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## Dualism in Labor Market: The Case of the Financial Sector in Turkey

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### Abstract

Dual labor market hypothesis developed in the 1960s asserts that labor markets consist of primary markets with good conditions in respect to earnings, promotion and working conditions and secondary markets with low yield, poor working conditions and low unionization and insurance coverage. Human capital investments yield high-yield in the primary markets with qualified jobs and yield of the human capital investments are low in secondary jobs for the reason that they require fewer qualifications.

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The studies to date from that period show that differences in labor market have not disappeared with the competitive operation of market mechanism as claimed by orthodox theory, but have further deepened. In this study, earnings and income differences between three groups involved in the financial markets under criteria of The Statistical Classification of Economic Activities in the European Community (NACE Rev.2) are examined within the scope of the dual labor market theory. According to Household Labor Force Survey 2013 data of 1504 financial employee data, the existence of two separate markets, which have statistically significant differences in terms of earnings, education and social security, is revealed.

**Keywords:** Dualism; Labor Market; Mincerian Wage Equation; Financial Sector.

## **1. Introduction**

Douglas Dowd begins the preface of his book 'Capitalism and Its Economics – A Critical History' as follows: 'When the end of the twentieth century, two fields of financial reality were in a sharp and disturbing contrast. On the one hand, the combination of current resources and technologies has at least enabled adequately supplying, housing, dressing, receiving education and healthy living of earth's six billion people -currently or throughout the generation- for the first time in history. On the other hand, more than half of the same population were suffering from malnutrition, poor sheltering, poor dressing, lack of education or receiving inadequate education and living under threatening health conditions and the infant mortality rate and average life expectancy level of those early days of the Industrial Revolution -of which the population were under two billions- [1].

Capitalism needed people shall be willing to work for low wages under adverse conditions to survive. Economic restructuring in developed countries consists of a capital-intensive primary sector and a labor-intensive secondary sector that supports it. For the reason of the difficulty of upward mobility in the labor market, labor force remains in the secondary sector; on the other hand improvement of working conditions and wage concession are not resorted due to inflationary pressures. Emerging technologies and surviving in the current competitive environment are thought to be depended on investments and the stabilization in production units. Therefore, production units create a domestic market by connecting hiring and other employment conditions to a specific procedure [2].

As analysis of neoclassical-layered labor market tended to micro-analysis, a significant increase shall be observed in the studies that focus on a series of instance variances identifying labor supply and demand. While education was maintaining its importance in terms of labor supply, the properties such as effects of education according to age, region or expertise or the different positions of womanhood (instance variance such as married, married with children, married and uneducated, married with children and educated, age, etc.) and company size in terms of labor demand, regional distribution of companies, its sector (public or private), being unionized or non-unionized began to be focused on. Cain [3], who is one of the first precursors of the analysis related to neoclassical labor market, has determined "some theoretical and empirical gaps" in labor market studies in his study. This gap between theory and practice has firstly been voiced by Piore [4]: "As I see, efforts on human capital and the main objective of the labor market are quite different realities. While labor economics

dwelling on the solutions of specific problems, human capital theory focuses on a specific theory and its basic principles [5].

J.E. Cairnes defines the dual labor market as “there were some industrial circles and groups that workers were competing with each other in it while being excluded from effective competition with workers of other groups due to the social conditions”. Cairnes defines these as “non-competitive groups”. From this point of view, inter-group is not valid, but rather intra-group is and as a result, huge differences between total monetary and non-monetary income of individuals are determined. Reward in the labor market is not equalized as Adam Smith asserted. Unlike this non-equalization, developed countries employ migrant labor for the secondary tasks that are not preferred by its citizens and instead of equalization, they consent to let in immigrants for secondary sector. There are two mechanisms process on the delivery mechanism of primary works [6]:

- **Discrimination:** Some people, such as women and minorities, may not be offered primary sector jobs due to the discrimination arising from some characteristics of them in labor market. Companies may be unwilling to hire individuals with certain characteristics or can be prevented by the existing labor. This is one of the explanations for discriminatory of dual labor market.
- **Technology:** The supply of the better jobs may be insufficient due to the nature of the technology. May not be a sufficient number of better jobs within the framework of existing technology. Keeping out the new companies of the sectors offering better jobs by blocking the entry to the product market and the preventions of the increases in products and employment is one of the explanations for this. Shall not be ignored that producers are unwilling to utilize a more labor-intensive technology by the reason of utilizing from the cheaper labor abundantly available in secondary market.

In this study, primarily, labor in general and the dualistic structure in financial markets in particular in Turkey, which tries to adapt to global economic conditions and finds itself a place among the developing countries, are examined and the causes and the explanations are given in this regard. Right after, the dualistic structure observed in Turkey’s labor markets is defined within the framework of age, gender, education and earnings data descriptively and the dualistic structure among the employees in financial markets is revealed based on Household Labor Force 2013 Statistics data .

## **2. Dual Labor Market Concept**

Orthodox theory assumes that the employers acting with the purpose of individual profit maximization evaluates the employees with their individual characteristics and the differences in the labor market shall be made up in process of time due to competitive mechanisms. However, differences in the labor market have been deepened rather than making up [7].

Dual labor market theory is a theory proposed by a group of economists in the 1960s. Dual labor market theory criticizes the human capital theory that asserts the constant existence of marginal productivity in labor markets and states that the marginal productivity is not always valid [8]. According to dual labor market theory, tasks in

the primary labor market take part in capital-intensive industries and tasks in secondary market in labor-intensive and competitive industries [9]. Primary labor market shows stability, but cannot be encountered with the same situation in secondary market and an intensive unionization is observed in the primary labor. Lewis [10] defines the primary sector as capitalist, formal, modern, industrial or urban and the secondary sector as subsistence, informal, traditional, agricultural and rural.

The investment made by the man himself, in other words the investment in human capital provides a positive externality for participating in labor force is a frequently voiced idea. It is also known that this dual structure shall be weakened by increasing the number of investments in human capital. The main factors to the development of human capital, according to the Human Capital Theory, are health facilities and services, job shadowing, formal education, non-formal education programs that are not regulated by the companies and the migrations for increasing employment opportunities [9].

Herein, in case of the lack of investment in human capital, it is considered that labor market consists of a primary area with stable and relatively well-paid good jobs and secondary area with unstable and ill-paid bad jobs as a sharp distinction. These job types do not only represent two ends on the plane of workplace quality, but also state the distinction with impervious boundaries between primary labor market and secondary labor market, as well as survives with socio-economic mechanisms [10]. Cullusion [11] has revealed that there is a dual structure in labor market. In his study, he has determined groups exposed to sociological and remuneration-related differences and has revealed the dominant opinion that young white women and non-white women are the secondary labor force due to this dual structure.

It is frequently encountered that wage is an important determinant of dual labor structure. The importance of unionization comes out in the cases of elimination of wage differences between primary and secondary jobs and protection of the wages of the workers in ill-pay-unskilled labor policies employer implemented in secondary jobs. Indeed, the classical text of the empirical effect of unions was written by H. Gregg Lewis and the first opening studies were performed by Gary Becker [12].

One of the important issues affecting the dualism in labor market is education. Within the framework of this approach, the qualifications for increasing the abilities of individual on all works such as literacy, cognitive skills and learning ability, as well as the skills special to the profession can be considered as the attributes imparted to individuals [8]. It is frequently examined in the literature that the probability of finding a high-paying job of the individual increased level of his education is higher than the uneducated one. Some studies on education emphasizes the importance of intracompany education and states that individual starts the job from a low position and with a low-wage initially and following this promotions and wage rises shall be experienced by increasing education level, but starting the job from a higher position is prevented by this dual structure [12].

### **3. Labor Markets in Turkey and Dualism**

Despite significant contribution of the studies performed in recent years, labor markets continue to form the least known part of Turkey's economy. Employment types such as self-employed, seasonal and temporary

employment and unpaid family labor has a very large share in rural and urban informal sector and this provides the basis of grey economy parallel to informal employment. Even the labor migration to foreign countries, which has stalled after reaching a very significant dimension from the early 1960s to the mid-1970s, set aside, Turkey’s labor markets are in mobility with many different effective elements. Much as they tend to decelerate, still rapidly increasing total population and internal migration, seasonal worker actions for agriculture and tourism sectors, immigrations outside the country reaching significant proportions from time to time and illegal foreign workers entry especially for large cities are the part of these elements [13].

Increased migration and lack of jobs providing continuity of Turkey's labor market led to a split in terms of wages and job opportunities and as well as changes experienced in the quality of jobs and the wages with flexible working models revealed after 1980, existence of a dual labor market was perceived by mooted the existence of primary and secondary jobs. Labor markets make it difficult to determine basic relationships within and to access adequate data sources despite the household labor force surveys conducted four times a year. At that rate, adapting the concepts such as unemployment, employment, wages, efficiency from industrialized countries and basing our considerations upon the quantitatively and qualitatively limited data related to these provide a variety of disadvantages.

According to Household Labor Force Survey 2013 Data in 2013, considering the main operating groups of the establishment (The Statistical Classification of Economic Activities in the European Community-NACE REV2), the view of the financial sector in Turkey’s labor market is considered as “Financial Service Activities” as primary market and the group of “Insurance, Re-Insurance and Superannuation Funds” and “Auxiliary Activities to Financial Services and Insurance Activities” as secondary market. The validity of the dualistic distinction is supported by the results of (Independent-Samples T-Test). The table below (Table 1) shows mean differences between two groups according to the criteria of earnings, education and social security test results.

**Table 1:** Independent-Samples T-Test

<b>Variables</b>	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
(Cash Income)	-6,495	1521	,000
	-6,535	553,809	,000
(Education)	-7,094	1628	,000
	-6,335	651,420	,000
(Registration with Social Security Institution)	8,983	1628	,000
	6,288	490,018	,000

There are statistically significant differences between two groups according to criteria of earnings, education and social security. These results also supports the thesis of examining labor force and employment structure in

financial sector within the framework of these two groups separately gives more reliable results. The differences between two groups can be seen on Table2 more clearly. Considering the distribution according to education level of those employed, the majority in “College, University or Higher” can be seen in primary sector in regard to 70% of males, 83,2% of females and 75,7% of total data. It is observed that the ratio of those employees educated at this level in the secondary market shows a decrease in the level of 19,7% of males, 16,3 of females and 58% of the total. The increasing employment of other educational statuses in secondary sector shows the concentration of the lower skilled labor in terms of education on the sector.

**Table 2:** Descriptive Statistics

	Financial Service Activities						Insurance, Re-Insurance and Superannuation Funds – Auxiliary Activities to Financial Services and Insurance Activities						
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%	
Age Group	15-19	8	1,2	7	1,4	15	1,3	5	3,3	5	2,8	10	3
	20-24	29	4,4	47	9,2	76	6,5	18	11,9	36	20,2	54	16,4
	25-29	149	22,5	125	24,4	274	23,3	30	19,9	37	20,8	67	20,4
	30-34	156	23,5	136	26,6	292	24,9	33	21,9	33	18,5	66	20,1
	35-39	93	14,0	92	18,0	185	15,7	21	13,9	34	19,1	55	16,7
	40-44	99	14,9	64	12,5	163	13,9	26	17,2	18	10,1	44	13,4
	45-49	62	9,4	26	5,1	88	7,5	10	6,6	11	6,2	21	6,4
	50-54	56	8,4	12	2,3	68	5,8	5	3,3	2	1,1	7	2,1
	55-59	10	1,5	3	0,6	13	1,1	3	2,0	2	1,1	5	1,5
	60 +	1	0,2	0	0	1	0,1	0	0	0	0	0	0
Educational Status *	1	17	2,6	10	2,0	27	2,3	7	4,6	5	2,8	12	5,4
	2	33	5,0	8	1,6	41	3,5	14	9,3	9	5,1	23	7,2
	3	83	12,5	40	7,8	123	10,5	23	15,2	19	10,7	42	16,3
	4	66	10,0	27	5,3	93	7,9	21	13,9	25	14,0	46	12,6
	5	464	70,0	426	83,2	890	75,7	85	56,3	119	66,9	204	58,0
SS**	Yes	653	98,5	507	99,0	1160	98,7	140	92,7	161	90,4	301	91,5
	No	10	1,5	5	1,0	15	1,3	11	7,3	17	9,6	28	8,5
Average Earnings	2244,06		2144,17		2200,54		1952,56		1447,09		1679,08		

Source: Household Labor Force Survey 2013 Data

\*1: Primary School (5 years), 2: Secondary School (8 Years), 3: General High School, 4: Vocational High School, 5: College, University or Higher

\*\*Social Security

When analyzed in terms of earnings, the average gain in primary sector is found to be higher as expected. While males earning 2244,06 Turkish Lira (TL) on average, females earn 2144,14 TL in primary sector and the data regardless of gender shown in the table is as 2200,54 TL. The earnings of males shows a decline of 12,9% and decreases to 1952.56, while this decline increases in females as 32,5% and the wage decreases to 1447,09 in secondary market. An earnings difference of 23.6% in total can be seen between two financial activities group.

One of the most important variances in the dualistic distinction of the labor market are also social security and it is known that the employees in the secondary market generally utilize the social security services less. While the ratio of registration with social security institution is 98,7%, informal employment is realized at 1,3% in primary sector. Registration with social security institution shows a decline of 7,2% and decreases to 91,5% in secondary sector. While registration with social security institution showing a decline of 7,2%, non-registration and/or informal employment increases in the ratio of 7,2% in secondary sector. According to data from Turkish Statistical Institution, 37,8% informal employment ratio in Turkey in 2013 is stated in the report. Can be observed that secondary markets comprise the one fifth of this informal employment in 2013. “Insurance, Re-Insurance and Superannuation Funds” and “Auxiliary Activities to Financial Services and Insurance Activities”

#### 4. Results

In following sections of the study, the structure of earnings in the financial services sector is calculated by estimating within the framework of “Basic Human Capital Model”, returns of the education and experience are examined according to primary and secondary sectors comparatively and earnings differences between financial sector groups are analyzed.

In sector status, financial services activities are considered as primary sector (Code 64) and Insurance, Re-Insurance and Superannuation Funds and Auxiliary Activities to Financial Services and Insurance Activities (Code 65-66) as secondary sector according to The Statistical Classification of Economic Activities in the European Community (NACE rev.2) and data set belonging to 1504 employees are used. In the study, Household Labor Force 2013 Survey conducted by Turkish Statistical Institution data are used.

The most common and the simplest wage equation in labor economics literature, “Basic Human Capital Model”, which considers the wage as a function of education, experience and the square of experience, is used for estimating the wage equation. However, considering the difficulty in measuring the experience, the age and the square of the age variance are counted in the model to represent the experience.

$$\ln(w_i) = \beta_0 + \beta_1 S_i + \beta_2 A_i + \beta_3 A_i^2 + \varepsilon_i \quad (1)$$

The equation is estimated for both all financial sector groups and primary and secondary sectors. Herein,  $w$  symbolizes the average hourly wage,  $A$  the age of the individual,  $S$  total period of education as the year and  $\varepsilon$  the error term.

Sector-free estimated wage equation shows the contribution of the education and the experience to the wage. Thus, a comparison shall be made with the analysis according to the primary and secondary sectors.

With reference to the results of the analysis, when sector-free estimated general model coefficients compared to estimated model coefficients according to the sectors, can be seen that there is a difference between two groups in returns of education and experience within the framework of human capital model.

**Table 3:** Wage Equation Results

Variables	General Model	Primary Sector (NaceRev. 2=64)	Secondary Sector (NaceRev. 2=65 and 66)
Constant Term	1,44657	1,40559	1,60149
	(19,146)	(17,088)	(8,9305)
Education	0,04246	0,04382	0,03278
	(20,021)	(18,938)	(6,7703)
Age	0,05574	0,05774	0,054097
	(13,401)	(13,2181)	(4,8970)
Age Squared	-0,00056	0-0,00057	-0,00059
	(-9,935)	(-9,9030)	(-3,7735)
F	365,098	320,444	47,25
R2	0,679	0,671	0,551
N	1504	1175	329

Earning elasticity of education is 5,8% with reference to general model results, besides, if examined according to occupational groups, can be seen that earning elasticity of education is 6,1% in primary sector, while the sensitivity of wages to education decreases in secondary sector (4,3%). A similar situation applies in the experience of the employees. While earnings elasticity of experience is 1,9% with reference to general model, in other words annual increase in experience leads an increase level of 1,9% in wages, the similar elasticity coefficient occurs in primary sector as 2% and 1,7% in secondary sector.

## 5. Conclusion

The invalidity of the thesis of the free market economy conditions not only ensure effectiveness of goods and services markets, but also the factor markets reveals in the processes such as earnings, promotion and labor in current factor markets.



This study basically aims to determine the existence of a dual structure in the financial markets and reveals that in the light of current data. In fact, the compilation of more detailed data is the case to be done and additively determining the elements revealing the dualism in labor markets based on these data and develop policy recommendations related to these. Because, the basis of the problems in the effective functioning of the market mechanism is the malfunctions in the factor markets. Ensuring the effectiveness of the factor markets shall bring about the active processes in goods and services markets.

The results point to the existence of a primary market with higher qualifications requirement, therefore relatively high wages, and a secondary market with high labor turnover and wages at the subsistence level.

## **References**

- [1] Uyanik, Y., Labour Markets in the Neoliberal Globalization Process, Gazi University Journal of Economics and Administrative Sciences, Vol.: 10, No: 2, 2008, pp: 209-224.
- [2] Uyanik, Y., Dualist (İkili) İşgücü Piyasası Teorisi, Gazi University Journal of Economics and Administrative Sciences, Vol.: 1, No:3, 1999, pp: 1-8.
- [3] Cain, G. G., The Challenge of Dual and Radical Theories of the Labor Market to Orthodox Theory, American Economic Review, Vol.: 65, 1975, pp. 16-22.
- [4] Piore, M., Labor Market Segmentation: To What Paradigm Does It Belong?, The American Economic Review, Vol.: 73, No. 2, pp: 249-253.
- [5] Ercan, F.; Özar, Ş., Emek Piyasası Teorileri ve Türkiye’de Emek Piyasası Çalışmalarına Eleştirel Bir Bakış, Toplum ve Bilim, No: 86, 2000; pp: 22-71.
- [6] Robert E., Karşılaştırmalı Çalışma Ekonomisi (Trans. Beşeli Mehmet), Ankara Üniversitesi Yayınları No: 210, 1997.
- [7] Reich, M.; Gordon, D. M.; Edwards, R. C., Dual Labor Markets: A Theory of Labor Market Segmentation, Economics Department Faculty Publications, Paper 3, 1973.
- [8] Aşçi, B., Eğitim İstihdam İlişkisini Açıklayan Kuramlar Çerçevesinde Savunma Sanayi İşletmelerinde İşgücü Piyasası Analizi, Kara Harp Okulu Savunma Bilimleri Enstitüsü, Ankara, 2012.
- [9] Ünal, I., İşgücü Piyasalarında Eğitimsel Niteliklerin Rolü, Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, Vol.: 24, No: 2, 1980, pp: 747-767.
- [10] Uyanik, Y., İşgücü Piyasalarında Esneklik ve Bölünme, Kamu İş, Vol.: 7, No: 2, 2003, pp.:1-17
- [11] Cullusion, W., The Determinants of Labor Force Participation: An Empirical Analysis, Federal Reserve Bank of Richmond, Working Paper 79-3, 1979.

[12] Wachter, M., Primary and Secondary Labor Markets: A Critique of the Dual Approach, University of Pennsylvania, Brookings Papers on Economic Activity, Vol.: 3, 1974, pp: 637-693.

[13] Şenses, F., Neoliberal Ekonomi Politikaları, İşgücü Piyasaları ve İstihdam, Petrol İş Sendikası, 2003.

Technological dualism was proposed by Benjamin Higgins. He was the Ritchie Professor of Economics at the University of Melbourne in the late 1940s. His theory explains the causes of unemployment in the underdeveloped economies. Developing countries of today are often characterized by dualistic economies. One is the modern (or formal) sector while the other is the traditional (informal) sector. Their relation has been explained by Higgins in his theory explained below. Dual labor market hypothesis developed in the 1960s asserts that labor markets consist of primary markets with good conditions in respect to earnings, promotion and working conditions and secondary markets with low yield, poor working conditions and low unionization and insurance coverage. Human capital investments yield. Right after, the dualistic structure observed in Turkey's labor markets is defined within the framework of age, gender, education and earnings data. descriptively and the dualistic structure among the employees in financial markets is revealed based on. Household Labor Force 2013 Statistics data . 2. Dual Labor Market Concept. One of the important issues affecting the dualism in labor market is education. Within the framework of this. "What Determines the Banking Sector Performance in Globalized Financial Markets: The Case of Turkey?," MPRA Paper 5495, University Library of Munich, Germany. Handle: RePEc:pra:mprapa:5495. as. "Efficiency Analysis Of The Turkish Banking Sector In Precrisis And Crisis Period: A Dea Approach," Contemporary Economic Policy, Western Economic Association International, vol. 24(3), pages 418-431, July. Aysan, Ahmet Faruk & Ceyhan, Sanli Pinar, 2006. "Why Do Foreign Banks Invest In Turkey?," MPRA Paper 5491, University Library of Munich, Germany. "Monetary policy and the banking sector in Turkey," Journal of International Financial Markets, Institutions and Money, Elsevier, vol. 27(C), pages 269-285. Hakan GÃ¼neÅŸ & Dilem YÃ¼ldÃ¼rÃ¼m, 2016. Non-Financial Sector. In the current Report period, household financial assets continued to grow more strongly than household financial liabilities. Accordingly, the household leverage ratio that had been on the decline for a long time decreased further to below 37%. The largest contribution to this decrease on the assets side came from TL savings deposits. With the emergence of the first pandemic cases in Turkey in March, households widely adopted social isolation practices and cut down on their expenditures other than on basic needs. This started curbing the retail loan growth that decelerated due to demand-driven factors. The volatilities and uncertainties in financial markets caused by the coronavirus outbreak boosted the demand for gold in international markets.