

# Interaction Of All Deposits And Income Tax & Corporate Tax On The Basis Of 81 Cities All in Turkey: Regression Analysis On 2012, 2013 And 2014

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**Abstract:** In Turkey, economical and fiscal statistics are special statistics. Researcher can achieve most of statistics by careful study. In this study, interaction of all deposits and income tax & corporate tax on the basis of 81 cities all is studied by regression analysis on 2012, 2013 and 2014. As a result of study, deposits of 81 cities in Turkey affects positive direction to income tax of cities and corporate tax of cities. In other words, deposits amount and income & corporate taxes moves in same direction.

**Keywords:** Deposit, Income Tax, Corporate Tax, Regression Analysis  
JEL Classification: G32, G38, H20, H25

## I. Introduction

There are many components in economy. Each component can affect different direction to general economy. Economical (in financial markets) and fiscal (taxes) are one of important components. Governments can manage markets and people's expectations by fiscal and economical decisions in global. This study is focused on as economical (financial) component: every kind of deposits and as fiscal component: income tax and corporate tax. Study is conducted on (all) 81 cities in Turkey.

## II. Literature Review

As a result of literature research, the similar study is absent.

## III. Methodology

In this study, simple regression model is used.

a) In interaction between deposits and income tax:

$$Y_i = \beta_1 + \beta_2 X_i + \varepsilon_i$$

$Y_i$  = Income Tax (as dependant variable)

$X_i$  = Deposits (in 81 cities)

b) In interaction between deposits and corporate tax:

$$Y_i = \beta_1 + \beta_2 X_i + \varepsilon_i$$

$Y_i$  = Corporate Tax (as dependant variable)

$X_i$  = Deposits (in 81 cities)

## IV. Regression Analysis On (All) 81 Cities In Turkey In Terms Of Deposits, Income Tax, Corporate Tax

### A. Datas of Study

Distribution of deposits by Cities in Turkey in 2010, 2011, 2012, 2013 and 2014 in Table 1.

**Table 1:** Distribution of Deposits by City in Turkey in 2010-2014

Years	2010	2011	2012	2013	2014	2014	2014
Cities	Deposits (Thousand TRY)	Deposits (Thousand TRY)	Deposits (Thousand TRY)	Deposits (Thousand TRY)	Deposits (Thousand TRY)	Income Tax (Thousand TRY)	Corporate Tax (Thousand TRY)
Adana	9.583.175	9.583.175	11.767.485	14.340.911	9.583.175	9.583.175	9.583.175
Adiyaman	675.526	675.526	796.541	1.016.652	675.526	675.526	675.526
Afyonkarahisar	1.892.777	1.892.777	2.508.260	3.087.574	1.892.777	1.892.777	1.892.777
Ağrı	590.819	590.819	518.947	648.431	590.819	590.819	590.819
Aksaray	1.317.844	1.317.844	1.744.036	2.211.057	1.317.844	1.317.844	1.317.844
Amasya	863.087	863.087	984.529	1.133.749	863.087	863.087	863.087
Ankara	97.029.426	97.029.426	119.478.621	142.346.564	97.029.426	97.029.426	97.029.426

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Antalya	13.607.836	13.607.836	18.610.043	23.356.885	13.607.836	13.607.836	13.607.836
Ardahan	204.952	204.952	205.194	249.770	204.952	204.952	204.952
Artvin	515.682	515.682	596.407	714.373	515.682	515.682	515.682
Aydın	4.907.059	4.907.059	6.238.826	7.395.470	4.907.059	4.907.059	4.907.059
Balıkesir	5.578.057	5.578.057	6.668.554	7.762.070	5.578.057	5.578.057	5.578.057
Bartın	865.109	865.109	1.009.210	1.171.525	865.109	865.109	865.109
Batman	509.861	509.861	704.844	823.868	509.861	509.861	509.861
Bayburt	158.049	158.049	229.840	217.818	158.049	158.049	158.049
Bilecik	536.361	536.361	645.872	751.895	536.361	536.361	536.361
Bingöl	279.965	279.965	327.791	471.209	279.965	279.965	279.965
Bitlis	266.239	266.239	379.869	448.264	266.239	266.239	266.239
Bolu	905.112	905.112	1.077.167	1.260.997	905.112	905.112	905.112
Burdur	970.858	970.858	1.127.272	1.376.177	970.858	970.858	970.858
Bursa	13.873.634	13.873.634	16.742.154	20.319.554	13.873.634	13.873.634	13.873.634
Çanakkale	1.955.089	1.955.089	2.292.459	2.679.593	1.955.089	1.955.089	1.955.089
Çankırı	412.736	412.736	495.098	625.060	412.736	412.736	412.736
Çorum	1.485.976	1.485.976	1.921.831	2.335.265	1.485.976	1.485.976	1.485.976
Denizli	5.106.030	5.106.030	6.474.093	8.111.419	5.106.030	5.106.030	5.106.030
Diyarbakır	1.936.353	1.936.353	2.314.333	2.872.421	1.936.353	1.936.353	1.936.353
Düzce	763.383	763.383	912.097	1.102.480	763.383	763.383	763.383
Edirne	2.019.920	2.019.920	2.307.060	2.777.011	2.019.920	2.019.920	2.019.920
Elazığ	1.364.003	1.364.003	1.580.667	1.986.432	1.364.003	1.364.003	1.364.003
Erzincan	711.013	711.013	849.542	1.004.757	711.013	711.013	711.013
Erzurum	1.233.619	1.233.619	1.600.322	1.758.477	1.233.619	1.233.619	1.233.619
Eskişehir	4.879.600	4.879.600	5.174.101	7.032.460	4.879.600	4.879.600	4.879.600
Gaziantep	3.935.165	3.935.165	5.412.276	7.051.065	3.935.165	3.935.165	3.935.165
Giresun	1.407.591	1.407.591	1.715.970	2.055.896	1.407.591	1.407.591	1.407.591
Gümüşhane	237.422	237.422	291.279	372.972	237.422	237.422	237.422
Hakkâri	283.055	283.055	349.871	485.680	283.055	283.055	283.055
Hatay	4.806.950	4.806.950	6.496.016	7.505.369	4.806.950	4.806.950	4.806.950
İğdır	324.152	324.152	413.212	523.358	324.152	324.152	324.152
Isparta	1.813.466	1.813.466	2.165.520	2.531.048	1.813.466	1.813.466	1.813.466
Mersin	6.685.866	6.685.866	8.069.227	9.534.345	6.685.866	6.685.866	6.685.866
İstanbul	255.194.946	255.194.946	345.812.458	428.002.120	255.194.946	255.194.946	255.194.946
İzmir	33.120.539	33.120.539	41.608.331	48.551.311	33.120.539	33.120.539	33.120.539
Kahramanmaraş	1.798.448	1.798.448	2.476.204	2.903.187	1.798.448	1.798.448	1.798.448
Karabük	783.959	783.959	970.573	1.048.139	783.959	783.959	783.959
Karaman	777.085	777.085	1.051.374	1.392.644	777.085	777.085	777.085
Kars	470.744	470.744	522.548	661.520	470.744	470.744	470.744
Kastamonu	1.045.073	1.045.073	1.198.932	1.361.303	1.045.073	1.045.073	1.045.073
Kayseri	5.372.624	5.372.624	6.683.483	8.502.523	5.372.624	5.372.624	5.372.624
Kırkkale	577.261	577.261	675.709	824.265	577.261	577.261	577.261
Kırklareli	1.777.828	1.777.828	2.169.083	2.366.729	1.777.828	1.777.828	1.777.828
Kırşehir	906.372	906.372	1.143.992	1.412.320	906.372	906.372	906.372
Kilis	134.290	134.290	220.969	282.107	134.290	134.290	134.290
Kocaeli	8.171.860	8.171.860	10.766.308	12.677.185	8.171.860	8.171.860	8.171.860
Konya	5.928.158	5.928.158	7.649.505	9.265.792	5.928.158	5.928.158	5.928.158
Kütahya	1.300.782	1.300.782	1.607.190	2.011.783	1.300.782	1.300.782	1.300.782
Malatya	1.771.600	1.771.600	2.101.585	2.575.548	1.771.600	1.771.600	1.771.600
Manisa	4.083.190	4.083.190	4.750.862	5.537.060	4.083.190	4.083.190	4.083.190
Mardin	672.011	672.011	891.305	1.097.361	672.011	672.011	672.011
Muğla	6.456.191	6.456.191	8.317.568	10.327.664	6.456.191	6.456.191	6.456.191
Muş	264.921	264.921	306.948	451.520	264.921	264.921	264.921
Nevşehir	1.175.010	1.327.531	1.413.697	1.757.709	1.987.726	13.107.69	19.172.39
Niğde	751.272	853.691	895.445	1.080.129	1.261.640	12.374.83	16.826.82
Ordu	1.516.773	1.771.490	1.920.078	2.318.316	2.695.662	36.995.97	44.394.14
Osmaniye	632.352	694.142	783.458	913.120	1.086.647	20.677.51	18.467.46
Rize	886.370	985.761	1.167.304	1.349.152	1.520.479	22.686.03	79.016.65
Sakarya	2.130.842	2.457.137	2.729.034	3.305.976	4.026.933	79.959.11	153.867.27
Samsun	4.086.271	4.573.697	4.920.146	5.982.126	6.713.470	84.391.80	128.498.91
Siirt	253.951	282.167	379.442	509.670	601.259	6.224.04	8.939.29
Sinop	714.305	831.303	939.632	1.120.862	1.196.956	11.823.66	6.184.67
Sivas	1.904.420	2.216.309	2.406.311	2.918.641	3.165.142	28.899.64	31.132.57
Şanlıurfa	1.262.440	1.522.841	1.591.141	1.764.876	1.910.614	50.456.93	56.998.94
Şırnak	348.288	446.818	465.787	642.579	696.735	2.757.30	10.368.71
Tekirdağ	3.558.518	3.731.574	4.162.642	4.947.439	6.160.955	90.072.86	175.658.45
Tokat	1.070.587	1.167.404	1.259.829	1.470.188	1.618.335	22.915.95	20.886.37
Trabzon	3.092.101	3.571.342	3.657.799	4.450.573	5.017.324	52.402.26	111.057.10
Tunceli	448.255	515.363	548.709	664.138	699.955	3.955.47	1.768.66
Uşak	1.946.295	2.316.651	2.559.569	3.043.936	3.374.724	23.442.65	26.760.47

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Van	877.856	1.154.983	1.314.934	1.298.413	1.391.815	8.156.55	16.376.55
Yalova	915.557	1.140.436	1.271.410	1.615.801	1.896.180	21.255.95	28.412.64
Yozgat	1.062.997	1.203.136	1.288.343	1.684.077	1.833.794	12.109.73	19.926.62
Zonguldak	3.760.371	3.886.348	4.409.750	4.583.125	5.205.860	39.786.24	208.339.34
<b>TOTAL</b>	<b>559.495.530</b>	<b>651.184.540</b>	<b>724.205.823</b>	<b>882.122.848</b>	<b>994.085.729</b>	<b>9.559.161</b>	<b>38.305.951</b>

Distribution of type of deposits by Cities in Turkey in 2014 in Table 2 as a sample of deposits.

**Table 2: Distribution of Type of Deposits by Cities in Turkey in 2014**

Cities	Savings Deposits (%)	Official Institutions' Deposit (%)	Commercial Institutions' Deposits (%)	Interbank Deposits (%)	Foreign Exchange Deposit Accounts (%)	Other Institutions' Deposit (%)	Precious Metal Deposit Accounts (%)	Total (%)
Adana	60.9	1.8	11.0	0.0	22.3	2.4	1.6	100.0
Adiyaman	47.5	13.0	13.8	0.0	20.3	1.7	3.8	100.0
Afyonkarahisar	44.6	5.4	8.4	0.0	37.9	1.4	2.3	100.0
Ağrı	39.1	22.8	22.6	0.0	9.7	2.2	3.6	100.0
Aksaray	29.1	6.4	6.6	0.0	55.1	1.0	1.7	100.0
Amasya	48.9	9.2	9.5	0.0	26.8	2.1	3.4	100.0
Ankara	26.6	19.1	17.9	2.6	24.7	8.2	0.9	100.0
Antalya	50.1	2.0	7.0	0.0	38.4	1.1	1.5	100.0
Ardahan	60.4	16.2	8.5	0.0	10.0	2.5	2.4	100.0
Artvin	59.2	12.1	7.9	0.0	14.5	1.9	4.4	100.0
Aydın	62.2	1.2	7.3	0.0	26.5	1.3	1.6	100.0
Balıkesir	59.1	1.4	7.8	0.0	28.5	1.3	1.9	100.0
Bartın	56.7	5.6	5.3	0.0	29.7	1.0	1.8	100.0
Batman	45.2	24.0	13.2	0.0	12.1	1.7	3.7	100.0
Bayburt	32.6	16.9	9.6	0.0	35.5	2.6	2.8	100.0
Bilecik	54.3	9.3	10.9	0.0	18.4	3.2	3.8	100.0
Bingöl	40.3	20.1	10.2	0.0	21.4	4.4	3.7	100.0
Bitlis	41.2	28.6	18.0	0.0	5.8	2.1	4.3	100.0
Bolu	60.8	4.7	10.2	0.0	19.4	1.7	3.2	100.0
Burdur	54.7	2.4	9.9	0.0	27.7	1.8	3.5	100.0
Bursa	50.9	1.4	13.0	0.0	30.4	2.3	2.0	100.0
Çanakkale	66.0	6.6	8.9	0.0	13.4	2.2	2.9	100.0
Çankırı	50.8	16.2	9.3	0.0	17.0	2.7	4.0	100.0
Çorum	45.9	5.6	13.6	0.0	29.9	1.5	3.5	100.0
Denizli	50.6	1.7	10.6	0.0	34.4	1.1	1.6	100.0
Diyarbakır	55.0	4.4	18.0	0.0	13.9	5.5	3.3	100.0
Düzce	49.9	6.4	12.6	0.0	26.1	2.4	2.5	100.0
Edirne	60.6	4.1	7.3	0.0	24.5	2.0	1.5	100.0
Elazığ	46.5	6.9	12.0	0.0	30.0	1.2	3.4	100.0
Erzincan	48.3	7.7	9.1	0.0	31.0	1.5	2.4	100.0
Erzurum	41.4	13.4	19.0	0.0	17.9	4.4	3.9	100.0
Eskişehir	50.4	6.5	16.2	0.0	23.2	1.4	2.3	100.0
Gaziantep	34.7	2.2	16.5	0.0	42.8	2.3	1.4	100.0
Giresun	55.7	3.3	6.5	0.0	29.6	2.5	2.4	100.0
Gümüşhane	47.8	14.2	9.0	0.0	23.3	2.5	3.3	100.0
Hakkâri	26.3	56.6	9.3	0.0	3.4	1.8	2.5	100.0
Hatay	45.5	3.5	8.4	0.0	39.8	1.4	1.3	100.0
İğdır	43.0	11.8	6.9	0.0	34.3	1.5	2.5	100.0
İsparta	54.6	3.4	8.6	0.0	28.0	2.3	3.1	100.0
İstanbul	30.3	0.8	18.8	9.2	36.0	4.1	0.9	100.0
İzmir	57.2	1.7	10.7	0.0	27.5	1.5	1.4	100.0
Kahramanmaraş	39.4	3.5	11.7	0.0	39.6	3.1	2.7	100.0
Karabük	54.7	8.0	10.0	0.0	22.2	2.2	2.9	100.0
Karaman	38.6	9.1	9.0	0.0	38.4	2.0	2.9	100.0
Kars	56.1	10.9	16.5	0.0	11.0	2.6	2.9	100.0
Kastamonu	62.7	7.0	9.4	0.0	14.1	2.7	4.2	100.0
Kayseri	32.0	3.8	11.3	0.0	48.8	2.4	1.7	100.0
Kırıkkale	57.2	10.3	9.4	0.0	16.8	2.4	3.9	100.0
Kırklareli	65.7	5.1	9.7	0.0	16.8	1.1	1.6	100.0
Kırşehir	36.8	6.5	5.1	0.0	48.6	0.9	2.1	100.0
Kilis	34.8	25.7	11.4	0.0	21.7	3.3	3.2	100.0
Kocaeli	40.2	4.2	23.7	0.0	26.4	3.7	1.8	100.0
Konya	41.5	2.8	15.9	0.0	35.2	1.9	2.7	100.0
Kütahya	42.0	5.8	13.4	0.0	32.3	1.8	4.7	100.0
Malatya	50.8	3.5	8.8	0.0	31.5	1.9	3.5	100.0
Manisa	64.2	3.3	11.0	0.0	17.0	2.1	2.3	100.0

Mardin	40.5	16.1	13.5	0.0	24.8	2.0	3.2	100.0
Mersin	62.4	2.2	7.5	0.0	24.3	2.0	1.6	100.0
Muğla	63.8	1.6	5.9	0.0	25.9	1.3	1.6	100.0
Muş	37.5	27.8	15.1	0.0	12.4	2.6	4.6	100.0
Nevşehir	32.4	3.8	7.5	0.0	52.6	1.7	2.1	100.0
Niğde	53.0	8.5	10.5	0.0	22.4	2.9	2.6	100.0
Ordu	63.5	2.8	9.2	0.0	19.9	1.8	2.8	100.0
Osmaniye	61.3	7.6	10.9	0.0	14.2	2.6	3.5	100.0
Rize	51.4	9.6	10.9	0.0	19.7	3.8	4.5	100.0
Sakarya	53.5	3.0	11.3	0.0	26.6	2.5	3.1	100.0
Samsun	53.4	1.8	14.8	0.0	25.8	1.5	2.8	100.0
Siirt	34.1	45.4	8.5	0.0	4.9	4.5	2.7	100.0
Sinop	52.0	10.6	5.2	0.0	28.1	1.7	2.5	100.0
Sivas	45.9	8.6	7.5	0.0	33.8	1.5	2.7	100.0
Şanlıurfa	48.8	14.9	17.8	0.0	11.9	3.8	2.8	100.0
Şırnak	28.6	39.2	10.5	0.0	16.5	1.4	3.9	100.0
Tekirdağ	63.1	3.2	8.5	0.0	21.7	1.9	1.5	100.0
Tokat	53.6	6.0	10.2	0.0	23.1	2.4	4.6	100.0
Trabzon	53.8	2.4	10.0	0.0	30.1	1.2	2.4	100.0
Tunceli	53.1	8.0	4.6	0.0	29.7	3.2	1.4	100.0
Uşak	43.6	3.6	5.6	0.0	44.4	1.0	1.8	100.0
Van	52.4	14.4	18.9	0.0	7.9	2.9	3.5	100.0
Yalova	53.8	4.9	7.2	0.0	29.7	2.6	1.8	100.0
Yozgat	36.7	7.3	6.1	0.0	46.1	1.4	2.5	100.0
Zonguldak	52.8	2.4	5.1	0.0	30.9	7.1	1.6	100.0
<b>Total</b>	<b>35.4</b>	<b>4.3</b>	<b>15.5</b>	<b>6.3</b>	<b>33.4</b>	<b>3.9</b>	<b>1.2</b>	<b>100.0</b>

### B.1. Regression Analysis (Least Squares NLS and ARMA)of 2012 for Income Tax

According to regression analysis results on deposits and income tax in 2012 in Table 2; if deposits of 81 cities shifts up 0.009 unit, this affect one-unit on income tax of same cities.

According to coefficient,there are positive relationship between dependent variable (income tax) and independent variable (deposits of 81 Cities). And square root of  $R^2$  is 0.988291 and this point to the same direction.

According to  $R^2$ ; %97 of change in income tax is described by % change in deposits.In research with all other details,there is no a direct relationship between income tax and deposits in economical condition of Turkey and statistics of Turkish Revenue Administration(<http://www.gib.gov.tr/yardim-ve-kaynaklar/istatistikler> 03.13.2016).

**Table 3:** Least Squares NLS and ARMA (Deposits and Income Tax): 2012

Dependent Variable: Income Tax (IT)	Coefficient	Std. Error	t-Statistic	Prob.
Deposits of 81 Cities (DEP)	0.009295	0.000161	57.57307	0.0000
C	7388.032	6642.987	1.112155	0.2694
$R^2$	0.976721			
Adjusted $R^2$	0.976427			
Method	Least Squares			
Square Root of $R^2$	0.988291			
S.E. of regression	58358.47			
Prob(F-statistic)	0.000000			
Study Year	2012			
Sample	1-81			
Included observations	81			

### B.2. Regression Analysis (Least Squares NLS and ARMA)of 2012 for Corporate Tax

According to regression analysis results on deposits and corporate tax in 2012 in Table 3; if deposits of 81 cities shifts up 0.0512 unit, this affect one-unit on corporate tax of same cities.According to coefficient, there are positive relationship between dependent variable (corporate tax) and independent variable (deposits of 81 Cities). And square root of  $R^2$  is 0.996762 and this point to the same direction.According to  $R^2$ ; %99 of change in corporate tax is described by % change in deposits.In research with all other details, there is no a direct relationship between corporate tax and deposits in economical condition of Turkey and statistics of Turkish Revenue Administration(<http://www.gib.gov.tr/yardim-ve-kaynaklar/istatistikler> 03.13.2016).

**Table 4:** Least Squares NLS and ARMA (Deposits and Corporate Tax): 2012

Dependent Variable: Corporate Tax (CT)	Coefficient	Std. Error	t-Statistic	Prob.
Deposits of 81 Cities (DEP)	0.051252	0.000465	110.1814	0.0000
C	-63289.22	19140.53	-3.306555	0.0014
$R^2$	0.993535			

Adjusted R <sup>2</sup>	0.993453
Method	Least Squares
Square Root of R <sup>2</sup>	0.996762
S.E. of regression	168149.1
Prob(F-statistic)	0.000000
Study Year	2012
Sample	1-81
Included observations	81

### B.3. Regression Analysis (Least Squares NLS and ARMA) of 2013 for Income Tax

According to regression analysis results on deposits and income tax in 2013 in Table 4; if deposits of 81 cities shifts up 0.0085 unit, this affect one-unit on income tax of same cities. According to coefficient, there are positive relationship between dependent variable (income tax) and independent variable (deposits of 81 Cities). And square root of R<sup>2</sup> is 0.979918 and this point to the same direction.

According to R<sup>2</sup>; %97 of change in income tax is described by % change in deposits. In research with all other details, there is no a direct relationship between income tax and deposits in economical condition of Turkey and statistics of Turkish Revenue Administration (<http://www.gib.gov.tr/yardim-ve-kaynaklar/istatistikler> 03.13.2016).

**Table 5:** Least Squares NLS and ARMA (Deposits and Income Tax): 2013

Dependent Variable: Income Tax (IT)	Coefficient	Std. Error	t-Statistic	Prob.
Deposits of 81 Cities (DEP)	0.008583	0.000138	62.08743	0.0000
C	10107.19	7007.135	1.442415	0.1531
R <sup>2</sup>	0.979918			
Adjusted R <sup>2</sup>	0.979664			
Method	Least Squares			
Square Root of R <sup>2</sup>	0.989908			
S.E. of regression	61591.50			
Prob(F-statistic)	0.000000			
Study Year	2013			
Sample	1-81			
Included observations	81			

### B.4. Regression Analysis (Least Squares NLS and ARMA) of 2013 for Corporate Tax

According to regression analysis results on deposits and corporate tax in 2013 in Table 5; if deposits of 81 cities shifts up 0.036565 unit, this affect one-unit on corporate tax of same cities.

According to coefficient, there are positive relationship between dependent variable (corporate tax) and independent variable (deposits of 81 Cities). And square root of R<sup>2</sup> is 0.991720 and this point to the same direction.

According to R<sup>2</sup>; %99 of change in corporate tax is described by % change in deposits. In research with all other details, there is no a direct relationship between corporate tax and deposits in economical condition of Turkey and statistics of Turkish Revenue Administration (<http://www.gib.gov.tr/yardim-ve-kaynaklar/istatistikler> 03.13.2016).

**Table 6:** Least Squares NLS and ARMA (Deposits and Corporate Tax): 2013

Dependent Variable: Corporate Tax (CT)	Coefficient	Std. Error	t-Statistic	Prob.
Deposits of 81 Cities (DEP)	0.036565	0.000376	97.27465	0.0000
C	-34580.25	19053.56	-1.814897	0.0733
R <sup>2</sup>	0.991720			
Adjusted R <sup>2</sup>	0.991615			
Method	Least Squares			
Square Root of R <sup>2</sup>	0.995851			
S.E. of regression	167477.5			
Prob(F-statistic)	0.000000			
Study Year	2013			
Sample	1-81			
Included observations	81			

### B.5. Regression Analysis (Least Squares NLS and ARMA) of 2014 for Income Tax

According to regression analysis results on deposits and income tax in 2014 in Table 6; if deposits of 81 cities shifts up 0.0088 unit, this affect one-unit on income tax of same cities.

According to coefficient, there are positive relationship between dependent variable (income tax) and independent variable (deposits of 81 Cities). And square root of R<sup>2</sup> is 0.992690 and this point to the same direction.

According to  $R^2$ ; %98 of change in income tax is described by % change in deposits. In research with all other details, there is no a direct relationship between income tax and deposits in economical condition of Turkey and statistics of Turkish Revenue Administration (<http://www.gib.gov.tr/yardim-ve-kaynaklar/istatistikler> 03.13.2016).

**Table 7: Least Squares NLS and ARMA (Deposits and Income Tax): 2014**

Dependent Variable: Income Tax (IT)	Coefficient	Std. Error	t-Statistic	Prob.
Deposits of 81 Cities (DEP)	0.008831	0.000121	73.10917	0.0000
C	9634.574	6958.516	1.384573	0.1701
$R^2$	0.985435			
Adjusted $R^2$	0.985251			
Method	Least Squares			
Square Root of $R^2$	0.992690			
S.E. of regression	61188.97			
Prob(F-statistic)	0.000000			
Study Year	2014			
Sample	1-81			
Included observations	81			

### B.6. Regression Analysis (Least Squares NLS and ARMA) of 2014 for Corporate Tax

According to regression analysis results on deposits and corporate tax in 2014 in Table 7; if deposits of 81 cities shifts up 0.043919 unit, this affect one-unit on corporate tax of same cities.

According to coefficient, there are positive relationship between dependent variable (corporate tax) and independent variable (deposits of 81 Cities). And square root of  $R^2$  is 0.996637 and this point to the same direction.

According to  $R^2$ ; 99% of change in corporate tax is described by % change in deposits. In research with all other details, there is no a direct relationship between corporate tax and deposits in economical condition of Turkey and statistics of Turkish Revenue Administration (<http://www.gib.gov.tr/yardim-ve-kaynaklar/istatistikler> 03.13.2016).

**Table 8: Least Squares NLS and ARMA (Deposits and Corporate Tax): 2014**

Dependent Variable: Corporate Tax (CT)	Coefficient	Std. Error	t-Statistic	Prob.
Deposits of 81 Cities (DEP)	0.043919	0.000406	108.1137	0.0000
C	-66088.03	23401.80	-2.824058	0.0060
$R^2$	0.993287			
Adjusted $R^2$	0.993202			
Method	Least Squares			
Square Root of $R^2$	0.996637			
S.E. of regression	205781.2			
Prob(F-statistic)	0.000000			
Study Year	2014			
Sample	1-81			
Included observations	81			

There are many components of deposits in this study. These are;

- Savings Deposits
- Official Institutions' Deposit
- Commercial Institutions' Deposits
- Interbank Deposits
- Foreign Exchange Deposit Accounts
- Other Institutions' Deposit
- Precious Metal Deposit Accounts

The distribution of deposits in 2014 is presented as a sample case. As shown in Table 8. “savings deposits” are generally higher than 50% and 48.72% in mean. According to amount is percentage of “savings deposits” are 35.4%, the reason of this is the 30.3% percentage of İstanbul.

In the study, analysis is on 81 cities together, so that probably 48.72% percentage affected the result generally. In addition, Income tax on interest revenue is not obvious on total income tax according to statistics of Turkish Revenue Administration (<http://www.gib.gov.tr/yardim-ve-kaynaklar/istatistikler> 03.13.2016)

## V. Evaluation And Result

In Turkey, economical and fiscal statistics are special statistics. Researcher can achieve most of

statistics by careful study.

Similarly, this study is also conducted by careful research.

As a result of study, deposits of 81 cities in Turkey affect positive direction income tax of cities and corporate tax of cities.

**In income tax:** According to regression analysis results on deposits and income tax in 2012, 2013 and 2014; if deposits of 81 cities shift up mean 0.00876 unit, this affects one-unit on income tax of same cities.

According to coefficient, there is a positive relationship between dependent variable (income tax) and independent variable (deposits of 81 Cities) in 2012, 2013 and 2014. And mean  $R^2$  is 0.98069 and square root of mean all  $R^2$  is 0.995137 and this points to the same direction (positive relationship).

According to mean  $R^2$  of 2012, 2013 and 2014; 98% of change in income tax is described by % change in deposits. But, in research with all other details, there is no direct relationship between income tax and deposits in economical condition of Turkey and statistics of Turkish Revenue Administration.

**In corporate tax:** According to regression analysis results on deposits and corporate tax in 2012, 2013 and 2014; if deposits of 81 cities shift up mean 0.04389 unit, this affects one-unit on corporate tax of same cities.

According to coefficient, there is a positive relationship between dependent variable (corporate tax) and independent variable (deposits of 81 Cities) in 2012, 2013 and 2014. And mean  $R^2$  is 0.99284 and square root of mean all  $R^2$  is 0.996413 and this points to the same direction (positive relationship).

According to mean  $R^2$  of 2012, 2013 and 2014; 99% of change in income tax is described by % change in deposits. But, in research with all other details, there is no direct relationship between corporate tax and deposits in economical condition of Turkey and statistics of Turkish Revenue Administration.

A country's deposits can be directly affected by many factors territorial or globally in a positive or negative way. A conclusion has been presented on the basis of economical (financial) and fiscal data for 3 years as 2012, 2013, 2014.

### References

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