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**Business Administration and Business Economics****Foreign Direct Investment and Income Inequality in Transitional Economies****Kunofiwa Tsurai<sup>1</sup>**

**Abstract:** The study investigated the impact of FDI on income inequality and using technology to avoid omitted variable bias. Fixed effects, random effects and pooled ordinary least squares were used with data spanning from 2005 to 2015. Although the subject on FDI and its absorption capacities have been going on for almost a decade now, there is no consensus yet on the list of factors that enables FDI to influence income inequality. Wu and Hsu (2012) and Mihaylova (2015) attempted to investigate FDI-inequality-absorption capacities but the findings are not clear with regards to ICT as an absorption capacity. The current study found out that the interaction between ICT and FDI had a non-significant positive influence on income inequality in transitional economies. The study urges the transitional economies to develop ICT policies that enhances FDI's ability to reduce income inequality.

**Keywords:** FDI; income inequality; transitional countries

**JEL Classification:** F21; D63; P2

**1. Introduction**

**Background of the study:** The positive impact of FDI on economic growth is no longer a contestable issue as most theoretical arguments supporting the view are available (Romer; 1986; Lucas, 1988; Kumar & Pradhan. 2002; Solow, 1956; Swan, 1956; Nath, 2005; Kaur et al. 2013; Calvo & Sanchez-Robles, 2002). Even the UNCTAD (2017) well documented the advantages that FDI brings along into the host country. They all argued that FDI is a channel through resources such as technology, expertise, human capital, financial resources and management experience flows from developed to less developed countries. Even empirical studies such as Sultana and Pardhasaradhi (2012), Dhiman and Sharma (2013), Raza et al (2012), Raza and Jawaid (2014), Olugbenga and Grace (2015) and Azam and Ibrahim (2014) found out results which supports the FDI-led growth

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hypothesis. It is expected that economic growth is a channel through FDI reduces poverty and income inequality, consistent with Mihaylova's (2015) observations.

Emerging critics of foreign capital inflows argue that FDI expands the income inequality gap (Pigato, 2000; Adams, 2009; Lee & Vivarelli, 2006; Kuznet, 1955; Herzer & Nunnenkamp, 2011). Other empirical studies such as Assaf (2017), Chintrakarn et al (2010) and Zhuang and Griffith (2013) observed an insignificant relationship between FDI and income inequality. These contradictions in the literature shows that the FDI-income inequality nexus literature is far from being a settled issue in finance and economics.

The subject on absorption capacities have so far mainly focused on FDI-growth nexus and these include Adams (2009), Almfraji and Almsafir (2014), Vita and Kyaw (2009), Omri and Kahouli (2014), Asong (2014), Seenivasan (2014) and Choong (2012), among others. Still, there is no meeting of minds on this subject matter as there are several divergent views. However, it is the subject on absorption capacities on FDI-inequality nexus which is still a virgin area. Nothing is conclusive as yet. Wu and Hsu (2012) and Mihaylova (2015) attempted to investigate to investigate the absorption capacities in the FDI-income inequality nexus relationship but produced divergent and conflicting results. Wu and Hsu (2012) found out that FDI had a negligible effect on income inequality for the host countries characterized by high levels of absorption capacities. Mihaylova (2015) observed that in Central and Eastern Europe, the ability of FDI to influence income inequality depended on the level of economic development and education in the host countries. Since technology is one of the absorption capacity of FDI as noted by Manville et al (2014), the current study explores whether ICT is a channel through FDI influences income inequality in transitional economies. The research is the first of its kind to investigate whether ICT is a channel through FDI reduce income inequality in transitional economies. Results will help the transitional economies to develop ICT policies that enhance the influence of FDI in reducing income inequality.

**Structure of the paper:** Section 2 discusses the theoretical literature of the impact of FDI on income inequality, Section 3 reviews the theoretical literature on the influence of FDI on ICT development whilst Section 4 is the empirical literature on the FDI-income inequality nexus. Section 5 includes the explanatory variables of the income inequality function. Section 6 is the research methodology, results discussion and interpretation. Section 7 summarizes the study.

## **2. Impact of Foreign Direct Investment on Income Inequality – Theoretical Literature**

Two dominant theories that explain the relationship between FDI and income inequality are the dependency and the modernisation theories which are explained next in detail. According to the dependency theory propounded by Mihaylova (2015), the economic well-being of developing countries (characterised by abundant unskilled labour force) too much relies on developed and highly industrialised nations (characterised by abundant skilled labour) in terms of technologies and skills transfer. The theory further argues that although FDI from developed nations brings higher wages and better technology to developing countries, foreign firms normally engage in capital intensive economies activities which not only hamper employment prospects but also widens the income inequality gaps. The view was also shared by Pigato (2000) and Adams (2009) whose studies observed that FDI may negatively affect economic growth and increase income inequality gap. Lee and Vivarelli (2006) also noted that FDI activities are in most case skills based in nature thus widening the income inequality gap between the skilled and the unskilled people in the FDI receiving nation.

The modernisation theory is closely linked to neo-classical economics by Kuznet (1955) which explains that the development of a country happens in stages, each stage having its own implication on income inequality. The theory argues that the inflow of FDI exacerbates income inequality gap in the early stages of economic development. Income inequality gap is expected to fall in response to more FDI inflow as the country's economic development approaches the optimal stage (Kuznet. 1955). In other words, according to the Kuznet's (1955) hypothesis, the relationship between FDI and income inequality follows a U-shape.

## **3. Influence of Foreign Direct Investment on ICT- Theoretical View**

According to Balamoune-Lutz (2003), FDI inflow brings advanced technology, knowledge and managerial skills hence enhancing ICT diffusion. Moreover, FDI enables the recipient countries to have sufficient capital that they can use to invest in boosting their ICT infrastructure (Shih et al. 2008). An empirical study done by Shih et al (2008:47) revealed that FDI played a significant role in ensuring ICT technological diffusion in developing countries took place. A study by Gholami et al (2006) also confirmed similar findings.

#### 4. Empirical Literature on Foreign Direct Investment-Income Inequality Nexus

Table 1 summarizes the recent empirical studies which investigated the relationship between FDI and income inequality.

**Table 1. A Summary of the Relationship between FDI and Income Inequality – Empirical Literature**

Author	Country/Countries of study	Methodology	Findings
Kaulihowa and Adjasi (2018)	Africa	Panel data analysis	FDI was found to have reduced income inequality in Africa. The study also found a U-shaped result, that is more FDI inflows into Africa led to diminishing rate at which income inequality is reduced.
Wu and Hsu (2012)	54 developing countries	Endogenous threshold regression model	FDI was found to likely be harmful to income distribution of those host nations whose absorption capacities were low. On the contrary, FDI was found to have had a negligible effect on income inequality for the host countries characterized by high levels of absorption capacities.
Suanes (2016)	Latin America	Panel data analysis	All the three (primary, secondary, services) FDI increased income inequality in Latin America.
Mihaylova (2015)	Central and Eastern Europe	Fixed effects regression model	The ability of FDI to influence income inequality was found to have depended on the level of economic development and education in the host countries (Central and Eastern Europe).
Herzer and Nunnenkamp (2011)	Europe	Panel data analysis	In the short run, FDI had a positive effect on income inequality in Europe whereas in the long run, income inequality was found to have been reduced by FDI inflows into Europe. Moreover, a feedback effect between FDI and income inequality was also detected in

			Europe.
Chen et al (2017)	China	Panel data analysis	The study observed a U-curve kind of a finding. FDI increased the wage gap in Chinese firms but more FDI was found to have had a deleterious effect on the wage gap in China's firms.
Chintrakarn et al (2010)	United States	Panel data analysis	In the short run, the negative influence of FDI on income inequality was found to be weak or insignificant. In the long run, FDI was found to have had a significant negative influence on income inequality in the United States.
Bandari (2007)	Transitional countries in Eastern Europe and Central Asia	Fixed effects model	The study found out that FDI had no impact on overall income inequality. The same study revealed that FDI had a deleterious effect on the capital income inequality whilst FDI also increased wage income inequality.
Herzer et al (2014)	Latin American countries	Panel co-integration analysis	FDI had a positive influence on income inequality in the Latin American countries studied.
Halmos (2011)	Eastern European countries	Multi regression analysis and descriptive statistical analysis	The study observed that increasing FDI inflows had a positive influence on income inequality in the Eastern European countries.
Mahutga and Bandelj (2008)	Central and Eastern Europe	Fixed effects regression analysis	Income inequality was positively influenced by FDI inflows into the Central and Eastern Europe.
Ahuja (2017)	World-wide	Literature review survey	The literature review shows three set of findings: (1) FDI has positive influence on income inequality, (2) FDI has a negative effect on income inequality whilst (3) both FDI and income inequality were also found to have affected each other.

Zhuang and Griffith (2013)	93 countries	Fixed effects regression analysis	Mergers and acquisitions FDI was found to have had an insignificant impact on income inequality. On the other hand, the study revealed that greenfield FDI had a positive effect on income disparity in the 93 countries studied.
Assaf (2017)	Jordan	Descriptive statistics	No significant relationship between FDI and income inequality was found.
Majeed (2017)	Developing countries	Panel data analysis	FDI was found to have reduced income inequality in countries characterized by higher level of economic, financial and human capital development.
Chen (2016)	China	Fixed effects instrumental variable regression analysis	The findings of the study are twofold: (1) FDI increased urban-rural income inequality through international trade and (2) FDI reduced urban-rural income inequality through channels such as economic growth, knowledge spillovers and employment creation.
Bakshi (2009)	China	Panel data analysis	FDI inflow into China widened the income inequality gap. For example, foreign firms operating in China were found to be paying more than local firms thus exacerbating the income inequality gap.
Trinh (2016)	Vietnam	Panel data analysis	At provincial level, FDI was found to have reduced the income inequality gap by employing lowly skilled personnel.
Teekasap (2014)	Developing countries	Panel data analysis	FDI increased income inequality between regions in the same country. The study also found out that income inequality gaps goes down between regions if the region attracting more FDI has got high unemployment rates.

Clark et al (2011)	World-wide	Literature review survey	The most dominant view in the literature was that FDI increased income inequality levels. Other arguments such as (1) FDI reduced income inequality, (2) FDI had a negligible impact on income inequality and (4) FDI and income inequality had a bi-directional relationship were also observed.
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Source: Author compilation

## 5. Explanatory Variables of the Income Inequality Function

Consistent with Tsaurai (2018a:6), factors such as human capital development, FDI, economic growth, infrastructural development, savings, inflation, trade openness and financial development have got an influence on income inequality.

## 6. Research Methodology

### Econometric Model Specification

$$INEQ_{i,t} = \beta_0 + \beta_1 FDI_{i,t} + \beta_2 X_{i,t} + \mu_i + \varepsilon_{it} \quad (1)$$

INEQ stands for income inequality, FDI is foreign direct investment whilst X is a matrix of control variables. In this paper, X represents ICT (information and communication technology), HCD (human capital development), GROWTH (economic growth), FIN (financial development), INFR (infrastructural development), SAV(savings), INFL (inflation) and OPEN (trade openness). In this study, INEQ, FDI, ICT, HCD, GROWTH, FIN, INFR, SAV, INFL and OPEN were proxied by the GINI ratio, net foreign direct investment inflows, individuals using internet (% of population), human capital development index, gross domestic product per capita, domestic private credit as a ratio of GDP, electric power consumption (kWh per capita), gross domestic savings as a ratio of GDP, inflation consumer prices (annual %) and total trade (% of GDP) respectively.

Time and country are represented respectively by subscripts  $t$  and  $i$ .  $\beta_0$  stands for the intercept term.  $\beta_1$  and  $\beta_2$  are the variables co-efficients. The error term is denoted by  $\varepsilon_{it}$ .  $\mu_i$  is the time invariant and unobserved country specific effect.

Whilst equation 1 was used to investigate the impact of FDI on income inequality, equation 2 was used to find out whether ICT and other variables are absorption capacities which must be present in the transitional economies before FDI can have an influence on income inequality.

$$INEQ_{i,t} = \beta_0 + \beta_1 FDI_{i,t} + \beta_2 X_{i,t} + \beta_3 (FDI_{i,t} \cdot x_{i,t}) + \mu_i + \varepsilon_{it} \quad (2)$$

Following Goff and Singh (2014), in order to investigate whether ICT and other transitional economies' characteristics (economic growth and human capital development) had an influence on income inequality in the transitional economies, the current study introduced the interaction terms represented by  $(FDI_{i,t} \cdot x_{i,t})$  -see equation 2.

Consistent with a study done by Tsauroi (2018b) and Goff and Singh (2014),  $x_{i,t}$  corresponds to the level of ICT development, economic growth and human capital development in country  $i$  at time  $t$ . This paper used fixed effects, random effect and pooled OLS as econometric estimation methods for equation 2.

The secondary data used spans from 2005 to 2014. The sources of data included International Financial Statistics, World Development Indicators, United Nations Development Programme various reports and Africa Development Bank. Transitional economies included in this study include Argentina, Czech Republic, Mexico, Poland, Russia, Turkey, Thailand, Portugal, Peru, Greece, Colombia and Brazil. The data was first transformed into natural logarithms before being used for major analysis in order to avoid spurious results which emanates from a scenario if the data used does not follow a normal distribution, is characterised by extreme or abnormal values (Aye & Edoja. 2017). Descriptive statistics results (see Table 3 in Appendix section) showed that economic growth and infrastructural development data had extreme values because of the standard deviation above a 1 000. The same Table 3 indicates that data for economic growth, financial development, infrastructural development, inflation and trade openness is not normally distributed because the probability of the Jarque-Bera criteria is zero (Tsauroi, 2018c).

All the data variables were stationary at level in order to deal away with spurious findings, a condition which was supported by Gujarati (2003)-see Table 4. The long run relationship was also found to have existed between and among the variables under study (see Kao Panel co-integration results in Table 5) thus paving way for main data analysis.



**Table 4. Panel Stationarity Tests –Individual Intercept**

	Level				First difference			
	LLC	IPS	ADF	PP	LLC	IPS	ADF	PP
LINE Q	-2.60** *	0.02	20.61	21.73	-4.07***	-3.33** *	53.24* **	63.70** *
LFDI	-2.30**	-0.72	27.17	55.70** *	-5.39***	-3.48** *	59.00* **	141.69* **
LICT	-8.09** *	-2.81** *	55.27* **	140.75* **	-7.03***	-238** *	46.59* **	72.91** *
LHCD	-15.09* **	-6.77** *	96.74* **	47.33** *	-14.64** *	-6.95** *	99.67* **	85.24** *
LGRO WTH	-6.03** *	-2.08**	41.10* *	88.02** *	-5.35***	-5.10** *	71.51* **	97.81** *
LFIN	-3.96** *	-0.30	25.02	74.60** *	-5.90***	-2.61** *	51.23* **	80.30** *
LINFR	-1.60*	-0.65	15.25	20.09	3.43**	-6.24** *	26.80* **	72.20** *
LSAV	-3.96** *	-0.88	27.67	36.32*	-6.32***	-2.39** *	46.48* **	93.15** *
LINFL	-1.82**	-0.40	24.16	35.96*	-13.86** *	-5.14** *	74.18* **	127.20* **
LOPE N	-2.00**	0.38	21.3	29.3	-7.58***	-2.37** *	45.47* **	99.55** *

Note: LLC, IPS, ADF and PP stands for Levin, Lin and Chu; Im, Pesaran and Shin; ADF Fisher Chi Square and PP Fisher Chi Square tests respectively. \*, \*\* and \*\*\* denote 1%, 5% and 10% levels of significance, respectively.

Source: Author's compilation from E-Views

**Table 5. Kao Residual Co-integration Test - Individual Intercept**

	T-statistic	Probability
Augmented Dickey-Fuller (ADF)	-2.6181	0.0044

Source: Author's compilation from E-Views

**Main Data Analysis****Table 6. FDI and Income Inequality in Transitional Economies –Fixed Effects**

	Income inequality			
	Model 1	Model 2	Model 3	Model 4
FDI	0.0042	0.0460	0.0071	0.0822
ICT	0.0253*	0.0396**	0.0245*	0.0290*
HCD	0.0067	-0.0074	-0.0082	0.0019
GROWTH	-0.1008***	-0.1024***	-0.0997***	-0.0956***
FIN	0.0116	0.0110	0.0121	0.0104
INFR	-0.1382***	-0.1368***	-0.1397***	-0.1333***
SAV	0.0396	0.0557*	0.0401	0.0459
INFL	0.0069*	0.0070*	0.0069*	0.0067
OPEN	0.0285	0.0205	0.0295	0.0281
FDI*ICT		-0.0112		
FDI*HCD			0.0139	
FDI*GROWTH				-0.0083
Number of countries	12	12	12	12
Adjusted R-squared	0.9887	0.9888	0.9886	0.9887
F-statistic	521.28	499.80	491.76	496.98
Prob(F-statistic)	0.00	0.00	0.00	0.00

\*\*\*, \*\* and \* denote 1%, 5% and 10% levels of significance, respectively.

Source: Author's compilation from E-Views

FDI was found to have had a non-significant positive influence on income inequality in all four models under the fixed and random effects. The finding is consistent with Adams (2009) whose study noted that FDI may negatively affect economic growth and increase income inequality gap. Moreover, a significant positive relationship running from ICT towards income inequality was detected in model 1, 2, 3 and 4 under fixed and random effects, a finding which is in line with Richmond and Triplett (2018:195) whose study argued that ICT growth may increase inequality due to differential access and skills premiums.

**Table 7. FDI and Income Inequality in Transitional Economies –Random Effects**

	Income inequality			
	Model 1	Model 2	Model 3	Model 4
FDI	0.0043	0.0484	0.0034	0.0286
ICT	0.0305**	0.0431**	0.0326**	0.0344***
HCD	0.0125	-0.0048	-0.0219	0.0394
GROWTH	-0.1073***	-0.1056***	-0.1118***	-0.1264***
FIN	0.0201	0.0162	0.0246	0.0450***
INFR	-0.1581***	-0.1503***	-0.1608***	-0.1460***
SAV	0.0491*	0.0618**	0.0524**	0.0592***
INFL	0.0068*	0.0069*	0.0067	0.0057
OPEN	-0.0216	-0.0086	-0.0484	-0.1577***
FDI*ICT		-0.012		
FDI*HCD			-0.0046	
FDI*GROWTH				-0.0026
Number of countries	12	12	12	12
Adjusted R-squared	0.5895	0.5965	0.5859	0.6527
F-statistic	19.99	18.59	17.84	23.37
Prob(F-statistic)	0.00	0.00	0.00	0.00

\*\*\*, \*\* and \* denote 1%, 5% and 10% levels of significance, respectively.

Source: Author's compilation from E-Views

One of the objectives of this study was to find out if ICT development is an absorption capacity which must be available in the transitional economies before FDI can influence income inequality. The study found out that the interaction between FDI and ICT was negative but non-significant under the fixed effects, random effects and the pooled OLS (see model 2 results). The results mean that the interaction between FDI and ICT though insignificant but managed to reduce income inequality in the transitional economies, a finding which resonates very well with Mihaylova (2015) whose study revealed that the ability of FDI to influence income inequality in Central and Eastern Europe depended on the level of absorption capacities.

**Table 8. FDI and Income Inequality in Transitional Economies –Pooled OLS**

	Income inequality			
	Model 1	Model 2	Model 3	Model 4
FDI	-0.0070	0.0158	0.0154	-0.3748**
ICT	-0.0471**	-0.0421	-0.0501**	-0.0576***
HCD	-0.0750	-0.0797	-0.1759	-0.0175
GROWTH	-0.0545*	-0.0519	-0.0501	-0.0925***
FIN	0.0554***	0.0556***	0.0566***	0.0562***
INFR	-	-0.1304***	-0.1352***	-0.1369***
	0.1299***			

SAV	0.0894***	0.0912***	0.0923***	0.0803**
INFL	0.0061	0.0060	0.0055	0.0045
OPEN	- 0.2865***	-0.2866***	-0.2890***	-0.2883***
FDI*ICT		-0.0061		
FDI*HCD			0.1160	
FDI*GROWTH				0.0384**
Number of countries	12	12	12	12
Adjusted R-squared	0.8956	0.8947	0.8955	0.8998
F-statistic	114.47	102.16	102.93	107.87
Prob(F-statistic)	0.00	0.00	0.00	0.00

\*\*\*, \*\* and \* denote 1%, 5% and 10% levels of significance, respectively.

Source: Author's compilation from E-Views

Whilst a significant negative relationship running from ICT towards income inequality was detected under the pooled OLS in model 1, 3 and 4, model 2 under the same estimation method shows that ICT had an insignificant negative influence on income inequality in transitional economies. The results are in sync with Manville et al (2014) whose study argued that investment in ICT helps the poor to have better access to resources and markets thereby reducing poverty and inequality in the society.

Model 2 and 3 under fixed and random effects and all the four models under the pooled OLS produced results which shows a non-significant negative relationship running from human capital development towards income inequality. The finding resonates with Eicher and Penalosa (2001). On the other hand, model 1 and 4 under the fixed and random effects, human capital development had a non-significant positive influence on income inequality in contrast with the available literature.

Economic growth was found to have had a significant negative influence on income inequality across all the four models under the fixed and random effects. The same finding was also obtained in model 1 and 2 under the pooled OLS estimation procedure. On the other hand, model 2 and 3 under the pooled OLS econometric estimation procedure shows a non-significant negative relationship running from economic growth towards income inequality. These findings resonate with Barro (2000) whose study argued that rising economic growth as measured by GDP per capita has a deleterious effect on income inequality. The interaction between FDI and human capital development was found to be (1) positive but non-significant under the fixed effects and pooled OLS and (2) negative but non-significant under the random effects approach. A non-significant negative relationship running from the interaction between FDI and economic growth towards income inequality was detected under the fixed and random effects. Last but not least, pooled OLS produced results which show that the interaction between

FDI and economic growth had a significant positive impact on income inequality in transitional economies. The result resonates with Mihaylova's (2015) finding.

## 7. Conclusion

The study investigated the impact of FDI on income inequality and whether ICT is an absorption capacity through which FDI influences income inequality in transitional economies using panel data analysis (fixed effects, random effects, pooled ordinary least squares) with data spanning from 2005 to 2015. Although the subject on FDI and its absorption capacities have been going on for almost a decade now, there is no consensus yet on the list of factors that enables FDI to influence income inequality. Wu and Hsu (2012) and Mihaylova (2015) attempted to investigate FDI-inequality-absorption capacities but the findings are not clear with regards to ICT as an absorption capacity. The current study under all the three panel data analysis methods found out that the interaction between ICT and FDI had a non-significant positive influence on income inequality in transitional economies. The study urges the transitional economies to develop ICT policies that enhances FDI's ability to reduce income inequality.

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## Appendix Section

Table 2. Correlation Analysis

	INEQ	FDI	ICT	HC D	GRO WTH	FIN	INF R	SAV	INFL	OP EN
INEQ	1.00									
FDI	0.03	1.00								
ICT	-0.4***	-0.1	1.00							
HCD	-0.6***	-0.1	0.4**	1.00						
GRO WTH	-0.6***	-0.2*	0.5**	0.7**	1.00					
FIN	-0.4***	0.01	0.04	0.2*	0.5**	1.00				
INFR	-0.8***	-0.1	0.4**	0.6**	0.7**	0.3**	1.00			
SAV	-0.1	0.3	-0.1	-0.2*	-0.4**	-0.3**	0.1	1.00		
INFL	0.2***	-0.2*	-0.01	-0.2*	-0.3**	-0.4**	-0.04	0.1	1.00	
OPE N	-0.7***	0.1	0.1	0.2*	0.2*	0.3**	0.4**	0.5**	-0.4**	1.00

Note: \*\*\*/\*\*/\* denotes statistical significance at the 1%/5%/10% level respectively.

Source: Author compilation from E-Views

**Table 3. Descriptive Statistics**

	INEQ	FDI	ICT	HCD	GROWTH	FIN	INF R	SA V	INF L	OPEN
Mean	0.42	3.09	43.0	0.79	11979	60.8	3364	22.1	4.8	65.8
Median	0.41	2.97	40.5	0.79	10249	45.6	2568	21.02	3.9	56.3
Maximum	0.57	10.7	90.4	0.94	31997	197	7284	34.7	14.1	160.9
Minimum	0.26	0.15	11.0	0.65	2714	9.38	837	8.33	0.11	22.1
Standard deviation	0.08	1.7	18.1	0.06	6844	47.2	1869	6.8	3.1	34.6
Skewness	0.02	1.1	0.36	0.18	0.87	1.34	0.46	0.05	0.92	1.1
Kurtosis	2.2	5.7	2.4	2.3	2.9	3.8	1.8	2.2	3.2	3.2
Jarque-Bera	3.0	62	4.1	3.3	15	40	11.1	3.2	17.1	24.7
Probability	0.22	0.22	0.13	0.19	0.00	0.00	0.00	0.20	0.00	0.00
Observations	120	120	120	120	120	120	120	120	120	120

*Source: Author Compilation from E-Views*