



# OIL RELATED VS NON-OIL RELATED FOREIGN CAPITAL INFLOWS: TEST OF CAUSALITY ON ECONOMIC DEVELOPMENT IN NIGERIA

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Article history:	Abstract:
<b>Received:</b> 1 <sup>st</sup> July 2021 <b>Accepted:</b> 11 <sup>th</sup> July 2021 <b>Published:</b> 12 <sup>th</sup> August 2021	Prominent and significant is the contribution of foreign capital inflows on economic development of capital deficient countries. The theoretical postulation that a well-managed foreign capital inflow has the capacity of boosting economic development make less developing countries see foreign capital as an alternative to bridge their saving deficient gap. This study thus emphasis is on the Nigerian context using historical data to identify which of this inflows contribute more to economic development over time. The study scope covers the period 1986 to 2019 where capital inflows is decomposed into oil related and non-oil related inflow while the misery index is used as a metric of economic development. Ordinary least square and granger causality test is the tool of analysis for the study. From our findings, we discover that the assertion of foreign capital influencing economic development does not hold in the Nigerian context as result shows that the existing development capacity of a nation is what determine the volume of foreign capital that flows into the country and not the other way round. This implies that foreign investors only invest in a stable economy where returns from their investment is guaranteed. As such, we recommend that more investment friendly environment such as (adequate security, electricity stability, pocket friendly tax rate for foreign investors, good road network nationwide) should be considered as this will help attract more foreign investors and further keep the existing once as the exit of most of these foreign investors from the Nigerian region could be the reasons for its insignificant contribution to economic development in Nigeria.

**Keywords:** Economic development, oil, capital inflows

## 1. INTRODUCTION

One of the central element that help accelerate sustainable level of economic development as identified by the main steam economies is capital (Adeola, 2019). The development economist in the like of (Pigou, 1973; Friedman, 1986; Robinson, 1988) posit that capital is essential for development and its origin does not really matter. As such, capital deficient countries heavily resorted to foreign capital as an alternative in bridging their savings deficiency gap.

Capital moves from one country or region to another in form of personal remittances, foreign direct investment (acquisition of companies, security trading); official development assistance (funding offered by governments or aid agencies to disadvantaged countries either free of charge or at rates below the market rate), and foreign or external debt (a fallout for borrowing from abroad). But, for the purpose of this study, just the oil and non-oil related foreign inflows will be considered accordingly.

The developing region and other African countries harness the benefit derived from foreign capital inflows to bridge their saving-investment gap occasioned by inadequate domestic resources and trade imbalances respectively (Anidiobu, Okolie, Onyia, Josaphat & Onwumere, 2021). Developing countries leverage more on external capital than any other continent across the globe. This is because macroeconomic performance of the recipient country could be promoted with well-managed foreign capital inflows, hence more credence is given to it especially in the developing nation such as Nigeria (Ekanayake, Ezeaku & Chatrna, 2017).

The high level of poverty and under development that deepens in the African region necessitated the crave for more inflows of foreign capital. In the Nigerian context for instance, the World Bank Report shows that poverty

index increased from 45% in 1981 to 54% in 2011 and between 2012 to 2017, the index rose to 68% which implies that the total percentage of the Nigerian citizens caught in the poverty web is increasing on yearly basis.

Achieving a sustainable pace of economic development requires huge capital which is missing in the African region hence, sourcing for capital elsewhere is of necessity. In order to achieve this objectives, most countries created an investment friendly environment and a juicy investment policy to attract more foreign inflows into their economy. In this regard, the Nigerian government have taken several measures to encourage foreign capital inflows and investment in order to boost productivity, innovation, employment, standard of living, reduced poverty and ultimately accelerate economic growth whose end result is economic development. Prominent among these policies are deregulation of the economy in the 1980s, the New Industrial Policy of 1989 and the establishment of the Nigerian Investment Promotion Commission (NIPC).

Giving the above mention policies, Nigeria as a nation have attracted a very large volume of foreign inflows inform of oil and non-oil related in the time past. The World Bank report of 2019 shows that the volume of oil related capital inflows that flows into the economy inform of oil related foreign direct investment increase from 437.1 Million in 1986 to 709,263.7 Billion in 2019 while that of the non-oil related foreign direct investment increase from 298.7 in 1986 to 543,6263 Billion. Despite this huge inflows of foreign capital, the expected level of development is far from been attained as the Nigerian economy shuffle between recession and under development. The indication of an under-development can be identified from the high rate of unemployment rate that rise from 3.10% in 1991 to 23.1% in 2019 (World Bank Report, 2019), persistent increase in inflation rate which resulted into poor level of industrial output, high cost of living, high level of national debt against low level of feasible capital infrastructure and this constituted the worry of this study.

The theoretical foundation for foreign capital-led growth hypothesis could be traced to the neoclassical and endogenous growth theories which stressed the importance of capital accumulation and technological progress in the process of economic growth and development. From the empirical perspective, the studies of (Nnamdi & Eniekezimene 2018; Nnamdi, Ogunbiyi & Monogbe 2018, Albuлесcu, 2018; Emmanuel 2016; Okonkwo, & Egbunike 2017; Dalgaard, Hansen & Tarp, 2018; Durham, 2018; Gomanee, Girma, & Morrissey, 2015; Li & Liu, 2015) showed that some components of foreign capital inflows such as foreign direct investment (FDI), foreign aid, foreign portfolio investment and foreign loans have positive impact on economic growth, while the studies of (Akinlo, 2014; Dreher, 2016; Doucouliagos & Paldam, 2019; Goh, Sam & McNowan, 2017; Gunby, Jin & Reed, 2017; Hameed et al., 2018; Jensen & Paldam, 2017) reported that these components of foreign capital inflows have no significant positive impact on economic development of developing countries.

The study worries lien on the prediction by theories (Chenery & Strout, 1966) that inflows of foreign capital is capable of promoting economic development, but in the Nigerian context, all indices are not pointing towards the part of development. As such, we resolve to investigate the influence of each of these inflows on economic development. Hence, we sort to decompose foreign capital inflows into oil and non-oil related while misery index is used as measure for economic development.

## 2. THEORETICAL UNDERPINNING

### Dual Gap Analysis

This study adopted dual-gap theory developed by Chenery and Strout (1966) to explain the usefulness of external capital inflows in augmenting the shortage in a country's domestic savings. Dual-gap theory posits that external capital inflows is important because it fills the funding gaps occasioned by poor savings and investments, as well as low foreign exchange earnings that resulted from trade imbalances, thereby contributing to economic development in borrowing jurisdictions.

This theory was an extension of Harrod and Domar growth model of 1939. The model addresses two relative issues as reported by (Okereke, Ifionu & Monogbe, 2020) and they includes (a) foreign exchange gap in form of capital inflow (b) savings gap. The theory emphasis the importance of foreign capital in boosting investment capacity towards expediting economic development in the LDCs. Since saving is a necessity when initiating investment, the theory identified that returns generated from domestic saving in the LDCs is not sufficient to accelerate economic development. Hence, there is a need for capital transfer (capital inflows) as this will help in resuscitating economic development of the LDCs. This suggest that economic development of any economy relies on effective synergy of investment, domestic savings and capital transfer. In order to ease off the gaps associated with the sub-Saharan Africa, which ECOWAS sub-region is part of, the dual-gap model recommends the need to allow substantial flow of external finance in form of foreign loan to compensate for shortfalls in savings and foreign exchange. In the same vein, pro-dual-gap supporters (Amassoma, 2014; Orji, Uche & Ilori, 2014) view efficient use of foreign finance as panacea to bridge the dual gaps.

### Balanced Growth Theory

The theory was propounded by Ragnar Nurkse (1907-1959). (Ordinarily, the theory of balanced growth states that there should be a simultaneous and harmonious development of different sectors of the economy so that all sectors grow together. However, for this to be achieved, a balance is required between the demand and supply sides. The supply side has to do with the simultaneous development of all inter-related sectors which help in increasing the supply of goods which comprises of issues such as investment in power, agriculture, irrigation, transport while the demand side concerns the provision of employment opportunities and increasing incomes so that the demand for

goods and services may rise on the part of the consumers. The balanced growth theory has a similar focus with the Solow's model of long run growth but it is instructive to say that they cannot be simply substituted for one another (Obademi, 2012).

The interest in the Solow's theory of long run growth is the savings component. Solow takes output as a whole and as the only commodity in the economy with the annual rate of production designated as  $Y_t$  which represents the real income of the economy of which part of it is consumed and the remaining is saved or invested. That portion that is saved represented as  $K_t$  i.e. the stock of capital is often less than what is required for investment in the larger economy due to demographic and structural changes in the country that were not anticipated and as a result government has to borrow to make up for the shortfall.

### 3. REVIEW OF RELATED LITERATURE

Empirical literature on oil related Foreign Direct Investment (FDI) is very minimal while non-oil related FDI literature is quite much, hence, we will be restricted to the limited numbers of oil related foreign direct investment available alongside its non-oil related counterpart.

Nnamdi and Eniekezimene (2018) examine the relationships between the inflows of oil and non-oil related foreign investments as well as the extent to which these classified sectoral foreign investment inflows have proved significant in promoting Nigeria's economy. For analytical purposes, the study employed Error Correction model and Causality tests. Data were sourced from Central Bank of Nigeria's Statistical Bulletin over the period 1986 to 2017. The results of the Causality tests provide evidence that the inflows of oil and non-oil foreign investments have promoted Nigeria's economy over the years. The relationship is above all, contemporaneous. The results of the Error Correction estimation show that non-oil direct investments contribute more significantly to Nigeria's economy compared with the oil related foreign investments. On these bases, the study suggests that Nigeria should emphasize more of non-oil foreign investment inflows as they appear to contribute more to economic growth in the economy.

Adeola (2019) investigated the influence of foreign capital inflows on economic growth of selected sub-Saharan African countries. The study decomposed foreign capital inflows into five components which include oil related foreign direct investment, non-oil related foreign capital inflows, foreign aids, external borrowing, and foreign aids. However, three Sub-Saharan African countries were considered in the study, and they include Nigeria, Kenya, and South Africa. The study employed granger causality methodology and findings reveal that causality flow from economic growth to all the measures of foreign capital inflows selected in the study. However, oil related FDI was reported in indifference in the Nigerian context as its percentage to growth is not significant.

Mehdi and Mojtaba (2020) examine the influence of direct investment on oil and gas sector in Iran using an historical data. The rationale behind the study was to identify if the Dutch disease that have erupted the African and Asian nation is worth it. The granger causality methodology was used in the study and findings reveal that oil related foreign direct investment does not seem to contribute to economic growth in Iran as its inflows does not contribute to increased productivity. However, production output and job creation have decrease in oil related foreign direct investment but increased in non-oil related investment.

Salami, Fatimah, Gazi, Makua and Oke (2021) analyzed the influence of oil related foreign direct investment in Nigeria. An historical data generated from the statistical bulletin of the Nigerian apex bank was used in the study while co-integration test. Findings shows that the FDI in the current years negatively influence economic growth in Nigeria. This inverse relationship identified could be attributed to the dominant role of the oil related foreign investors. The study further reported that its inverse relationship may persist if the insecurity, corruption and poor infrastructure anomalies witnessed in the nation is not quickly addressed.

Omitogun, Longe and Ajulo (2018) examined the nexus between oil price volatility and inflows of foreign direct investment into the African region using Nigeria as a case study. An historical data was used which span between the periods 1970 to 2015. The study employed the auto regressive distributed lag mechanism alongside the granger causality test. Result shows that increase in oil price volatility leads to drop in foreign direct investment inflows into the Nigerian economy both in the long and short run. The study thus concluded that volatility in prices of oil in the global market will affect inflows of foreign capital investment into the Nigerian economy.

Monogbe, Okereke and Ifionu (2020) decomposed foreign capital inflows into four components which include foreign direct investment, portfolio investment, foreign aids and external borrowing using time series data. They analysed their data with the help of E-views 10 version where human development index was the metric for economic development. Findings shows that portfolio investment and foreign aids are key capital inflows that have help in boosting economic development in Nigeria.

### 4. METHODOLOGY

Given the nature of the study, the ex-post factor causal comparative research design is used in this study where oil and non-oil related foreign capital inflows are metric of foreign capital inflows while misery index is used as a measure of economic development. Data for the study is extracted from the CBN statistical bulletin between the periods 1981 to 2019. Since the study aim is to identify which of these inflows best promote economic development in Nigeria, the granger causality methodology is introduced accordingly.

We first modelled the linear function accordingly

$$MXI = f(ORFCI, NORFCI)$$

(1)

To fulfil the econometrics condition, we introduce error term, coefficient and constant accordingly

$$MXI = a_0 + a_1ORFCI + a_2NORFCI + Y_t \tag{2}$$

We formulate our granger causality model in line with the study of Monogbe, et al (2020) whose study decompose foreign capital inflows into four components.

$$\Delta MXI_t = \sum_{i=1}^n b_{1t} \Delta ORFCI_{t-i} + \sum_{i=1}^n c_{1t} \Delta MXI_{t-i} + \sum_{i=1}^n e_{1t} \Delta NORFCI_{t-i} + Y_{1t} \tag{3}$$

$$\Delta ORFCI_t = \sum_{i=1}^n b_{1t} \Delta MXI_{t-i} + \sum_{i=1}^n c_{1t} ORFCI_{t-i} + \sum_{i=1}^n e_{1t} \Delta NORFCI_{t-i} + Y_{1t} \tag{4}$$

$$\Delta NORFCI_t = \sum_{i=1}^n b_{1t} \Delta MXI_{t-i} + \sum_{i=1}^n c_{1t} \Delta ORFCI_{t-i} + \sum_{i=1}^n e_{1t} \Delta NORFCI_{t-i} + Y_{1t} \tag{5}$$

Where

MXI = Misery Index

ORFCI = Oil related foreign capital inflow

NORFCI = Non-oil related foreign capital inflow

$\Delta MXI_{t-1}$  = Change in Lag value of MXI at time t

$Y_{it}$  = Error term

$a_1, a_2, c_{it}, e_{it}$  = Coefficient of the explanatory variables

$a_0, b_{it}$  = Constant

**On apriori expectation**

In line with previous empirical result and assumption of misery index, the explanatory variables (FDI, FPI, PRRM, EXTB and FORA) are expected to respond to the explained variable (MXI) in a negative manner. Therefore, an inverse relationship is expected among the series. This can however be written in a mathematical form thus

$$a_1, a_2 < 0 \tag{6}$$

**5. OPERATIONAL MEASURE OF VARIABLE**

**Misery Index:** It is an economic indices used in measuring the level of economic development in a country. Within the context of this study, misery index is conceptualized as inflation rate plus unemployment rate less gross domestic product. The output is used as a caption for economic development. An inverse relationship is predicted between misery index and all other variables. This is on the basis that an increase misery index is an indicator of high economic hardship/underdevelopment and vice viz. Misery index assumption states that the higher the index, the lower the economic development level and a lower index depict a favourable economic development stance. Further, increase in inflows of foreign capital is targeted at improving economic development level hence, all the measures of international capital inflows are expected to respond in an inverse manner to misery index.

**Oil related foreign direct investment (OFDI):** According to the World Bank Data base, foreign capital inflows is slated into oil and non-oil inflows. The oil related inflows are the quantum of foreign capital investment that flows into the Nigerian economy and involve crude oil and its property (Nnamdi & Eniekezimene, 2018). More inflows of oil related foreign capital inflow (FCI) is expected to promote economic development in a positive manner. As such, this will be measure in billions of naira as reported in the CBN bulletin and later converted to rate since he dependent variable (MXI) is in rate. On apriori, more inflows of oil related FCI is expected to promote economic development thereby reducing misery index (MXI) hence, negative relationship is expected to transpire between the series.

**Non-Oil related Foreign Capital Inflows (NOFCI):** The non-oil related FCI is the quantum of foreign capital investment that flows into the Nigerian economy and it involves other investment like manufacturing, telecommunication, engineering and so on (Nnamdi, & Eniekezimene, 2018). More inflows of non-oil related FDI is expected to promote economic development in a positive manner. On apriori, more inflows of non-oil related FCI is expected to promote economic development thereby reducing misery index (MXI) hence, negative relationship is expected to transpire between the series. As such, this is measured in billions of naira as reported in the WB report and later transform into rate to ensure uniformity of measurement.

**DATA PRESENTATION AND DISCUSSION OF RESULT**

**Table 1: Where: ORFCI- = Oil related foreign capital inflows, NOFCI = Non-Oil related foreign capital inflows, MXI = Misery Index**

Years	ORFCI (# Billion)	NOFCI (# Billion)	MXI(%)
1986	437.1	298.7	16.4
1987	2,306.20	146.6	5.35
1988	1,598.10	120.1	3.58
1989	-4,525.10	-25,696.80	51.65
1990	-26,651.50	-22,593.80	53.57
1991	-16,687.60	-10,795.30	15.03
1992	-75,174.10	-63,581.50	<b>34.56</b>
1993	-2,852.90	-16,888.00	<b>65.08</b>
1994	-42.3	-102.4	<b>63.2</b>
1995	-135.4	-443.1	<b>13.98</b>

1996	-139.5	-310.2	<b>11.05</b>
1997	-146.7	-535.1	<b>30.6</b>
1998	-161.3	-546.2	<b>27.59</b>
1999	-211.7	-581.3	<b>17.61</b>
2000	-198.7	-687.8	<b>22.43</b>
2001	-215.5	-1,018.80	<b>36.43</b>
2002	-325.5	-1,035.90	<b>19.11</b>
2003	-359	-1,513.20	<b>47.05</b>
2004	-318.1	-1,668.90	<b>17.3</b>
2005	405,599.80	248,593.40	<b>17.67</b>
2006	387,202.90	237,317.90	<b>14.16</b>
2007	470,815.90	288,564.60	<b>25.5</b>
2008	602,357.20	369,186.60	<b>33.08</b>
2009	789,765.80	484,050.00	<b>46.13</b>
2010	561,553.10	344,177.70	<b>29.34</b>
2011	843,390.90	516,917.00	<b>36.42</b>
2012	690,376.60	423,134.00	<b>35.51</b>
2013	542,563.50	332,538.90	<b>33.91</b>
2014	457,682.30	280,514.90	<b>33.26</b>
2015	373,282.10	228,785.80	<b>42.28</b>
2016	696,972.40	427,176.60	<b>54.23</b>
2017	709,263.7	543,626.3	<b>54.38</b>
2018	809,432.80	602,290.30	<b>55.6</b>
2019	813,309.30	690,409.50	<b>56.07</b>

**Source; Extraction from E-views**

Since misery index is in rate, we convert other explanatory variables into rate to ensure uniformity of measurement and the table is presented in the appendix.

**Table 2: Presentation of Stationarity Test**

To avoid having spurious result, we subjected our data set to stationarity test using Augmented unit root test.

Variable	ADF statistics	Mackinnon's test critical values @			Probability Level	Order of Integration	Decision
	T- At Level	1%	5%	10%			
MXI	-6.493482	-3.653730	-2.957110	-2.617434	0.0000	i(1)	Stationary
RNOFCI	-9.333679	-3.661661	-2.960411	-2.619160	0.0000	i(1)	Stationary
RORFCI	-9.325135	-3.661661	-2.960411	-2.619160	0.0000	i(1)	Stationary

**Source: Extraction from E-views**

We found absence of unit root from the result presented in table 2. This implies that all series are integrated in the order of i(1). Therefore, our data set meet up the condition for further econometric test. Hence, we proceed to test for the short run relationship among the series

**Table 3: Presentation of Ordinary Least Square Result**

Dependent Variable: MXI  
 Method: Least Squares  
 Date: 07/16/21 Time: 09:24  
 Sample (adjusted): 1987 2019  
 Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	33.34033	3.079005	10.82828	0.0000
RNOFCI	-0.020863	0.000812	-1.063560	0.2960
RORFCI	0.010224	0.000165	1.359949	0.1840
R-squared	0.662051	Mean dependent var	33.41545	
Adjusted R-squared	0.500479	S.D. dependent var	17.16228	
S.E. of regression	17.16639	Akaike info criterion	8.610292	
Sum squared resid	8840.552	Schwarz criterion	8.746338	
Log likelihood	-139.0698	Hannan-Quinn criter.	8.656068	
F-statistic	0.992335	Durbin-Watson stat	1.911375	
Prob(F-statistic)	0.082552			

**Source: Extraction from E-views**

In the short run, non-oil related foreign capital inflow seems to have contributed to economic development to the tune of 0.021 percent in an inverse manner. Given the condition for misery index, non-oil related foreign capital inflows exhibited an expected negative coefficient of -0.02086 alongside an insignificant P-value of 0.0960. This implies that if the investment environment in Nigeria is more friendly, nonoil foreign capital will flow more into the Nigerian economy and thus boost economic development accordingly. Conversely, the oil-related foreign capital inflows do not seem to significantly promote economic development in Nigeria and not rightly signed. From the result above, we can infer that oil related capital inflows have not contributed immensely to economic development in Nigeria.

The global statistics shows that the adjusted R<sup>2</sup> exhibited an average coefficient of 0.500 thus suggesting that oil and nonoil related capital inflows jointly accounted for variation in economic development to the tune of 50% while the DW statistic exhibited a coefficient of 1.9113 thus suggesting absence of auto correlation.

**Table 4: Presentation of Granger Causality Test**

Pairwise Granger Causality Tests  
 Date: 07/16/21 Time: 09:30  
 Sample: 1986 2019  
 Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
RNOFCI does not Granger Cause MXI	32	0.00816	0.9287
MXI does not Granger Cause RNOFCI		4.10502	0.0420
RORFCI does not Granger Cause MXI	32	0.89994	0.3506
MXI does not Granger Cause RORFCI		0.91440	0.3469
RORFCI does not Granger Cause RNOFCI	32	0.00412	0.9492
RNOFCI does not Granger Cause RORFCI		0.03874	0.8453

**Source: Extraction from E-views**

Since the objective of the study is to identified which of this inflows best promote economic development in Nigeria, causality test is introduced. A single uni-directional relationship is identified from this study. (1) unidirectional relationship is identified between Misery index and non-oil related foreign capital inflows with causality flowing from MXI to NOFCI. This implies that demand following relationship prevail between the series. By implication the level of economic development is what determines the volume of foreign capital inflows that enters into the economy and not the inflows that predict economic development. That is, investors are on the watch out for the nations with stable economic indices where their investment can yield better returns, hence an instable or volatile economy will experience low inflows of foreign capital. The result presented above has provided us with an evidence to assert that in the Nigerian context, the level or pace of economic development is what determine the volume of non-oil related capital inflows that enter into the nation. In all, the non-oil related foreign capital inflows seem to have entered more into the Nigeria economy in accordance with the pace of economic development witnessed.

**6.DISCUSSION, CONCLUSION AND RECOMMENDATION.**

Prominent and significant is the contribution of foreign capital inflows on economic development of capital deficiency countries. Theoretical postulation predicted that a well-managed foreign capital inflow has the capacity of boosting economic development. Hence, capital deficient countries leverage on this assertion and open their economic for more inflows of foreign capital. The study emphasis is on the Nigerian context using historical data to identify which of this inflows has contributed to the Nigerian economic development over time. From our findings, we discover that the assertion of foreign capital influencing economic development does not hold in the Nigerian context as result shows that the existing development capacity of a nation is what determine the volume of foreign capital that flows into the country. Result of the causality test shows that demand following relationship prevail between nonoil related foreign capital inflows and economic development with causality flowing from development index to non-oil related capital inflows. In the short run however, none of the studied variables significantly influence economic development but the non-oil foreign capital inflows exhibited a coefficient in line with our apriori expectation. The report from this study further provide a supporting evidence in alignment with the study of Nnamdi, & Eniekezimene, (2018) whose study suggest that non-oil related foreign direct investment significantly promote economic growth in Nigeria compared to the oil related investment. Our findings further support that of Mehdi & Mojtaba (2020) whose study reported that oil related foreign direct investment does not seem to contribute

to economic growth in Iran as its inflows does not contribute to increased productivity. Therefore, this study conclude that oil-related foreign capital inflows has been contributing and has the potential of contributing more to economic development in Nigeria if the following recommendation are considered

- i. Since non-oil related foreign capital inflows exhibited the expected sign, we recommend that more investment friendly environment such as (adequate security, electricity stability, pocket friendly tax rate for foreign investors, good road network nationwide) should be considered as this will help attract more foreign investors and further keep the existing once as the exit of most of these foreign investors from the Nigerian region could be the reasons for its insignificant contribution to economic development in Nigeria.

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**Appendix**

**Data Conversion**

Where: ORFCI- = Oil related foreign capital inflows, NOFCI = Non-Oil related foreign capital inflows, MXI = Misery Index

Years	MXI	RNOFCI	RORFCI
1986	16.4		
1987	5.35	-50.9207	427.6138
1988	3.58	-18.0764	-30.7042
1989	51.65	-21496.2	-383.155
1990	53.57	-12.0754	488.9704
1991	15.03	-52.2201	-37.3859
1992	<b>34.56</b>	488.9739	350.4788
1993	<b>65.08</b>	-73.4388	-96.2049
1994	<b>63.2</b>	-99.3937	-98.5173
1995	<b>13.98</b>	332.7148	220.0946
1996	<b>11.05</b>	-29.9932	3.028065
1997	<b>30.6</b>	72.50161	5.16129
1998	<b>27.59</b>	2.074379	9.952284
1999	<b>17.61</b>	6.426218	31.24613
2000	<b>22.43</b>	18.321	-6.14077
2001	<b>36.43</b>	48.12445	8.454957
2002	<b>19.11</b>	1.678445	51.04408
2003	<b>47.05</b>	46.07588	10.29186
2004	<b>17.3</b>	10.28945	-11.3928
2005	<b>17.67</b>	-14995.6	-127607
2006	<b>14.16</b>	-4.53572	-4.53573
2007	<b>25.5</b>	21.59411	21.5941
2008	<b>33.08</b>	27.93898	27.93901
2009	<b>46.13</b>	31.11256	31.11254
2010	<b>29.34</b>	-28.8963	-28.8963
2011	<b>36.42</b>	50.18899	50.18898
2012	<b>35.51</b>	-18.1428	-18.1427
2013	<b>33.91</b>	-21.4105	-21.4105
2014	<b>33.26</b>	-15.6445	-15.6445
2015	<b>42.28</b>	-18.4408	-18.4408
2016	<b>54.23</b>	86.71465	86.71466
2017	<b>54.38</b>	1.763528	1.763528
2018	<b>55.6</b>	14.1229	14.1229
2019	<b>56.07</b>	14.63069	0.478916

Source: Authors computation.



