

Inequality Effects of Sectoral Distribution: Evidence from Turkey*

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Abstract

Turkey has undergone various structural transformations with the higher economic integration. With this respect, economic priorities have been changed and new mechanisms have been take place with regards to new priorities. The priority given to domestic production is decreased whereas the production of goods that could compete in the international markets is gained importance. As the income distribution of a country is affected from the changing conditions of the economy, the distinction of tradable and nontradable sectors and the determination of their production and employment capacity become an important issue. In this respect, the main aim of this paper is to investigate the impact that two separate income sources (namely labour and non-labour earnings) in both tradable and nontradable sector had on the overall level of income inequality in Turkey, and we divide the overall economic activities into those earning labour and non-labour income in tradable sector and those earning labour and non-labour income in nontradable sector. Our results show that the nontradable sector has more contribution on overall income inequality than the one in tradable sector. This result indicates that income policies which mostly target the demand conditions of nontradable sectors could not be able to gain a success result for income inequality in Turkey.

Keywords : Wage Policy, Tradable and Nontradable Sector, Income Inequality

JEL Classification: F16, J31

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1. INTRODUCTION

Turkey has undergone various structural transformations towards higher integration with the world economy since the 1980s. With this respect, economic priorities have been changed and new mechanisms have been take place with regards to new priorities. Whereas production of goods that could compete with the world markets has been increasing, in the meantime production for domestic markets loses its priority. This is due to some distributional consequences of economic integration. Economic resources are reallocated from import substituting sectors to export oriented sectors because of the importance given more to produce goods that could compete with world markets. Meanwhile, this situation leads to an increase in employment capacity and income generating process of export oriented sectors while import substituting sectors have been declining. These two opposite fact, not only have positive effects on income distribution; but they also have negative effects. The net effect depends on the relative size of these effects.

In this paper we divide all economic activities into two main sectors namely, the tradable and nontradable sectors. However, tradable sectors have two main parts as exportable and importable goods. Since tradable sector is integrated to the world economy, it is influenced from the changing conditions of the world economy. Accordingly, the price conditions of the tradable sector are determined by the world markets and the government has no power on the price level of this sector. On the contrary, the nontradable sectors² are not stick to world economy as they produce goods for domestic markets and therefore government has power on this sector and could be able to implement separate (her own) income policies.

Reallocation of economic resources between two main sectors (namely, tradable and nontradable sectors) due to giving more importance to tradable sector is mostly in favor of that sector. Tradable and nontradable sectors exhibit some different features. For example, major characteristics of tradable sectors in developing countries are the presence of high productivity of production factors and the requirement of high skilled workers. Meanwhile, nontradable sectors need relatively low skill requirement and low productivity of production factors. The nontradable sectors have the capability of absorbing more labour than that of the tradable sector due to lower skill requirement. Despite of these differences, overall income policies imposed in both sectors show similar features in many countries.

² Nontradable goods are defined as goods whose transportation costs are either high or not feasible or have high tariffs in order to enter into international trade. Nontradable sectors include production of service sectors such as education, health and public services, construction sector and trade facilities. For detailed explanations about the definition of nontradable goods see Harrod (1958), McKinnon (1963), Jones (1974) and Dornbusch et al. (1977).

Therefore, applying non-discriminating income policies may cause problems in the economy. Implementing these policies would not only reward the less productive sector with a wage beyond its productivity; and punish the productive one with a wage below its productivity but also would lead to a financial burden to the government. Mainly, since a government has much more power on nontradable sector than she has on the tradable sector (due to the locally determination of demand and supply condition), policies applied into economy mostly target on increasing the demand conditions of nontradable sector to cover the lower marginal productiveness of this sector. As changing the demand conditions of that sector is easier than the changing the conditions of total factor productivity, governments chose to apply income policies in which demand of nontradable sector is targeted. Moreover, other reason of not targeting the total factor productivity, it rely on the fact that total factor productivity could not be changed in the short run, it took a while to improve productivity, and therefore this is not mostly targeted in the income policies.

This research main aim is to determine the impact that various income sources (namely labour earnings and non-labour earnings) in both tradable and nontradable sector had on the overall level of income inequality in Turkey for the years 2003, 2004, 2005 and 2006.

Many studies in the Heckscher-Ohlin-Samuelson literature develop their framework without any (tradable versus nontradable) sectoral distinction. That is one of the weak grounds of the HOS model. Needless to say, nontradable goods have a reasonable share of the overall market.³ With a bi-sectoral framework with only tradable sectors, the model will have limited applicability in the real world in which nontradable sector is large and thus plays a crucial role. A trade model with nontradable sector is first provided by Meade (1956), Salter (1959) and Swan (1960). McDougall (1970) build up a trade model with nontradable goods based on the earlier work of Pearce (1961), Komiya (1967) and, his own work, McDougall (1965). Besides, Gonzalez-Soriano (1990) gives a brief summary about the classification procedure of dividing the economy into tradable and nontradable segments. In all these models production factors are assumed to mobile across sectors within each trading economy and immobile across sectors⁴. Despite those works that especially concerned with the relationship between the nontradable

³ For example, the nontradable ratio in total output is %68 for Chile (Saez, 2005), %71 for US (Tokarick, 2002), whereas it is % 69 for India (Kohli and Mohapatra, 2008).

⁴ There are also several works in the literature that take the tradable and nontradable debate with a specific interest on income inequality. Acharrya and Jones (2001), Ghosh (1980), Beladi and Batra (2004), Tokarick (2002) and Lebow, (1993) are some good examples.

sectors and real wages, we must say that none of them includes the effects of differences (in tradable and non tradable sectors) in terms of productivity and demand conditions.

Moreover, complete mobility of production factors across sectors within a trading economy would limit the applicability of the HOS model in practice. In fact, this is one of the common critics about the HOS framework: it is not realistic to assume that both capital and labor are costlessly and instantaneously transferable. Starting with Viner (1931) and followed by Haberler (1936), Jones (1971) and Mussa (1974) capital is argued to be the sector-specific factor in the short run. Neary (1978) highlights the possibility of an adjustment process toward long run equilibrium in a small open economy. One other contribution is by Oi (1962) who treats labour as a quasi-fixed factor in the short run, and develop a model to investigate the short-run behavior of labour markets and conclude that a classical treatment of labour as a complete variable is only adequate for the long run investigation.

Since the main aim is to investigate the impact that two separate income sources (namely labour and non-labour earnings) in both tradable and nontradable sector had on the overall level of income inequality in Turkey, we divide the overall economic activities into those earning labour income in tradable sector and those earning labour income in nontradable sector. For the investigation, we obtained the required data from Household Expenditure Surveys conducted by Turkish Statistical Institute (TurkStat) in 2003, 2004, 2005 and 2006. Besides, using basic income inequality measures in order to examine the changes in the income inequality of labour and non-labour earnings in both tradable and nontradable sector, we use Shorrocks decomposition to test whether or not the labour earnings in tradable sector is significantly different than those of the nontradable sector over time. It is expected that, since the government has much more power on nontradable sector than she has on tradable sector, the labour earnings of nontradable sector has less negative effect on overall inequality than of tradable sector.

The paper is organized as follows. In the next section we provide the methodology and empirical analysis of income inequality of Turkey. Finally section 3 provides some concluding remarks and policy discussion.

2. DATA AND EMPIRICAL RESULTS

The data set comprises the information collected through a survey conducted within different parts of the country. In this research, we use the Household Expenditure Surveys conducted by Turkish Statistical Institute (TurkStat) in 2003, 2004, 2005 and 2006. The survey covers a random sample of households in all seven geographical regions of Turkey. It is a multi-stage stratified cluster sample.

We first present a brief general descriptive summary of the income inequality in Turkey based on the survey data and then we examine the impact of various income sources had on overall income inequality. We employ Shorrocks decomposition technique to test whether or not there is a statistically significant difference between the contributions of different income sources on overall income inequality. In the literature, there are not many studies concerning the issue of decomposing overall income inequality into factor components for Turkey. There exists one well known study which examines the poverty and income inequality in Turkey with various inequality and poverty measures (Gürsel et al., 2000). They found that overall inequality in Turkey is slightly increased from the year 1987 to 1994. They also use Shorrocks decomposition in order to analyze the contribution of the various income resources on overall inequality for the years 1987 and 1994. They found that the entrepreneur income component has the most contribution on overall inequality. Besides, it is found that interest income earnings have a remarkable contribution on overall inequality.

2.1. Methodology

Shorrocks (1982) decomposition provides an exact decomposition of inequality of total income into inequality contributions from each of the income component. He stressed that there was a decomposition rule which are all applicable to all kinds of inequality indices. It is also pointed out that total inequality across observations could be expressed as the sum of inequality contributions from each of the income components and which also satisfied some other basic axioms. Y_k is defined as an income of individual in income category of k , and then the total income could be expressed as follows:

$$\sum_{k=1}^k Y_k = Y \quad (1)$$

It could be also shown that sum of the contributions of the factors to overall inequality is equal to the overall inequality:

$$\sum_{k=1}^k S_k = I(Y) \quad (2)$$

where $I(Y)$ and S_k stand for the total inequality and contribution of the factors, respectively. The proportion of total inequality that derives from the factor k , s_k , could be expressed as follows:

$$s_k = S_k / I(Y) \quad (3)$$

If we substitute equation (3) into equation (2), the following relation is revealed:

$$\sum_{k=1}^K s_k = 1 \quad (4)$$

Shorrocks (1982) shows that there is a unique way of decomposing income inequality where the contribution of each k factor to overall inequality s_k is expressed as follows:

$$s_k = \text{cov}(Y_k, Y) / \sigma^2(Y) \quad (5)$$

where $\text{cov}(Y_k, Y)$ is the covariance of factor income Y_k and total income Y , and $\sigma^2(Y)$ is the variance of total income.

In this study, so as to decompose the total inequality into various income components, we employ three different grouping methods for the whole economic activities. First, we divide all households into five main income categories: labour earnings, agriculture entrepreneur earnings, entrepreneur earnings, interest earnings, transfer earnings. Second, as the main purpose of the paper is investigating the effects of income earnings of tradable and nontradable sector, we do the same exercise for this grouped income earnings households. We divide all households into two main groups: tradable and nontradable activities. And finally we divide all these tradable and nontradable households into two sub groups, further: Labour earnings and non-labour earnings.

Before examining the income inequality measures and decomposing the overall income into its income components, it should be stressed that the choice of the right unit of analysis and the choice of equivalent scale for the households are very important issues for these estimations. The surveys for Turkey include individuals and households separately and therefore data for individuals' and households' total income is available. As for sure, income inequality studies for a

particular country have to be for the individuals, however at that point, it should be mention that, in a particular household, there may be some individuals who do not have any income may benefit from the incomes of the other individuals in this households. Therefore, this reality has to be taken into account when estimating the income inequality measures. With this respect, in the literature, most empirical studies take households⁵ as the unit of analysis and measure the income inequality by using overall household disposable income. In these studies, it is assumed that within a household total income is shared between the individuals equally. The assumption of equal sharing also validate for our analysis, too. In this respect, equivalent scale is used as a tool to assess individual equivalent disposable income measure.

In the literature there are two different ways of calculating the equivalent scale⁶. We employ the most common used one which is calculated as follows:

$$N = S^e, \quad 0 \leq e \leq 1 \quad (6)$$

where S is the household size, e is the elasticity of the scale rate with respect to household size. Two extreme cases of elasticity of the scale, when e equals to unity or zero, show that there is no economies of scale existence or economies of scale is perfect, respectively. In this research, the value of 0,5 is employed as elasticity of scale⁷ for obtaining the individual equivalent income. The disposable income for the individuals is calculated as follows:

$$Y_{ij} = \frac{R_i}{S_e} \quad (7)$$

where R_i and Y_{ij} is household total disposable income and individual equivalent disposable income.

⁵ Households are defined as the group of people (no matter they are married or have a related blood) who share the common resources and live in the same house. Household disposable income is defined as the total income plus transfer income from the government or other institutions plus interest income minus income taxes.

⁶ In order to gain space for the paper, we only mention about the equivalent scale which we used in the calculation of inequalities in the main text. Other equivalent scale is calculated as follows: $N = 1 + \alpha(s_A - 1) + \beta s_K$ where s_A and s_K are the number of adults and children in the household and α and β are their own constant parameters, respectively.

⁷ In the literature commonly value of 0,5 and 0,55 is used as a scale value. OECD (1998) and Atkinson (1995) used 0,5 as a scale value of elasticity in the studies of OECD and EU.

2.2 Empirical Results

Table 1 report the general summary of statistics of the disposable income per equivalent adult and the Gini coefficients for each investigated survey year. Table 1 indicates the statistical reports for the total households and also the tradable and nontradable households⁸ as well.

(Table 1 about here)

As seen from Table 1, household sizes in the surveys are slightly equal to each other except the year 2003. This equality makes the estimations more comparable over time. Mean of the annual income per household in nontradable households always higher than the one in tradable households whereas mean household size of nontradable households is smaller than tradable households. Notwithstanding, the size of the nontradable households is higher than the size of tradable households over time. This situation points out that the share of the nontradable households in overall economic activities has a remarkable share. Therefore, these results support our intuition about building up a theoretical ground without the nontradable sector would yield some problems. The Gini coefficients in the Table 1 appear that income inequality of nontradable households are slightly lower than the ones in tradable households over the whole period. It is also observed that, income inequality in two main households and overall economy is decreasing over the time, which means that the income is shared more equally in both households (0,43 and 0,42 in 2003 and 0,38 and 0,37 in 2006 for tradable and nontradable households, respectively) and also whole sample (0,43 in 2003 and 0,38 in 2006) over time.

⁸ All households in the surveys are divided into two main groups: tradable and nontradable households. The decision of dividing process is depend on some assumptions. The main idea of the decision is rely on the share of the income of tradable and nontradable activities within an overall household income. For to be more clear; we first, calculate the income of the each individual, separately whether the income is gained from tradable activities or nontradable activities. Having calculated the income of the each individual separately, overall income of tradable activities and nontradable activities within a household is calculated by aggregated the income of the individuals in the households. With this respect, the share of the income of the tradable activities in the overall household income is obtained and then if the share of any of the activities is bigger than %50, then this household is signed as tradable households or nontradable households. This calculation method is employed instead of taking only the sector of the head of the households as a household main sector. Because, it is clear that the calculation method which is employed in this paper is more reliable and robust than the other, for the measurement of income inequalities. Because, while the decision of household main income share is gained from whether tradable activities or nontradable activities is made, this method take the other individuals, which have income earnings from various income sources, into consideration.

Decomposition of Income Inequality

We investigate the impact that various income sources had on overall income inequality for Turkey over a period of 2003 to 2006. We employ Shorrocks decomposition method in order to obtain the contribution of the each of the income components on overall income inequality. So as to one of the aim of this paper is whether or not the contribution of the various income earnings in tradable sector on overall inequality is significantly different than those in the nontradable sector over time, for being more comparable, we employ the same exercise for the three different grouped of income sources of households.

Table 2 represents the impact of the first grouped income sources on overall income inequality. In the first group, as is mentioned before, we want to investigate whether or not traditional sectoral decomposition has any significance difference on overall inequality and therefore divide all economic activities into five main groups. Columns of the table report the findings of the each year. The first block of the table presents the proportionate contribution of each of the income sources on overall income inequality based on individual equivalent disposable income. Second block of the table reveals the results of the percentage shares of each income sources in total income. At last, the numbers at the third block of the table is obtained by dividing the proportionate contribution of income sources had on overall income to factor shares in total income. These values are named as the indicators of relative inequality.

(Table 2 about here)

Table 2 exhibits that the contribution of entrepreneur earnings on overall inequality is the biggest contribution (%60,9 in 2003 and %57,8 in 2006) while the contribution on overall income of labour earnings is the second biggest one (%24,4 in 2003 and %29,6 in 2006). When the total contribution of these two income sources on overall inequality is taken into consideration the other contributions of income sources on overall inequality is at the neglectable level. The result of the biggest contribution of entrepreneur income earnings on overall inequality is predictable for Turkey, since entrepreneur earnings both include the small and large size entrepreneur earnings; this income source has more variability within its structure which increases the contribution of these income earnings on overall inequality.

(Table 3 about here)

The evidence for this situation could be observed from the Table 3, which presents the within Gini coefficients of income sources. Highest within Gini coefficient is observed in the entrepreneur, interest and transfer income earnings (0,81, 0,59 and 0,57 in 2003 for entrepreneur, interest and transfer earnings of households, respectively). This suggests that in all other income earnings, these income earnings have more unequal income distribution. Another striking point is reveal at the result of transfer earnings where within Gini coefficient is high whereas proportionate contribution of this income earning on overall inequality is low. Besides, the share of the transfer earnings in total income is not at very low level (nearly at %20 level over time). It is clear that the main purpose of transfer income earnings is achieved. The reason of low contribution on overall inequality relies on the fact that low income groups benefit these income earnings more than the high income groups and therefore the contribution of transfer earnings on overall income is at very low levels.

When the labour income earnings estimations are investigated, it is observed that it has the biggest share in the total income (%41,1 in 2003 and %46,5 in 2006) and the within Gini coefficient is at the lowest rate among the other income earnings (0,42 both in 2004 and 2006). It is apparent that although it has the biggest share in total income, relative to this fact labour income earning households have more equal income distribution than the other income earnings households and this reflect its contribution on overall income inequality. As seen from the third block of Table 2, the relative inequality of entrepreneur earnings and interest earnings always bigger than the one over the whole period, which indicate that, the more share of these income earnings the more unequal income.

In addition to these, transfer earnings have positive contribution on overall inequality over the entire period. It is expected that transfer earnings to improve inequality, which means it would have negative value at the contribution of source on overall inequality. However, it is observed from the data that this is not the case for Turkey. While the share of transfer earnings in total income is increased over time (from %18,6 to %21,0), the impact on overall inequality is increased either (from %5,2 to %8,3). Therefore, with this respect it is apparent that the function of transfer income is not achieved a success for Turkey.

Table 4 and 5 presents the decomposition of the income inequality and coefficient of Gini for the households in two different sectors. It allows observing whether or not there is a significant difference, in terms of contribution on overall income, between two main sectors namely tradable and nontradable sectors from which household income is generated. In this respect, it is expected that as the

tradable sector is open to the world economy while nontradable sector is produced for domestic market, there will be a significant difference between the contributions of the income sources on overall inequality.

(Table 4 about here)

In Table 4 there exist significance differences between the nontradable income earnings and the tradable income earnings in terms of proportionate contribution on overall income (%75,5 in 2004 and %85,6 in 2006 for nontradable households and %24,7 and %14,4 for tradable household at the same years) and the share in total income (%72,3 in 2004 and %75,9 in 2006 for nontradable household and %27,7 and %24,1 at the same years for tradable households). It is clear that nontradable earnings have more contribution on overall inequality. At one point, it is an expectable result because the structure of nontradable sector is more composite than the tradable sector; it includes entrepreneur earnings, transfer earnings and interest earnings. However, this is not consistent with our expectations because, as it is known precisely, government has much more power on the nontradable sector, income policies mostly target nontradable sector to improve overall inequality. Therefore, these results indicate that government policies on nontradable sector do not achieve any success to equalize the income distribution. The income policies that are applied in nontradable sector to improve the demand conditions of this sector do not achieve the purpose, which means that income policies are not sufficient for improving the overall income inequality

(Table 5 about here)

In particular, as it is mentioned before, government could control the nontradable sector income earnings through driven the income policies in favor of that sector. Because of the openness to international market, the income earnings of the tradable households are more vulnerable to external shocks to those in nontradable households. With this respect, it is expected that nontradable sector has more equal income distribution than the tradable sector. As seen from the Table 5, tradable income earnings of within Gini coefficient is slightly higher than the one in nontradable sector over time.

In Table 6 and 7, a further distinction of tradable and nontradable households is made in accordance with the income earnings of these households are engaged to labour or non-labour earnings. We employ this distinction in order to examine whether or not labour and non-labour income earnings have a significant difference on the contribution of overall inequality. With this respect, the results of each of the subgroups reported in Table 6 will bring us to the

conclusion of the income policies that aim to affect the demand conditions of nontradable sectors in order to equalize income distribution could not be able to gain a success for the Turkey.

(Table 6 about here)

When we examine Table 6 more closely, the estimations of the contribution of labour and non-labour income earnings of nontradable households on overall inequality is excess the ones in tradable households. It is also clear that none of the contribution of the income sources of nontradable households on overall income do not decrease over time (%56,3 in 2003 and %59,5 in 2006 for non-labour earnings of nontradable household and %17,3 in 2003 and %22,8 in 2006 for labour earnings of nontradable household). This conclusion points out that governments' income policies do not fit for the desired aims. So as to decrease income inequality, it is concluded that government should apply policies that would increase total factor productivity instead of increasing the demand conditions of that sector.

(Table 7 about here)

Table 7 demonstrates that, labour earnings of both household types are more equally distributed than the non-labour earnings of these households. It is also noticed that none of the income earnings of the households are decreased over time. This is also another evidence for the failure of income policies. Therefore, it should be stressed that, in order to decrease the inequality, governments should have applied policies that target to increase the total factor productivity.

3. CONCLUSION

This paper has presented an examination of the impact that the contribution of various income sources had on overall income inequality for Turkey over time. In order to investigate more deeply, the income inequality and the contributions of the various income sources on overall inequality for the Turkey case, three different grouping income sources is generated. Shorrocks decomposition method is employed for this investigation.

It is revealed that entrepreneur income earnings and labour income earnings has the biggest contribution on the overall income inequality. This result is consistent with our expectations because the variability in the structure of entrepreneur income earnings increases the contribution of these households on overall inequality.

The findings of empirical analysis of Turkey reveal that, nontradable sector has more contribution on overall income inequality than the one in tradable sector. Besides, it is also found that, labour earnings in nontradable households have more contribution than those in tradable sector. It is clear from the results that, for Turkey, the nontradable sector have more positive effect on overall inequality than the tradable sector. Therefore, it is concluded that the income policies would not be able to access their aim for Turkey.

As a matter of fact, government has a crucial role on the nontradable sector since it is produced for domestic usage. It is easier to change the demand conditions of that sector than the one of tradable sector. Therefore, these policies target to improve income inequality by changing the demand conditions in nontradable sector to improve overall inequality. However, it is apparent from the results that the effective income policies could only be achieved with targeting the total factor productivity.

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Table 1: General Summary of the Samples

	2003	2004	2005	2006
Total				
Sample Size	25764	8544	8556	8556
Mean Household size	4,18	4,14	4,15	4,08
Mean annual income per household (YTL)	10100	12300	14098	16331
Gini Coefficient	0,43	0,41	0,39	0,38
Tradable Households				
Sample Size	7166	2283	2282	2153
Mean Household size	4,77	4,74	4,70	4,52
Mean annual income per household (YTL)	9470	11200	12862	14817
Gini Coefficient	0,43	0,42	0,41	0,38
Nontradable Households				
Sample Size	18797	6261	6274	6403
Mean Household size	3,95	3,93	3,96	3,93
Mean annual income per household (YTL)	10400	12600	14479	16774
Gini Coefficient	0,42	0,40	0,39	0,37

Source: Authors calculations from the data set of TurkStat for the years 2003,2004,2005 and 2006

Table 2: Contribution of income sources to overall inequality

Income sources	2003 (%)	2004 (%)	2005 (%)	2006 (%)
<i>Proportionate contribution of factor incomes to total inequality based on "individual equivalent disposable income"¹</i>				
Labour earnings	24,4	21,5	29,6	29,6
Agriculture entrepreneur earnings	3,6	8,6	5,1	1,6
Entrepreneur earnings	60,9	59,4	49,0	57,8
Interest earnings	5,8	3,6	5,5	2,6
Transfer earnings	5,2	7,0	10,8	8,3
<i>Factor shares in total income²</i>				
Labour earnings	41,1	41,8	42,8	46,5
Agriculture entrepreneur earnings	11,1	9,9	10,1	7,1
Entrepreneur earnings	27,2	26,5	23,4	23,8
Interest earnings	2,0	1,7	2,2	1,6
Transfer earnings	18,6	20,0	21,6	21,0
<i>Relative inequality indicator [(1)/(2)]</i>				
Labour earnings	0,59	0,51	0,69	0,64
Agriculture entrepreneur earnings	0,33	0,87	0,51	0,23
Entrepreneur earnings	2,23	2,24	2,10	2,43
Interest earnings	2,98	2,10	2,48	1,61
Transfer earnings	0,28	0,35	0,50	0,40

Source: Authors calculations from the data set of TurkStat for the years 2003,2004,2005 and 2006

Table 3: Within Gini Coefficient of Income Sources

Income sources	2003	2004	2005	2006
Labour earnings	0,44	0,42	0,43	0,42
Agriculture entrepreneur earnings	0,49	0,53	0,54	0,52
Entrepreneur earnings	0,59	0,58	0,55	0,56
Interest earnings	0,81	0,70	0,57	0,60
Transfer earnings	0,57	0,62	0,63	0,62
General	0,43	0,41	0,39	0,38

Source: Authors calculations from the data set of TurkStat for the years 2003,2004,2005 and 2006

Table 4: Contribution of tradable and nontradable activities to overall inequality

Income sources	2003 (%)	2004 (%)	2005 (%)	2006 (%)
<i>Proportionate contribution of factor incomes to total inequality based on "individual equivalent disposable income"¹</i>				
Tradable earnings	24,7	24,5	22,9	14,4
Nontradable earnings	75,3	75,5	77,1	85,6
<i>Factor shares in total income²</i>				
Tradable earnings	27,7	27,7	28,1	24,1
Nontradable earnings	72,3	72,3	71,9	75,9
<i>Relative inequality indicator [(1)/(2)]</i>				
Tradable earnings	0,9	0,9	0,8	0,6
Nontradable earnings	1,0	1,0	1,1	1,1

Source: Authors calculations from the data set of TurkStat for the years 2003,2004,2005,2006

Table 5: Within Gini Coefficient of Income Sources of Tradable and Nontradable Activities

Income sources	2003	2004	2005	2006
Tradable earnings	0,43	0,42	0,41	0,38
Nontradable earnings	0,42	0,40	0,39	0,37
General	0,43	0,41	0,39	0,38

Source: Authors calculations from the data set of TurkStat for the years 2003,2004,2005,2006

Table 6: Contribution of Labor and Non-Labour income sources of Tradable and Nontradable Activities to overall inequality

Income sources	2003 (%)	2004 (%)	2005 (%)	2006 (%)
<i>Proportionate contribution of factor incomes to total inequality based on "individual equivalent disposable income"¹</i>				
Labour earnings of Tradable Activities	7,2	5,4	8,00	6,2
Non-Labour earnings of Tradable Activities	19,3	22,5	13,5	11,5
Labour earnings of Nontradable Activities	17,3	16,1	21,1	22,8
Non-Labour earnings of Nontradable Activities	56,3	56,1	57,4	59,5
<i>Factor shares in total income²</i>				
Labour earnings of Tradable Activities	12,1	13,1	13,9	13,2
Non-Labour earnings of Tradable Activities	18,3	17,7	18,3	15,5
Labour earnings of Nontradable Activities	29,1	28,7	28,4	32,8
Non-Labour earnings of Nontradable Activities	40,5	40,2	39,4	38,5
<i>Relative inequality indicator [(1)/(2)]</i>				
Labour earnings of Tradable Activities	0,60	0,41	0,58	0,47
Non-Labour earnings of Tradable Activities	1,05	1,27	0,74	0,74
Labour earnings of Nontradable Activities	0,59	0,56	0,74	0,70
Non-Labour earnings of Nontradable Activities	1,39	1,40	1,46	1,55

Source: Authors calculations from the data set of TurkStat for the years 2003,2004,2005,2006

Table 7: Within Gini Coefficient of Income Sources of Tradable and Nontradable Activities

Income sources	2003	2004	2005	2006
Labour earnings of Tradable Activities	0,46	0,44	0,45	0,44
Non-Labour earnings of Tradable Activities	0,57	0,61	0,59	0,61
Labour earnings of Nontradable Activities	0,45	0,43	0,44	0,43
Non-Labour earnings of Nontradable Activities	0,60	0,61	0,60	0,60
General	0,43	0,41	0,39	0,38

Source: Authors calculations from the data set of TurkStat for the years 2003,2004,2005,2006