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Setting the Minimum Optimal Wage Level in Armenia:

Adjustments in the Social Policy

By

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Abstract

The aim of this research project is to highlight necessary adjustments needed to address Armenia’s social policy. The financial crisis and economic slowdown offered a new impulse for Armenian Authorities to do necessary modifications in the social policy in order to protect labor market from any vulnerability. In this paper it is analyzed the changes of minimum wage levels to average wages as well as with minimum consumer basket proportions, and behaviours of the real wages, productivity and prices. These observations lead us to mention the importance of setting and increasing the minimum wage level according to the wage norm as well as international conventions’ proposed standards. Our findings provide recommendations for setting the optimal minimum wage level and further adjustments in social policy.

Keywords: minimum wage, wage norm, minimum consumer basket, working poor

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**Introduction**

In the past few years, the main issue for every country is to sustain or raise living standards in the society by narrowing the gap of income distribution. In this context, it is important to review the minimum wage level from time to time, taking into account various economic factors such as productivity, employment, in-work poverty, prices, social factors, such as incentives to work and so on.

As minimum wages are considered as a critical tool for public policy, Armenia is one of the countries where the minimum wage level should be determined by taking into account the macroeconomic and social situation. In view of rising income inequality and in-work poverty incidence, the optimal minimum wage level and appropriate increases have recently become an important social issue for low wage earners. Here we are interested in learning what happens in our labor market and design a system that will be more beneficial for the groups that are most in need. The in-work poverty incidence of the employed population is still high, and hence, the minimum wage fixing policy should be targeted and increased according to international wage norms.

In order to understand the effects of the minimum wage changes in Armenia, two main scenarios have been examined. The first includes adoption of a discretionary policy, which would increase minimum wages faster than the average wage only for certain group of earners, resulting in a rather compressed wage structure, where low-earners may shift to the next higher levels. The second approach is based on the economic factors, particularly, existing gap between productivity and wage level developments by analysing quantitative changes in line with productivity and inflation.

The structure of the paper is as follows. The first part reviews the literature and international practice. The second part highlights Armenia’s labor market, minimum wage setting determinants and scenario analysis. The appendices contain available data, figures, and detailed statistical empirical analyses.
Definition According to the United Nations

International Covenant on Economic, Social and Cultural Rights (ICESCR)\(^1\) articles 7 and 11 aim to ensure the protection of economic, social and cultural rights particularly including: the remuneration, which provides all workers, as a minimum and the right to an adequate standard of living.

International Labour Organization’s (ILO) Convention No. 131\(^2\) on Minimum Wage Fixing (1970) article 1. states: “Each Member of the International Labour Organization which ratifies this Convention undertakes to establish a system of minimum wages which covers all groups of wage earners whose terms of employment are such that coverage would be appropriate.”

Recommendation No. 135 Minimum Wage Fixing Recommendation 1970\(^3\). Articulates the purpose of Minimum Wage Fixing: “Minimum wage fixing should constitute one element in a policy designed to overcome poverty and to ensure the satisfaction of the needs of all workers and their families.”

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\(^1\)http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx
Part I.

1. Minimum Wage Fixing Convention and Recommendation according to ILO

Many international documents refer to policy recommendations on minimum wages. The United Nations (UN), especially its specialized organization, the International Labour Organization (ILO), is the international body that drew up international standards on this issue. In addition, the ILO, at the request of the countries concerned, has prepared a series of studies on wage policies or on minimum wage fixing machinery, frequently including draft legislative texts.

At what level should minimum wage be set? The main approach is given in the ILO Minimum Wage Fixing Convention, 1970 (No. 131). The Convention urges policymakers to take into consideration basic economic and social factors in modeling wage level in the social policy framework. According to the Convention’s article 1 (1): “Each Member of the International Labour Organisation which ratifies this Convention undertakes to establish a system of minimum wages which covers all groups of wage earners whose terms of employment are such that coverage would be appropriate”. In addition, if some groups are not covered, the Member State must explain the reasons for not covering them. The Convention has an important role in protecting disadvantaged groups of wage earners and pays special regard to the needs of developing countries. Following to article 2 (1): “Minimum wages shall have the force of law and shall not be subject to abatement, and failure to apply them shall make the person or persons concerned liable to appropriate penal or other sanctions.”

Articles 3 lists the socio-economic elements that should be taken into consideration in defining the level of minimum wages, which are:

- **Social factors** - the needs of workers and their families, taking into account the general level of wages in the country, the cost of living, social security benefits, and the relative living standards of various social groups;
- **Economic factors** - requirements of economic developments, levels of productivity and the desirability of attaining and maintaining a high level of employment.

The ILO has not defined an absolute level or specific ratios for the average or medium wage rate that countries should follow. Nevertheless, Recommendation No. 135 gives a threshold in the way minimum wage level should be set. According to the Recommendation’s articles 1 and 2, the purpose of minimum wage fixing is to “overcome poverty” and “give wage earners necessary social

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protection as regards minimum permissible levels of wages”.

Finally, minimum wage rates should be adjusted from time to time in order to take account of changes in the cost of living and other economic conditions (Article 7(c)).

2. The Procedure of Minimum Wage Fixing and Regulation

How is the minimum wage defined? Minimum wages can be fixed in different ways and can have different roles in different countries. A sound approach implies that the determination should be based on statistical indicators. Different countries still apply several criteria to calculate minimum wage, such as purchasing power parity, assurance of a decent living, inflation, etc. Usually, inflation plays deciding factor for most countries (Rutkowski 2003). In many countries, the recommended data may not be available, and many countries may use different factors to determine minimum wage levels.

In practice, how high the minimum wage is set (relative to productivity) depends much on the prevailing social norms about inequality, fairness and on the perception of what constitutes a “decent wage” as well as on relative bargaining strengths of workers and employers. Countries where the labor movement is strong and societies are committed to the goal of equality tend to have higher minimum wages (relative to productivity) than countries where the labor union is weaker and where there is more tolerance for economic inequality.

There are three basic approaches of forming minimum wage. First, a statutory minimum wage level set by the government. The common use of fixing minimum wages by statute suggests that legislation plays a great role in this framework. The government, trade unions, representative employers and workers’ organizations participate in the procedures and consultations by negotiating on the commonly one rate valid throughout the labour market and further adjustment of this amount. To this end, the outcome of these negotiations in the form of a bill submitted to the legislature. Currently, the majority of countries have statutory minimum wages with the rate varying 30-50 percent of the average wage level. In a number of countries, minimum wages are fixed by decrees or orders issued by the executive, without any other body engaged in this process and mechanism.

Second, the level of minimum wages is determined through collective negotiations (also known as collective bargaining). These negotiations typically concentrate on issues such as workers’ needs, standards of living and earning equality, which lead to the pressure – coming usually from labor unions – to increase the minimum wage. On the contrary, employers’ organizations might want to

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5 This measure takes into account the national variations in cost of living.
6 Today 21 of the 27 EU member states, in varying shape and forms, have statutory nominal minimum wages, and in just over half of these countries minimum wages have risen slightly faster than average wage levels in recent years. Although, there are substantial differences in the way they are set and operate. This kind of statutory minimum wage is not found in the Nordic countries (Fafo-report 2012:16).
keep the minimum wage at a low level in the face of economic considerations of productivity, competitiveness, and job creation. This form is applicable only to the parties to the collective agreement and is binding for the parties' members.\(^7\)

Third, the next most common form is an extended minimum wages scheme, which represents the legal extension of the coverage area of the minimum wages of collective agreements to have validity in an entire region, and/or profession regardless the employer and/or employee’s decision. This form is common in most European countries plus Iceland, Finland, Norway and to date have become an important tool to secure wage from dumping in industries where collective agreement coverage is low and there are many labour immigrants. The collective bargaining coverage indicator measures the extent to which employees are covered by collective agreements. This indicator varies from 15 percent (in Lithuania) up to the highest 97 percent (in Austria), depending on certain industrial relations mechanism in each country. Around 70 percent of all employees in European Union are covered by a collective agreement (European Commission, 2012).

In the majority of countries in the European Union, the basis for wage scheme is collective bargaining between employee representatives including trade unions. This system is also dependent on legislation and state intervention. Some countries use a system of ‘automatic’ wage adjustment techniques – also known as ‘wage indexation’. Wage indexation is intended to keep purchasing power at a sufficient level, especially of lower income earners who spend a greater amount of their budget on cost-of-living expenses. In contrast to autonomous collective bargaining, wage indexation allows wages to be adjusted and usually increased on a consistent basis. Adjustment reflects currency price developments (inflation) and aims to keep wage levels despite long-term increases in the cost of living.

On the other hand, wage indexation covers all wage groups’ wage developments, which cannot be undercut by autonomous collective bargaining outcomes or individual agreements.\(^8\) According to Aizenman 2008 the labor market plays a great role in wage indexation. In addition, wage indexation would not create difficulties in countries where inflation is manageable low and stable.

Wage indexation is maintained through the Consumer Price Index. This system is sometimes known as Cost of Living Allowance (COLA) or the cost of living adjustment. There are different views on wage indexation, and in practice, wage indexation is applied in different ways and at various levels. First, employers and representative organizations are highly critical and they find that this mechanism creates rigidity, preventing wages from reflecting actual productivity of workers and

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\(^7\)Denmark and Sweden apply exclusively collective wage agreements as the main mechanism for regulating the minimum wage.

\(^8\)In Belgium, Cyprus, Luxemburg, and Malta it applies to all employees. In Spain wage indexation in practice is present in most collective agreements, although law does not prescribe it.
company performance. Employers often mention the potential inflationary spiral that wage indexation system can create. Excessive wage increase can trigger inflationary risks, and high labor costs may be affected by wage indexation in high inflationary countries. Second, in contrast to the employers’ views, the trade unions support the maintenance of cost of living adjustments through the automatic indexation of wages based on inflation. The reasons are protecting the real wages against rises in the cost of living, guaranteeing social fairness in income redistribution to workers and creating resilient environment in industrial relations. Wage adjustments heavily depend on the trade unions’ bargaining power if an indexation mechanism is not established.9

3. Wage Systems in Some EU Member Countries

Today in many countries, minimum wages play a central role for wage coordination. In the Czech Republic, France, Lithuania, Portugal and Slovenia, the authority-enforced minimum wage is the major form of wage coordination (Du Caju, et al. 2008). In addition, many countries considerably differ in the way bargaining takes place. For instance: in Luxemburg wage bargaining is relatively decentralized (less coordinated) and in Belgium is relatively centralized. Union density ranges from high rates (in Scandinavian countries) to low rates (in Spain). Moreover, bargaining coverage extension mechanism in some countries is automatic or semi-automatic, in others it is set by legislation.10

As shown in the Figure 1 below, the monthly minimum wages are currently over 1,000 Euros only in six European countries. In 10 countries, minimum wages are fixed under 400 Euros-a-month. Minimum wage level in Luxemburg about 12 times exceeds the lowest level of minimum wage set in Romania. Armenia’s minimum wage level accounts only 64.58 Euro per month.11

In Luxemburg, wage determination is based on legislation, collective bargaining, or agreement between the two parties in a contract. This is one of the few countries, which keeps for a wage indexation and wages are automatically linked to the cost of living (EIRO 2009). The Tripartite Coordination Committee, which consists of members of government, employer representatives and employee delegates assess socio-economic environment relative to its neighbouring countries and gives advice on labor market policies or recommendations on indexations. However, in contrast to trade unions’ views, employers tend to express disapproval by saying that the automatic index-linked increase is a burden for enterprises, threatening the competitiveness of the economy (EIRO 2006)(Eurofound 2010). In the past wage indexation has never been modified and following the financial crisis the government decided to intervene in this process. The wage indexation may be

9European Foundation for the Improvement of Living and Working Conditions, 2010
11January average exchange rate 1 EUR = 541.96 AMD, 2013.
implemented every 12 months even if the real inflation rate is higher.\textsuperscript{12}

**Figure 1. Minimum Wages in Europe 2013**

In Belgium, collective bargaining and wage indexation play a major role on wage growth. Belgium is the only country, besides Luxembourg, that has compulsory indexation of wages. Wage bargaining is structured in the following three inter-linked levels: the central cross-sectoral level for the entire economy; the intermediate level covering certain industrial sectors; and the company level. Belgium has an extensive automatic index-linking system for fixing wages. The system connects pay and social security benefits to the prices to prevent loss of purchasing power by inflation. Automatic adjustment takes place once a year during the first quarter and it is mandatory for all employers. Indexing suggests that for every two percent rise in the cost of living, there is an automatic adjustment of two percent in pay. In addition, wage developments can be maintained within the range defined by the indexation floor and the wage norm ceiling (EIRO 2009)(Eurofound 2010).

On the one hand, employers criticize such wage formation system as not being flexible and reflecting changes in regional employment, believing that this system threatens competitiveness as wage costs increases. On the other hand, trade unions are more concerned for preserving workers’ potential purchasing power. Recently, American Chamber of Commerce in Belgium has proposed changes in the system to "limit indexation to that part of the full-time equivalent salary that is below a lump sum amount agreed at the national level, using the minimum wage as a reference level” (AmCham Belgium 2012).

\textsuperscript{12} European Labor Law Network, Wage indexation, (12.01.2012)
In Cyprus, wage setting is maintained at sectoral and company level through bipartite collective bargaining agreements between employer and trade unions. There exists no national level collective bargaining mechanism for the setting of minimum terms and conditions of employment. Every six months the wages of all employees covered by collective agreements are readjusted by inflation. However, employer organizations were intending to reform the system, as they found indexation should be maintained by taking into consideration *average productivity*. In contrast to employer organizations, trade unions were stating that the indexation system protects workers’ real earnings from inflationary pressures. Although Cypriot government supports the wage indexation system in principle, there is a caveat stating that constant enhancement of workers’ living standards should be within a context of increased labor productivity (Eurofound 2010).

Germany currently has no state intervention in collective bargaining, and wage formation is dominated by sectoral collective agreements. However, binding minimum wages are set in several branches and professions (construction, industrial commercial activities, training services and long-term care activities).\(^{13}\)

Italy, Denmark and Sweden have neither statutory minimum wage, nor extension of collective agreements systems. In Sweden and Denmark the minimum wages are set by collective agreements. In Italy, however, a provision in the constitution plays a great role for the wage earners who are not shielded by the collective agreements.\(^{14}\)

**4. Minimal Wage Comparisons and Determination**

What complicates cross-country comparisons of the levels of minimum wages is in the way it is set up in different countries (i.e., hourly, daily, weekly or monthly basis). In practice, one of the general approaches to address this issue is determining the ratios, such as nominal wage value relative to average mean or median wages. The higher the ratio, the more favourable it is for the workers. Another proxy indicator that can be observed is minimum wage to GDP per capita and the shape of wage distribution.

Comparing the average mean or median wages the median earnings ratio provides a better basis for international comparisons than mean as it accounts for differences in earning dispersion across countries.

\(^{13}\) Federal Statistical Office of Germany, 2013
\(^{14}\) Fafo-report 2012:16
Even having a small ratio of higher wages will increase the level of average wages in relation to minimum wage level, because the upper level of wages has great impact on the mean level of wages. However, while median of basic earnings of full-time workers – i.e., excluding overtime and bonus payments – are, ideally, the preferred measure of average wages for international comparisons of minimum-to-median earnings, they are not available for a large number of countries. The bar chart of OECD member countries (Figures 2 A and 2 B) illustrates the minimums relative to mean (median) wages ratios of full-time workers in 2012.

As we notice the ratio is greatly varies between the member countries, in all cases minimum wage is much higher in relation to median. Although, the frequency of the level of minimum wages relative average wages varies across the countries, in most cases for developing economies it comprises around 40 percent of mean wages. These are the economies from which we might expect to learn something. For example, France, New Zealand and Slovenia might be worth for further

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15OECD data includes countries with a statutory minimum wage (those, like the Nordic and Germanic economies that have a non-legislative system of minimum wages enforced through the mechanism of collective bargaining are not included).
consideration having particularly high levels of minimum wage (at about 60 percent of median). However, taking into consideration the fact of not being broadly comparable to Armenia, in terms of their level of economic development, we should look the categorization of wages acceptable for many countries (see Table 1\textsuperscript{16}). If the ratio is in the lowest range, it may have two interpretations: first, only a small share of the workers earns minimum or below the minimum wage, so it does not have a significant influence, hence, it is not functional; and second, wage dispersion is very high within the income distribution (ILO GLU 2011).\textsuperscript{17}

In Armenia, according to estimations, the minimum relative to mean (average) wages ratio is equal to 0.28 but this calculation is not comparable with OECD countries’ data, as it is not adjusted for full-time workers.\textsuperscript{18} However, for further estimations and assumptions for Armenia, we will focus on minimum wage to mean (average) wage ratios.

Some countries link the minimum wage level to GDP per capita. This provides an indication of how changes in the rates of minimum wages relate to changes in the overall levels of labor productivity. Labor productivity is an essential estimator and driver of changes in living standards. Generally, labor productivity is measured as the ratio of GDP to total employment. The ratio of the minimum wage to GDP per capita should, however, be interpreted with care in cross-country comparisons, particularly because countries differ in the proportion of the population that is employed.

The ratio of minimum wages to GDP per capita is an imperfect indicator of labor productivity but this data is more frequently available than average wages.\textsuperscript{19} This ratio is below the modest level, especially in the Commonwealth of Independent States (CIS) countries. In a majority of countries, minimum wages are fixed within a range of 30-60 percent of GDP per capita and there exists large dispersion in developing and transition countries (ILO 2009). In our paper we will not examine this approach.

One of the most important aspects of determination of the minimum wage level is the shape of its distribution. A minimum wage affects the earnings distribution by reducing the proportion of the workforce earning below the minimum (OECD 1998).

\textbf{Table 1. Categorizations Minimum Wage Level to Average Wage (%)}

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<tr>
<td>Low</td>
<td>less than 20</td>
</tr>
<tr>
<td>Modest</td>
<td>20-29</td>
</tr>
<tr>
<td>Medium High</td>
<td>30-39</td>
</tr>
<tr>
<td>High</td>
<td>40-49</td>
</tr>
<tr>
<td>Very High</td>
<td>50 or more</td>
</tr>
</tbody>
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\textsuperscript{16}Rutkowski 2003.
\textsuperscript{17}This level is almost 13% in Russia, 20-30% in China, 21% in India and 27.5% in Armenia.
\textsuperscript{18}As a result of appropriate adjustments and filtering, the coefficient would become smaller and the measurement may be sensitive for accurate comparisons.
\textsuperscript{19}This is an imperfect indicator for those countries where unemployment rates are high (Flanagan 2006).
The common ratio that shows how it distributed is decile ratio, which indicates how much of the total income in a country is earned by lower wage earning groups and by higher income groups. In practice the 9th, 5th and 1st deciles are the main ratios that have great importance to calculate.

Theoretically, if the people in the top and bottom groups earn the same amount of money, then there is income equality incident, otherwise there is inequality. This ratio varies across the countries and according to the bar chart below 9th-to-1st ratio is below 4.0 for many developed and developing countries, and the ratio of 5th-to-1st is below 1.7 (Figures 3 A and 3 B).

According to calculations it is noticeable the incidence of not smooth distribution of income, which has deepened in recent years in Armenia. Thus, if decile 9 to decile 1 ratio was equal to 5.63 in 2011, it slightly increased to 6.75 in 2012, thus worsening the evidence of unequal income.

\[ \text{Figure 3 A. Earnings Dispersion Ratio of 9th-to-1st 2011} \]

\[ \text{Figure 3 B. Earnings Dispersion Ratio of 5th-to-1st 2011} \]

\[ \text{Source: OECD database 2013.} \]

\[ \text{*Author’s estimation: ILCS} \]

\[ \text{Source: OECD database 2013.} \]

\[ \text{*Author’s estimation: ILCS} \]

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For OECD countries the dataset contains two earnings-dispersion measures - ratio of 9th-to-1st and 5th-to-1st - where ninth, fifth (or median) and first deciles are upper-earnings decile limits, unless otherwise indicated, of gross earnings of full-time dependent employees. The incidence of low-paid workers defined as the share of full-time workers earning less than two-thirds of gross median earnings of all full-time workers. The incidence of high of high-paid workers defined as the share of full-time workers earning more than one-and-half time gross median earnings of all full-time workers. For Armenia's earnings dispersion ratio assessments has been used ILCS data published by NSS and has not been adjusted for full-time workers ratio.
distribution. The same trend shows decile 5 to decile 1 ratio, which reached to almost 2.55 in 2012 from just 2.25 in 2011. As mentioned above, one of the objectives of determining minimum wage is to prevent excessive earnings inequality and boost earning of low-wage workers. Many studies find that minimum wages result in a compression of the earnings distribution. Countries with higher minimum wage-to-median wage have lower earning dispersion and lower frequency of low pay. Reducing the wage inequality, minimum wage improves low-wage earners conditions (OECD 1998).

Apart from the arguments mentioned above, the next important point is that minimum wages should increase at least in line with the wage norm. That suggests wage growth should be in line with the medium-term labour productivity standpoint and the price level (when the minimum wage level meets the minimum social needs). Minimum wages play a central role in wage bargaining and wage coordination. It also has stabilizing effects. In other words minimum wage should be correlated with the wage norm, which links unit labour cost and prices. Unit labour cost depends on nominal wages and productivity. If nominal wage increase is too high, this can lead to inflation in economy. If nominal wages dwindle but productivity levelled off at the same amount, unit labour costs and prices will fall and, consequently, the economy will end up in deflation. Therefore, it is important to create a nominal wage anchor, which may serve as an important stabilizing element. Thus, the wage norm, the functional increase in nominal wages will be as follows:

\[ WAGE_{\text{norm}} = \text{Productivity}^{21} + \text{Inflation} \]

In the formula \text{Inflation} is the medium term price rate the central banks announce. \text{Productivity} is the medium term trend of productivity changes of the total economy.

Many studies find out that the productivity growth of the industrial sector can be used as a good substitute, if the estimation of productivity for the total economy is not available to use for calculations. Accordingly, it is considered that the main source, which can boost average real wages in the medium-to-long run, is higher productivity rate (Herr and Kazandziska 2011).

5. Minimum Wage and Poverty

Minimum wage policy accompanied by a targeted social policy is an effective tool to curtail poverty. However, such an approach on family poverty is limited because, many families may have no one working. The cost of living for poor families and households depends on both their earnings and the commodity goods prices. Although the level of minimum wages varies across regions and countries, the foundation remains the same: to cover the minimum cost of living. In this context, authorities

\[ ^{21}\text{Productivity estimates are used to ensure that such fixing will compensate workers for applied productivity enhancements. Also, productivity measures help to understand labor market performance affects living standards and in the long run it determines the rise in per capita income.} \]
should define and adjust the minimum level in line with the increased living costs and raise the purchasing power level of affected minimum earners.

There are different views regarding linkages and consequences of poverty and minimum wages. According to the World Bank's World Development Report on labor market (1995), minimum wages support the most poverty-stricken families in industrial countries, but they do not provide support the same way in a developing nation. The main reason is that most people living in rural areas are involved in farming and they consume their own farming outcome. They usually do not yield enough goods and services to generate extra money. In addition, people such as poor unemployed and pensioners, who are unaffected by minimum wages, may not be compressed by any changes of minimum level of wages. However, according to the ILO’s Rodgers view (1995): “minimum wages are a potentially important labor market policy instrument for reducing poverty.” It is one of the tools that can manage wage dispersion by reducing the distribution range. It may also help to prevent a general decline in the level of nominal wages and deflationary developments.

Another argument of minimum wages indirect effect on poverty is legislative changes of the minimum wages that may foster economic growth and narrow the poverty gap through the positive impact on aggregate demand, output and employment. The low-wage earners have a higher propensity to consume than richer households and, thus, higher minimum wages increase aggregate demand and output. However, empirical evidences on the effects are quite mixed. Some critics argue that the minimum wage may in some cases have adverse impact on poverty. In some industries increase of minimum wage may surge prices and have negative effect on demand (for example security and cleaning services) and finally shift formal workers to the informal job with lower pay (ILO GLU 2011). Most of the evidence for developing countries highlights adverse employment effects, in particular, when wages are fixed at comparably high levels in relation to median wage.22

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Part II.

In 2005, Armenia promised to establish a framework to carry out genuine and effective consultations with the social partners (representative employers’ and workers’ organizations) at all stages of the minimum wage fixing and adjusting rates process by ratifying the ILO Convention, 1970 (No. 130). As a matter of fact, the wage settlement mechanism is still weak, although a tripartite agreement exists among the government, employers and trade unions.

1. Wage Legislation and the Labor Market: Armenia

According to Armenia’s Constitution, Armenia is a democratic and social State governed by the rule of law (Article 1). The constitution also states everyone has the right to an adequate standard of living conditions for himself/herself and his/her family (Article 34) and freedom to choose an occupation and the right to a just remuneration not lower than the minimum set by the law (Article 32).


Minimum pay. According to the Article 179 of the LC, the law shall determine the minimum monthly wage, including for certain branches of the economy, regions or categories of employees. In addition, Article 182 of the LC states that the wage shall be indexed in accordance with the procedure prescribed by the legislation.

Minimum Consumer Basket and minimum Consumer Budget Law is aimed at determining the minimum consumer basket and the minimum consumer budget, which will serve as a basis for assessing the living standards of the population. This indicator should be used for state social policy development and implementation as well as to justify the minimum wage level, pensions, scholarships, benefits and other social payments and determine the amount of non taxable income.

Armenia is a member of the ILO since 1992 and has ratified 29 Conventions, some of which are Protection of Wages Convention 1949 (No. 95) (2004), Minimum Wage Fixing Convention 1970 (No. 131) (2005), Minimum Wage-Fixing Machinery Convention 1928 (No. 26) (2006).

The Ministry of Labor and Social Affairs (the Ministry) is the executive body that develops and implements policies in the fields of employment and social protection. One of the goals of the Ministry is the elaboration of the main priorities of the state policy in the context of social protection.
In fulfilling the goal, the Ministry proposes changes in labor legislation and presents recommendations for the development of social partnership. In addition, to promote employment, efficiency and an increase in remuneration, the Ministry elaborates, implements and monitors proposals.

**Labor Market.** In the 1980’s, the economy was based on the command-administrative approach and work was compulsory for all economically active citizens of working age. Later, since the start of the transition in 1991, Armenia’s labor market has experienced many changes, which was related with socio-economic structural reforms and economic development fluctuations. As a result of the economic transformation, the private sector has been significantly expanded thus providing additional places of employment. The formalization of the job market launched by the adoption of RA Law on Employment of the Population, which was directed towards the regulation of relations in the employment sector was not enough for establishing a competitive labor market and at an adequate level of earnings and real unemployment below double-digit (17.3 percent in 2012) threshold. Low-productivity employment is a challenge for Armenia’s labor market. Many existing jobs do not remunerate enough to elevate people out of poverty.

**Figure 4. Employed by Industry 2012**

Figure 4 looks at the labor market structure. One of the obstacles of the labor market is that the distribution of earnings is imbalanced between the sectors of economy. In 2012, almost 45 percent of workers were employed in services, which accounted for only 40 percent of GDP. The next largest share has agricultural sector with 37 percent of workers, while this sector accounted for only 17 percent of GDP and 19 percent share has the construction sector with six percent of workers. The industry has 12 percent employment (15 percent of GDP).

**2. Determinants of the Minimum Wage Level**

What should determine the minimum wage level and how to calculate the optimal level? In Armenia, the basic elements that should determine the minimum wage level are the minimum wage rate and the minimum consumer basket. In 2013, the minimum wage rate was set at AMD35.000 (US$85.5) for January-June and since June AMD45.000 (US$110)\(^2\) per month, while the value of the minimum

\(^2\)Annual average exchange rate 1 USD = 409.6 AMD, 2013.
The consumer basket was AMD56.200 (US$137)\textsuperscript{24} calculated by the Ministry of Health of the RA (MoH) and AMD43.800 (US$107) based on the results of a survey carried out by the National Statistical Service of the RA (NSS).\textsuperscript{25}

According to the legal act, the minimum consumer basket is the basis for determination of the minimum earnings, pensions, scholarships and other social benefits (Article 7).\textsuperscript{26} Since 2000, NSS has once updated the kilocalories of minimum food basket and twice the estimation methodology of poverty level (2004 and 2009).\textsuperscript{27} However, since 2000, the ratio of the minimum wage to the minimum consumer basket has fluctuated starting from 0.7 reaching to the highest ratio of 1.0 in 2009, afterwards dwindling to 0.9 (see Appendix: Table 1). Moreover, minimum wages in percent of average wages are comparably low in Armenia (Figure 2). Between 2000 and 2013 the ratio of minimum wage to average wage was almost 26 percent on average, which was in the range of modest level of minimum wages level (20-29 percent) and below medium-high level range of classification (30-39 percent).

Another determinant, which we should take into consideration in designing the minimum wage level, is the shape of its distribution. Figure 5 shows that around 41.7 percent of employed are concentrated below AMD65.000 (US$160) range of earnings, which mean that the proportion of lowest-paid is very large in the labor market.\textsuperscript{28} There is, of course, a great deal of variation in the impact of the minimum wage. Workers in this range earn on average half of the monthly nominal average wage. One of the consequences of this uneven distribution is that poverty incidence among the employed in the bottom line is high in Armenia. In 2012, around 23.4 percent of the employed were considered as poor.\textsuperscript{29} In 2008, according to new methodology, poverty level increased by 17 percent compared to 2012 level. During the same period poverty incidence among the workers increased by 13 percent reaching to 23.4 percent in 2014 (Table 2).

\textsuperscript{24}The MoH elaborates the minimum food ration basket, quarterly estimated by the National Statistical Service. This basket contains the types and minimal quantities of food necessary to sustain human life. The total energy value of the latter is close to 2400 kilocalories. Nevertheless, in the context of the Poverty Reduction Strategic Paper (PRSP), the basis for evaluating the poverty level has been selected to be the minimum food basket containing 2100 kilocalories, with the objective to ensure comparability of household surveys conducted in various countries in various periods. This does not preclude the sustainability of other approaches and assumptions, which are to be implemented in the framework of PRSP.

\textsuperscript{25}The NSS estimates the composition of the food basket on the basis of types and quantities of food actually consumed by households according to the Food and Agriculture Organization of the United Nations (FAO) instructions for developing countries (the level of daily per capita food consumption is 2100 kilocalories), in order to ensure international comparability.


\textsuperscript{27}In 2006 NSS updated the minimum food basket from 2100 kcal to 2232 kcal taking into consideration changes in structure of household consumption. In addition, NSS updated the estimation methodology of the poverty level in 2004 and 2009.

\textsuperscript{28}For analysis and estimations has been used the data of “Labor Market in the RA”, NSS, 2013

\textsuperscript{29}NSS, “Social Snapshot and Poverty in Armenia” 2013.
Table 2. Poverty incidence and Poverty Level

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Hired employees (old methodology)</td>
<td>27.5</td>
<td>22.7</td>
<td>21.3</td>
<td>20</td>
<td>17.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hired employees (new methodology)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>20.7</td>
<td>25.5</td>
<td>28</td>
<td>26.8</td>
<td>23.4</td>
</tr>
<tr>
<td>Poverty: (old methodology)</td>
<td>34.6</td>
<td>29.8</td>
<td>26.5</td>
<td>25</td>
<td>23.5</td>
<td>28.7</td>
<td>28.9</td>
<td>25.4</td>
<td>21.1</td>
</tr>
<tr>
<td>Poverty: (new methodology)</td>
<td>53.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>27.6</td>
<td>34.1</td>
<td>35.8</td>
<td>35</td>
<td>32.4</td>
</tr>
</tbody>
</table>

Source: ILCS 2004-2013

Figure 5. The Number of Employees by Amount of Wages 2012

In order to determine the optimal minimum wage level it is suggested that the minimum wage should be adjusted upward at least in line with average wages to ensure the narrowing of the low-wage sector. As a result, this policy may reduce in-work poverty incidence among many families. It is clear that a minimum wage will raise the pay of those who had previously been paid below that rate.

As in the case of uneven wage distribution, a large dispersion of the total monetary income and expenditure between different social groups is still an issue in Armenia. Thus, comparing the ratio of the ‘better-off’ of the 10 percent of the population to that of the most vulnerable 10 percent of the population, the ratio by monetary income comprised 15.9 in 2012, by 1.1 percentage points higher than it was registered in 2011. Moreover, comparing the income ratios of top and bottom groups since 2010, the gap has widened (Table 3).

Table 3. Ratio of 10 Percent Wealthiest and 10 Percent Poorest Population, by Income and Expenditures

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>By monetary income</td>
<td>20.8</td>
<td>17.9</td>
<td>13.9</td>
<td>15.6</td>
<td>14.1</td>
<td>14.5</td>
<td>14.2</td>
<td>14.8</td>
<td>15.9</td>
</tr>
<tr>
<td>By consumer expenditure</td>
<td>9.5</td>
<td>10</td>
<td>8.7</td>
<td>8.9</td>
<td>8</td>
<td>7.9</td>
<td>8.1</td>
<td>8.5</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Source: ILCS 2004-2013

Overall, changes in poverty rate are mainly driven by changes in the consumption aggregate measuring living conditions of population, and by the inequality of its distribution. Following a
methodology developed by Datt and Ravallion (1992), the change in poverty rate in Armenia is conditioned by consumption and inequality of its distribution. The 4.79 percentage point upsurge in total poverty rate in Armenia over 2008-2012 resulted from both consumption and redistribution components. While, the increase in the first component, that is the average consumption level, resulted in a 17.47 percentage point decline in poverty rate, whereas the increase in the second component, that is the deepening of inequality of distribution, resulted in a 22.25 percentage point increase in poverty rate. Hence, these two components together resulted in an increase of the poverty rate (ILCS 2013).

3. Setting the Optimal Minimum Wage

Taking into consideration all the determinants of minimum wage and arguments on minimum wage rate and the minimum consumer basket, shape of wage distribution, large dispersion of monetary income, optimal minimum wage settlement should have two key implications in Armenia. The social factor suggests that the minimum wage should at least be equal to the minimum consumer basket value to cover the minimum cost of living and social protection of the family. The next factor is the economic development factor, which links the level of productivity, prices, employment etc. In this regard, two different approaches have been applied in calculating the optimal minimum wage.30

Approach 1. The wages of comparably low-income workers should increase more than high-income workers, as a consequence, low earners may shift to medium-high earners groups

This approach suggests a policy, which will be targeted only to low-receivers. If wages of all the earners range increase according to the wage norm, the overall wage structure will not change in the country. Accordingly, there would be no positive real-income effect that might improve the condition of low-wage earners. However, if we apply a discretionary policy with for adjustments no big jumps, the structure may change considerably.

Increasing minimum wages more rapidly than the average wage could expand the compressed part from below in the earners range. As a result, this kind of policy may have desirable direct influence on low-wage earner’s sector. In Armenia, this discretionary effect should be one of the most significant approaches to adjusting minimum wages. We used the data of Households Survey in 2011 in our analysis focusing on more concentrated part of the low-earners.

Figure 6 looks at the structural changes of distribution of households by amount of earnings. Here we designed a targeted discretionary policy for 3908 households (Actual), which has been divided

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30These scenarios are designed based on the data of Armenian Integrated Living Conditions Survey (ILCS) 2012. The survey is based on a random two-step sample and is conducted with a monthly rotation of households and settlements. The survey is a rich source of socio-economic information for the assessment of conditions and levels of living (income, expenses) of workers and the determination of social needs.
into nine groups according to the amount of earnings. It shows that more than half of the households earnings are below 100.000 AMD (US$ 246) and less than average monthly nominal wage 108,092 (US$ 266).

As can be seen in Figure 6 scenario, I illustrate the case, where earnings of households between AMD5.000 (US$ 12) to AMD100.000 (US$ 246) earners have increased by AMD5.000 (US$ 12). In other words, there is an increase of earnings who are from the first, up to the forth groups. Under this scenario almost 12 percent the low-level earners have been moved to the upper-levels and it is noticeable positive real income effect.

**Figure 6. Discretionary Policy Scenario**

![Figure 6. Discretionary Policy Scenario](image)

Source: Households Survey published by NSS 2012

Though there is a slight change in right-skewed distribution, the right tail is longer and the mass of distribution is concentrated on the left of the figure and therefore is still far from the normal incidence (see Appendix: Figure 1 and Tables 3).

According to the discretionary adjustment and settlement of the minimum wage, the growth in the minimum wage level may impact positively on a relatively sizeable number of the low-earner families in Armenia.

**Approach 2. The minimum wage should increase according to the wage norm (medium-term productivity rate of the industrial sector plus inflation).**

The minimum wage should increase according to the wage norm, but not climb sharply as it may result in a large increase in the average wage level thus exceeding the overall labor productivity and price changes. Under this approach we analysed productivity developments, prices and calculations of the optimal minimum wage according to the wage norm.
The economic analysis of gross domestic product (GDP) in Armenia shows that the most productive sectors in terms of per employee and contributions to economic growth are financial intermediation, construction and industry (mining and quarrying). Productivity has been calculated and has taken into consideration the real value added outputs of sectors of the economy and employment. Thus, employment share in the financial intermediation sector was very small (0.6 percent), with only seven per cent share to GDP, however the productivity was the highest (18687 thousand AMD per employee) compared to other sectors in 2012. Mining and quarrying is the next sector with noticeably high productivity having the smallest share in the employment and almost 3 percent share to GDP.

In contrast, the highest share of employment has agricultural sector (37 percent) with almost 20.8 percent share to GDP creating only 1924 thousand AMD value added output in economy per employee. As we notice productivity level of the production and infrastructure sectors of the economy, which are the main drivers of the economic growth, occupy the middle part of the range (Figure 7).

**Figure 7. Productivity, Employment and GDP by Sectors (%), 2012**

Source: NSS of Armenia. 2012
A closer examination of Figure 8 reveals, setting 2008 as a base year, since 2009, Armenia’s economy has been characterised with faster productivity growth than real wages and CPI was relatively stable with slight increasing trend. It is obvious that the gap between labor productivity and wages is continuously widening. Following to the wage norm, the classification space should filled at least according to the productivity and wage level developments. Labor productivity for total economy is estimated to be, on average 11.3 percent and 15.9 percent for industrial sector from 2003 to 2012. Hence, following to the rule of quantitative changes of wages, the average wage level should be increased in line with the productivity changes of the total economy and the minimum wage level should be growing even faster. According to one of the principles of minimum wage policy, minimum wage should at least increase at medium term productivity rate of the industrial sector as a proxy for total economy productivity rate in Armenia.\(^{31}\) Historically, the productivity level of the industrial sector was higher than that of the total economy. Thus, labor productivity rate for minimum wage calculations is based on the ratio of differences between estimations of productivity rates for the whole economy and industrial sector for the 2003-2012 period (Table 4). Under this scenario analysis, in the medium term framework 2014-2017, it is suggested to keep increasing the ratio of minimum wage level to average wages up to 40 percent, which could be reached in 2017.

### Table 4.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Wage, AMD</td>
<td>59,524</td>
<td>67,011</td>
<td>75,440</td>
<td>84,929</td>
<td>95,612</td>
</tr>
<tr>
<td>Average Monthly Wage, AMD</td>
<td>158,967</td>
<td>175,257</td>
<td>193,217</td>
<td>213,016</td>
<td>234,845</td>
</tr>
<tr>
<td>Minimum to Average Wage Ratio</td>
<td>0.374</td>
<td>0.382</td>
<td>0.390</td>
<td>0.399</td>
<td>0.407</td>
</tr>
</tbody>
</table>

Table 5 depicts estimations of productivity and price indicators applied in the calculations. Here, the average wage increase is estimated by applying ADS assumptions (Armenia’s Development Strategy) for total labor productivity (5.5 percent) and CPI (4.5 percent). Assessment of the optimal minimum wage level is based on labour productivity adjusted with industrial sector proxy indicator (7.7 percent) and CPI (4.5 percent). As can be seen, the amount of minimum wage for 2013 base

\(^{31}\) (ILO GLU 2011)
year has been adjusted taking into consideration changes of the new law on “Unified Income Tax” set into force in 2013. Compulsory social security and personal social security payments are united into one income tax. It is worth to mention that according to the income tax law provisions, minimum wage earners were exempt from paying income tax. Even though the new law is designed so that the earners’ actual real incomes should not decrease, the new income tax has effect on the minimum wage with 24.4 percent of taxable income.

In this paper, we will not examine the macroeconomic impacts of minimum wages, as we do not tend to increase minimum wages above the optimal level, which would be the case of a much higher minimum wage.

**Table 5. Estimations of labor productivity (GAPs) and CPI for 2014-2017**

<table>
<thead>
<tr>
<th>Indicators (%)</th>
<th>2014-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>4.5</td>
</tr>
<tr>
<td>Productivity of Total Economy (according to ADS)</td>
<td>5.5</td>
</tr>
<tr>
<td>Productivity of industry sector</td>
<td>7.7</td>
</tr>
</tbody>
</table>

As Table 6 confirms the minimum wage increase scenarios are set according to the MTEF and Government Program for 2014-2016. That is said, the minimum wage should be doubled in 2017 compared to 2013 minimum wage level (A) and the same scenario for (B) but adjusted with income taxation. It is obvious, there is slow increase of the ratio of the minimum to average wage, which stays in the modest level of the classification (Table 1), thus not reaching targeted ratio of 40 percent (Table 6 A). However, under the scenario of including the taxation in the calculations the minimum-to-average wage ratio of 40 percent could be reached in 2017(Table 6 B).

**Table 6 A.**

<table>
<thead>
<tr>
<th>MTEF 2014-2016 min wage scenario and double increase of minimum wage in 2017</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Wage, AMD</td>
<td>45,000</td>
<td>50,000</td>
<td>55,000</td>
<td>62,500</td>
<td>70,000</td>
</tr>
<tr>
<td>Average Monthly Wage, AMD</td>
<td>120,519</td>
<td>132,869</td>
<td>146,484</td>
<td>161,495</td>
<td>178,045</td>
</tr>
<tr>
<td>Minimum to Average Wage Ratio</td>
<td>0.373</td>
<td>0.376</td>
<td>0.375</td>
<td>0.387</td>
<td>0.393</td>
</tr>
</tbody>
</table>

**Table 6 B.**

<table>
<thead>
<tr>
<th>MTEF 2014-2016 min wage scenario and double increase of minimum wage in 2017 including taxes</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Wage, AMD</td>
<td>59,524</td>
<td>66,138</td>
<td>72,751</td>
<td>82,672</td>
<td>92,593</td>
</tr>
<tr>
<td>Average Monthly Wage, AMD</td>
<td>158,967</td>
<td>175,257</td>
<td>193,217</td>
<td>213,016</td>
<td>234,845</td>
</tr>
<tr>
<td>Minimum to Average Wage Ratio</td>
<td>0.374</td>
<td>0.377</td>
<td>0.377</td>
<td>0.388</td>
<td>0.394</td>
</tr>
</tbody>
</table>

The next important argument, which has been mentioned as a necessary social factor in reviewing minimum wages, should be checked under the suggested scenarios. Thus taking into consideration
the international conventions and approaches of social policies stating the importance of the social aspect of the minimum wage, we cross-analysed the minimum consumer basket and minimum wage ratios over the medium term according to MTEF 2014-2016 and our estimations.

Table 7.

<table>
<thead>
<tr>
<th>Year</th>
<th>Minimum wage MTEF (AMD)</th>
<th>Minimum wage Estimated (AMD)</th>
<th>Min. Consumer Basket (MoH)</th>
<th>Min. Consumer Basket (NSS)</th>
<th>Estimated Min Wage to Min Consumer Basket (MoH)</th>
<th>Estimated Min wage to Min Consumer Basket (NSS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>50000</td>
<td>50660</td>
<td>58725</td>
<td>45726</td>
<td>0.86</td>
<td>1.11</td>
</tr>
<tr>
<td>2015</td>
<td>55000</td>
<td>57033</td>
<td>61367</td>
<td>47783</td>
<td>0.93</td>
<td>1.19</td>
</tr>
<tr>
<td>2016</td>
<td>62500</td>
<td>64207</td>
<td>64129</td>
<td>49934</td>
<td>1.00</td>
<td>1.29</td>
</tr>
<tr>
<td>2017</td>
<td>70000</td>
<td>72283</td>
<td>67014</td>
<td>52181</td>
<td>1.08</td>
<td>1.39</td>
</tr>
</tbody>
</table>

As it can be seen, Table 7 shows that the minimum wage has exceeded the minimum consumer basket value starting from 2016 (according to MoH calculations of Min. Consumer Basket) and from 2014 (according to NSS calculations of Min. Consumer Basket). Here the Minimum Consumer Basket (MCB) values have been adjusted with CPI expectations. It is worth noting, that under these scenarios the prerequisite of improving the social welfare of low-earners could be met. However, even this achievement does not meet the requirement of the Convention, which states that the minimum wage should provide adequate standard of living conditions for himself/herself and his/her family.
Concluding Remarks

Recommendation 1. The wages of comparably low-income workers should increase more than high-income workers, as a consequence low earners may shift to upper receivers groups

Recommendation 2. Minimum wages should be set at least according to the wage norm (industrial sector plus targeted inflation rate)

International practice shows that minimum wages are set within the range of 40-60 percent of average wage level, a level much higher than registered in Armenia for 2000-2013 (on average 26 percent). Setting an optimal minimum wage level may have two main benefits for Armenia: it is an in-work poverty alleviation strategy and an important tool for income distribution.

The empirical applications and analysis we have presented in this paper summarizes the scenarios under targeted discretionary policy action, by increasing minimum wages with not big jumps for only lowest-paid groups, and the wage norm model under various implications of productivity levels and prices.

Armenia ratified the ILO Convention 131 and is thus committed to fixing minimum wage. In this context, the relevant issue is not only whether to have a minimum wage level but also how to set the optimal level so as to maximize the benefits of low-earners. This is an issue for Armenia as poverty incidence among the employed are still high (23.4 percent of the employed are poor). The Convention addresses basic economic and social factors in modeling minimum wage level and indicates the importance of adjustments from time to time to catch up to with the cost of living and economic conditions.

Our analysis shows that under a discretionary policy, increasing earnings of only low-wage workers by AMD5000 (US$12), the wage structure effectively changes considerably (by around 12 percent of households). In this case, in our example, 477 households out of 3908 households have shifted to the next higher range of earnings. Although the impact of minimum wages on poverty can be negligible, the increase of the low-wage level is expected to have a greater potential effect to ease the ‘working poors’ conditions.

From a macroeconomic perspective, in this paper, we presented a critical argument that minimum wages should be adjusted according to the wage norm. In other words, the level of optimal minimum wage in Armenia should be linked to the productivity growth and price levels. We find that in Armenia there exists a gap (difference) between productivity and wage level developments. As a result, wage computations should take into consideration these quantitative differences. Moreover, we recommend that in the medium term, the level for the minimum wages should grow faster than for average wage to reach the desired minimum wage to average wage ratio equal to 40 percent by
2017. The scenario analysis indicates that this optimal minimum wage (including taxes) level will be met by indexing the minimum wage with 7.7 percent labor productivity growth adjusted by industrial sector productivity level and inflation rate of 4 ± (1.5 percent) anticipated by the Central Bank of Armenia. Under these scenarios, the minimum wage may exceed the nominal value of the minimal consumer basket, which could satisfy the conditions set by social protection approaches.

In this context, setting the optimal minimum wage level in Armenia according to the recommendations will have a significant effect on a number of the low-wage earners. This level of minimum wage would allow a single worker to live a decent life. What refers to a whole family, the Government should formulate more aggressive adjustments.
**APPENDIX**

Table 1. Indicators of Wages. 1997-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Minimum wage defined by law (AMD)</th>
<th>Average monthly nominal wages * (AMD)</th>
<th>Average Monthly Wage index, %</th>
<th>Minimal Consumer Price Index, average %</th>
<th>Minimal Consumer Basket MoH to Average Monthly Wage</th>
<th>Minimal Consumer Basket NSS to Average Monthly Wage</th>
<th>Minimum wage Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>1,000</td>
<td>13,581</td>
<td>125.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.07</td>
</tr>
<tr>
<td>1998</td>
<td>1,000</td>
<td>18,000</td>
<td>121.9</td>
<td>108.7</td>
<td>0.59</td>
<td>0.22</td>
<td>0.37</td>
</tr>
<tr>
<td>1999</td>
<td>5,000</td>
<td>20,157</td>
<td>111.3</td>
<td>100.6</td>
<td>0.95</td>
<td>0.52</td>
<td>0.19</td>
</tr>
<tr>
<td>2000</td>
<td>5,000</td>
<td>22,706</td>
<td>113.6</td>
<td>99.2</td>
<td>1.02</td>
<td>0.59</td>
<td>0.22</td>
</tr>
<tr>
<td>2001</td>
<td>5,000</td>
<td>24,483</td>
<td>111.3</td>
<td>100.6</td>
<td>1.05</td>
<td>0.57</td>
<td>0.22</td>
</tr>
<tr>
<td>2002</td>
<td>5,000</td>
<td>27,324</td>
<td>110.4</td>
<td>101.1</td>
<td>0.95</td>
<td>0.52</td>
<td>0.19</td>
</tr>
<tr>
<td>2003</td>
<td>5,000</td>
<td>34,783</td>
<td>121.6</td>
<td>104.7</td>
<td>0.80</td>
<td>0.42</td>
<td>0.18</td>
</tr>
<tr>
<td>2004</td>
<td>13,000</td>
<td>43,445</td>
<td>116.7</td>
<td>107.0</td>
<td>0.69</td>
<td>0.38</td>
<td>0.43</td>
</tr>
<tr>
<td>2005</td>
<td>13,000</td>
<td>52,060</td>
<td>119.1</td>
<td>100.5</td>
<td>0.60</td>
<td>0.32</td>
<td>0.42</td>
</tr>
<tr>
<td>2006</td>
<td>15,000</td>
<td>62,293</td>
<td>116.3</td>
<td>102.9</td>
<td>0.50</td>
<td>0.39</td>
<td>0.48</td>
</tr>
<tr>
<td>2007</td>
<td>20,000</td>
<td>74,227</td>
<td>114.1</td>
<td>104.4</td>
<td>0.47</td>
<td>0.40</td>
<td>0.57</td>
</tr>
<tr>
<td>2008</td>
<td>25,000</td>
<td>87,406</td>
<td>108.0</td>
<td>103.0</td>
<td>0.41</td>
<td>0.33</td>
<td>0.69</td>
</tr>
<tr>
<td>2009</td>
<td>30,000</td>
<td>96,019</td>
<td>106.2</td>
<td>103.4</td>
<td>0.38</td>
<td>0.31</td>
<td>0.82</td>
</tr>
<tr>
<td>2010</td>
<td>30,000</td>
<td>102,652</td>
<td>98.8</td>
<td>108.2</td>
<td>0.42</td>
<td>0.31</td>
<td>0.70</td>
</tr>
<tr>
<td>2011</td>
<td>32,500</td>
<td>108,092</td>
<td>97.8</td>
<td>107.7</td>
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* based on the data of medium, large economic unit's and also small economic units. The data of 2013 is preliminary (small units’ are not included).

*Labor Market in the Republic of Armenia NSS, 2013*

Table 2. Discretionary Policy. Descriptive Statistics

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<th>Frequency</th>
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Table 3. Discretionary Policy. Frequency

Labor Market in the Republic of Armenia NSS, 2013
Salary Groups 2011 Households’ Survey I Scenario

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<th>Valid Percent</th>
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<td>100</td>
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</tbody>
</table>

Figure 1.

Histogram 1. Armenia: Actual Employed by Amount of Income, 2011

Bibliography


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