Volume 25, Special Issue **Print ISSN: 1099-9264**
Online ISSN: 1939-4675

EMPIRICAL EVIDENCE USING MONETARY METHOD ITS IMPACT ON THE PALESTINIAN FINANCIAL ECONOMIC INDEXES IN PALESTINIAN TERRITORIES

Mohammad Kamal Abuamsha, Palestine Technical University
Suhair Ibrahim Shumali, Palestine Technical University

ABSTRACT

The aim of this paper is to shed light on the shadow economy in the Palestinian Territories from 2008 to 2018, which mostly concentrates on the statistical relationships between the shadow economy and other numerical factors. Examining the Palestinian Territories shadow economy and its relationship with the Palestinian Financial Economic indexes (PFEI) in Palestinian Territories, and it's also important to know the effect of shadow economy and its relationship with (PFEI) on the GDP of the country as a whole (including tax evasion, and money laundry). Our Research is designed by using the Monetary Model to Calculate the Shadow Economy. It is observed that quarterly average of the size of shadow economy during the research period has reached $1560 in millions with approx. 56.7% of GDP with relation with exchanged indexes, which severely affect the mainstream economy by shadow economy, tax and money laundering. The shadow economy, tax, and money laundering affected up to 25% economy. Policies framed by policymaker and economic policy designers had a critical impact on GDP by shadow economy to achieve their desired goals. Hence, this will suggest reforms to reduce shadow economy in their country. The research paper can be used as a guide as all the values are calculated from the (PFEI) derived from PALESTINIAN TERRITORIES (ISSUED BY PMA). Assurance on the data is highly considerable.

Keywords: Shadow Economy, Palestinian Territories, (PFEI)

INTRODUCTION

Researchers in the last decade wanted to investigate the estimate of shadow economy in Palestinian territory because the increasing shadow economy is severely weakening the economic and financial policies plans of many states in the world. Few of them that were performed in certain countries around the world, figured out that the shadow economy to be 34.77% (according to the estimation got by PMA), in both, developed and developing countries of about 158 countries of this world (Schneider & Buehn, 2012).

The Palestinian Territories economy has been critical in the past few years, a major reason for the critical situation of this economy could be understood by understanding the geographical and political division of this territory (the west bank and the Gaza strip) which encourages the growth of shadow economy activities in the country (Al-Mutairi, 2012). Never the less the shadow economy creates benefits that can be spent in the official economy. Schneider & Enste (2000) for instance state that at least two-thirds of the income earned in the SE is immediately spent in the official economy, thus having a positive effect on the latter.

However, Al-Rafati (2007) had emphasized that the anti-money laundering measures have impeded the attraction of capital, thereby, negatively affecting the national economy and banking activities, and consequentially, this has led to the discontent of some customers. The present study is based on the approach of Abuamhsa, et al., (2021), which has been published in Economic Letter of the monetary approach to measure the SE. The variables used in this approach are-M1, Tax/Government expenditure as a percentage of GDP, Government expenditure as a percentage of GDP, Interest rate, GDP and 1+Tax/GDP. All variables, except the interest rate, have been considered in logarithm terms. As Smith (2002) points out, in a world of minimum wages, high payroll taxes and limits on hours worked, the underground economy may enable some individuals to be employed who would otherwise be unemployed, and enable other individuals to increase their incomes by holding second jobs, and provide services that would otherwise be unavailable. Irregular activities may add a dynamic element to an economy and increase competition in some sectors. This research will help you and many authorities to understand the parallel position of undisclosed economy in country and also it would guide some of economic and political decision to be formulated to deal with the underground economy in Palestine territory.

This research paper uses monetary method to investigate the percentage of shadow economy from the start of 2008 to the end of 2018. The only solution to deal with the underground economy is to minimize the expenditure cost and maximize the revenue cost.

Why always we blame shadow economy because of having negative effect on the mainstream of economy, when it also has positive effect on economy that is distribution of economy between the peoples of the state. Shadow economy is burdened as a whole set on country as it affects economically by allowing money deposits within the people and also facilitates political interference in the economy by powerful leaders present in the states. The investigation will guide to find answers for the following questions.

A. What is the size of shadow economy in the Palestinian Territories?
B. What method is followed to solve this problem?
C. Does the shadow economy affect the Palestinian financial indexes? To answer these questions the study followed the monetary method model.

Tax Evasion and Money Laundering

Tax administrations of different member states at present manifest considerable helplessness in combating these types of phenomena, but each to a different degree. Freedom of movement for people, goods, capital and services within the Palestinian Territories leads to visible asymmetry in intra-community trade, particularly in such goods as: cell phones, integrated circuits (particularly micro-processors and chips), natural gas and electric power certificates, provision of telecommunications services, deliveries of raw metals or semi processed elements of metals, deliveries of game controls, laptops, tablets, and even cereals and industrial crops (Council Directive, 2013/43). Because of the political interference by the big political leaders and the rigid regulation for the occupation opportunities it internally divides Palestine into two parts. In the light of this, the Palestinian Territories already in 2009 adopted the possibility of applying the mechanism of reverse VAT charges (Article 19). By this measure, the requirement to pay VAT was shifted to the end customer for whom the given service was performed or a commodity delivered, classified to reverse charge category and adopted in national legal system.

This briefly presented characters shows how leaky is the tax system, particularly in relation to VAT, in the whole Palestinian Territories. The protracted community decision-making

mechanism and absence of consensus on many issues makes even the very exchange of information on tax issues highly unsatisfactory. One can even formulate the thesis that in the given legal and organizational state of affairs, earning money on extorting taxes from given countries is a profitable business, and well secured within the crime carousel saves from penalization. At that, various legislative implants, instead of supplementing each other and addressing issues in a systemic way, in the field of indirect taxes constitute an assemblage of inconsistent norms and recommendations. Even though it sets up spontaneous and automatic possibilities for transfer of the necessary information, but supplements it with an extensive catalogue of exclusions, allowing for refusals to provide information in every single case. In addition, specifying a maximum period of three months for providing return information implies a purely historical time, as it does not reflect the speed of economic turnover and by the same does not allow for taking actions. A positive mark should be given, for the properly analyzed by the Visible. On the one hand, declarative statements about co-operation and community actions and on the other hand provisions for actions allow for protecting the national economy and even unfair competition In Palestine.

Source: Shumali & Abuamsha, Shadow Economy in Palestinian Territories Using Currency Demand Approach, Journal of Economics Finance and Administrative Science, Accept in: December, 2021, under publish, and PMA

Through the interview with the governor of the Palestine Monetary Authority, there is no money laundering during the study period in the Palestinian Territories. However, there are 15 cases before the economic courts during the study period that are being considered, of which 10 have been acquitted and the rest are still being considered.

Empirical Review of Literature

To study about the major tax evasion in the country we take some guide from the Ethical stances and ideology of tax frauds; behavioural intentions, social (including religious) norms; Valler, et al., (1992); Heinemann & Schneider (2011); Sidani, et al., (2014), Theory of justification, Fiscal psychology and behavioural approach Ajzen & Fishbein (1980); Kirchler (2009), Tax morality (regarding moral compulsion to pay taxes, even patriotism)Posner (2000); Feld & Frey (2002, 2006); Riahi-Belkaoui (2004); Torgler (2005); Frey & Torgler (2007); Alm & Torgler (2006, 2011); Omodero & Iyoha (2021), Torgler & Schneider (2007, 2009); Dell'Anno (2009); Konrad & Qari (2012), Economic system, tax competitiveness, unequivocal preferences within theory of consumer choice, effectiveness and efficiency of actions McGee & Feige (1989); Cowell (1990); Pyle (1991); Thomas (1992); Tendler (2001); Mróz, 2002; Chen (2003); Martinez-Vazquez & Rider (2005); Fortin, et al., (2007); Skouloudis, et al., (2011); Cerqueti, et al., (2011); Dzhumashev & Gahramanov (2009); Raczkowski (2013, 2014), Alternative and comprehensive approaches to studying tax evasion, Cullis & Lewis (1997); Gemmel & Hasseldine (2012); Webley, et al., (1991); Radebe & Maphela, (2019); Alm, et al., (1992); Güth, et al., (2005)., and Differing approaches to tax fraud, economic deterrence, Israel psychology models, impact of corruption on shadow economy Allingham & Sandmo (1972); Weigel, et al., (1987); Johnson, et al., (1998); Tanzi (1998); Hasseldine & Li (1999); Feld & Frey (2002); Choi & Thum (2003); Slemrod (2007); Nickerson, et al., (2009) Mandleni, et al., (2018).

For seeking guidance in regard of shadow economy the study prefered journals: Measuring the shadow economy Cagan (1958); Tanzi (1983); Vu (2021); Frey & Pommerehne (1984); Lippert & Walker (1997); Lacko (1997); Breusch (2005); Schneider, et al., (2010, 2014);

Schneider & Enste (2002); Feld & Larsen (2005, 2008); Pickhardt & Sarda (2006, 2011); Vuletin (2009); Ardizzi, et al., (2013), Comparative analysis of shadow economy estimates Barthèlèmy (1988); Feige & Urban (2007); Raczkowski & Schneider (2013); Adair (2012). Application of lines and controls Yitzhaki (1974); Kesselman (1995); Feld & Frey (2007); Kirchler (2009); Blackwell (2010); Tien, et al., (2020), Asymmetry of information in the financial sector–future prospects of tax evading Irms Balafoutas, et al., (2014), Grey zone vs. formal and informal labour market Contini (1981); Dallago (1988, 1990); Rathod (2021); Williams & Windebank (1998, 2001); Williams (2007). Economic policy in the face of the grey zone Cassel (1984, 1986) Kesselman (1995); Mróz (2002, 2012)

For learning about the situation of money laundering I prefer, Collaboration of the state and organized crime in providing public goods (mafia as substitute of providing public goods) Alexeev, et al., (2004), Omodero & Iyoha, (2021); Kinds and ways of tax optimizing and tax evasion (tax fraud) Chen & Chu (2005); Slemrod (2007); Fedeli & Forte (2009, 2012); Gravelle (2010); Alm (2012); Ainsworth (2011), (2014), Electronic payments and the grey zone Schneider & Kearney (2012); Ainsworth (2006).

Meaning of Shadow Economy

The major difficulty in understanding the shadow economy is that it has various meaning and we will try to frame our own definition by performing our research. The shadow economy can be expressed by studying the relation of tax burden (Table 1).

Table 1
SIZE OF TAX BURDEN AND SHADOW ECONOMY

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Tax Burden	15%	17%	18%	20%	22%	24%	26%	28%	30%
Shadow Economy	18%	12.46%	10.32%	12.75%	15%	15.70%	18.50%	15.30%	16.20%

Feige (1990) defined the shadow economy as: The economy that comprises those economic activities that circumvent the costs and are excluded from the benefits and rights incorporated in the laws and administrative rules covering property relationships, commercial licensing, labor contracts, torts, financial credit and social security systems (Feige, 1990). Market-based production of goods and services, whether legal or illegal, escapes detection in the official estimates of GDP. All currently unregistered economic activities those contribute to the officially calculated (or observed) Gross National Product are classified as underground economy."

"The nature of SE appears to mean very different things to macroeconomists, labor economists, criminologists, fiscal experts and national income accountants. No single definition of the underground economy serves all the diverse scientific aims. Alternative definitions therefore have to be fashioned in light of the relevance that particular underground activities have to different areas of economic inquiry (Feige, 1989). Several attempts are presented in the literature to summarize the wide range of proposed definitions of SE (see, inter alia, Schneider & Enste, 2000; DellAnno, 2003). Although it is impossible to select the best general definition, for the empirical orientation of this research, we adopted a nomenclature proposed by the System of National Accounts (SNA93) and the European System of National Accounts (ESA95). These

classifications introduced in national accounts a statistical aggregate called Non-Observed Economy (NOE)."

Measuring and Analysis of Datasets

All the data which has been used is on quarterly basis and derived from Palestinian Central Bureau of Statistics (PCBS) and Palestinian Monetary Authority (PMA). Raw data of govt. Expenditure, tax. All the data has been extracted from the quarterly GDP, tax, reports issued by the PMA of quarterly eleven years, that is from 2008-2018 and hence this research is based on quarterly data analysis.

- The relationship between the GDP and the shadow economy has been calculated by finding various variables for this we take this approach as follows:

$$M_{Ot} = A(1+\varphi_t)^{\alpha} Y_{Ot}^{\beta} \exp(-\gamma i_{t)} \quad \text{(A)}$$

"Where, M_{Ot} is observed cash balance at time t, $\varphi_t$captures the hidden transaction and it measures a ratio of government expenditure to GDP. The exponent noted as the exponential terms. Shows the observed GDP and shows the interest rate. The parameter such as A, α, β is intercept and slope coefficients respectively. The observed cash balance (M_{Ot}) which includes the total cash transaction (M_{Tt}) and hidden transaction (M_{Ht}). Similarly, which includes the register GDP (Y_{Rt}) and hidden GDP (Y_{Ht}). We used the logarithm term for two reasons. First, to remove the seasonality that present in the data and to convert into the rate form. Φ includes the tax to GDP (R_t) ratio and government expenditure to GDP ratio (G_t). We have not taken logarithm of interest rate because it is already in rate form. Therefore, the model is as follows:"

$$\ln M_t = \ln A + \alpha \ln(1+\varphi) + \beta \ln Y_t + \gamma i + \mu_t \quad \text{(B)}$$

1. In the next step we investigate the non-transferable property of all the exponents. "We used dynamic OLS (DOLS) developed to measure the shadow economy. DOLS method contains both leads and lags of the exogenous variables. This test is superior to OLS and fully modified OLS particularly in case of small time series data."
2. The DOLS method can be written as follows:

$$"Y_t = \beta X_t^{'} + \gamma_1 D_{1t}^{'} + \sum_{i=-q}^{r} \delta \Delta X'_{t+i} + \varepsilon_{1,t}" \quad (1)$$

"Where, q and r are the lags and leads of the differenced equations which capture the long run relationship among the variables."

All the data has been extracted from the quarterly GDP, tax, reports issued by the PMA of quarterly eleven years 44 observations, that is from 2008-2018 and hence this research is based on quarterly data analysis (Table 3-Table 9).

Table 3 **MONETARY HYPOTHESIS: GDP HAS A UNIT ROOT**
Exogenous: Constant
Lag Length: 3 (Automatic-based on SIC, max lag=9)

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.33494	0.1664		
Test critical values:	1% level		-3.60559	
	5% level		-2.93694	
	10% level		-2.60686	

MacKinnon (1996) one-sided p-values.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP01)
Method: Least Squares
Date: 01/01/10 Time: 01:30
Sample (adjusted): 2009Q1 2018Q4
Included observations: 40 after adjustments

Table 4
AUGMENTED DICKEY-FULLER TEST EQUATION DEPENDENT VARIABLE:D(GDP01)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP01(-1)	-0.0889	0.038073	-2.33494	0.0254
D(GDP01(-1))	-0.43469	0.146943	-2.95823	0.0055
D(GDP01(-2))	-0.38713	0.15921	-2.43155	0.0203
D(GDP01(-3))	-0.44264	0.149008	-2.97057	0.0053
C	340.9582	116.5302	2.925921	0.006
Variable	**Std. Error**	**Variable**		**Prob.**
R-squared	0.349476	Mean dependent var		35.78163
Adjusted R-squared	0.27513	S.D. dependent var		103.6155
S.E. of regression	88.21747	Akaike info criterion		11.91396
Sum squared resid	272381.2	Schwarz criterion		12.12507
Log likelihood	-233.2791	Hannan-Quinn criter.		11.99029
F-statistic	4.700689	Durbin-Watson stat		1.870021
Prob(F-statistic)	0.00384	S.D. dependent var		

Table 5
MONETARY HYPOTHESIS:TAX HAS A UNIT ROOT

Exogenous: Constant			
Lag Length: 3 (Automatic-based on SIC, max lag=9)			
Augmented Dickey-Fuller test statistic		**t-Statistic**	**Prob.***
		-1.43618	0.5550
Test critical values:	1% level	-3.605593	
	5% level	-2.936942	
	10% level	-2.606857	

Mac Kinnon (1996) one-sided p-values.
Augmented Dickey-Fuller Test Equation Dependent Variable: D(TAX)
Method: Least Squares

(adjusted): 2009Q1 2018Q4
Included observations: 40 after adjustments

Table 6
AUGMENTED DICKEY-FULLER TEST EQUATION DEPENDENT VARIABLE: D(TAX)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TAX(-1)	-0.15137	0.105396	-1.43618	0.1598
D(TAX(-1))	-0.77881	0.158477	-4.91433	0
D(TAX(-2))	-0.67712	0.167543	-4.04144	0.0003
D(TAX(-3))	-0.48242	0.143182	-3.36931	0.0018
C	115.5946	52.61507	2.196987	0.0347
Variable	**Std. Error**	**Variable**		**Prob.**
R-squared	0.547646	Mean dependent var		15.385
Adjusted R-squared	0.495948	S.D. dependent var		200.7188
S.E. of regression	142.5035	Akaike info criterion		12.87308
Sum squared resid	710753.4	Schwarz criterion		13.08419
Log likelihood	-252.4616	Hannan-Quinn criter.		12.94941
F-statistic	10.59326	Durbin-Watson stat		1.948748
Prob(F-statistic)	0.00001			

Table 7
DESCRIPTIVE STATISTICS

TAX	Mean	Std. Dev.	Skew.	Kurt.	Obs.
GDP	2935.941	432.6882	-0.56721	2.166238	44
TAX	444.6705	254.808	-0.26168	1.912831	44

Table 8
RELATIONSHIP BETWEEN SHADOW ECONOMY AND FINANCIAL ECONOMICS INDEX

Correlation Matrix

Indexes	With Tax Inc.	Without Tax Inc.
Foreign investment Indexes	505100	508000
Al-Quds Palestinian Exchange Indexes	505400	602145
Local Investment Indexes	478900	554120
Economic Growth Indexes	513100	521452
Foreign Currencies Deposit Indexes	548000	625412
Impact of Shadow Economy on the Financial Economic Indexes in Palestinian Territories		

Table 9
SAMPLE: 2008 Q1 2018 Q4

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.|. |	.|. |	1	0.069	0.069	0.2233	0.64
.|. |	.|. |	2	0.055	0.05	0.3667	0.83
.|. |	.|. |	3	-0.056	-0.06	0.5197	0.92
.*|. |	.*|. |	4	-0.096	-0.09	0.9903	0.91
**|. |	**|. |	5	-0.308	-0.3	5.9	0.32

**|. |	**|. |	6	-0.275	-0.27	9.9145	0.13
.|** |	.|** |	7	0.222	0.292	12.617	0.08
.*|. |	.*|. |	8	-0.124	-0.18	13.483	0.1
.*|. |	**|. |	9	-0.089	-0.24	13.945	0.12
.*|. |	.*|. |	10	-0.067	-0.18	14.209	0.16
.|*. |	.|. |	11	0.116	0.019	15.039	0.18
.|. |	.|. |	12	-0.063	-0.01	15.287	0.23
.|. |	.|. |	13	0.025	0.015	15.328	0.29
.|*. |	**|. |	14	0.114	-0.21	16.209	0.3
.|*. |	.|. |	15	0.091	0.003	16.792	0.33
.|. |	.|. |	16	-0.065	-0.05	17.102	0.38
.|. |	.|. |	17	-0.034	-0.01	17.189	0.44
.|. |	.*|. |	18	0.015	-0.11	17.207	0.51
.|. |	.|. |	19	-0.046	-0.05	17.376	0.56
.*|. |	.*|. |	20	-0.078	-0.13	17.895	0.59

RESULTS

The analysis was done by using various descriptive statistics of all the variables. Finally, we used the DOLS method and the results. The results illustrate that government revenue; interest rate and economic growth significantly positively affect the observed cash balance. This implies that higher the Govt. Revenue, higher the cash balance. More specifically, one percentage change of govt. expenditure leads to 0.03 percentage raise of the cash balance in the economy. Similarly, one percentage change of economic growth and interest rate leads to 0.18 and 0.004 percentages rise of the cash balance respectively.

However, the govt. expenditure has a significantly negative impact on the cash balance, *i.e.,* higher is the govt. expenditure, lower the cash balance. More particular, one percent change of govt. expenditure leads to reduced 0.16 percentage of cash balance. This implies that the economy is having fiscal deficit over the period. Once we estimated the equation (1) then we can directly obtain the shadow economy by making ($\phi_t = 0$). The size the shadow economy over the quarter is represented in Figure 1."

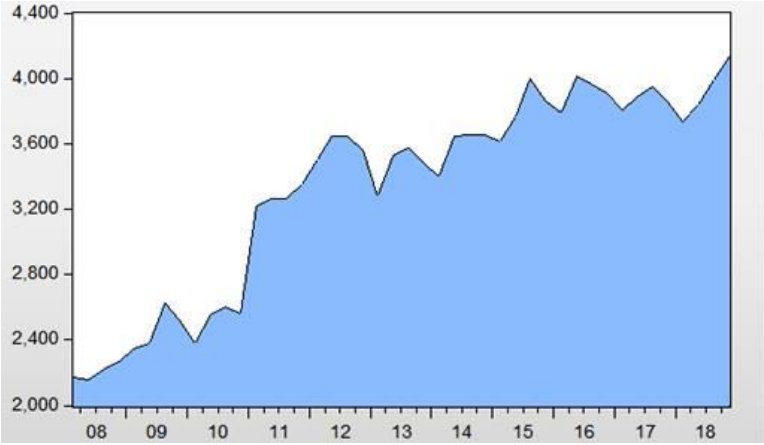

FIGURE 1
SHADOW ECONOMY IN PALESTINE BETWEEN 2008-2018

Table 9 clearly showcases that when the income is provided by the high taxes the overall index received less amount.

Own Calculation

"Lost budget revenues of PALESTINIAN TERRITORIES are a serious problem and represent a significant percentage of government budget revenues and expenditures. Even more adverse (outright alarming) shapes the comparison with spending on healthcare. Mean losses due to tax evasion in 2009 equaled approximately 110 per cent of total spending on the health service and health care, and in some parts of territories were more than twice higher; the infamous record in this respect was scored by Estonia, in which budget losses due to tax evasion equaled some 260 per cent of health care spending. The relation of tax evasion losses to government spending gives no grounds for optimism; in a large number of countries this relation exceeds 20 per cent. A still more depressing picture emerges when one compares state budget revenues to evasion of tax obligation with size of budget deficits in Palestinian Territories."

- Swindles and fraud linked to VAT (£ 11.4 billion);
- Unpaid income tax (£ 15.3 billion);
- Losses due to unpaid corporate taxes (£ 4.7 billion); and
- Losses due to unpaid excise (£ 2.5 billion).

Effect of Money Laundering

"One of the most serious microeconomic effects of money laundering is felt in the private sector. Money launderers often use front companies, which co-mingle the proceeds of illicit activity with legitimate funds, to hide the ill-gotten gains." To develop the economy, we have to strictly deal with the complex net of Humanitarism and development with relatively major state indicators but it is hard to achieve because of poverty which encourages people to work underground from the mainstream of economy.

"Banks are susceptible to risks from money launderers on several fronts. Today, there is a very small step between a financial institution suspecting that it is being used to launder money and the institution becoming criminally involved with the activity. Banks that are discovered to be laundering money are most certain to face costs associated with the subsequent loss of business as well as legal costs. Banks and their directors face the risk of criminal prosecution for money laundering whether they know the funds are criminally derived or not."

Effects of Shadow Economy on Palestinian Indexes

Shadow economy in Palestinian territory is hugely affected by the various factors: 1. Poverty, 2. money laundering, 3. gender gap, 4. Lack of human development, 5. Lack of interest of govt. On public issues, and 6. Continuous wars affected people mentally and economically. The business model of the 2014-2017 UNFPA Strategic Plan, including linking modes of engagement to country quadrant classification and resource allocation, has not been helpful for Palestine, as it does not adequately reflect the complexity of working in the context or the range of needs that must be met (even under improved aggregate development indicators) because people are not enough literate to make the success of that policy.

Discussion with the References of Palestinian Index

"The model/approach for this research is to estimate the size of the SE in the Palestinian Territories for the period of 2008-2018, was adopted from the study of Abuamhsa, et al., (2008), which was published in Economic Letter of the monetary approach. The DOLS method for estimating the coefficients of monetary approach for SE for Palestine was applied as this method is superior to OLS and Fully Modified OLS, particularly in case of a small panel size. The statistical inference is that the changes in the independent variables have explained 96.2% of the change in the dependent variable. Based on this model, the SE in the Palestinian Territories was estimated.

The results depict that log value of GDP, interest rate, log value of Tax to GDP ratio, and log value of Government expenditure as a percentage of GDP have significantly affected the Money Supply (M_1). The Auto-correlation and Heteroscedasticity have not been found among the residuals of the estimated equation. These residuals have been normally distributed (P-value=0.004 and Jarque-Bera Value=10.866). The estimated equation has been found stable through the Augmented Dicky-Fuller test, which also proves that the results of the equation are stable. The size of the SE in the Palestinian Territories has fluctuated over time. Its estimates have ranged from $1,615.293 (in millions) in Q1 of year 2008 to $3,052.765 (in millions) and in Q4 of year 2018, representing 50% and 59% of the GDP, respectively. As also stated in the study of Chatterjee & Turnovsky (2018), the reason behind SE is the increased burden of taxation combined with labor market regulations and institutional quality. Quarter 2 of the year 2018 recorded the largest size of the SE amounting to about $3,063.210 (in millions), while the year 2008 recorded the largest proportion of the SE with an estimated rate of about 23.33% of GDP. This result considered higher comparative values than the average. The political security and the economic instability and importantl (Palestinian Statistical Reports, 2017) (Table 10)."

"The Palestinian Territories had witnessed a consolidation of the state of division that took place in 2007, following which a state of emergency declared by Presidential Decree No. (9) of 2007. This was in turn followed by the issuance of Presidential Decree No. (18) of 2007, regarding the exemption of citizens in the Governorates of the Taxes and Fees, according to which the citizens of the Gaza Strip were completely exempted. The decision No. 188 of the Council of Ministers in Gaza in 2009, which approved the extension of the exemption from income tax for those investors who have been out of the siege for the years 2007 to the present day, did not contradict the non-significance of the variable (political division) in the standard model. However, the low value of taxes collected by the government from the Gaza Strip and the issuance of tax exemptions to the population of the Gaza Strip which leads some of them to pay taxes because no tax was imposed originally (Figure 3)(Hassan & Schneider, 2016; Anno, 2010; Hamori, 2010; Gulzar, 2010)."

"The average quarterly percentage of the SE in Palestinian Territories for eleven years (2008-2018) has been 47% in terms of GDP. This ratio is far appropriate and it efficiently projects a positive reality, particularly when it has been compared to the percentage of neighbouring and regional countries, like: Jordan, 18.37%; Egypt, 38.25%; Israel, 21.23%; Qatar, 12.51%; United Arab Emirates, 26.09%; Kuwait, 14.51%; Saudi Arabia, 17.17%; and Iran, 17.84%. However, the reason for these results is the slowing of world economic growth (Hassan & Schneider, 2016)."

Table 10
LIST OF COUNTRIES WITH SHADOW ECONOMY SCOPE AND TAX BURDEN

Country	Shadow economy scope (as % of GDP)	Tax Burden (in %)	Estimate of losses due to shadow economy
Austria	9.7	42.7	11763
Belgium	21.9	43.5	33629
Bulgaria	35.3	28.9	3673
Cyprus	28	35.1	1671
Czech Republic	18.4	34.5	9205
Denmark	17.7	48.1	19922
Estonia	31.2	35.9	1680
Finland	17.7	43.1	13732
France	15	41.6	120619
Germany	16	39.7	158736
Greece	27.5	30.3	19165
Hungary	24.4	39.5	9445
Ireland	15.8	28.2	6951
Italy	27	43.1	180257
Latvia	29.2	26.6	1398
Lithuania	32	29.3	2532
Luxembourg	9.7	37.1	1511
Malta	27.2	34.2	577
Netherlands	13.2	38.2	29801
Poland	27.2	31.8	30620
Portugal	23	31	12335

Source: Murphy (2012, pp. 10-11)

- Massive swindling of value added tax in intra-community trade within the PALESTINIAN requires real, and not make shift co-operation, which should be taking place in real time and through coordinating actions in executive mode, e.g.: OLAF. Without that it would be mostly tax administrations of given Israel jurisdictions who would decide on their own whether they protect their own national economy or unfair competition. At that, excessive interference in budget policy of given member state could be extremely dangerous and used for a variety of purposes in the event of excessive governance from outside.
- The average shrinking, demonstrated by us, in the scope of Palestinian shadow economy in 2014 to 18.6 per cent of GDP does not necessarily have to reflect its true scope, through which regular advances in tax engineering can reflect deformations and statistical errors, in a broad spectrum of confidence. They certainly point to a trend, which should be subjected to more extensive analysis, within the scope of numerous internal factors of economic turnover itself, and of its external environment."

CONCLUSION

"This article estimates the size of the shadow economy in case of Palestine affected by Palestinian indexes by using monetary method over the period between first quarter of 2008 and

fourth quarter of 2018. Mainly this study contributes to the literatures in the ground of measuring the size of the shadow economy by using monetary approach, which includes the lagged dependent variables with other control variables such as interest rate, government expenditure as a percentage of GDP, economic growth and government revenue with respect to GDP (Figure 1). We use DOLS method and calculated that the Shadow Economy in Palestinian Territories is approximately 47% of GDP. From the policy perceptive this study is suggesting to reduce the size of the Shadow Economy in the Palestinian Territories. Our recommendations are as follows. First, it can contribute in the effectual treatment of this phenomenon. Second, developing a national strategic plan by the Palestinian government could increase the attractiveness of work in the formal sector; in order to address the SE through a framework of policies that is favourable to the situations of its people must be done. Third, in this process of planning and development, the researchers and planners from economic and development concerns are required to add parallel economic variables within the model which can be able to extract the past data and the future could be predicted for the Palestinian Territories. Fourth, Palestinian universities and research institutions should also conduct large surveys and researches for the sake of determining the actual size of the SE and also provide future insights to it, like-determination of the causes of SE, its various components, and other associated factors, and also, for classifying its activities according to the intensity of its impact on the elements of the national economy."

"Fifth, the PMA should encourage local banks to create investment awareness (Financial Inclusion) to the Palestinian people, so that they may deposit their savings in the banks rather than keeping it with themselves in the liquid form (Cash). Finally, it can be possible to have strict imposition of the penalties by the judiciary in the Gaza Strip and their appropriate implementation in accordance to the Anti-Money Laundering Law that was once approved by the Palestinian president. The security services should conduct large-scale campaigns against the components of the SE, especially those fostering financial and economic crimes. Media also needs to take up campaigning against the existence of SE and it should urge the community to abide by the applicable laws and regulations and it should also indicate the extent to which public welfare could be achieved as a consequence of abiding by the laws of the state.

The Palestine Shadow Economy with Palestinian Index can be discussed with Three Key Points

First for unemployed people, release social benefits.

Second, provide economic free flow to public sector.

Third to frame policies regarding deduction in tax burden on people.

After carefully reading the strategies to target social benefits, mainly focusing on the unemployed people, will have a major effect in reducing the PALESTINE shadow economy. The state should also provide a free flow of trade in Palestine for the public sector with freedom in the state.

Shadow economy has a deeper impact on the (PFEI) as it affects many investors to invest in the local market and also slow down the development of the infrastructural structure. Due to the holdings of economy by the people in their own sources, the flow of regular income in the mainstream market gets affected.

ACKNOWLEDGMENT

We would like to extend our gratitude to Palestine Technical University for their support.

REFERENCES

Adam, M.C., & Victor, G. (1985). The effects of irregular markets on macroeconomic policy: Some estimates for Belgium. *European Economic Review, 29*.

Apel, M. (1994). *An expenditure-based estimate of tax evasion in Sweden.* Working Paper, Uppsala, Department of Economics, Uppsala University.

Bajada, C., & Friederich S. (2005). The shadow economies of the Asia-Pacific. *Pacific Economic Review, 10,* 379-401.

Belev, B. (2003). *The informal economy in the EU accession countries: Size, scope, trends and challenges to the process of EU enlargement.* Center for the study of democracy, Sofia.

Bloem, A.M., & Manik, L.S. (2000). *Comprehensive measures of GDP and the unrecorded economy*.

Bordignon, M., & Alberto Z. (1997). Tax evasion in Italy. *Journal of Economists and Annals of Economics, 56,* 169-210.

Breusch, T. (2005). *Estimating the underground economy using MIMIC models.* Econometrics, Economics Working Paper Archive at WUSTL.

Chaudhuri, K., Friederich S., & Sumana C. (2006). The size and development of the shadow economy: An empirical investigation from states of India. *Journal of Development Economics, 80,* 428-443.

Contini, B. (1981). The second economy of Italy. *Taxing and Spending, 3,* 17–24.

Dell'Anno, R. (2003). *Estimating the shadow economy in Italy: A structural equation approach, working paper, 2003-7.* Department of Economics, University of Aarhus.

Dell'A.R., Miguel, G., & Angel, A.P. (2007). Shadow economy in three different Mediterranean countries: France, Spain and Greece, A MIMIC approach. *Empirical Economics, 33,* 51-84.

Dell,'A., & Friederich, S. (2006). *Estimating the underground economy: A response to T. Breusch's critique"*. Working Paper 06/07, Department of Economics, Johannes Kepler University of Linz.

Eilat, Y., & Clifford, Z. (2000). *The evolution of the shadow economy in transition countries: Consequences for economic growth and donor assistance.* CAER II Discussion Paper 83, Harvard Institute for International Development.

Feige, E.L. (1989). *The underground economies, tax evasion and information distortion*. Cambridge, Cambridge University Press.

Frey, B.S., & Hannelore, W.M. (1984).The hidden economy as an Unobservable variable. *European Economic Review, 26,* 33–53.

Fuà, G. (1976). *Employment and production capacity: The Italian reality*, Bologna, Mulino.

Schneider, F. (2008). *The shadow economies in central and south America with a specific focus on Brazil and Columbia: What do we know?* Shadow Economy, Brazilian Institute of Competition Ethics (ETCO), Rio de Janeiro, Brazil.

Shumali, S., & Abuamsha, M. (2021). Shadow economy in Palestinian territories using currency demand approach. *Journal of Economics Finance and Administrative Science*.

Omodero, C., & Iyoha, F. (2021). Financial development and tax revenue in evolving markets: Evidence from Nigerian. *International Journal of Entrepreneurship, 25*(6), 1-10.

Radebe, N., & Maphela, B. (2019). Effectiveness of the local economic development strategy of emakhazeni local municipality, South Africa. *International Journal of Entrepreneurship, 23*(4), 1-9.

Tien, N., Thuy, N., & Hiep, P. (2020). Small family business in Vietnam succession and sustainable development. *International Journal of Entrepreneurship, 24*(1), 1-12.

Rathod, J. (2021). Analyzing the impact of big data and business analytics in enhancing demand-driven forecasting in retailing. *International Journal of Entrepreneurship, 25*(2), 1-8

Omodero, C., & Iyoha, F. (2021). Financial Development and tax revenue in evolving markets: Evidence from Nigerian. *International Journal of Entrepreneurship, 25*(6), 1-10

Vu, Q. (2021). Political capital, provincial institution, and firm productivity: The case of small and medium sized enterprises in Vietnam. *International Journal of Entrepreneurship, 25*(5), 1-11.

Mandleni, B., Ogunkoya, F., & Omotayo, A., (2018). Socioeconomic factors influencing livestock production among smallholder farmers in the free state province of south Africa. *International Journal of Entrepreneurship, 23*(1), 1-17.

Abuamsha, M.K. (2021). The role of the banking sector in financing the real estate and contracting sector in the Palestinian territories. *International Journal of Housing Markets and Analysis.*