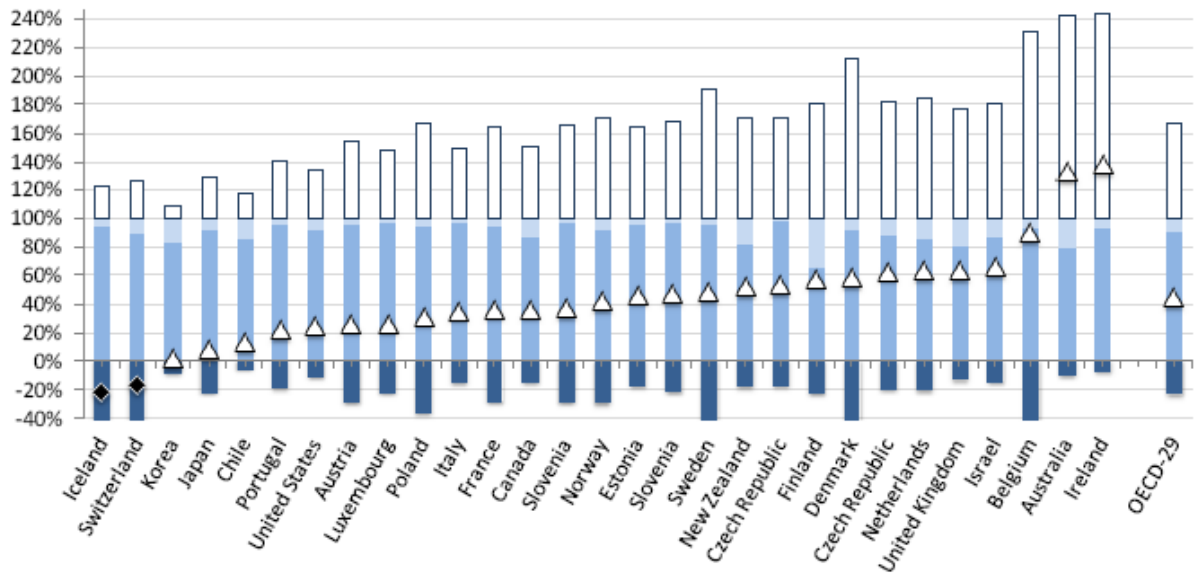
One of such studies, which was conducted by M. Feldstein and J. Liebman (2002), compared investment based Social Security System versus tax based one. According to them, Social Security System combining tax and investment based elements could prevent increase in taxes what would otherwise be required in order to maintain the targeted level of the social benefits. The main finding of the study was that all income groups were expected to benefit from investment based Social Security System. Combination of investment-based Social Security System and tax reduction was argued to decrease the poverty, in particular for the groups most at risk of poverty. The described system was stated to yield the same outcomes even if financial markets performed poorly.

Nonetheless, according to H. Immervoll and L. Richardson (2011) taxes are the main tools of transferring income from rich to poor. The paper determines that even if tax direct redistributive power is not high, taxes constitute a significant portion of resources for income transfers. Furthermore, data indicates that while higher income groups were obliged to pay more and lower income groups less taxes, transfers to those groups were inversely distributed (see figure 1).

Figure 1. Tax and cash benefits distribution across households.



c) Low-income households (bottom 20%) headed by working-age individuals



Source: H. Immervoll and L. Richardson (2011)

K. Caminada and K. Goudswaard (1999) research indicates that in the period 1981-1996 the income distribution gap among households increased sharply. However, in contrast to previous researches, initial assumption of the given paper was that social transfer increased inequality of the population. However, more detailed analysis of the data, determined that social security reduced inequality by 26 to 50 percent, depending on indicators implemented. Moreover, redistribution effect was more noticeable in programs contemplated for older aged groups.

Income inequality was analyzed by Gottshalk and Smeeding (1997) as well. According to them social security policy of the state has considerable impact on income distribution. The impact is explained by significant negative correlation between social expenditures and disposable income inequality.

R. Cubero and I. Hollar (2010) study the distributional effect of taxation and social spending in Central America. According to their findings taxation in the Central America has small and regressive impact on income distribution. On the other hand, the effect of the social spending is large and progressive. Moreover, the authors suggest that financing social spending at the expense of raising tax will increase the income of the poorest households. The authors claim that their findings hold for all countries in the region. The results of their estimations are presented in Table 1.

Table 1. Redistributive effect of taxation and social spending.

Central America and Selected Regional Comparators					
	Pre-Fiscal Policy	Post-Taxation	Post-Social	Post-Fiscal	RS Index
	Gini (Income)	Gini 1/	Spending Gini	Policy Gini	2/
	(1)	(2)	1/	(4)	(5)
	(3)				
<b>Central America</b>					
Costa Rica (2000)	45.1	45.1	39.1	38.3	6.8
El Salvador (2000)	47.4	48.8	43.8	45.8	1.6
Guatemala (2004)	46.3	46.3	43.2	42.6	3.7
Honduras (2004)	47.2	48.3	44.0	44.5	2.7
Nicaragua (1998)	51.0	56.2	45.5	48.0	3.1
Panama (2003)	53.8	53.6	46.4	45.8	8.0
<b>Andean Countries</b>					
Bolivia	55.6	56.7	51.1	51.3	4.3
Colombia	53.7	53.7	48.7	48.3	5.4
Peru	53.5	54.3	50.0	50.4	3.1
<b>Selected Other Comparator Countries</b>					
EU-15 (2001)	41.7	39.2	32.8	29.1	12.5
Denmark (2001)	43.7	45.8	30.6	25.7	18.1
Ireland (2001)	47.8	45.3	34.6	30.4	17.4
Italy (2001)	42.8	40.7	36.6	33.7	9.1
Portugal (2001)	44.4	40.6	38.4	34.3	10.2
Spain (2001)	42.1	37.9	35.8	31.3	10.8
Sweden (2001)	40.7	42.8	29.4	26.1	14.5

Source: R. Cubero and I. Hollar (2010)

1/ For Latin America, excludes social security. For Europe, includes social security.

2/ Reynolds-Smolensky Index. Positive values denote progressivity.

Furthermore M. Borella (2001) investigated income distribution among pensioners under different social security systems. According to Borella, contribution based scheme has a negative impact on income distribution. Being more precise, this system reduces income inequality among private or public dependent workers with different level of education.

The thesis is referring to the impact of the Social Security System and Tax System on the income distribution as well. The main difference of this study is focusing on the case of Azerbaijan. The scientific value of the work is concluded in the fact that it will input to the assessment of the tax and social security system in the developing countries with significantly high growth rate. Furthermore, this thesis contains proposals on alternative sources of funding social spending along with discussion about their effectiveness.

## **1. Tax System and Social Security System in the Republic of Azerbaijan**

### **1.1. Tax System in the Republic of Azerbaijan**

The necessity in tax collecting is explained by the fact that sources are required in order to finance some of the main government functions. Governments usually consider tax policy as one of its fiscal policies (International Monetary Fund, 1995). In his book Dwivedy defines fiscal policy as ‘government programme of making discretionary changes’ in structure of its spending, taxation and borrowing in order to develop economic growth, decrease unemployment and income inequality, as well as guarantee stability and smoothness of the economic situation of the country (Dwivedy, 2010). However, efficient and justified fiscal policies, including development of the efficient taxation, are not always achieved evolved in the developing countries. According to Tanzi and Zee, there are several problems occurring in the tax system of the developing countries (Tanzi and Zee, 2001). The first one is argued to be significant involvement of the population to agricultural sector and, consequently, high fluctuations in the wages of the workers. These facts create obstacles for calculating and controlling tax payments. The second reason is lies in the fact that in developing countries employees of the governmental tax bodies have not sufficient enough educational and experiential backgrounds. Furthermore, in such countries technical equipment does not always meet the requirements of the international standards and are not always sufficient to fulfill tax officials’ duties. As a result, state officials in some cases simply tolerate existing black points in tax systems, what stipulates inefficiency of the tax systems. The third reason is financial limitations in the budgets of the tax departments. Budget shortages prevent rating authorities from obtaining full and reliable information about incomes of the population. Consequently, developing countries fail to accomplish substantial modifications in the existing tax systems. Finally, in developing countries income tends to be distributed more unequally among population. While efficient tax systems presume higher tax rates for individuals from higher income groups, which is called progressive tax system. However, in the most of developing countries progressive tax system is not implemented, for the reason individuals with high income at the same time possesses significant influence and are in position of averting adoption of such policies.

However, significantly high growth rates and integration to the global economy of the Republic of Azerbaijan required reforms in all politically and economically important spheres in the Republic. The recent reforms range includes deprivatization, development of the management tools, economic transformations, which include development of the appropriate

tax policy. The reforms aimed at improvement of the tax system in the Republic of Azerbaijan, include improvement of the existing tax related legislation, extension of the professionalism, including knowledge and experience, of the tax authorities employees, as well as extending tax control mechanisms (Kəlbəliyev, Hüseynov, 2008).

The process of the developing tax system in the Republic of Azerbaijan has started at the end of 1991 and consisted from 3 stages. The first stage, which lasted from 1991 to 1992, covered developing tax related legislation, in particular laws on “Value Added Tax”, “Excise”, “The Taxes from different kinds of incomes and benefits of juridical persons” and “Income tax of natural persons”. The second stage, lasting from 1993 to 1996, embraced development of new tax types, such as land tax, property tax and etc. The final third stage, included years from 1996 to 2000 and was mainly directed to amending existing legislation in accordance with demand of a modern market.

The Tax Code of the Republic of Azerbaijan was adopted at the end of the third stage. Tax system in Azerbaijan is regulated by the Ministry of Taxes of the Republic of Azerbaijan. The Ministry develops tax policies and raises taxes in accordance with the Tax Code of the Republic of Azerbaijan. The Tax Code establishes norms of taxation in Azerbaijan. Being more precise the Code determines principles and cases of tax imposition, transfer and collection. Furthermore, Tax Code describes the rights and duties of tax payers along with officials and representatives of Tax Ministry. Tax Code prescribes tax law enforcement methods and mechanisms of overseeing and penalizing tax payers and tax authorities in the cases of violations of tax legislation. All the definitions and mechanisms provided in the Tax Code are aimed at improvement of tax controlling by the corresponding authorities and are exceptionally implemented in the tax supervision and enforcement areas. In the case any contradictions between tax and any other legislation occur, the legislative power of Tax Code is predominating. However, if any kind of inconsistency arises between Tax Code and international tax principles or statutes, the latter has higher legislative power.

According to the Tax Code of the Republic of Azerbaijan, taxes are mandatory, non-refundable and individual monetary payments by the taxpayers to the state budget with the purpose of financing government activities. Taxes in Azerbaijan are calculated and collected in the currency of Azerbaijan Republic – Manat (The Tax Code of the Republic of Azerbaijan, 2000).

The Tax Code of the Republic of Azerbaijan defines following taxes:

- state taxes – are taxes paid on the territory of the Republic of Azerbaijan;
- the taxes of the Autonomous Republic – are taxes defined by the legislation of the Nakhchivan Autonomous Republic (NAR) and paid only on the territory of NAR;
- local (municipal) taxes – are taxes defined in accordance with the rules of local municipalities and paid at the territories of municipalities.

State taxes and taxes of the NAR include the following (Tax Code of the Republic of Azerbaijan, 2000):

- Tax on the income of physical persons;
- Tax on the profit of legal entities (with the exception of entities and enterprises that are the property of municipalities);
- Value added tax;
- Excise tax;
- Property tax levied from legal persons;
- Land use tax levied from legal persons;
- Road fund taxes;
- Mineral royalty tax;
- Simplified tax.

Below the description of main taxes collected on the territory of the Azerbaijan are following:

#### Tax on the income of physical persons

Employment income is collected from tax residents and non-residents based on monthly rates determined by Tax Code of the Republic of Azerbaijan. Income tax for non-residents is applied only in regard with their income earned on the territory of the Republic of Azerbaijan. Moreover, a foreign person is considered to be a tax resident of the Republic of Azerbaijan with the income tax purposes if this physical person, who has a permanent residence in Azerbaijan or accommodates on the territory of the Republic for 182 or more days during one calendar year. In neither is the case, a person can be considered a tax resident of the Republic of Azerbaijan if he or she presents a vital interest for the Republic or is a 'habitual adobe'. In this case the person has to pay taxes based on his or her worldwide income. According to the legislation certain benefits are provided to low income families. For instance, in the case when income of an individual is below or equal to 200 Azn, first 93.50

Azn are not subjected with tax. The legislation requires tax report to be submitted quarterly to the State Budget of the Republic of Azerbaijan within 20 days after the end of each quarter.

On the other hand, the Law “On Individual Registration with the Social Protection Fund” contributions fund in the amount of 3% by employees and 22% by employers are transferred to the Social Protection. Furthermore, the funds should be accounted for each employee individually and transferred on the day the wages are paid. Tax Code defines the responsibility of fulfilling social contribution requirement upon employer.

Social Security System in the Republic of Azerbaijan makes provisions for illness allowances for employees according to the following scheme. In the case an employee is sick for more than 14 days, the allowances are paid at the expense of an employer. However, in the case the duration of illness exceeds 14 days, social allowances for the days beginning from the 15th are paid by the Social Security and Protection Fund.

In the case employees are hired to a work without signing employment agreement with them, the employer is considered to be liable for evading taxes and is administratively liable. The penalty determined by the legislation is 1000 Azn per each employee, who is working without employment agreement.

In accordance to the Tax Code of the Republic of Azerbaijan, the annual report on non-labor income of the residents as well as income of the non-residents generated by the sources abroad of Azerbaijan is required to be submitted to the State Budget of the Republic of Azerbaijan by the 31st of March of the following year.

#### Tax on the profit of legal entities

Tax residents of the Republic of Azerbaijan, which are legal entities, are obliged to pay profit taxes based on their worldwide profits. However, non-resident entities required to pay taxes only on their profits earned on the territory of Azerbaijan. Furthermore, flat tax rate of 20% is charged from the gross income of a legal entity, after all deductions allowed by legislation are subtracted

In accordance with the Azerbaijan jurisprudence, allowable deductions include such expenses as research and experimental costs, insurance transfers, interest payments due to limitations, suspicious debts, geological explorations and etc (Tax Code of the Republic of Azerbaijan, 2000). Even though allowed deductions are clearly defined, there exist certain limitations and thresholds established in the legislation. Reduction of interest payments on

loans provided by foreign country should not surpass the amount, which constitutes 125% of inter-bank credit auction rate, defined in advance by the Central Bank of the Republic of Azerbaijan. According to local legislation profit tax for legal entities is defined at 20% rate. Furthermore, the companies are required to pay this tax quarterly.

Furthermore, in accordance with local legislation precise and updated records concerning incomes and expenses of taxpayers should be kept by taxpayers. However, income and expenses recordkeeping should be conducted based on cash or accrual method of accounting, given that the same method is implemented for accounting and tax calculation. Accrual method of accounting purports that incomes should be included to records on the date they are earned, rather than the date income is obtained. Analogically, expenses are included to the records on the date they occurred, rather than the date they are transferred.

Along with above stated, separate requirements for nonresidents are defined in the tax legislation of the Republic of Azerbaijan. Profit tax for non-resident entities is defined at flat rate of 20% from gross profit minus allowed deductions as well, however is related only to profits earned from the Azerbaijan origin sources.

#### Value Added Tax (VAT)

In the case, when income of the legal entity or individual entrepreneurs exceeds 150 000 Azn or 90 000 Azn correspondingly within 12 consecutive months, in accordance with the Tax Code of the Republic of Azerbaijan they are required to pay VAT during 10 days following the end of the indicated time period. Moreover, if a legal entity or an individual entrepreneur transfers any kind of remuneration to any foreign legal entity, which is not considered a tax resident of the Azerbaijan Republic, the person has to account for and transfer VAT to the State Budget of the Republic of Azerbaijan.

#### Excise taxes

According to the Tax Code of the Republic of Azerbaijan excise is an indirect consumption tax. This tax is usually included to the sale price of consumption goods and is defined depending on the good by the legislations regulating turnover of the corresponding goods. Excise tax is usually paid by the entities, producing excise goods on the territory of the Azerbaijan Republic, importers of excise goods, tax residents of the Republic of Azerbaijan, producing excise goods outside of Azerbaijan and not entitled to pay excise tax in

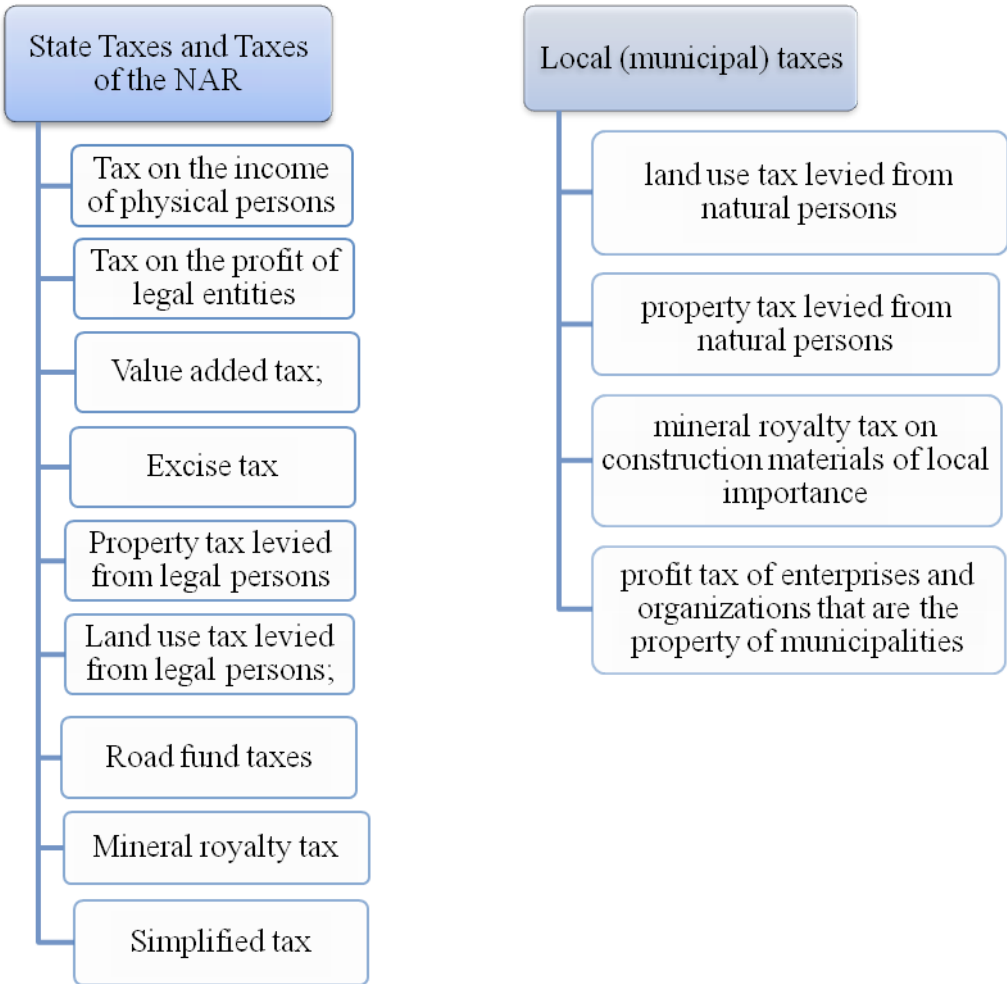
the territory of production as well as entities, producing excise goods from raw materials vested by consumers.

Local (municipal) taxes include the following (Tax Code of the Republic of Azerbaijan, 2000):

- land use tax levied from natural persons;
- property tax levied from natural persons;
- mineral royalty tax on construction materials of local importance;
- profit tax of enterprises and organizations that are the property of municipalities.

The abovementioned information is summarized in the figure 2.

Figure 2. Classification of the Taxes in the Republic of Azerbaijan.



Source: Self made based on Tax Code of the Republic of Azerbaijan

Tax system in the Republic of Azerbaijan is formulated by three taxation regimes:

- the statutory tax regime, which is controlled in accordance with Tax Code of the Republic of Azerbaijan;
- the tax regime adjudged by Production Sharing Agreements (PSAs);
- the tax regime adjudged by the Host Government Agreements (“HGAs”), namely Export Pipeline (Baku-Tbilisi-Ceyhan) HGA (“BTC”) and South Caucasus Pipeline (Shah Deniz Gas) HGA (“SPC”).

In general, tax system in the Republic of Azerbaijan is intended to guarantee the stable and efficient operation of the state. Budget spending, social programs and urgent needs of the country are financed on the account of the tax revenues. Modern tax system of the Azerbaijan complies with the requirements of the international standards (Məmmədov, 2010).

## 1.2. Social Security System in the Republic of Azerbaijan

Although, there is no precise definition of social security there are a number of researches, which attempted to explain the meaning of social security. For instance, in the Report of International Labor Organization, social security was described as a protective reaction to the processes, occurring in the society, rather than a ‘conglomerate of mechanisms’ intended to prevent such occurrences (Mattoo, 2000). Furthermore, more modern definitions of social security preserve negation of the mechanical approach and refer social security as a complete protection of the society and individuals in particular from loss of resources (Sinfield, 1993).

Nowadays, two main tools are implemented to realize social security policy of governments, namely social assistance and social insurance (Pieters, 2006). Social insurance is provided to the people belonging to some union on voluntary or in most of the cases compulsory basis. Social insurance is financed by the means of contributions to the union by its members, as well as taxes transferred to the union. In contrast, social assistance is centralized payments to the individuals, who are in need. Social assistance is usually paid by government and financed its funds. Along with social security and social assistance in some social security systems a third tool is implemented, which is social compensation schemes. Social compensations are the payments to the individuals, suffering from any kind of damages, such as old age, invalidity and etc.

The structure of the Social Security and Protection Fund of Republic of Azerbaijan, including Social Insurance and Pension Systems has been subject to radical changes. During

Soviet Union Social Security and Protection Fund, which was established in 1990, was financed by the contributions from all kind of legal persons and organizations (Social Security and Protection Fund of the Republic of Azerbaijan, 2001). In 1992, after declaration of independence by the Republic of Azerbaijan, on the basis of existing Pension and Social Insurance Funds the State Social Security and Protection Fund of the Republic of Azerbaijan was established (Decree of the President of the Republic of Azerbaijan, dated September 30, 1992).

Today the social protection system in the Republic of Azerbaijan is managed by two entities: The Social Protection of Population, Ministry of Labor and Social Security and Protection Fund. Currently, Social Security and Protection Fund applies following type of social security benefits: pension payment, childcare benefits, unemployment benefit and temporary disability and others. In 2006 Social Security and Protection Fund started to implement additional functions of social security system such as a collection and managing of social transfers made by entities and enterprises. The Ministry of Labor controls and provides following benefits: entities and enterprises, targeted social support and social allowance, employee injuries and etc. In total, The Ministry of Labor is concern with poverty aids. Social Security and Protection Fund is delivering social insurances and labor pensions on the territory of the Republic of Azerbaijan.

An important reform after in the new system was distinguishing social assistance to the low income households, which is supervised by the Ministry of Labor and Social Protection of the Population, from social insurance and pension provision, which is superintend by the State Social Security and Protection Fund (“National Security Concept of the Republic of Azerbaijan”, 2007). Social insurance payments include the following:

- old age pensions;
- disability pension;
- survivor’s benefit;
- pension for the years of service;
- unemployment benefit etc.

By approving its first poverty reduction program in 2003 Azerbaijan gave a start to implementation of poverty reduction policy. Statistics reveal about five time increase in GDP per capita and four time increase in nominal average monthly wages. According to the data the poverty level in Azerbaijan declined from 44.7% in 2003 to 11% in 2009, while the unemployment level reduced from 9,7% to 6 % accordingly. Moreover, the data on social

transfers show rise in expenses from state budget by 3% of GDP and increase in all public expenses on social transfers by 6% of GDP in 2009 (International Monetary Fund, 2012).

According to the analysis conducted by the Center for Local Economic Development, first and second poverty reduction programs (2003-2015 years) in Azerbaijan were primarily aimed at income poverty reduction and stabilization of social-economic situation in the country (Center for Local Economic Development, 2010). With this purpose two main groups of poverty reduction programs were implemented, namely *active and passive programs*. Provision of targeted state social assistance, progressive increase in benefits as well as in basic parts of pensions could be considered as passive measures. On the other hand, creation of new job places, stimulation of small and medium entrepreneurship by the means of provision of micro-credits, implementation of Active Labor Market Programs are considered as active measures. The analysis indicates that the policy adopted by the government of Azerbaijan is mainly aimed at sustention of macro-economic stability in order to warrant the efficiency of undertaken actions and to prevent the devaluation of the increase in income of the poor group of population. For the purpose of estimation of the national poverty level in Azerbaijan the analysis refers to the Household Budget Survey conducted by the State Statistics Committee (Nazarov, 2010).

Targeted Social Assistance system could be considered as one of the most essential *passive poverty reduction programs* for which 180 mln AZN assigned from the state budget in 2009. The importance of Targeted Social Assistance system and the fact that social transfers system plays a crucial role in poverty reduction in Azerbaijan were emphasized in the Azerbaijan Living Conditions Assessment Report (Azerbaijan Living Conditions Assessment Report, 2009). Furthermore, the Report emphasized a potential increase in overall poverty incidence up to 60%, in the case social transfers were not presented. Such an augmentation in poverty incidence would indicate sizable severity of a poverty level. Estimations, which were conducted in the Report, indicated that pensions and Targeted Social Assistance System reduced the poverty level by 6.8 and 4.6 percentage points respectively. Without taking into consideration social transfers in household consumption, Gini coefficient would increase inequality in per capita consumption from 31% to 34.65%. The estimated impact of pensions and social assistances on inequality was estimated to constitute 2.5% and 1.8% respectively. In addition to these findings, the survey conducted by the Ministry of Labor and Social Protection of Population of the Republic of Azerbaijan and World Bank established that the expenses on social assistance programs measured as 1% of GDP reduce

the overall poverty incidence by 2.5 percentage points, poverty gap by 1.3 percentage points and poverty severity by 0.9 percentage points (World Bank, 2009).

.Along with all above mentioned, the expansion of passive governmental social transfer programs has led to a notable decline in poverty level (Nazarov, 2009). Even though the fact that social transfers result in the reduction of the number of people living below the poverty line is commonly accepted, an important issue is that such transfers do not necessarily contribute to feasible reduction of poverty level. Most of the studies argue that such kind of social acts could deliver effective outcomes only in the short-term periods. On the one hand, 50% of GDP is constituted by oil and the major part (around 70%) of the revenues to state budget are from the oil and on the other hand it is estimated that oil revenues are going to fall down in the long-term, therefore it is risky to continue the passive social transfer measures under poverty reduction programs (European Commission, 2011). There are still significant problems related to the strengthening the impact of poverty reduction programs in the country: to create favorable investment conditions, to upgrade the infrastructure for balanced economic growth to develop the non-oil sector and to increase the number of job places in regions and etc.

Furthermore, according to the same analysis, which was conducted by the Center for Local Economic Development in 2010, a substantial progress has been achieved in poverty reduction through increased social transfers coming from oil-gas revenues within the last years. Significant growth in GDP, poverty reduction and decline in unemployment in the non-oil sector evidences that passive social programs, which are implemented by government in order to ensure poverty reduction and economic development in the country, provide an expected results.

As a result of all abovementioned, the conclusion about the positive impact of the extension of the passive social programs on the reduction of the poverty rate can be drawn. Worth to mention, that the implementation of the targeted social assistance program as well as increased amount of the social allowances and pensions significantly decreased the poverty level over the last years. However, directing more sources and efforts on the increase of the tiredness of passive social programs and commencing implementation of more active poverty reduction actions could be considered more efficient from the perspective of government adopted programs. This would lead to the sustainable poverty reduction in the long term.

One of the *active poverty reduction measures*, implemented by the government in the Republic of Azerbaijan, was creation of new job places, as a result of which during 2003-

2009 years more than 840,000 new working vacancies were created (Statistical Yearbook of the Republic of Azerbaijan, 2012). As mentioned above, the government of Azerbaijan devoted special attention to the creation of new job places over 2003-2009 years as one of the active poverty reduction measures. Hence, 840,000 new job places were created during the reporting period, majority of which was permanent vacancies. According to the information provided by the Statistical Yearbook of the Republic of Azerbaijan, even in the period, when the country was affected by the global crisis, the boom of which occurred in 2009, 74,000 new work places were created (Statistical Yearbook of the Republic of Azerbaijan, 2012).

Ministry of Labor and Social Protection of Population started the implementation of the program under the name Targeted State Social Assistance in 2006. It was already mentioned that this included about 8% of the population and allocation of the money from the state budget was in the amount of 180 mln AZN (Nazarov, 2010).

The mentioned program equalized the difference between per capita household income and the subsistence minimum, which according to the State Statistical Committee was 60 AZN in 2009. In order to evaluate the program, with the help of the World Bank in 2008, a survey, which covered about 6,000 households, was conducted by the Caucasus Research Center (European Commission, 2011). The survey revealed that the Targeted Social Assistance program, which was targeted at the level of 69%, significantly exceeded other types programs. The results of the study indicated, that the poorest first and second quintiles constituted about the 86% of beneficiaries of the program. According to the estimation outcomes, without social assistance programs the poverty incidence, poverty gap and poverty severity would correspondingly constitute 21%, 7,2% and 3.8%. Furthermore, the impact of pensions on poverty reduction was estimated to be 6,8 percentage points, while the impact of targeted social assistance program at 4,6 percentage points (European Commission, 2011). On the other hand, survey conducted by the World Bank indicated that social assistance programs reduced poverty rate by 2,5, poverty gap by 1,3 percentage points and poverty severity by 0,9 percentage points (World Databank, 2009).

Among a number of essential active programs aimed at reduction the poverty rate microfinance programs are considered to be of essential importance. The main goal of these programs is to improve the business climate of the country, where the program is implemented, and to provide poor groups of population with micro-credit, in order to develop entrepreneurial capacity. Azerbaijan began implementation of the micro-finance programs in 1999, when the participation of international humanitarian organizations in providing support

to Azerbaijan was incredibly high (Nazarov, 2009). For instance, those organizations were creating several non-bank credit institutions, which play a crucial role in providing micro-credit services even today. According to the information provided by the State Statistical Committee of the Republic of Azerbaijan, among entities providing micro-finance credits only 2 out of 20 institutions are state-owned, whereas the rest are banks, which along with other services provide micro-finance credit services as well (State Statistical Committee of the Republic of Azerbaijan, 2000).

According to the data provided by the State Statistical Committee, there were 30 micro finance institutions and more than 300,000 individuals addressing to these services at the end of 2009. Moreover, micro-credit portfolio accounted for 1% of GDP at the end of 2009. A survey conducted by Azerbaijan Micro-Finance Association, which covered 2000 clients both longer-term and new clients in 2008 revealed, that poverty incidence among all respondents was 19% (Azerbaijan Micro-Finance Association, 2008). Moreover, an important fact to mention is that according to assessment of the State Statistical Committee of the Republic of Azerbaijan the level of poverty was estimated to be 13.2 % in 2008 (State Statistical Committee of the Republic of Azerbaijan, 2008). Furthermore, evaluation process indicated that there were more individuals belonging to the poor group of population among new clients in comparison with longer term clients, being more precise the poverty level of among longer term clients was calculated to be 16,2%, while among clients it constituted 21,8% (Nazarov, 2009). Based on these indicators, the conclusion about existence of positive impact of microfinance programs on poverty reduction, as a result of accessibility of micro finance resources by poor groups of population, can be made. Today the level of poverty among all microfinance clients is calculated by implementing expenditure estimation method and is determined to be 7.1%. Statistics on extreme poverty level indicates that in comparison with new clients there is 2 times less extreme poverty among longer term clients. This positive impact is better observed in rural areas (State Statistical Committee of the Republic of Azerbaijan, 2012).

The fact of higher inequality among new micro-finance clients than longer-term clients, which are 0.292 and 0.268 respectively, indicates that micro-finance credits significantly decreases inequality among households. There is higher inequality level among microfinance clients compared to the national inequality level. Households budget survey conducted by State Statistical Committee of the Republic of Azerbaijan determined 0.166 inequality index in 2005, while according to the study realized by the Caucasus Research Resource Center this index was equal to be 0.263 in 2006 (Nazarov 2009).

Therefore, the conclusion proposing an existence of a positive impact of microfinance program on poverty and inequality reduction can be delivered. According to the simple calculations, which were applied by the State Statistical Committee in order to reveal the impact of micro-credits, the poverty rate was reduced by more than 1% via micro-credits, which was equal to 1% of GDP. In addition, it is worth to mention that the credits were given with the interest rate higher than 30%, which can be assessed as expensive enough. Therefore, it could be proposed appropriate for the government to consider provision of cheaper credits to the poor, which might reduce the poverty level by 2-3 times.

According to the State Statistical Committee the share of the micro-credits constituted approximately 1% of GDP in 2009 (State Statistical Committee of the Republic of Azerbaijan, 2009). Microfinance Impact Assessment demonstrated 19% reduction in poverty incidence among all the respondents in 2008. The poverty among longer-term microfinance clients has been reduced by 5.6 percentage points: among new clients-16.2% and older clients-21.8%. 1% significant difference in income and expenditures between older and new clients revealed the positive impact of micro-credits on poverty reduction. This positive impact was more clearly observed in rural areas. Among all the respondents variation in basic consumption expenditures was estimated to constitute 0.281 percentage point (Nazarov, 2010).

Furthermore, rapid growth of the oil sector, which is an important factor affecting social-economic policy, had a significant impact on the overall economy and considerably enhanced macro-economic indicators during the last years. According to the major macro-economic indicators, over the last six years growth in GDP amounted to 26% and annual growth in the oil sector was equal to 10% (State Statistical Committee of the Republic of Azerbaijan, 2010). Along with this, statistics reveals that GDP per capita and nominal monthly wages increased five and four times respectively, while poverty rate and unemployment decreased from 44,7% to 11% and from 9,7% to 6% over the last 6 years respectively (State Statistical Committee of the Republic of Azerbaijan, 2012). The forecast for the next five years, prepared by the State Statistical Committee, predicts the continuation of this positive trend (State Statistical Committee of the Republic of Azerbaijan, 2012).

### 1.3. Pension Provisions in the Republic of Azerbaijan

The original idea of creation of pension system was established by Juli Cesar for his soldiers in Rome. Later in 1889 the system was implemented in Germany, which was based on social insurance payments to individuals, who paid mandatory membership fees. However,

in New Zealand and Denmark pension system anticipated social assistance to the poor, which was financed through tax revenues (Economic Research Center, 2008).

According to the local legislation working old aged pensioners have rights to receive fifty percent of their pensions unconditional on their wages. Currently, an average size of the monthly pensions is 92,900 AZM. Furthermore, the amount of the disability pensions was increased up to thirty percents (Order On Increasing the State Assistance for the Disabled and a Group of Underprivileged Citizens from Other Categories issued by the President of the Republic of Azerbaijan, 2000). Along with abovementioned the childbirth and childcare allowances for mothers with children under 3 years are paid and currently constitute 70,000 AZM. Moreover, minimum level of unemployment benefits were increased up to 30 000 AZM and the maximum level is defined at the level of the average monthly salary (Law on Employment, 2001).

Social assistance benefits include:

- child benefits for low-income families;
- child birth allowances;
- child care allowances.

Child benefits are paid to low income families with children. In addition, allowance for the children is paid to the families of martyrs and the war disabled from any income group.

Information about sizes of the social benefits for 2001 is presented in the table 2.

Table 2. Size of Social Benefits Compared to Monthly Average wage, 2001

	Monthly Average Wage	Minimum Wage	Minimum Subsistence Level, per capita	Average Old Age Pension	Minimum Pension	Child Benefit (0-16 years)	Unemployment Benefit
In AZM	260,000	27,500	120,000	92,900	70,000	9,000	37,000
In USD	55.8	5.9	25.8	19.2	14.4	1.9	8

Source: Social Security and Protection Fund of the Republic of Azerbaijan

However, in spite of significant development in the social security system in the Republic of Azerbaijan, there are still some key disadvantages in the Social Protection

System of the country, such as an excess of illegal jobs, which stipulate the following two significant problems. The first one is that the system prevents individuals employed in illegal jobs from receiving social benefits provided by social security system. As a result of such cases the total amount of contribution to the social security system decreases.

Furthermore, a large number of families involved in farming and other type of agricultural production are considered to cover only their consumption are exempt from tax payments and do not receive any social benefits. In order to decrease operational costs employers tend to under report the number of their employees and as a consequence evade social transfer defined by the legislation.

As a second challenge we can emphasize that, some social benefits are provided based on category more than means-testing. Disability pensions, child benefits, and benefits to refugees can be good example. In other words, Individuals with different income receive the same disability pension. On the other hand, refugee families, with income, which could even be classified as high, are entitled to pay neither education costs nor utilities. Nevertheless, non-refugee families with income below average might experience significant difficulties, while financing their children's education, including tuition fees, school belongings and etc.

The third disadvantage of social security system is that, resources are allocated inefficiently among population. Moreover, the government reduces social benefits as much as possible. As a logical consequence of such a policy, there exist substantial obstacles for improvement of the social status of the poor people.

Another important shortcoming of the current system is inclusion of disabled children and people in institutional care. Although, the official policy of government makes provisions for involving this group of people to education, the accessibility of education for them is still problematic. According to official statistics of UNICEF, significantly high proportion of children with disabilities are included to special institutional care programs, such as "home education" and "specialized education" (UNICEF, 2011). However, an important drawback of these types of educational programs is that they prevent children from active participating in social activities. Furthermore, constraining children to home education or specialized education might be considered as a substantial obstacle for them to integrate into society.

On the other hand, it is commonly known, that people with physical or mental disabilities in Azerbaijan face significant obstacles while applying for education and

health care. Additionally, public transportation and most of places for common use are not provided with appropriate equipment for individuals with any kind of disabilities. Obviously, pension and other types of benefits provided by the government to disabled people cannot be considered enough in order to cover their physical needs and improve conditions for their socialization.

Rapid economic growth stipulated progressive decline in poverty rate of the country within the last 10 years (World Databank, 2012). As a result, significant increase in the real wages of poor households, as a consequence of high economic development, was observed. The increase in wages served as one of the basic factors influencing the growth of pensions to the old aged households and consequently poverty reduction.

According to the information, provided by the State Statistical Committee of the Republic of Azerbaijan, annual average monthly real wages have increased for more than 14% since 2003 (State Statistical Committee of the Republic of Azerbaijan, 2003). As a result of the policy conducted by the government of Azerbaijan, minimum wages in the country augmented and minimal rate of monthly wage changed from 23% of minimum living expenses in 2001 to more than 95% in 2008. In addition, the local authorities steadily increased minimum pension rate. As a result pensions attained 95% in 2008, even though in 2001 they were calculated to be 42% of minimum living expenses level. Consequently, state policy in Azerbaijan, which was directed at improving financial situation of old aged households, hence liquidating their “the officially poor” status, and reducing density of poverty, played an important role in decreasing official poverty rate (World Bank, 2010).

The proportion of beneficiaries relative to contributors, known as the pension system dependency ratio, which is estimated to be 31% in Azerbaijan in 2008, is above the share of population above 60 years old, defined as old-age dependency ratio and approximately calculated to be 13% in 2008. However, in the following two decades occurrence of extra burdens for the pension system are expected, due to stable upward trend in life expectancy and increasing number of population of the 65 and higher age (Muslumov, Ibrahimov, 2009).

The authorities of Azerbaijan conducted a pension-restructuring project in 2001 in order to ensure the full functioning of social protection and pension systems. The main objective of the project was to replace the existing PAYGO system with a new scheme, which was mainly characterized by individual social insurance contributions.

Establishing a link between the social insurance benefits, which would account for the level of enrollment in the social insurance systems, and value of transferred contributions was the key deliverable of the project (European Commission, 2011).

Nonetheless, pensions paid to old-age population were not determined to be enough in order to meet the basic needs of pensioner. In comparison with the average monthly old-age pension, which was defined at the level of 91€, the minimum pension transferred to pensioners until 1 of the January 2010 was amounted to be 76€. Both the average monthly old-age pension and the minimum pension constituted an insignificant proportion of the average monthly salary. Being more precise average monthly old-age pension was 34% of the average monthly salary, while minimum pension was only 26% of the average monthly salary (State Statistical Committee, 2010).

However, an important and crucial condition is to have a pension system in place, that will provide sustainable pension payments and facilitate the public expenditure once oil revenues are gone. The main issue is related to the low collections of contributions and social insurance revenues. Even though the total non-state budget revenues of the Social Security and Protection Fund increased considerably, they cannot be considered to be sufficient in order to make the system sustainable. Along with this, the state budget contributions are also increasing. Starting from 2003, the state contributions increased by almost 3.5 times. Although the portion of these contributions in the total revenues of the State Social and Protection Fund is still lower than in 2003, the amount is still sizable by forming approximately 30% of the revenues (State Social and Protection Fund, 2003).

With the purpose of providing accessibility of the pension system to informal sector, the informal sector should be supported by the government policy as well. As one of the possible solutions employees' contributions to the total social tax payments and subsidized pension entitlements might be proposed.

Furthermore, the access to social security could be gradually expended to agricultural sector and the self-employed individuals. Recently, special attention has been paid to the development of private pension schemes. According to the state policy establishment of private pension schemes is a red flag area for the government, in which it plans to conduct substantial reforms within the next five to six years. Application of mandatory pension mechanism is expected to bring forward such expenses as transition costs (when future expenditure are supposed to be pre-financed in parallel to the current

expenditure), yet oil revenues could possibly play significant role in terms of financing the remaining part.

Another important issue to be considered within improvement of Social Security System in Azerbaijan could be considered the privileged pensions. Currently such types of pensions are based on noninsurance principles. However, in order to develop more efficient system, including creation of favorable conditions and equalizing conditions among all pensioners, the government could realize change in the existing condition. For instance, modify the terms for earlier retirement as well as amount of pensions, which currently are mainly in favor of such groups of people as public officials, employees of government entities, the police and the military which constitute quite a large share of the population.

#### 1.4. Confrontation of the tax and social security systems in CIS countries

The different and similar characteristics of the tax, social security and pension systems in the CIS countries, o which belong to the same development category are presented in the table 3.

Table 3. Tax, social security and pension system comparison across some CIS countries.

	Personal income tax	Social security	Pensions
<u>Azerbaijan</u>	<p>Progressive taxation of individual annual income:</p> <ul style="list-style-type: none"> <li>• 14% for the annual income up to 12,000 AZN</li> <li>• 1,680 + 35 % for the annual income above 12,000</li> </ul> <p>The tax is withheld and paid to the authorities by the employer on the day the wage is paid.</p> <p>A person is considered a taxpayer on the territory of the Republic of Azerbaijan if he/she has been living in Azerbaijan for more than 182 days in a calendar year.</p>	<p>22% of the gross salary of the employee is paid to the Social Security and Protection Fund by the employer and three percents are paid to the Fund by employee. However, these three percents are withheld and paid to the authorities by the employer.</p> <p>All foreign employees, except those employed in Oil and Gas Production Sharing Agreements and Host Government Agreements, obey to the same regulations as domestic ones.</p>	<p>Pension contributions are included to the payments to Social Security and Protection Fund.</p>

	<p>Foreign tax residents are levied by taxes based on their world-wide income. Foreign non-resident employees are levied on the income earned on the territory of Azerbaijan.</p>		
<u>Georgia</u>	<p>Personal income tax is determined to be 12 %</p> <p>An employer is responsible for withholding tax from his/her salary in order to remitting certain amount to state.</p> <p>If person stays more than 182 days in Georgia within 12-months he/she is considered to be tax-resident.</p>	<p>Employers are responsible for transferring social tax from employees' gross salary at rate of 20 %.</p> <p>No exemptions are provided for foreign citizens.</p> <p>A non-resident individual is considered to be a social tax payer if he/she has been residing in the territory of Georgia for 90 or more days.</p>	<p>According to Georgian tax legislation no mandatory pension contributions are established.</p>
<u>Kazakhstan</u>	<p>The direct and indirect income of the individuals is taxed by the ten percent flat-rate tax.</p> <p>Local and foreign residents of the Kazakhstan Republic are taxed based on their worldwide income, while</p>	<p>Regressive social tax scale, with maximum tax of 17% and minimum tax of 5%, is implemented in Kazakhstan. Social tax rates are the same for local and foreign employees. The payments are withheld from the employees' gross salaries and paid to the authorities by the employer.</p>	<p>Pension contributions are defined at 10% of the employees' gross salary. Maximum pension contribution per month of an employee is determined to be 440 euro.</p>

	<p>nonresidents are taxed based only on their income earned on the territory of Kazakhstan.</p> <p>A person is considered a taxpayer on the territory of the Kazakhstan Republic if he/she has been living in Kazakhstan for 183 or more days in 12 months; or if the sum of reside days in Kazakhstan in the current year, one-third of the reside days in the previous year and one-sixth of the reside days in the second previous year is equal or more than 183 days.</p>		
<u>Moldova</u>	<p>Progressive taxation of individual annual income:</p> <ul style="list-style-type: none"> <li>• 7% for the annual income up to 16,200 AZN</li> <li>• 1,134 + 10 % of the amount above 16,200 for the annual income above 12,000 and below 21,000</li> </ul>	<p>The contributions to social security system are mandatory for both employees and employers.</p> <p>An employer is required to pay social tax on employees' wages at the rate of 25%.</p> <p>Employees are obliged to transfer 4 % of</p>	N/A

	<ul style="list-style-type: none"> <li>• 1,614 + 20 % of the amount above 21,000 for the annual income above 21,000</li> </ul> <p>The tax is withheld and paid to the authorities by the employer on the day the wage is paid.</p> <p>A person is considered a taxpayer on the territory of the Moldova if he/she has a permanent address in Moldova; or if he/she has been living in Moldova for more than 183 days in a calendar year.</p>	their wages to their individual social security fund.	
<u>Russia</u>	<p>The income of the individuals is taxed by the 13 percent flat-rate tax.</p> <p>The tax is withheld and paid to the authorities by the employer. In the case employer does not fulfill his/her duties penalty of 20% of the tax to be paid to the authorities may be levied on the</p>	<p>Regressive Unified Social Tax scale, with maximum tax of 26% and minimum tax of 2%, is implemented in Russia. Unified Social Tax includes a federal budget contribution, a medical funds contribution and a social fund contribution.</p> <p>Social tax rates are the same for local and</p>	<p>Pension Insurance contributions are determined depending on the gross salary of the employer based on the regressive tax scheme. The amount of the Unified Social Tax is reduced by the amount of the Pension Insurance Contribution.</p>

	<p>employer.</p> <p>Local and foreign residents of the Russia Federation, are taxed based on their worldwide income, while nonresidents are taxed based only on their income earned on the territory of Russia.</p> <p>A person is considered a taxpayer on the territory of the Russia Federation if he/she has been living in Russia for 183 or more days in consequent 12 months.</p>	<p>foreign employees. The payments are withheld from the employees' gross salaries and paid to the authorities by the employer.</p> <p>Employers are responsible for transferring mandatory social insurance against work-related accidents in the amount of 0.2%-8.5% of the employee's salary.</p>	<p>Foreign employees are exempt from Pension Insurance contributions.</p>
<p><u>Ukraine</u></p>	<p>The personal income tax in Ukraine is determined to be 15% for residents and 30% for non-residents.</p> <p>An individual is considered to be a resident of Ukraine if he or she has permanent place of adobe in Ukraine. In the case an individual does not have permanent place of adobe in Ukraine, if his/her family members have place of adobe in Ukraine. Alternatively, an</p>	<p>Payroll taxes on the employees' gross salaries in the amount of 1.5%, 1.3% and 0.66%-13.6% are paid correspondingly to the Social Security Fund, Unemployment Insurance Fund and Fund for Social Insurance for Accidents at Work by the employers.</p> <p>Employers are responsible for withholding and transferring employees' contributions to the Social Security Fund in the amount of</p>	<p>Contributions in the amount of 33.2% of the employees' gross salary are paid to the Pension Fund by the employers. Furthermore, 2% of the employees' gross salaries are paid to the Pension Fund by the employees.</p>

	<p>individual can be considered a resident of Ukraine, if he/she has been residing on the territory of Ukraine for 183 or more days in a calendar year, or is a citizen of Ukraine. Any individual has a right to become a tax resident in Ukraine on his/her own will.</p>	<p>1% and Unemployment Insurance Fund in the amount of 0.5%. The latter contribution is applied only in regard with Ukrainian employees.</p>	
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. Source: CEE-CIS Tax Notes Working cross-border, Issue No. 7/1, Annual edition 2007

## 2. Income distribution and its trend within 1996-2010

In his book “Measuring Inequality” Cowell (2009) proposes several tools for measuring inequality. In the list of inequality measures the author includes the following:

- range – the difference between the maximum and minimum income levels. However, this measure is not considered to be efficient for the reason the implementation of the range requires full information about incomes, which is not available in the heterogeneous societies;
- relative mean deviation – is the average of the absolute distances of the incomes from the mean. However, this measurement fails to provide complete information about income distribution, for the reason relative mean deviation does not cover full information about income distributions;
- Gini coefficient – the average of the differences between pairs of incomes. Gini coefficient is usually expressed in terms of proportion of total income.

Gini index is developed in order to evaluate the deviation of the income of individuals and households from perfectly equal income distribution. Gini index depicts the difference between the line of perfectly equal income distribution and Lorenz curve. Lorenz curve is the curve, which represents the total income of households from the poorest to richest. In the countries with perfectly equal income distribution Lorenz curve and line of perfectly equal income distribution overlap, hence Gini index is 0. In contrast, in the case when the gap in income distribution between the low and high income families is high, Lorenz curve significantly deviates from the line of perfectly equal income distribution and Gini index is 100, what implies perfect inequality.

Recent research conducted by the State Statistical Committee established that even though there is a significant development in the providing macroeconomic stability, the equality in income distribution among the population in the Republic of Azerbaijan has not yet been achieved (State Statistical Committee of the Republic of Azerbaijan, 2004). According to World Bank estimation in 1999 Gini coefficient was 0.44. However, evaluation process realized by Household Budget Survey, which was conducted in 2001, determined Gini coefficient to be 0.36. Furthermore, implementing Household Budget Survey calculation strategy State Committee for Securities of the Republic of Azerbaijan assessed inequality among local households based on

income distribution. According to the estimations, in 2002 Gini coefficient, which was stated to be the most common used and efficient measures of inequality, was 0.271. Along with Gini coefficient, relative standard deviation was calculated. The latter measure was estimated to be 0.273.

While assessing inequality and poverty levels among the population consumer price index is often referred to. Consumer price index (CPI) is a price of all goods and services purchased by an individual consumer (Mankiw, 2008). CPI is calculated in accordance with following steps:

1. 'Fix the basket' – define the preferences of the individual consumer and assign coefficients to the prices of goods and services in accordance with the preferences ranking;
2. Determine the prices – determine the price of each good and service in each analyzed time period;
3. Estimate the cost of the basket – sum up the production of a coefficients assigned to the good or service with corresponding good or service;
4. Select the base year and calculate the CPI – determine the year, against which all other years of the analysis will be compared and which is called base year. Further, calculate CPI as the ratio of prices of goods and services in the current year with the prices of goods and services in the base year. In order to express the CPI in percents, the calculated ratio is multiplied by 100 (see formula 1).

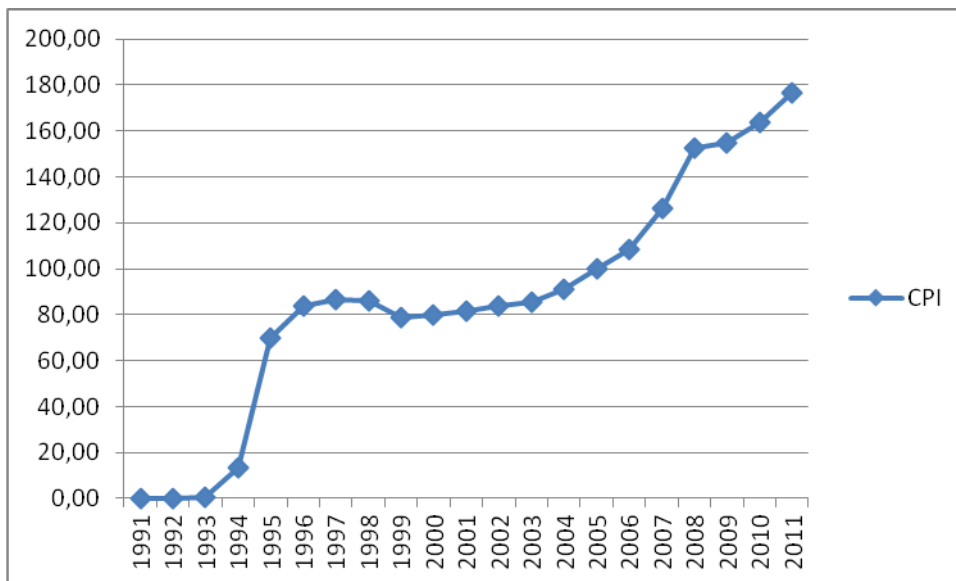
$$CPI = \frac{P_c}{P_b} \times 100, \quad (1)$$

where  $P_c$  is the prices of goods and services in the current year,  $P_b$  is the prices of goods and services in the base year (Mankiw, 2008).

In Azerbaijan the CPI index is calculated by the CPI section of the Price Statistics Division in the State Statistical Committee of the Republic of Azerbaijan. In the country there are 54 CPI regions and 102 price collectors. The index is calculated based on the information in the 17 'price collectors' (registrars) in the Baku regional office, which contains information from 11 districts of the Baku CPI region. Along with this, information is supplied by 85 additional price collectors from the 59 districts of the rest 53 CPI regions (International Monetary Fund, 2008).

According to World Databank information, the CPI in the Republic of Azerbaijan increased significantly within the last year. Data indicates that if in 1991 CPI in Azerbaijan was at the minimal level of 0.04, the index was increasing consistently and reached the maximum level of 163.54 by 2010 (International Monetary Fund, International Financial Statistics and data files). Low CPI level in 90-s could be explained by the military involvement, which was on the most strained in those years. The trend of the change in CPI from 1991 to 2011 is depicted in the graph 1, presented below.

Graph 1. Change in CPI in Azerbaijan, 1991 to 2011



Source: Self-made on World Databank data

According to the data provided by the State Statistical Committee in 2002 the 69.4% of the CPI was constituted by the food basket, in the amount of 121.465 Azn. On the other hand, only 12.5% of the CPI was formed by the non-food basket, the value of which is estimated to be 21.935 Azn. Furthermore, the State Statistical Committee provides classification of the population of the Republic of Azerbaijan by the poverty level. According to the classification the absolute poverty levels among households of the age of 18-29, 30-39, 40-49, 50-59 and finally above 60 years are correspondingly 38%, 46%, 49, 48% and 53%. The data indicates that the poverty absolute poverty level is increasing with the age. In other words, older households are on the higher poverty level than the younger ones. The same results are obtained by estimating relative poverty levels. For instance relative poverty levels for the households of the age range of 18-29, 30-39, 40-49, 50-59 and finally above 60 years are correspondingly 11%, 15%, 15%, 15% and 20%. Presented results evidence that, along with an increase in poverty level with an

increase in age in general, the age groups of 30-39, 40-49 and 50-59 are at the same poverty level (State Statistical Committee, 2004).

### 3. Analyses of the social benefits, taxes and income distribution

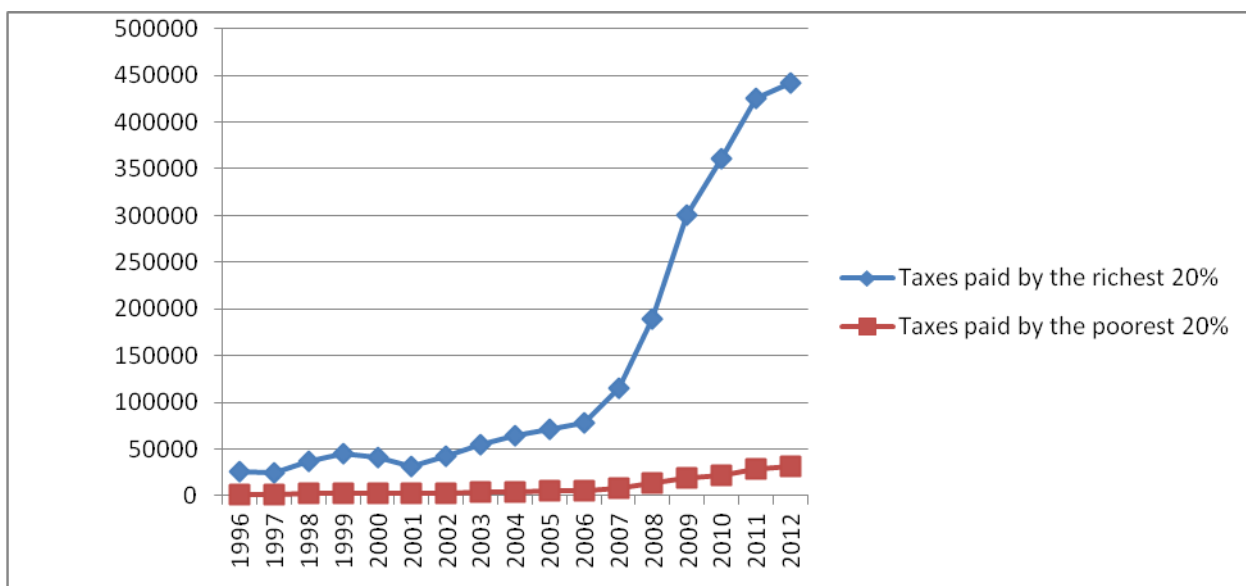
One of the hypotheses of the thesis was that even though poor and middle classes of the population pay less tax, they receive higher social benefits; while a rich part of the population transfers more contributions and taxes to the budget of government, however social benefits designated for them from government is small. In order to verify this proposition, I will compare trends in the taxes paid by both groups of population and social benefits obtained by them. For the reason there is no data on taxes paid by individuals, belonging to the different income groups, I will perform own calculation.

In order to estimate tax indicators, I will multiply the income tax rate by the income the poorest 20% and richest 20% of the population correspondingly, using the data from 1996 to 2012. In accordance with the progressive taxation scheme implemented in the Republic of Azerbaijan, tax rate of the 14%, of individual annual income which is the rate for individuals with annual income up to 12,000 AZN, will be used for the poorest income group. On the other hand, for richest income group tax rate of 1,680 Azn + 35 % of the income, which is the rate for the annual income above 12,000, will be applied. However, since the constant term does not have an impact of the distribution and only percentage matters, I will disregard the constant part. The income of the each group will be calculated as a product of the total income in the given year multiplied by the income share of the corresponding group. The final formula 2 and formula 3 for the calculation of the taxes are as following:

Taxes paid by the poorest 20%	Taxes paid by the richest 20%
$T = 0,14\% * total\ income * income\ share$ (2)	$T = 0,35\% * total\ income * income\ share$ (3)

The distribution of the taxes paid by the poorest and richest income groups is given in the graph 2. According to the graph taxes paid by the top 20% of the population have increasing slope, while distribution of the taxes paid by the lowest 20% of the population have approximately equal distribution. Along with this, line of taxes paid by the individuals with higher income is located higher than the line of taxes paid by low income individuals. Moreover, the graph depicts an increasing gap between these two lines beginning from 2006. Consequently, the first part of the hypothesis, stating that richer people pay higher taxes that poorer, is supported by the data.

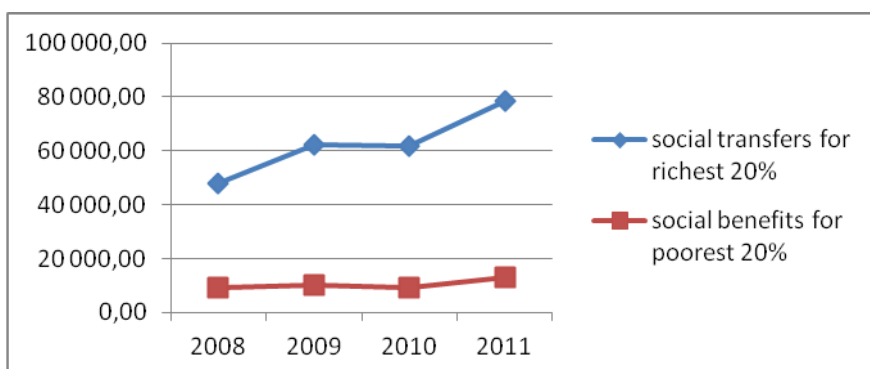
Graph 2. The distribution of the taxes paid by the poorest and richest 20% of the population in Azerbaijan, 1996-2011, mln Azn



Source: Self made on World Bank database

Unfortunately, shortage of the data on social benefits transferred to the low and high income groups creates obstacles for precise estimations. However, even though accurate computation is not performed, I calculate the amount of the social transfers to each group as a percentage of total social transfers paid to the given group. In other words, I compute the share of the total social transfers paid to the higher and lower income groups. For the reason there is no data for the earlier years, the estimation covers only years from 2008 to 2011. The trend lines of the social transfers paid to poorest and richest groups of the population is presented in the graph 3.

Graph 3. Social benefits paid to the poorest and richest 20% of the population in Azerbaijan, 2008-2011, mln Azn



Source: Self made on World Bank database

According to graph 3, the trend line of social benefits obtained by the individual belonging to higher income group is located significantly higher than the line depicting distribution of the social benefits paid to the lower income groups. Based on data the conclusion that richer people obtain higher social benefits can be drawn.

Consequently, the proposed hypothesis stating that richer people pay more taxes and receive lower social benefits, while poorer households pay less tax and obtain higher social benefits is not supported by estimation conducted. The result obtained is not surprising for the following reasons. First of all, pensions paid to the population are not distributed equally among population. Being more precise, pensioners belonging to higher social groups and working as high rank state officials are entitled to receive higher pensions, when retired. On the other hand, people working on low salary basis, receive lower pensions. The same logic can be applied to any type of social benefits paid to population. As a result richer people benefit from higher social transfers than poorer. Furthermore, another explanation of unequal distribution of the social transfers among population is high expenses incurred in order to be entitled to receive social assistance. In other words, low income people usually experience a number of difficulties, such as gathering documents, submission applications and have to overcome significant bureaucratic procedures. As a consequence poor people receive low and even no social benefits.

The outcome of unequal distribution of social transfers is inequality of income distribution among population. The fact that richer people pay higher taxes does not affect income equalization process, for the reason taxes do not have redistributive power. Even though richer people pay higher taxes, financial resources obtained from taxation are not directed to the poor in a way of equalization income distribution.

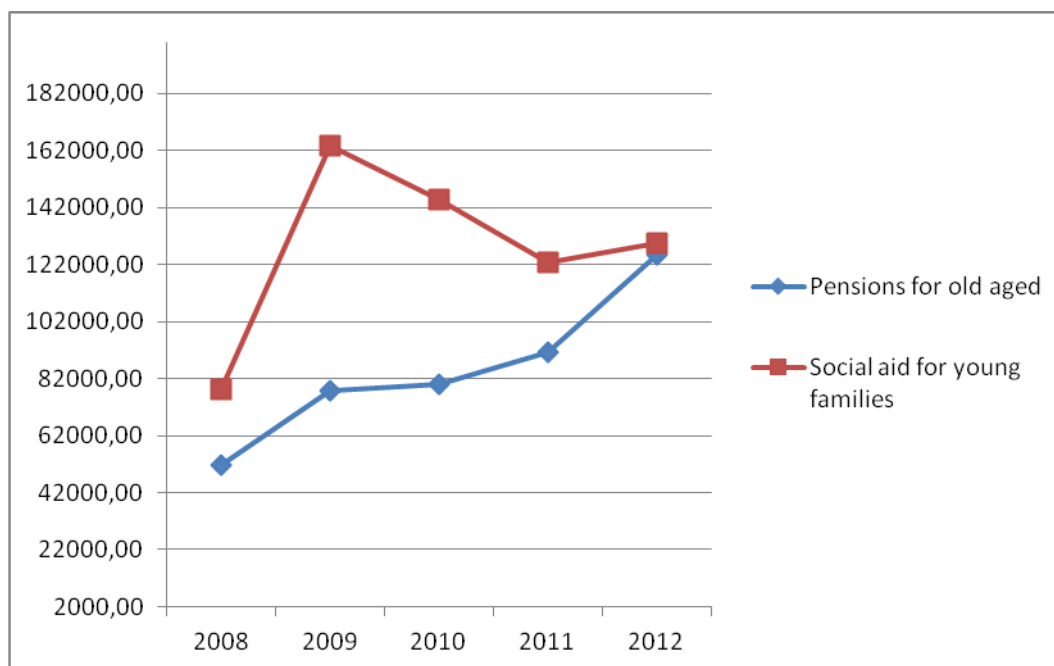
Another hypothesis stating that tax deduction is less effective policy in income distribution equalization in comparison with social transfers increase might be verified based on the obtained outcome. The intuition is that as stated above, taxes do not influence income distribution; hence reduction of taxes will not have any impact on reduction gap between rich and poor people. On the other hand, as argued, one of the reasons provoking inequality in income distribution is low social benefits received by poor group of people. Consequently, increase in social benefits paid to low income families could be considered as an efficient tool with a view of decreasing income gap between the rich and poor. Moreover, in order to stimulate equalization of income by the means of increase of social payments to the low income families,

simplification of application procedure could be proposed. Moreover, reforms stimulating higher pensions to the individuals belonging to the lower social groups might be helpful in terms of reduction inequality among older aged population.

However, obviously the result is affected by the oversimplified calculation process, which was conditional on data shortage. The outcome could coincide with the initially defined hypothesis in the case of availability of the better data.

The second hypothesis proposed was that social programs implemented by government are more beneficial for older aged households than to the younger ones. In order to verify this hypothesis I will use data on the amount of pensions per capita paid to old aged individuals and the amount of social aid per capita addressed to poor young families. The reason I refer to the data on pensions is that, as was mentioned in the chapter pensions transferred to old age individuals are included to social insurance payments as well. The data utilized within estimation process covers years from 2008 to 2011 is obtained from the State Statistical Committee. The distribution the old age pensions and social aid paid to young families is presented in graph 4 below.

Graph 4. Old aged pensions per capita and social aids paid to young families in Azerbaijan, 2008-2011, mln Azn



Source: Self made on State Statistical Committee of Republic of Azerbaijan database

The graph 4 clearly indicates that within last five years amount of social aid paid to young families was higher than the amount of pensions paid to old aged households. While the graph of pensions paid to old aged has increasing slope, the graph of social aid paid to young families increases only from 2008 to 2009 and has a negative slope after 2009. Data indicates, that by 2012 the amount of pensions transferred to old aged approaches the amount of social aids disbursed to young families, what can be explained by the government policy aimed at consistent increasing of old aged pensions.

The analysis of the data on old aged pensions and social aids paid to young families indicates that the hypothesis proposed about higher benefits of social programs for older people is not corroborated either. This fact could be explained by significantly higher number of young families in general, which leads to higher number of low income families, who are in need of social aids. As a result, the total amount of social payments to young families is significantly high. In contrary, the amount of pensions, paid to old aged people is smaller, as a consequence of smaller number of old aged households, receiving pension, in comparison with younger's.

One of the proposed hypotheses was that policies directed at reforms in tax and social security systems, besides explicit impact on income distribution among population, which were discussed above, have implicit effects as well. In other words, an increase in taxes and social transfers is expected to affect income distribution through labor supply adjustment. For instance, according to a number of economic studies, in the case, when labor taxes are augmented, workers will have less incentive to work and labor supply decreases. Further, as a result of diminishing labor supply and consequent increase in unemployment, the number of households with low and no income increases, provoking an increase in the income distribution gap. In order to verify this theory, I will analyze trend lines of taxes and unemployment rates. Furthermore, I will add Gini coefficient graph to assess income distribution. Again as a result of data shortage, the assessment process will cover only years 2004-2012. During evaluation, I obtain the number of unemployed people as a product of the share of the labor force that is without work but available for with total labor force, in accordance with formula 4.

$$u = u\_share \times l, (4)$$

where  $u$  stands for the number of unemployed people,  $u\_share$  - share of the labor force that is without work but available for and  $l$  – total labor force.

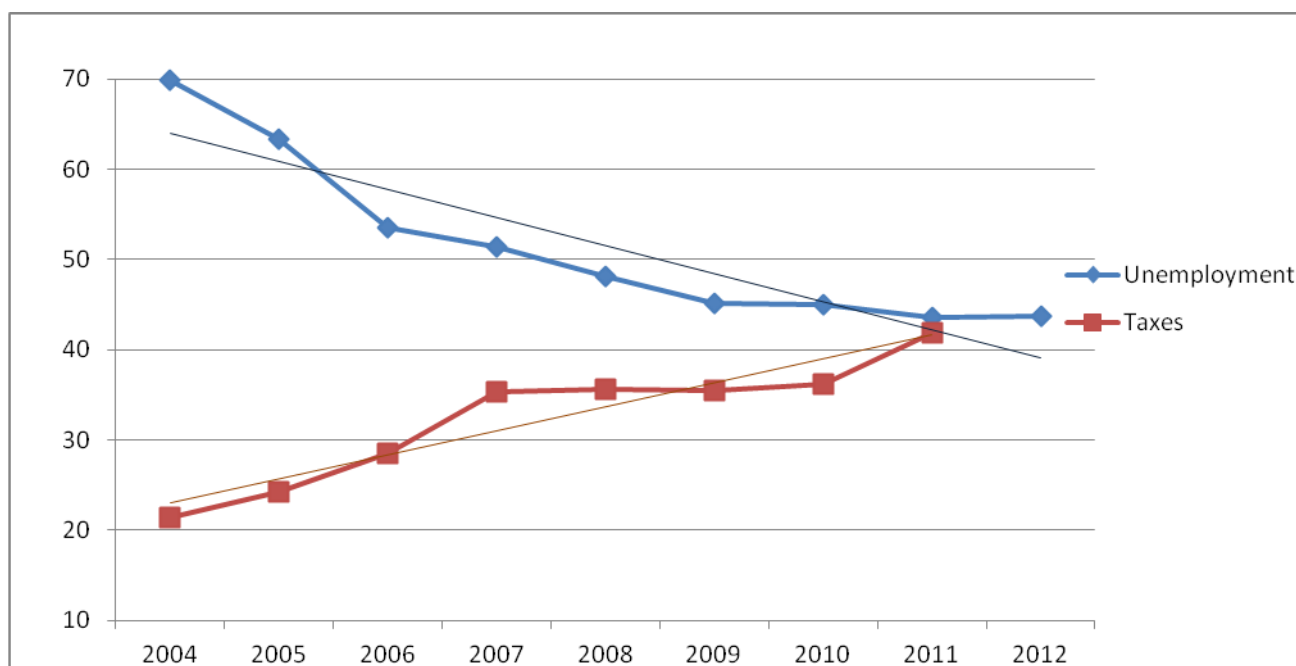
Furthermore, in order to conduct comparison of the unemployment and tax trends within indicated time period, as well as improve descriptiveness of the data, I calculate the percentage of income taxes from the total revenue as well as the percentage of the unemployed people in the total population of Azerbaijan within analyzed time period in accordance with formula (5):

$$u_{percent} = \frac{u \times 100\%}{population}, \quad (5)$$

where  $u_{percent}$  stands for the percentage of the unemployed people in the total population and  $population$  stands for the total population in Azerbaijan in a given year.

The data provided by the World Data Bank and State Statistical Committee does not support the intuition provided above. From the graph 5, which describes the trends in taxes, as a percentage of total revenues, and unemployment, as a percentage of total labor force, within indicated time period, follows that tax and unemployment trends do not follow the logic provided above from 2004 to 2010. To be more precise, from 2004 to 2012 the data contradicts expected results in the following sense. Even though there is a slight variation in taxes, the tax trend line has a positive slope. However, despite increasing trend in taxes, the decreasing trend line in unemployment is observed. The possible explanation of such result could be intensive government policy intended to decrease unemployment in the country. Furthermore, data covering longer time diapason would provide more reliable results, which could coincide with the intuition, described above. Since the first part of the proposition is not supported by data, the introduction of Gini index to verify the hypothesis forfeits its significance.

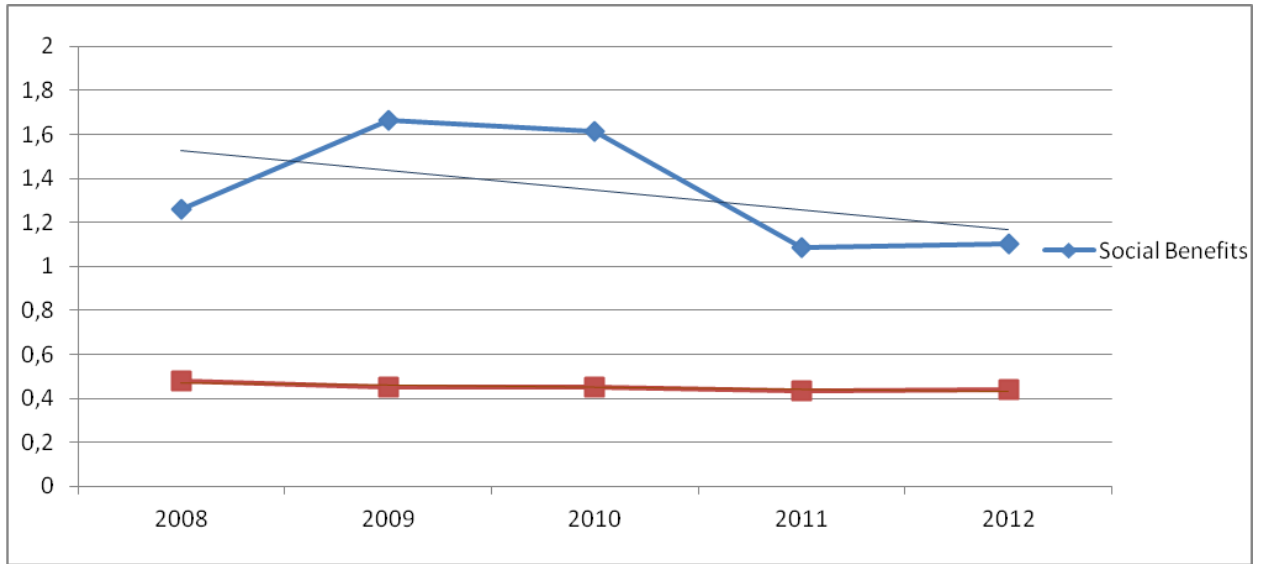
Graph 5. Income Taxes (as a percentage of revenue) and unemployment (as a percentage of labor force) in Azerbaijan, 2004-2012



Source: Self made on World Bank database and State Statistical Committee of the Republic of Azerbaijan

In order to verify the indirect impact of the policies aimed at social security system improvement on income distribution, I will implement the same procedures as for tax system implicit influence verification. In order to provide more informative comparison, I will calculate the percentage of social benefits from the total revenue. An increase in social transfers to population is expected to decrease incentives of the employees to work and as a result increase unemployment. Consequently, increase in social transfers could provoke an increase in income inequality among population. According to graph 6, the data indicates decrease in social benefits paid to population and unemployment only beginning from 2009 till 2012, the trend lines of social benefits and unemployment have the same decreasing slopes. Considering, that the matter of the question is the direction of changes and not absolute values, in order to be able to compare two indices and place both trend lines in one graph, instead of percentage of unemployment from total labor force, I will use the ratio of unemployed people in the total labor force.

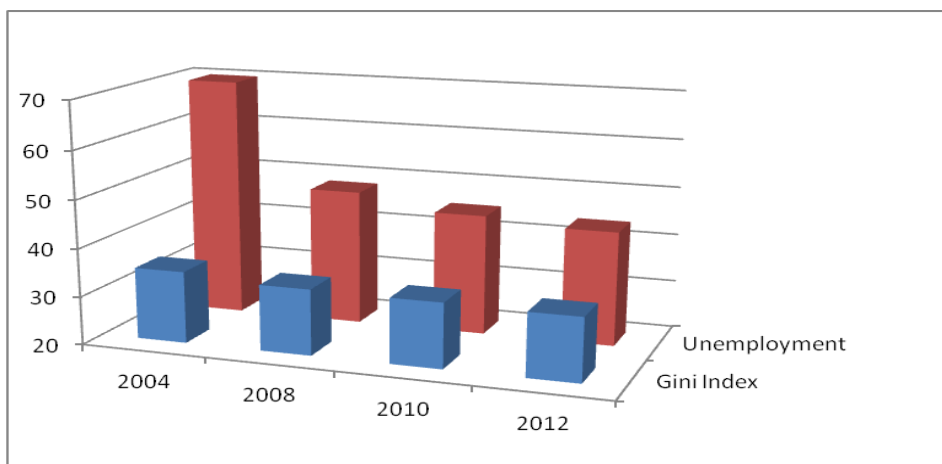
Graph 6. Social transfers (as a percentage of revenue) and unemployment (as a ratio in labor force) in Azerbaijan, 2008-2012



Source: Self made on World Bank database

Furthermore, with the purpose of verifying the hypothesis about indirect impact of social security policy on income inequality, I compare changes in unemployment and Gini index in 2004, 2008, 2010 and 2012. Graphical comparison, performed in graph 7, indicates that in those years unemployment and Gini index were both decreasing, what means that diminishing unemployment might reduce inequality in income distribution.

Graph 7. Unemployment (as a percentage of labor force) and Gini index



Source: Self made on World Bank database

Even though the results of tax and social policies are not supposed to provide an immediate impact on income distribution, the instant changes might be observed in particular case of Azerbaijan for the following reasons. Considering high growth rate and high circulation speed in the economy, the fact, that even minor contributions to endowments of households result in notable changes in their welfare, is not surprising.

Although, number of years is small enough to make any reliable conclusions, the obtained results might evidence that the changes in social security policy could have implicit impact on inequality in income distribution, hence corresponding hypothesis is justified.

Another hypothesis to be verified is that implementation of investment-based social security system may be an efficient innovation in the Republic of Azerbaijan. Unfortunately there is no data base to analyze this proposition. However, high speed of financial markets development in Azerbaijan might create sufficiently strong background for such a reform. Recently developed legislation, which is based on ISCO Principles and approved by International Money Fund and World Bank, provides favorable condition for establishing investment-based social security system. Moreover, increasing activity in the financial markets could guarantee a positive consequence and efficiency of the investment-based social security system.

## Conclusion

This thesis is analyzing the impact of tax and social security systems on income distribution among population in Azerbaijan. The study is based on the statistical evaluation of changes in taxes paid by and social benefits transferred to population, as well as income, unemployment rate, CPI and Gini index.

The results of the study indicate the following:

- Richer people pay higher taxes than poorer. Moreover, individuals with high income receive higher social benefits than individuals with low income.
- Tax reduction is not an efficient policy with the view of decreasing the gap in income distribution in comparison with an increase in social transfers. However, the increase should mainly be applied to the social benefits paid to the representatives of the low income families.
- Old aged households gain less from social transfers, while young families receive higher social benefits.
- Tax system does not have implicit impact on income distribution, while social security system has. Accordingly, social transfers and unemployment rate are positively correlated. In other words, decrease in social transfers reduces unemployment. As a consequence of diminishing unemployment the gap in income distribution decreases as well. The latter is measured by gini index, which is diminishing within time period covered.
- Investment based social security system might be an efficient innovation in the current conditions in the Republic of Azerbaijan.

Considering that Azerbaijan is a developing country, the results of this analysis have logical explanation and intuition typical to the local conditions. For instance, the fact that tax and social security systems in the Republic of Azerbaijan do not contribute into increase of equality among population is due to the small amount of social transfers to the low income individuals in comparison with high income ones. The latter might be explained by the shortcomings in the legislative and administrative procedures, which include high application costs for social assistance and significantly high pensions for individuals belonging to higher social stations. *Consequently, it might be concluded that tax and social security system in Azerbaijan does not have distributive power. However, reforms in social security system may stimulate positive impact on the reduction of the gap in income distribution.*

*The last proposition entails possibility of higher efficiency of increase in social benefits in comparison with tax reduction.* However, such a policy requires defining optimal level of social transfers to poor families. The idea is that high social benefits to population might provoke incentives to population to decrease labor supply. For instance, an increase in pensions can stimulate earlier retirements. Another example is that higher allowances paid due injuries during the work may serve a basis for an increase of moral hazard cases.

Furthermore, higher social benefits for young families in comparison with old aged households might be explained by relatively large number of young households in need. The reason of more young families in comparison with old aged ones can be conditioned by a large number of refugees and displaced families as a consequence of the war between Azerbaijan and Armenia. For the reason these families lost their houses, belongings and working places, the authority of the Republic of Azerbaijan has been transferring significant amount of social payments to those families, in a way of monthly installments, social aids, scholarships and etc. Accordingly, pensions paid to old aged people were far below than social transfers to young families. However, as most of such families succeeded to adapt to the living conditions in new places, namely were provided with jobs and houses, as well as pensions increased within recent years the gap between these two groups of social assistance beneficiaries decreased. Accordingly, *the conclusion about gradual decrease in initially large gap in income distribution between older and younger families, which results from policies implemented in the social security system in Azerbaijan, can be made.*

Furthermore, currently labor market in Azerbaijan is perfectly supplied, what results in a shortage of vacancies in the local job market. As an outcome even in the cases when taxes increase, evolving reduction of net salaries, labor supply does not change. Along with this, considering the fact that average wages in Azerbaijan are relatively small, population is sensitive to even small increase in salaries. Therefore, in the most of the cases tax increases in Azerbaijan are accompanied by minor augmentation in salaries. *In other words, even when taxes increase there is no impact on labor supply and consequently income distribution is not affected by taxes implicitly.* In opposite, data for Azerbaijan indicates that social transfers and unemployment change in the same direction. Furthermore, unemployment and gini index follow the same trend. *Accordingly, it might be proposed that social security system has an indirect effect on income distribution in Azerbaijan.*

Recent reforms in the financial markets of Azerbaijan are aimed at the creation and development on investment funds. Newly developed legislation decreases the risk of investments and guarantees the protection of investors' rights. *As a result investment bases social security*

*system might be an efficient innovation in the Azerbaijan, which could contribute to equalization of income among population.*

Considering all above mentioned, in order to decrease the gap in income distribution among the population in Azerbaijan, reforms in social security system might be proposed. The main change required in the current system is the one, which would affect the distribution of the social transfers among population. Being more precise, social security system should be aimed at providing more benefits to low income families and less to higher income families. The stated policy might be achieved by the means of increasing pensions of low income families significantly. Furthermore, simplification of documentation process is required in order to minimize the costs of application for social aids. However, implication of such policies should be based on proper evaluation of the situation and take into account a number of factors.

For instance, while developing reforms on social security policies authorities should optimally define the level of social benefits paid to low income families. These payments should preferably be established in such a way of equalizing income distribution among population in a most efficient For instance, while providing social aid to refugee families, incomes of those families should be assessed and social transfers should be paid in accordance with the income levels of these families. Defining an optimal level of social transfers to the households might be proposed as actual topic for further studies.

Another important issue to be considered is “family insurance”. “Family insurance” includes transfers within family from employed members to unemployed, for instance from children to their old aged parents. Such types of insurance are common for Azerbaijan. In addition they are defined to influence income distribution among population in the following way. Employed family members support their unemployed relatives, providing them financial and consumption resources. Such mechanism of “family insurance”, on the one hand, might stimulate an increase in unemployment as well as number of pensioners. As a consequence, an income per person declines and hence a gap in income distribution increases among households. However, the situation can be opposite, when “family insurance” is significantly high. In such a case, unemployed members of families will have relatively high allowances and as a result the income gap among population might diminish. The role of “family insurance” in the income distribution could serve as an interesting topic for studies about income distribution among population.

Along with all above stated, it could be considered that the expansion of passive social transfer programs of the government might lead to the reduction in the poverty rate. However, passive social transfer programs are not enough to maintain the sustainable poverty reduction, since they could be effective only in a short term period. Moreover, according to the predictions

oil-gas revenues are going to decrease in the long term period. For the reason, the major part of GDP (50%) in Azerbaijan is constituted by the oil-gas revenues and, moreover, state budget revenues mainly come from the realization of crude oil and gas, there might arise significant difficulties in prolongation of the passive poverty reduction measures, resulting in abeyance of such programs. Furthermore, there exist problems related to poverty reduction policy and undertaken social measures such as the creation of favorable investment climate, improvement of the infrastructure, development of the non-oil sector, reduction of the employment level in order to ensure the balanced economic growth.

Given thesis provides results, which are consistent with the circumstances as well as mentality in Azerbaijan. However, even though the outcomes of the work are intuitive, there are some shortcomings, which potentially might have impact on the findings and should be mentioned. The main disadvantage of the thesis is data limitation. A common feature for most of the developing countries is their failure to gather data for long term periods, which is stipulated by the fact most of those countries do not have enough resources and mechanisms to develop and maintain databases. On the other hand, for the similar reasons even the data presented is usually of low quality and does not always reflect true numbers. Consequently, imperfection and shortage of the data for Azerbaijan prevented long term analysis, which can be considered disadvantage of the paper. However, the fact that within last ten years there were not shocks in economy and the indexes implemented in the analysis did not vary significantly, the short term analysis is expected to hold for long term as well.

Another disadvantage of the work is simplified methodology implemented for analysis. Current thesis is based on graphical comparison, evolving simple calculations. However, the results could be considered more reliable and informative in the case more advanced methods were implemented.

## **References:**

Adam S., Brewer M., & Shephard A. (2006) “The poverty trade-off Work incentives and income redistribution in Britain”, Institute for Fiscal Studies, Bristol, Great Britain.

Borella M. (2001) “Social Security Systems and the distribution of income: An application to the Italian Case”, CERP, Working Paper 8/01.

Cabinet of Ministers of the Republic Azerbaijan (2001), “Law on Employment”, “Digesta” Publishing House, Baku, AZ.

Caminada K. & Goudswaard K. (1999) “Social policy and income distribution: An empirical analysis for the Netherlands”, [MPRA Paper](#): University Library of Munich, Germany.

CEE-CIS Tax Notes Working cross-border, Issue No. 7/1, Annual edition 2007.

Center for Economic and Social Development (CESD) (2011), “Policy Recommendations on Tax System of Azerbaijan”, CESD, Baku, AZ.

Cowell F. A. (2009), “Measuring Inequality”, Oxford University Press, London.

Cubero R, Hollar I.V. (2010), “Equity and Fiscal Policy: The Income Distribution Effects of Taxation and Social Spending in Central America”, IMF, IMF Working Papers 10/112, Washington D.C.

Cubero R., Vladkova I. (2010), “Equity and Fiscal Policy: The Income Distribution Effects of Taxation and Social Spending in Central America”, IMF, Working Paper 10/112, IMF Working Papers 10/112, Washington D.C.

Dwivedi D. N. (2010), “Macroeconomics: Theory and Policy”, Tata McGraw Hill Education Private Limited, New Delhi.

Feldstein M. & Liebman J. (2002), "The Distributional Effects of an Investment-Based Social Security System", University of Chicago Press, Chicago, USA.

Immervoll H., Richardson L., (2011) “Redistribution Policy and Inequality Reduction in OECD Countries: What Has Changed in Two Decades?”, IZA Discussion Paper No. 6030, IZA Policy Papers series.

International Monetary Fund, (2012), “Republic of Azerbaijan: Selected Issues”, Country Report No. 12/6, International Monetary Fund Washington, D.C., U.S.A.

International Monetary Fund, (2012), “Republic of Azerbaijan: Selected Issues”, Country Report No. 12/6, International Monetary Fund Washington, D.C.

International Social Security Association (2010), “Efficient Governance through application of ICT, A case of the State Social Protection Fund of the Republic of Azerbaijan”, SSPF, Baku, AZ.

Kuznets S., (1955) “Economic Growth and Income Inequality” The American Economic Review, Vol. 45, No. 1. (Mar., 1955), pp. 1-28.

Kəlbəliyev Y.A. & Hübətov T.M. (2008), “Vergilərin hesablanmasına dair praktikum”, Dərs vəsaiti, Bakı, AZ.

Mankiw N. G. (2008), “Principle of Economics”, South-Western Cengage Learning, Mason, USA.

Mattoo N., (2000), “Social Security”, 29th ICSW International Conference on Social Welfare Cape Town, South Africa.

Ministry of Taxes of the Republic of Azerbaijan (2000), “Tax Code of the Republic of Azerbaijan”, “Digesta” Publishing House, Baku, AZ.

Microfinance Information Exchange (MIX), and Azerbaijan Micro-finance Association (AMFA), (2008), “Azerbaijan Microfinance Analysis and Benchmarking Trends Report 2008”, MIX and AMFA.

Microfinance Information Exchange (MIX) and Azerbaijan Micro-finance Association (AMFA), (2008), “Azerbaijan Microfinance Analysis and Benchmarking Trends Report 2008”, MIX and AMFA, Baku, AZ.

Məhərrəmov M., (2008), “III Respublika: Milli inkişaf modeli və strategiyası”, Qrifli nəşr, Bakı, AZ.

Muslumov S., Ibrahimov O., (2009), “Pension reform in Azerbaijan: challenges and achievements”, Issue 12, Development and Transation (D&T), Baku, AZ.

Nazarov I., (2009), "Assessment of Microfinance Impact and Social Performance of MFIs in Azerbaijan", Azerbaijan Micro-finance Association (AMFA), Baku, AZ.

"National Security Concept of the Republic of Azerbaijan", Approved by Instruction No. 2198 of the President of the Republic of Azerbaijan on 23 May 2007.

Nazarov I., (2010), "Review of Azerbaijan achievements in reducing poverty and vision on long-term sustainable income poverty reduction policy", Center for Local Economic Development (CLED)", Baku, Azerbaijan.

OECD (2007), "Consumption Tax: The way of the future?" OECD Tax Policy Studies, No.14.

Order On Increasing the State Assistance for the Disabled and a Group of Underprivileged Citizens from Other Categories issued by the President of the Republic of Azerbaijan in December 29, 2000.

Pieters D. (2006), "Social Security: An Introduction to the Basic Principles", Kluwer Law International BV, The Netherlands.

Schneider, O. & Jelínek, T. (2005), "Distributive Impact of Czech Social Security and Tax Systems: Dynamics in Early 2000s", Prague Economic Papers 3/2005.

"State Program on Socio-economic development of regions in the Republic of Azerbaijan for 2009-2013 years" approved by the Decree of the President of the Republic of Azerbaijan dated April 14, 2009.

Tanzi V., Zee H. (2001), "Tax Policy for Developing Countries", International Monetary Fund, Washington D.C., U.S.A.

World Bank (2010), "Azerbaijan Living Conditions Assessment Report", Report No. 52801-AZ, Human Development Sector Unit Europe and Central Asia Region.

"Xalq qəzeti", N33 (26383), 12.02.2010.

Online sources:

Official site of State Statistical Committee of the Republic of Azerbaijan,

retrieved 18.04.2013 from: <http://www.stat.gov.az/indexen.php>

retrieved 15.04.2013 from: <http://www.azstat.org/publications/azfigures/2012/en/006en.shtml>.

State Social and Protection Fund of the Republic of Azerbaijan (2001), “Pension Reforms In Azerbaijan Republic”, Official site of State Social and Protection Fund of the Republic of Azerbaijan,

retrieved 16.04.2013 from: <http://www.sspf.gov.az/view.php?lang=en&menu=76> .

UNICEF (2011), “Annual Report for Azerbaijan”,

retrieved 25.04.2013 from <http://www.unicef.org/about/annualreport/>.

World Bank,

retrieved 15.04.2013 from <http://data.worldbank.org/indicator>.

2004 International Conference on Official Poverty Statistic, Methodology and Comparability,

retrieved 16.04.2013 from: <http://www.nscb.gov.ph/poverty/conference/>.