



Special Issue on Applied Economics and Finance

Evaluation Of The Relationship Between Informal Employment, Income Tax And Economic Growth On Terms Of Turkey Economy¹

Kayıt Dışı İstihdam, Gelir Vergisi Ve Ekonomik Büyüme Arasındaki İlişkinin Türkiye Ekonomisi Açısından Değerlendirilmesi

Mustafa Goktug KAYA, Turkey, goktugkaya@hotmail.com

Abstract: The informal economy has become one of the most important problems in our country as a result of informal employment in working life. While economic, legal, social and cultural reasons are influential in the emergence of informal employment, the financial burden on employment are shown as one of the most important causes of informal employment in Turkey. However, the greatest loss of informal economic activities to the economy is tax loss. The tax burden on formal employees is increased to eliminate deficits in the government's budget result of informal activities. This situation further increases the informality. For this reason, the state is trying to reduce informality with policies. In this study, the relationship between informal employment, the index of industrial production as a determinant of economic growth and tax revenues was investigated by using Multiple Regression Analysis with monthly data for 1996-2017 period. According to the analysis, there is a positive relationship between the industrial production index and informal employment, but a negative relation with the income tax.

Keywords: Informal Economy, Informal Employment, Income Tax, Industrial Production Index, CPI, Turkey

Öz: Kayıt dışı ekonomi, çalışma hayatında kayıt dışı istihdam şeklinde karşımıza çıkarak ülkemizde en önemli sorunlarından biri haline gelmiştir. Kayıt dışı istihdamın ortaya çıkmasında ekonomik, hukuki, sosyal ve kültürel bir takım nedenler etkili olmakla birlikte, Türkiye'de kayıt dışı istihdamın en önemli nedenlerinden biri olarak istihdam üzerindeki mali yükler gösterilmektedir. Bununla birlikte kayıtdışı iktisadi faaliyetlerin ekonomiye verdiği en büyük zarar vergi kaybıdır. Kayıt dışı faaliyetler sonucu devletin bütçesinde ortaya çıkan açıklar kayıtlı çalışanlar üzerine vergi yükünün arttırılması yoluyla kapatılmaya çalışılmaktadır. Bu durum ise kayıtdışılığı daha fazla arttırmaktadır. Bu çalışmada 1996-2017 dönemi aylık verileri kullanılarak kayıtdışı istihdam, ekonomik büyümenin belirleyicisi olarak sanayi üretim endeksi ve vergi gelirleri arasındaki ilişki Çoklu Regresyon Analizi ile araştırılmıştır. Analiz sonuçlarına gore sanayi üretim endeksi ile kayıtdışı istihdam arasında pozitif buna karşılık gelir vergisi ile negatif bir ilişki söz konusudur.

Anahtar Sözcükler: Kayıt Dışı Ekonomi, Kayıt Dışı İstihdam, Gelir Vergisi, Sanayi Üretim Endeksi, TÜFE, Türkiye

1.Introduction

Beginning from 1970s, in the direction of crises all over the world, in order for capitalism to be rid of depression from it enters, neoliberal policies were applied and, with a new strategy of capital accumulation, profit rates of capital were tried to be increased. However, this process, in the developed and developing countries, led informal economy to grow. Informal economy expresses all economic processes and activities, which cannot be legally documented and are not taken into consideration in gross domestic product (GDP) calculations and which is not included in the official records. In general, informal economy, which are explained in the way that government cannot take any share from the gains that comes to exist as a result of economic activities that are not taken under record or activities realized, is an important economic problem seen in all countries but emerging at the different levels according to the developedness states of countries. In informal economy, due to the fact that the data cannot be under record, macro variables of countries such as national income, employment, and unemployment are faultily calculated.

Informal economy has many political, social, and legal reasons varying from country to country. Among these reasons, there are economic reasons such as inflation, crises, economic instabilities, excessive tax load; political reasons such as political instability and populist policies; social policies such as rural-urban migration, security problem; and legal reasons such as bribery, corruption, and tax amnesty.

The most important issue considered and discussed in informal economy and accepted as reflecting face informal economy to business life is informal employment. Informal employment is expressed as missing reporting of the

¹ Bu çalışma Mustafa Göktuğ Kaya özet bildirisi olarak, "ICOAEF'18, IV. International Conference on Applied Economics and Finance & EXTENDED WITH SOCIAL SCIENCES, November 28 – 29 – 30, 2018 / Kuşadası – Turkey" Kongresinde sanal oturumda sunulmuştur ve kongre procedia özet kitapçığında basılmıştır.

employment durations of employees and wages paid for them to the official institutes or not reflecting employment information to the official documents. One of the most important problems informal employment leads to is not to be deducted tax from the incomes obtained as production and service made. Therefore, one of the most important issues that are necessary to be emphasized related to informal employment or economy comes to our face as tax avoidance and tax evasion.

In the developing countries, the reasons leading the rates of informal employment to increase are insurance deduction and high-rate taxing policies. For struggling with informal employment and preventing informal economy, some steps should be taken in the direction of lightening financial loads on the employees and employers and providing justice in taxing. In related to these steps, there are some points such as distributing tax load more fairly, adjusting the rates of direct and indirect tax in total taxes, making a reform in tax system, and taking tax exemptions and tax amnesty under control.

Although the studies have been carried out for reducing the rate of informal economy in total economy in Turkey, it is a reality that these studies are not enough. In this study, using the monthly data of the period 1996-2017, the relationship between informal employment and industrial production index as determinant of economic growth, and tax incomes was studied by Multiple regression Analysis. In this direction, in this study, firstly, the general information is given about informal economy and informal employment, among its components and, assessing the dimension of informal employment in Turkey, tax relationship is dealt with.

2. Informal Employment in Conceptual Framework And Its Development in Turkey

Informal economy is a comprehensive concept, which does not have s single definition and which comes to our face in the literature under many the names such as underground economy, shadow economy, and unofficial economy (Erkuş and Karagöz, 2009: 128). In a broad sense, informal economy is "all activities creating income, which are used in GDP calculation and which cannot be predicted according to the known statistical methods" (Derdiyok, 1993:54).

In the strict sense, informal economy is expressed as "not documenting all or some part of the processes that are the subject of tax due to high and unfair tax load or the other reasons for tax avoidance" (Ay et al, 2014:24). In taxing sense, informal economy is defined as "all of activities left out of information area of tax office with the motive of tax aversion and tax avoidance" (Altuğ, 1999:3).

Informal employment is one of the most important parts of informal economy. Informal employment, without complying with legal rules regulating social security system and business life, emerges in the form of employing worker as informal and without declaration or working on its own behalf (GİB,2009:25). At the present time, it is estimated that about 55% of the sector working as paid-employment are active in informal way (Karaaslan, 2010: 2). Informal employment comes to our face in two forms: First is those not reporting the jobs at all, in other words, foreign illegal workers, child labors, those having incomes from social security institute and the second is those underreporting jobs as wage or day (Karaaslan, 2010:30-50).

While increase of informal employment has an important effect at the point of reducing labor cost by reducing unemployment and eliminating the obligations such as tax and insurance, it leads government incomes to decrease, unfair competition, economic data not to be able to be calculated accurately, foreign illegal labor to increase, employees not to have security, them not to be able to benefit from social security services, and not to have right to compensation. In addition, since activities made as a result of informal employment are not taxed, government undergoes to tax loss, and public services cannot be fulfilled at the adequate level. As a result of these, direct tax such as income tax and company tax that cannot be collected are tried to be met by increasing indirect incomes (Güloğlu, Korkmaz and Kip, 2003:55-60).

In Turkey, informal employment comes to our face in two forms. First is that the person himself/herself prefers to work in informal way, in which the farmer, craft, trader, and self-employed people are included. The second is that the person is employed in informal way by his/her employers without his/her will.

Types	Reasons
Economic	-Unemployment -poverty
	-failure of the formal sector to meet labor supply
	-injustice in the distribution of income and tax burden

Table 1. Reasons for Informal Employment

	-change in the sectoral structure of employment
	-tax and insurance premiums height
Social	- Population growth - migration - narrow urbanization - low level of education
From public	- confusion of legislation - a multitude of jobs - difficulty and insufficiency of control
From business	- Small enterprises - low competitiveness of enterprises
	-contract manufacturing -non-branding
From social security system	-social security forgiveness -minimum wage -retirement age and pension system
From tax system	-tax amnesty

Source: E. Karaaslan, Kayıt dışı İstihdam ve Neden Olduğu Mali Kayıpların Bütçe Üzerindeki Etkileri: Türkiye Örneği, 2010, p.53

As will also be seen from the above table, among the causes of informal employment, there are economic causes such as unemployment, poverty, that formal sector not to be able meet labor supply; social causes such as population increase, immigration, irregular urbanization; public-based causes such as complexity of legislation and multiplicity of bureaucratic process; business –based causes such as not being able to brand, contract manufacturing, prevalence of small enterprises; social security system –based causes such as minimum wage, retirement age, retirement system; and taxing system –based causes such as frequent tax amnesty.

There are an opposite directional relationships between informal economy and developedness level of countries. While the rates of informal employment are lower in developed countries, in developing countries, they are higher. In Turkey, while the rates of informal employment are lower at the present time than many developing countries, when compared to OECD and EU-member countries, it is seen that this rate is higher than most of them (Yağmur, 2013:7). In other words in the developed countries, while unemployment and underemployment decrease as economy grows, in the developing countries, it increases as economy grows (Chen, 2012:2).

Table 2. Informal Employment in Turkey between the years 2006-2017 (%)

Years	Agriculture	non- agricultural	Industry	Service	Construction	General
2006	87,77	34,06	38,12	31,88	-	46,97
2007	88,14	32,34	35,51	30,63	-	45,44
2008	87,84	29,76	31,61	28,77	-	43,5
2009	85,84	30,08	33,43	28,4	-	43,84
2010	85,47	29,06	32,68	27,11	-	43,25
2011	83,85	27,76	31,5	25,71	-	42,05
2012	83,61	24,51	27,89	22,73	-	39,02

Kaya, M., G. / Journal of Yasar University, 2019, 14 (Special Issue), 108-117

2013	83,28	22,4	25,23	20,9	-	36,75
2014	82,27	22,32	20,26	21,09	36,61	34,97
2015	81,16	21,23	19,13	20,05	35,58	33,57
2016	82,09	21,72	20,2	20,35	35,76	33,49
2017	83,33	22,1	20,03	20,95	35,80	33,97

Source: Sosyal Güvenlik Kurumu, Kayıt Dışı İstihdam Oranları, 2018

When the table above is examined, most of those informal employed in Turkey are in the agricultural sector. At the present time, more than 80% of those working in agricultural sector are still working in informal way. In informality, industrial sector follows agricultural sector. In the period of 2006-2017, the rate of informality in Turkey reduced from 46s % to 33s %. However, this fall is not enough.

In Turkey, one of the most important reasons for informality is tax load on employment.

60 40 30 20 10 Spain Estonia Turkey Norway Poland Iceland Japan Korea Israel Mexico Luxembourg Netherlands United States Sweden Portugal Slovak Rep. Denmark OECD - Average United Kingdom Switzerland Slovenia Greece New Zealand

Graph 1. Tax Load on Employment (2016 %)

Source: Hazine ve Maliye Bakanlığı, Ekonomi Sunumu, 2019

In 2016, in Turkey, the tax load on employment is 38.1%. In the same period, OECD average is 36%. In Turkey, heavy tax load in employment reduces competitive power of businesses. In OECD countries, tax rates from direct taxes is higher than the rates of indirect taxes such as VAT and SCT (Special Consumption Tax). In the developing countries, that the rates of indirect tax rates are higher than indirect tax rates increases injustice in the distribution of tax load. In return to this, in OECD countries, there are a fairer tax system and less informality (Işık and Kılınç, 20096:149).

Table 3. the rates of Indirect and Direct Taxes in Total Taxes in Turkey (%)

Years	Indirect taxes	Direct taxes
2006	70,7	29,3
2007	68,1	31,9
2008	66,9	33,1
2009	66,9	33,1
2010	71,4	28,6
2011	70,1	29,9
2012	69,2	31,8
2013	71,8	28,8
2014	69,9	30,1
2015	70,8	29,2
2016	69,6	30,4
2017	67,8	32,2

Source: C. Rakıcı ve C. Aydoğdu, 2000 Yılı Sonrası Türkiye'de Vergi Performansının Değerlendirilmesi, 2017, p.234;
Gelir İdaresi Başkanlığı, Genel Bütçe Vergi Gelirleri, 2018

In Turkey, when the share of direct and indirect taxes in total taxes is examined, in 2006, while the rate of indirect tax incomes such as VAT, SCT, stamp tax, and fees in total tax incomes is 70.7%, in 2017, it fell to 67.8%. As seen, in the years, more fall were not experienced. In return to this, while the rate of direct taxes such as income tax, company tax, and etc. is 29.3% in 2006, it could rise to 32.2% in 2017. In general, in the countries, where the share of indirect taxes is high, informal economy become higher. In another words, this injustice distribution in the direct and indirect taxes comes to our face as the most important reason for informal economy.

With the increase of the social role of the state taxes that the public financing tool has become an important source of income. When the looking from this perspective, for the countries of strategic importance the economy in the center of from the taxes loss and leakage is a serious problem (Öz et al, 2012:330).

That tax load is not fairly distributed prompts taxpayers to avoid tax. This case leads informal economy to grow. In this direction, for making informal economy recorded, in exemption and exception applications, changes for promoting production should be made; indirect and direct tax rates should be again regulated and justice should be provided; stoppage should not be used as final taxing instrument; steps should be taken in the solution of structural problems such as social security; and supervisions directed to tax should be increased (Kalkınma Bakanlığı, Kalkınma Planları).

3.Literature Review

In Turkey, although many studies are carried out related to informal economy and informal employment, the number of studies dealing taxing dimension of informal employment with econometric analysis is quite a little. There is no a full consensus directed to whether informal employment positively or negatively affect economy.

Ay, Sugözü and Köse (2005), in their study, studied the relationship between informal economy and tax incomes in Turkey, using the data of the period 1968-2001 by means of time series analysis. According to the findings obtained, in Turkish economy, while the increase occurring in the share in GDP of total tax incomes taxpayers to go toward informal economy, when this variation is negative, the tendency in question decreases. Ay, Sugözü and Erdoğan assessed the relationship between informal economy and tax load, inflation and tax amnesties specific to Turkish economy, using the data of the period 1985-2012. According to the method of Extended Monetary Rate, the dimension

of informal economy in Turkey was calculated. According to Granger Causality Test, there are an unilateral causality from tax load to informal economy and from inflation to tax load. According to general assessment made in the study, for reducing informal economy, arrangements should be made toward lightening tax load and providing price stability.

Baldemir, Gökalp and Avcı (2006) analyzed the relationship between informal economy and tax incomes and tax load, interest rates, Wholesale Price Index (WPI), and openness for the period 1980-2002 in Turkey, using Mimic Model and concluded that the variables of openness positively affected informal economy and, in return to this, that unemployment rates negatively affected.

Akalın and Kesikoğlu (2007) dealt with the relationship between informal economy and economic growth. According to the analysis results, informal economy affects economic growth in positive direction. In addition, according to Granger causality test made, there is a causality from informal economy to growth.

Elveren and Özgür (2016), in their study, analyzed the relationship between informal economy and income inequality in Turkey between the years of 1963 -2008 by means of Johansen co-integration and Granger Causality Test, using representative production –income inequality index as a new index for informal economy. According to the analysis results, an increase in income inequality expand informal sector, and unemployment affects informal sector in negative direction.

4.Dataset And Method

In our model, in order to find the effect of informal employment that is its main determinant on gross domestic product, the use of datasets belonging to tax incomes, employment and production factors was preferred. In order to be able to identify the relationship between these factors and informal economy, our main determinant, multiple regression analysis was used.

Datasets used in regression model were obtained from statistical databases of Turkish Statistical Institute (TSI), Social Security Institution (SSI), and Central Bank of Turkish Republic (CBTR). The data were subjected to the various classifications and decomposition methods and made usable in the model. In econometric analysis of the data, Eviews 7 package software was used. As a result of the study carried out about the suitability of dataset, in the model, sample interval suitable for using was identified as monthly time series between the years of 2006-2017. For time series, due to the fact that monthly data of 144 periods, it was seen that these were suitable for in terms of the distribution of data and outputs of econometric analysis.

In the model, the dataset of Industrial Production Index, which is the main determinant of GDP, was used. The reason for this is that our model forms with monthly dataset and that GDP data for the interval of the relevant period are not monthly present.

4.1. Findings and Discussion

While beginning to the prediction of model, firstly, the logarithms of time series were taken. If econometric analysis will be made in a time series, the most important point is the stationarity of that series. In the analyses carried out in the series that are not stationary, the problem with spurious regression may occur. This case does not reflect the relationship between the variables in the real meaning .(Granger and Newbold,1974: 111-120). That a series does not contain unit root means that the mean and variance of series do not vary in time (Gujarati and Porter,2009:22). The basic graphic analysis of examining the stationarity of time series is made by means of correlogram and unit root analysis.

ADF Statistic				
Variables	Test Statistic	Cratical Value		
		1%	5%	10%
Industrial production index	0,29	-3,48	-2,88	-2,58
*Industrial production index	-14,47	-3,48	-2,88	-2,58
informal employment	-1,02	-3,48	-2,88	-2,58
informal employment*	-3,95	-3,48	-2,88	-2,58

Table 4.Results of ADF Statistic

income tax	1,24	-3,48	-2,88	-2,58
income tax*	-7,69	-3,48	-2,88	-2,58
indirect tax	-0,01	-3,48	-2,88	-2,58
indirect tax*	-3,72	-3,48	-2,88	-2,58
СРІ	4,24	-3,48	-2,88	-2,58

• expresses test results after the 1st differences of series were taken

In order to be able to examine whether or not time series have unit root, in this study, Augmented Dickey Fuller test was used. As a result of the test, unit root was identified, it was observed that series became stationary, when its 1st difference was taken. This case is seen in the outputs of test in the table taking place above. That stationarity is provided means that long term balance is also provided. After model prediction is made, deviation tests from possible assumptions were made. Firstly, whether or not error terms are normally distributed was tested by Jarque Bera test and it was understood that error terms had normal distribution (Jarque-Bera Test= 0,39>0,05). In this stage, the presence of autocorrelation problem was studied and that model- dependent laggings are added prevented the possible autocorrelation problem. Due to the fact that laggings take place in the model, instead of Durbin-Watson, Durbin's alternative test was made and as a result of this, it was understood that model did not have any problem with autocorrelation. Secondly, in the model, the presence of the problem with varying variance was studied and White heteroscedasticity test was made. Accepting H₀, it was seen that remains had constant variance at 5% significance level and that there was no problem with varying variance in the model (White Heteroscedasticity: 0,56>0,05). Lastly, Ramsey Reset test was made and whether or not there was diagnosis error in the model was controlled. It was identified that such an error was not present. For preventing the effect of break, dummy variable was added to the model and Model 3 multiple regression model taking place in the table was predicted.

As a result of the analysis made, multiple regression models taking place below were predicted. Firstly, Model 1 was formed. In Model 1, besides that R2 is not at the desired level, skips were seen and, firstly, lagging was added to the model, then, 11th lagging, another skip period, was added to the model. Here, that the lagged value of independent variable to the model enabled the possible autocorrelation problem to be eliminated. It was seen that 1st and 11st laggings of dependent variable added to the model in two stages also raised R2 in the model i.e. that it provided a significant improvement. In this way, Model 2 was predicted. However, in the interval of the relevant period, for the year 2008, in which break was identified, adding to dummy variable to the model, the effect of break on the model was prevented. Thanks to this, Model 3 was predicted. Lastly, Model 3 obtained, error terms were tested by Jarque-Bera normality test and test statistics turned out bigger than 0.05, thus, normality assumption actualized. In addition, all parameters (including dummy variables) were tested at the significance level of 0.05 and found significant.

Table 5. Result of Least Square Methods

Dependent Variable: Inc	dustrial Produc	ction Index				
Method: Least Squares						
Included observations:	144					
	Model 1		Model 2		Model 3	
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Informal Employment	0,17	2,33	0,21	2,41	0,37	2,53
Income tax	-0,15	-1,99	-0,19	-1,95	-0,13	-2,08
Indirect tax	0,11	5,13	0,26	5,92	0,29	6,66
СРІ	1,06	2,82	1,13	3,06	1,19	3,31

Kaya, M., G. / Journal of Yasar University, 2019, 14 (Special Issue), 108-117

First Lag	-	-	-0,3	-3,66	-0,13	-2,4
11. Lag	-	-	-0,53	-2,84	-0,29	-2,53
dummy	-	-	-	-	-0,05	-2,22
С	0,49	1,83	0,41	3,54	0,12	4,51
R-squared	0,20	1	0,24	I	0,68	
Adjusted R-2	0,16		0,21		0,66	
Prob(F-statistic)	0		0		0	

In the model taking place above, if the coefficients belonging to the independent variables are interpreted, a 1% increase that will occur in informal employment will provide a 0.37% increase will provide industrial production index. In the same way, a 1% increase in income tax will reduce industrial production by 0.13%. Namely, while there is a positive relationship between industrial production index and informal employment, there is a negative directional relationship between informal employment and income tax. When an evaluation is made in terms of indirect taxes, in contrast to income tax, it was observed that there was a positive directional relationship. In the model, the highest rate determinant was CPI (Consumer Price Index). A 1% increase or decrease that will occur in CPI will cause to 1.19% increase or decrease in industrial production: In other words, it was understood that it had an effect of 120%. Here, it is considered that an increase occurring in indirect taxes in respect of years leads model to give a positive result.

Dependent Variable: Inform	nal Employment						
Method: Least Squares							
Included observations: 36							
Model 1 Model 2							
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic			
GDP	0,51	4,13	0,31	2,98			
Total Employment	0,53	3,26	0,39	2,16			
Manufacturing Production	-	-	0,19	3,49			
Agricultural Employment	-	-	0,25	4,21			
С	0,03	2,93	0,01	2,55			
R-squared	0,77		0,80				
Adjusted R-2	0,74		0,78				
Prob(F-statistic)	0		0				

In order to measure the effect of GDP, employment, and production on informal employment, Model 1 and Model 2 taking place in the table above were predicted. As a result of multiple regression model established, a 1% increase that will occur in GDP will cause to 0.51% in informal employment. Again, in the same way, it shows a similar effect on total employment and a 1% increase that will occur in total employment will cause to a 0.53% increase on informal employment. Although the result obtained here shows the positive relationship between GDP and informal employment, it also confirms the effect of cheap labor force on GDP increase. The result clearly revealing in Model 2 shows that the increases in employment and production will directly increase informal employment i.e. that the cheap labor force is attractive.

5. Conclusion

Informal economy is one of the most important problems countries have experienced in the recent years. When regarded in terms of countries, the reasons for informality differ according to their political, economic, social, and cultural structures. Despite these differences, among the most important reasons for informality, there are economic and financial reasons such as excessive tax load, inflation, economic instability, and crises. Beside economic reasons, political complexity and lack of legal legislation have also importance.

High tax rates and insurance premiums prompt employers to informality in labor force market. Therefore, in order to struggle with informal employment and prevent informal economy, some steps should be taken for lightening financial loads on workers and employers and providing tax justice. In other words, in total tax rates, the rates of direct and indirect tax should be better regulated. The loads on the wages should be lightened and recorded economy should be promoted.

In this study, using the monthly data of the period 1996-2017, informal employment, the relationship between informal employment, industrial production index as the determinant of economic growth, and tax incomes by means of Multiple Regression Analysis. According to the results of analysis, while an increase that will occur in informal employment increases industrial production, an increase that will occur in tax income reduces industrial production. When an evaluation is made in terms of indirect taxes, in contrast to income tax, it was observed that there was a positive directional relationship. Especially, an increase or decrease that will occur in CPI causes to an increase or decrease in industrial production in the same way; it is estimated that this case increases indirect taxes. In addition, an increase that will increase in GDP and total employment will cause to an increase in informal employment. Although the result obtained here shows the positive relationship between GDP and informal employment, it also approves the effect of cheap labor force on GDP. One of the most important results obtained from the model is that the increases that will occur in the employment and production will directly increase informal employment i.e. that the cheap labor force is attractive.

REFERENCES

- Akalın, G., Ferdi K. (2007), "Türkiye'de Kayıt dışı Ekonomi ve Büyüme İlişkisi", ZKÜ Sosyal Bilimler Dergisi, 3(5), 71-87
- Altuğ, O. (1999). Kayıt Dışı Ekonomi, Türkmen Kitabevi, İstanbul
- Ay, A., İ. H. Sugözü, N. Köse (2005), "Vergi Yükündeki Değişmelerin Kayıt Dışı Ekonomiye Etkisinin Simetrikliği Üzerine Bir İnceleme: Türkiye Örneği (1968–2001)", İktisat İşletme ve Finans Dergisi, 20(233), August, 52–64
- Ay, A., İ.H. Sugözü, S. Erdoğan (2014), "Türkiye'de Vergi Yükünün, Enflasyonun ve Vergi Affı Beklentisinin Kayıt Dışı Ekonomiye Etkisi Üzerine Ampirik Bir Uygulama (1985-2012)", Selçuk Üniversitesi Sosyal Bilimler Enstitü Dergisi, Dr.Mehmet Yıldız Özel Sayısı, 23-32
- Baldemir, E., F.Gökalp, M. Avcı (2006), "Türkiye'de Kayıt dışı Ekonominin Mimic Model İle Tahminlenmesi", SDÜ İİBF Dergisi, 1-14
- (2012). "The Definitions, M. Informal Chen, Economy: Theories Policies". Women in Informal **Employment** Globalizing and Organizing (WIEGO) Working Paper, No. 1, August.
- Elveren A. and G. Özgür (2016), "The Effect of Informal Economy on Income Inequality: Evidence from Turkey", *Panoeconomicus*, 63(3), 293-312
- Erkuş, H. and Karagöz, K. (2009). "Türkiye'de Kayıt Dışı Ekonomi ve Vergi Kaybının Tahmini". *Maliye Dergisi*, 156, 126-140.
- Gelir İdaresi Başkanlığı, Genel Bütçe Vergi Gelirleri, 2018
- Granger, C. W. J. and Newbold, P. (1974). "Spurious regressions in econometrics". Journal of Econometrics, No. 2, 111-120.
- Gujaratı, D. N. (2006). *Temel Ekonometri*, Trans. Ümit Şenesen and Gülay Göktürk Şenesen, Literatür Yayıncılık, İstanbul.
- Gujarati, D.N. and Porter, D.C. (2009). Basic Econometrics. 5th Edition, McGraw Hill Inc., New York.
- Güloğlu, T., Korkmaz, A. and Kip, M. (2003). "Türkiye'de Kayıtdışı İstihdam Gerçeğine Bir Bakış". Sosyal Siyaset Konferansları Dergisi, 45 (1), 51-95.
- Hazine ve Maliye Bakanlığı (2019), Ekonomi Sunumu, https://www.hmb.gov.tr/sunumlar/ekonomi-sunumu/sayfa/1, Accessed 11.02.2019
- Işık, N. ve Kılınç, E. C. (2009), "OECD Ülkelerinde Vergi Yükü ve Vergi Türleri: Karşılaştırmalı Bir Analiz", *KMU İİBF Dergisi*, 11(17), 147-173.
- Kalkınma Bakanlığı, Kalkınma Planları, www.kalkinma.gov.tr, (15.09.2018)
- Dıİstihdam Olduğu Karaaslan, (2010).Kavıt ve Neden Mali Kayıpların Bütçe Üzerindeki Etkileri: Türkive Örneği. Mali Hizmetler Derneği, Yayın No:7, Ankara.
- OECD, (2016), *Revenue Statistics* 1965-2015, Statistiques Des Recettes Publiques 1965-2015.
- Öz E., Buyrukoğlu S., Bozdoğan D. (2012), "Ulusal/Uluslararası Boyutta Vergi Kaçakçılığı, Vergiden Kaçınma ve Kayıt dışı Ekonomiye Etkileri", Prof. Dr. Aytaç EKER'e Armağan, DEÜ İİBF Maliye Bölümü, 330-346
- Rakıcı C. and C. Aydoğdu (2017), "2000 Yılı Sonrası Türkiye'de Vergi Performansının Değerlendirilmesi", Sosyoekonomi, Vol 25(33), 221-239
- Sosyal Güvenlik Kurumu (SGK), (2018). http://www.sgk.gov.tr/wps/portal/sgk/tr/, Accessed 03.07.2018.
- TCMB, Elektronik Veri Dağıtım Sistemi, http://www.tcmb.gov.tr, Accessed 03.07.2018.
- TÜİK, (2018), İsgücü İstatistikleri, www.tuik.gov.tr, Accessed 01.09.2018.
- (2013)."Secilen Ülkeler Ülkemizdeki İstihdamın Yağmur. A. Kavıt Disi Karsılastırılması Secilen Üvesi Devletlerde Kavıt İstihdamla ve AB Disi Mücadele Örnekleri". Sosyal Güvence Dergisi, N. 3, 1-19.