

The impact of IFRS adoption and Employment rate on Foreign Direct Investment in Algerian economy during the period 1990-2017

أثر اعتماد المعايير الدولية لإعداد التقارير المالية ومعدلات التوظيف على الاستثمار الأجنبي المباشر في الاقتصاد الجزائري خلال الفترة 1990-2017

Ibrahim FERZIZI

University of M'hamed BOUGARA, Boumerdes, Algeria., i.ferzizi@univ-boumerdes.dz

Received: 8/10/2020

Accepted: 10/11/2020

Published: 15/1/2021

Abstract:

This paper aims to explore the impact of applying IFRSs and employment rates on foreign direct investment flows and analyze the impact of applying IFRSs on the flow of foreign direct investment in the short and long term in Algeria between 1990 and 2017. This investigation aims to fill the gap related to the empirical literature on determinants of foreign direct investment in developing countries, using the ARDL methodology. The results show that there is a positive relationship between employment and flows of foreign direct investment in Algeria in the long term. Moreover, the negative impact of applying IFRSs on foreign direct investment flows in Algeria in the same year, and the positive impact of applying IFRSs on foreign direct investment flows in Algeria for the past year. These results provide significant implications for policymakers in developing countries to improve the business environment in their own countries, directors and foreign investors in assessing the host countries' business environment and academic research.

Keywords: Foreign Direct Investment, Employment, IFRS, ARDL Model, Algerian economy.

Jel Classification Codes: F21, J01, C22, O55.

ملخص:

تهدف هذه الورقة إلى استكشاف تأثير تطبيق المعايير الدولية لإعداد التقارير المالية ومعدلات التوظيف على تدفقات الاستثمار الأجنبي المباشر وتحليل أثر تطبيق المعايير الدولية لإعداد التقارير المالية على تدفق الاستثمار الأجنبي المباشر في المديين القصير والطويل في الجزائر بين عامي 1990 و 2017. ويهدف هذا التحقيق إلى ملء الفجوة المتعلقة بالأدبيات التجريبية حول محددات الاستثمار الأجنبي المباشر في البلدان النامية. باستخدام منهج اختبار حدود ARDL. تظهر النتائج لوجود علاقة إيجابية بين العمالة وتدفقات الاستثمار الأجنبي المباشر في الجزائر على المدى الطويل. وأثر سلبي لتطبيق المعايير الدولية لإعداد التقارير المالية على تدفقات الاستثمار الأجنبي المباشر في الجزائر في نفس السنة، وأثر إيجابي لتطبيق المعايير الدولية لإعداد التقارير المالية على تدفقات الاستثمار الأجنبي المباشر في الجزائر للسنة الماضية.. توفر هذه النتائج آثارًا كبيرة على صناعي السياسات في البلدان النامية لتحسين بيئة الأعمال في بلدانهم، والمديرين والمستثمرين الأجانب في تقييم بيئة الأعمال في البلدان المضيفة والبحوث الأكاديمية.

كلمات مفتاحية: الاستثمار الأجنبي المباشر، التشغيل، المعايير الدولية لإعداد التقارير المالية، نموذج ARDL ، الاقتصاد الجزائري.

تصنيف JEL: O55, C22, J01, F21.

1.INTRODUCTION:

Foreign direct investment has become one of the significant milestones in the performance of the global economy. And the most prominent manifestation of its globalization [Zerrin KILIÇARSLAN, 2018](#). Through the expansion of the influence of multinational companies that encouraged the emergence of new economic blocs. Moreover, the trend towards economic liberalism by overtaking the social market economy. And the socialist economy after the failure of the socialist experiment. As well as the critical change that The nature of production and capital also occurred due to the scientific and technological progress that has become distinguished by the latter, which made its original developed countries achieve three-quarters of the global trade and embody 70% of foreign direct investment and The widening of the gap between them and the developing countries.

Moreover, the disparity between developed and developing countries has deepened since the end of the last century. This has been due to both underdevelopment and several class conflicts in many underdeveloped countries, which hurt their economic structural imbalances, including on unemployment, the balance of payments, and indebtedness; this forced many of these countries to

change their economic course and implement immediate measures, the most important of which are liberalization of foreign trade and entry of foreign partners with the idea of privatization and price liberalization. Despite the reasons that led to the search for foreign partners, there is a dispute between the supporters and opponents of foreign investment, which lead to the privatization of public institutions [Bilal, L. 2019](#).

Investments are the focus of businessmen, capitalists and governments in many countries around the world, including Algeria, which seeks to attract foreign investments. The decision-makers in Algeria focused on enhancing the attractive investment environment for foreign direct investment (FDI) and seek to improve the investment climate and so attract investments. Algeria has restructured its economy and initiated legislative reforms to achieve greater economic openness. These include: deregulation of the freedom of movement of capital, the development of its economy and the reliance on a productive economy adapted to foreign direct investments, and the development of local investments by focusing on the development of labour market and the application of international financial reporting standards IFRS in 2010 to complement foreign direct investment.

What is the impact of IFRS adoption and employment rates on foreign direct investment in Algeria during the period 1990-2017?

The present paper aims to empirically explore the impact of IFRS adoption and employment on FDI inflows and analyze the effect role of IFRS adoption on the relationship between employment and FDI inflows in the short run and long run in Algeria between 1990 and 2017. the findings show a positive association between employment and FDI inflows in Algeria in the long-run. However, However, in terms of the role of IFRS adoption in mediating the impact of government and private sector on FDI inflows in Algeria, our findings report a negative contribution of IFRS adoption on the association between government and private sector and FDI inflows in both long and short run.

This study attempts to contribute to the literature on FDI and IFRS adoption; They were divided into five parts. **First**, Introduction, **Second**, Literature review, hypotheses and Background. **Third**, Data and methodology. **Fourth**, Empirical results. **In the last**, Discussion of results and conclusion focus on implication, limitation and the future of research.

2. Literature review, hypotheses and background

2.1 Literature review

The previous studies were covered in three sections:

Studies that dealt with determinants of foreign direct investment:

Investment is an essential variable in the economy, and foreign direct investment is not an exception. There are several studies that dealt with the determinants of which we mention, study of [Anuchitworawong C, Thampanishvong K \(2014\)](#) examined the determinants of FDI in Thailand: Are natural disasters important? It concluded that there was a significant positive effect for both real per capita income, real exchange rate, CPI, and negative impact of the degree of natural disaster servers for the year t-1 but not significant. The study of [Louail, \(2019\)](#) which addressed the determinants of foreign direct investment in the Arab countries during the period (1970-2016), and concluded that there is a positive and moral impact for both a foreign direct investment for year t-1 and raw internal output GDP and economic openness on the flow of foreign direct investment in the Arab countries and the negative and moral impact of inflation in the year (t-4). [Brahim and Dupuch, \(2016\)](#) concluded that for a group of European countries, the determinants evolved, suggesting that competitiveness of the social and, mainly, the tax system affects the technological gap. coincides with the occurrence of a crisis, which generates higher volatility in FDI flows.

Studies that dealt with the relationship between IFRS and foreign direct investment

[Zouita et al. 2019](#) in this study using the ARDL bounds testing approach, the findings show a positive association between SMEs and FDI inflows in Algeria in the long-run. However, in terms of the role of IFRS adoption in mediating the impact of SMEs on FDI inflows in Algeria, the findings of this paper report a negative contribution of IFRS adoption on the association between SMEs and FDI inflows in both long and short run.

[Mameche, 2020](#) the findings of this study revealed evidence that IFRS adoption did have a significant negative effect on FDI inflows Algeria, both in the long-run as well as in the short-run.

[Lungu et al., 2017](#) the results of this study indicate that the countries adopting IFRS are more likely to benefit from a higher increase in FDI inflows than the non-adopters. Additional tests reveal that the impact is driven by the adoption level related both to listed and unlisted companies. IFRS adoption by unlisted

companies has a lower impact on FDI inflows, as compared to IFRS adoption by listed companies.

Márquez-Ramos, 2008 the results of this study provide evidence that benefits exist in terms of trade and FDI when IFRS are adopted. Furthermore, the positive effect of adopting uniform accounting standards on foreign activities in Europe is higher in transition economies. And this effect also differs in countries because of behavioural factors such as unfamiliarity aversion.

Owusu et al., 2017 the results of this study demonstrate that IFRS adoption, on its own, does not affect the amount of FDI inflows to developing countries. However, from the interaction noted between IFRS adoption and institutional quality, it is observed that countries that adopted the IFRS experience better FDI inflows when the institutional quality is present.)

There are also some studies on the relationship of foreign direct investment to the application of international accounting standards. Moreover, the latter is considered specific to its determinants, including those who have found positive and moral impact (**Nejad et al., 2017**), (**Pricope, 2017**) and, but The study of (**Owusu and all. 2017**) was found to be insignificant, while the study of (**Nnadi and Soobaroyen, 2015**) found a negative and moral impact.

Studies that dealt with the relationship between employment rates and foreign direct investment:

Inekwe, 2013 the results of this study indicate FDI in the manufacturing sector has a positive relationship with employment rate while FDI in the servicing sector has a negative relationship with employment rate.

Rong et al., 2020 the results of this study indicate FDI promote employment of China through moderating effect of labor market flexibility. And the FDI plays a constructive role in promoting employment demand for both high- and low-skilled labor. And the employment effect of FDI decreases with the East, middle and West of China.

Wang et al., 2020 in this study the results show that the inward FDI has a positive effect on employment and such an effect is more pronounced in the regions with colonial influence than their counterparts. Further, we find that the experience of Western colonization strengthens the positive effect of inward FDI on employment whereas the experience of Japanese colonization weakens or even overturns this positive effect. These findings are robust to controlling for the

endogeneity between inward FDI and employment as well as employing alternative measures for the colonization.

Thus, the gap for this research is that we are studying the impact of IFRS adoption and employment rate on foreign direct investment in the Algerian economy during the period (1970-2018), which is considered a recent period.

2.2 Hypotheses

To answer the previous problem and achieve the desired research objectives, we propose the following set of hypotheses:

H1: There is a positive impact of the IFRS adoption on the flow of foreign direct investment in the long run in Algeria.

H2: There is a positive impact of the IFRS adoption on the flow of foreign direct investment in the short run in Algeria.

H3: There is a positive impact of the employment rate on the flow of foreign direct investment in the long run in Algeria.

H4: There is a positive impact of the employment rate on the flow of foreign direct investment in the short run in Algeria.

2.3 Background

2.3.1 foreign direct investment

Knows the FDI Foreign investment is direct when the investor acquires 10 % Or more of the capital shares of a business, provided that this ownership is related to the ability to influence the management of the organization, and thus differs from investment in portfolios and investment funds that buy corporate assets to achieve a financial return without controlling their management .With the need to warn about the difficulty of distinguishing accurately between the two types [Hassan, 2003](#).

2.3.2 The labour market

The labour market is the economic, regulatory institution in which the supply and demand for labour interact, in the sense that labour services are sold and bought, and therefore labour services are priced .The labour market has several characteristics, namely that work services are rented and not sold and cannot be separated from the worker. Work conditions are not less than the price (wage) in the interpretation of the decisions of supply, demand and movement [Hassan, 2003](#).

2.3.3 IFRS adoption: On 26 July 2008, the Algerian authorities adopted a new accounting system known as the Accounting and Financial System (Système

Compatible Financier), which began operations on 1 January 2010 and was mainly based on IFRS with some differences (Sadi, 2012). For instance, IAS 19 (Employee Benefits), IAS 33 (Earnings per Share), IAS 40 (Investment Property), and IAS 39 (Financial Instruments) were not contained in the Algerian accounting rules in any detail; only general recommendations were provided. Furthermore, the fair value method was not allowed as per IAS 16 (Plants and Equipment) and IAS 38 (Intangible Assets).

Finally, the new accounting system allows some Algerian companies to continue using the Cash Accounting System. This simplified accounting regime is applicable for smaller commercial firms that have total revenues or total employees of less than 10 million Algerian Dinars or 9 employees for two consecutive years; less than 6 million Algerian Dinars or 9 employees for two consecutive years for industrial firms; and under 3 million Algerian Dinars or 9 employees for two consecutive years for the services industry and other sectors Khlif et al., (2020).

3. Research methodology

In this study, we used a regression model to identify the impact of IFRS adoption and employment on FDI. Moreover, we used the EViews 10 software for analysis.

3.1 Variable definitions and sources

The variables used in the study relate to the Algerian economy during the period 1990-2017. Data were taken from the World Bank's database for all the variables during the study period and the consolidation of data sources. The variables are summarised in Table 1.

Table 1: Variables used in the data regression model and their expected effects

Variable	Definitions	Expected sign	source
FDI	Foreign direct investment, net inflows (BoP, current US\$)		
EMP	Employers, total (% of total employment) (modelled ILO estimate)	Positive (+)	
IFRS	IFRS adoption in Algeria qualitative variable	Positive (+)	(0 before 2010, 1 after 2010)

Source: All data are from the World Development Indicators' Data Bank by the World Bank (databank.worldbank.org/wdi).

3.2 Descriptive statistics analysis

Descriptive statistics summarized in **Table 2** indicate that the normality assumption of all variables included in our sample is satisfied. The Jarque-Bera (JB) test revealed that the data used in this investigation is usually distributed as the corresponding p-value of JB for each variable is not significant at the 5 per cent significance level.

Table 2: Descriptive statistics analysis

	FDI	IFRS	EMP
Mean	1.10E+09	0.285714	5.217222
Median	1.11E+09	0	5.129
Maximum	2.75E+09	1	7.681
Minimum	-5.38E+08	0	3.073
Std. Dev.	9.13E+08	0.460044	1.535427
Skewness	0.206382	0.948683	0.045545
Kurtosis	2.112136	1.9	1.495544
Jarque-Bera	0.998621	5.611667	2.555645
Probability	0.606949	0.060456	0.278643
Sum	2.74E+10	8	140.865
Sum Sq. Dev.	2.00E+19	5.714286	61.29591
Observations	25	28	27

Source: Output Eviews

3.3 Correlation Matrix

The results of the correlation matrix for the time series variables, as shown in **Table 3**, point out that there should not be a significant problem of multicollinearity among the independent variables used in our model since there is no correlation coefficient more than 85 per cent (**Chowdhury, 2017**). Further, the results of the correlation matrix demonstrate a strong correlation between the dependent variable (FDI) and the explanatory variables (IFRS, EMP).

Table 3: Correlation Matrix

	FDI	IFRS	EMP
FDI	1		
IFRS	0.273922675	1	

EMP	-0.617648471	-0.681524768	1
-----	--------------	--------------	---

Source: Output Eviews

3.4 Model specification and estimation technique

The current paper aims to empirically examine the impact of IFRS adoption and employment on FDI inflows in Algeria. Based on previous literature ([Esther et al., 2018](#); [Eze & Okpala, 2015](#)), the basic regression equation of this empirical study can be specified as:

$$FDI_t = \alpha_0 + \alpha_1 EMP_t + \alpha_2 IFRS_t + \varepsilon_t \quad (1)$$

Where FDI is FDI inflows in Algeria, EMP is Employment in Algeria, $IFRS$ is IFRS adoption in Algeria, α_0 is constant, $\alpha_i (i = 1, 2, 3, 4)$ slopes, and t is time.

The Autoregressive Distributed Lag (ARDL) bounds testing approach to cointegration is used as an estimation technique in the current empirical research. The advantages of this technique, developed by [Pesaran et al. \(2001\)](#), can be stated in three significant aspects. First, It enables analyzing both short- and long-run associations between dependent and independent variables and without regard to the order of integration of the regressors provided it does not exceed the order of one $I(1)$ ([Pesaran, 1997](#); [Pesaran et al., 2001](#)). Second, this approach is well suited in the case of small sample size since it provides a reliable outcome ([Pesaran and Shin, 1998](#)). Third, under this technique variables can have different optimal lagged periods ([Pesaran et al., 2001](#)). Fourth, the long-term coefficients are unbiased even in the case of the endogeneity of the regressors.

Hence, according to [Pesaran et al., \(2001\)](#), equation (1) is tested by estimating the following unrestricted error correction model (UECM) as follows:

$$\begin{aligned} \Delta FDI_t = & \vartheta_0 + \vartheta_1 FDI_{t-1} + \vartheta_2 EMP_{t-1} + \vartheta_3 IFRS_{t-1} + \sum_{i=1}^p \rho_{1i} \Delta FDI_{t-1} + \sum_{j=0}^q \rho_{2j} \Delta EMP_{t-1} \\ & + \sum_{j=0}^q \rho_{3j} \Delta IFRS_{t-1} + \mu_t \dots \dots \dots (2) \end{aligned}$$

Even ARDL bounds testing approach to cointegration technique requires no pretesting for unit roots, this study conducts Augmented Dickey-Fuller (ADF) ([Said & Dickey, 1984](#)) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) ([Kwiatkowski et al., 1992](#)) unit root tests to determine the level of integration of variables, ensure that none of the variables is $I(2)$ or beyond and, therefore, provide justification for suitability of our model estimation technique.

The second step involves examining the existing of long-run association among the variables stated in our models Based on the F- bound test procedure. For this, the null hypothesis of no cointegration to be tested in equation (2) is $H_0: \vartheta_2 = \vartheta_3 = \vartheta_4 = \vartheta_5 = 0$ and the alternate hypothesis of the presence of cointegration $H_1: \vartheta_2 \neq \vartheta_3 \neq \vartheta_4 = \vartheta_5 \neq 0$. The computed value of F-statistics is compared with upper and lower critical values proposed by [Pesaran et al. \(2001\)](#).

4. Empirical results

4.1 unit Root Tests results

Table 4 provides information on the order of integration of all variables included in our study based on the results of Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests for unit root. The results show that the dependent variable (FDI) is integrated of order one I(1) and all other independent variables are integrated of order one I(1). Thus, both test (ADF & PP) demonstrate that none of the series is integrated of order two I(2). As a result, the Autoregressive Distributed-lag (ARDL) Bounds Testing procedure can be adopted to estimate our model.

Table 4: unit Root Tests results (ADF & PP)

		FDI	EMP	IFRS
At level	ADF test	-2.28	-1.14	-0.58
	PP test	-2.28	-0.91	-0.58
at 1st difference	ADF test	-7.05***	-5.84***	-5.09***
	PP test	-7.16***	-6.5***	-5.09***
Order of Integration		I(1)	I(1)	I(1)

Note: *, ** and *** indicate rejection of null hypothesis at 10 per cent, 5per cent and 1 per cent, respectively.

4.2 Bounds tests for cointegration

Statistical findings for bound testing for each model are given in **Table 5**. The computed F-statistics for the model (3.03) is higher than the corresponding upper bound critical value at 10 per cent level of significance for the model. Thus, the null hypothesis of no cointegration is rejected, implying robust evidence of long-run cointegration relationships among all variables for the model.

Table 5: Computed F-statistic for Cointegration tests – ARDL Bounds tests

	I(0)	I(1)	conclusion
Lower-upper bound (10%)	2.63	3.35	Cointegration
Lower-upper bound (5%)	3.1	3.87	
Lower-upper bound (2.5%)	3.55	4.38	

Lower-upper bound (1%)	4.13	5	
F-statistics	3.03*		
K	2		

Note: * denotes statistically significant at 10 %; ** denotes statistically significant at 5%; *** denotes statistically significant at 2.5%, **** denotes statistically significant at 1%

K: represents the number of regressors included in the model

4.3 The long and short-run estimation findings

The estimated coefficients of the long-run relationship are given in **Table 6**. Concerning the model, the results indicate that employment (EMP) has a very high significant impact on FDI inflows at 1 per cent level implying that a 1 % increase in EMP leads to more than 100% increase in FDI. Moreover, the difference in FDI_{t-1} and FDI_{t-2} has a very high significant impact on FDI inflows. Also, the IFRS adoption in Algeria in last year and his difference has a very high significant effect on FDI inflows.

Table 6: Long-run coefficients estimation with ARDL Bounds test model (3,0,2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.75E+09	1.06E+09	0.000	0.000
FDI(-1)*	-0.076498	0.362524	-0.211015	0.8367
EMP**	-2.09E+08	1.63E+08	0.000	0.0000
IFRS(-1)	-1.78E+09	6.28E+08	0.000	0.0000
D(FDI(-1))	-0.998694	0.428296	-2.331782	0.0397
D(FDI(-2))	-1.034411	0.514581	-2.010198	0.0696
D(IFRS)	-1.61E+08	8.26E+08	0.000	0.0000
D(IFRS(-1))	8.69E+08	7.68E+08	0.000	0.0000
Obs	19			

Source: Output Eviews (Dependent Variable: D(FDI))

4.3 ECM ARDL Model

Table 7 presents the short-run results as well as the error correction mechanism of the selected ARDL models. The findings reveal that the speed of adjustment is negative (-0.076), significant at 1 per cent and does not exceed the value of one, hence the validity of the long-run equilibrium mechanism (**Pesaran et al., 1999**). This implies that the annual rate of adjustment toward full equilibrium in the long run ranges from 7.6% in the model.

Table 7: Error Correction representation of ARDL Bounds test model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FDI(-1))	-0.998694	0.222288	-4.492795	0.0009
D(FDI(-2))	-1.034411	0.319423	-3.238375	0.0079
D(IFRS)	-1.61E+08	6.33E+08	0.0000	0.0000
D(IFRS(-1))	8.69E+08	6.22E+08	0.0000	0.0000
CointEq(-1)*	-0.076498	0.01945	-3.933157	0.0023
R-squared	0.637279			
Adjusted R-squared	0.533644			
Durbin-Watson stat	1.856743			

Source: Output Eviews

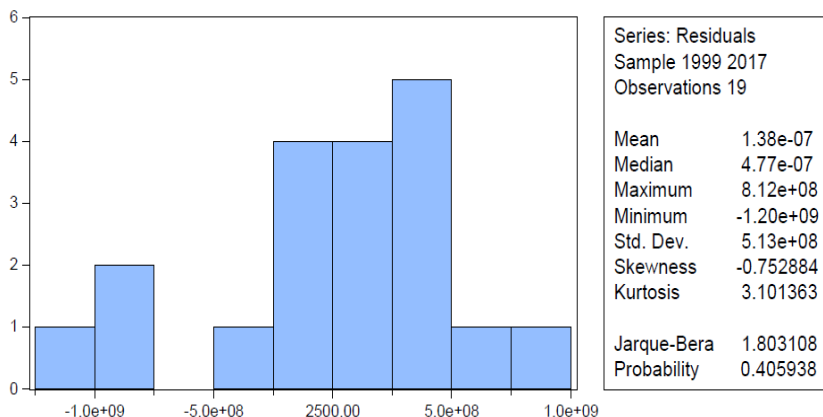
4.4 Diagnostic and stability tests

After estimating the model shown in equation (1), it became clear to us that it is acceptable in its general form according to the statistics of Fischer and Durban Watson, so it was necessary to test it for its absence of common mistakes, by performing the following tests:

4.4.1 Histogram-Normality Test

According to **Figure 1**, which takes the form of a bell as an indication that the residual is normal distribution, in addition to the fact that the Jarque-Bera statistic is acceptable, and its probability is higher than 5% ($P=0.406 > 0.05$), we accept the null hypothesis, which says that residual is a normal distribution.

Fig 1: histogram and descriptive statistics of the residuals



Source: Output of EViews 10.

4.4.2 Heteroskedasticity Tests

According to the Heteroskedasticity Test: ARCH, we notice that the square Prob. Chi-Square is 0.65, that is, more significant than 0.05 ($P \text{ Chi-Square} = 0.65 > 0.05$), which means rejecting the null hypothesis that says there is a Heteroskedasticity error. It means that there are No Heteroskedasticity errors in the studied model see [Table 8](#).

Table 8: Heteroskedasticity Test: ARCH

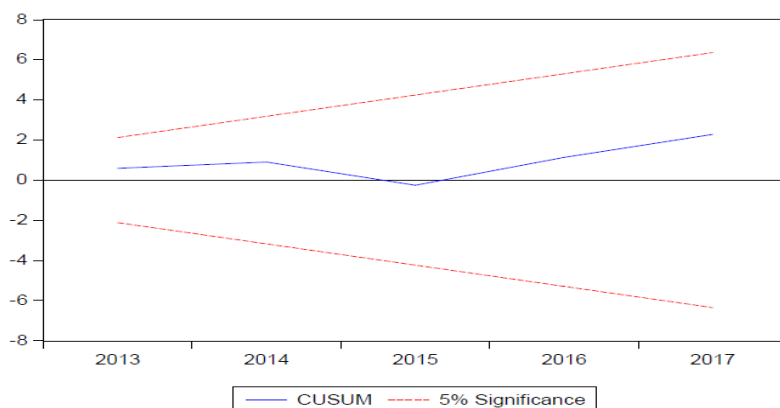
F-statistic	0.000269	Prob. F(1,10)	0.9871
Obs*R-squared	0.000303	Prob. Chi-Square(1)	0.9861

Source: Output of EViews 10.

4.4.3 Model Stability

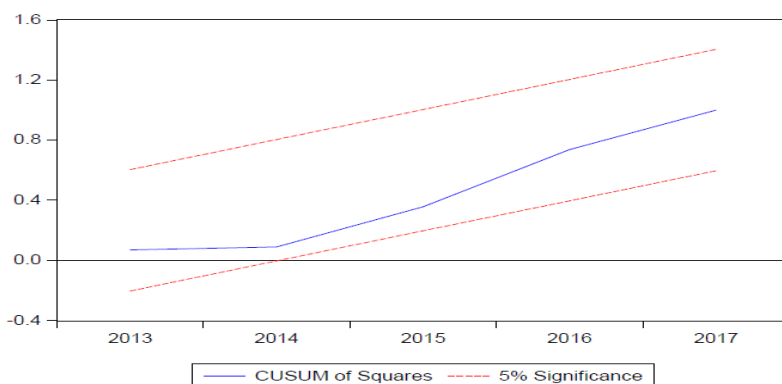
The stability of the estimated coefficients in the model is also proved using CUSMUS and CUSMUSQ stability tests, as shown in [figure 2](#) and [figure 3](#). Both figures indicate that the estimated models are within the 5% significance line, implying that the coefficients of the estimated models are stables.

Fig 2: Model Stability: Cumulative sum of recursive residuals (CUSUM)



Source: Output of EViews 10.

Fig 3: Model Stability: Cumulative sum of squares of recursive residuals (CUSUM of squares)



Source: Output of EViews 10.

5. Discussion of results and conclusion

Foreign direct investment plays an essential and vital role as one of the components of economic growth in raising the productive capacities of the national economy, increasing employment rates, creating job opportunities for citizens, and raising their standard of living, in addition to introducing and knowing advanced technology, and extending. These countries have more effective management methods, and these characteristics are the hallmark of foreign direct investment, which is not available to other sources of financing.

The present empirical research is an attempt to empirically examine the impact of IFRS adoption and employment on FDI inflows and analyze the effect role of IFRS adoption on the relationship between government and private sector and FDI inflows in short and long run in Algeria during the period of 1990-2017. In this connection, this investigation aims to fill a significant gap regarding empirical literature on FDI drivers in developing countries. Wherefore, to the best of our knowledge, this paper is the first to empirically assess the association between government and private sector and FDI inflows in Algeria.

The present paper aims to empirically explore the impact of IFRS adoption and employment on FDI inflows and analyze the effect role of IFRS adoption on the relationship between employment and FDI inflows in short and long run in Algeria between 1990 and 2017. Using the ARDL bounds testing approach to cointegration, the results reveal a positive impact of IFRS adoption and employment on FDI inflows in the long-run, implying that **H1** and **H3** are empirically supported. And the existence of the effect of each of the application of international accounting standards and employment rates on the flow of foreign

direct investment in Algeria during the study period in the short run. The hypothesis **H2** and **H4** are empirically supported.

In the short term, it was observed that there is a negative and significant impact of applying international accounting standards in the same year ($IFRS_t$) and a positive and significant impact of applying international accounting standards for the past year ($IFRS_{t-1}$). In addition to the presence of a negative and significant impact of the difference in the influx of foreign direct investment for the past year and the year before it (FDI_{t-1} , FDI_{t-2}) and this is following [Louail, 2019](#).

In the long term, it was observed that there is a negative and significant impact of employment rates on the flow of foreign direct investment in Algeria, which is the opposite of what was expected. This is because most of the foreign direct investments are directed to sectors that depend on technology, and their employment rates are low on the one hand. And layoffs in local companies as a result of competition with foreign companies. Moreover, the negative impact of each of the difference in foreign direct investment inflows for the past year and the year before it (ΔFDI_{t-1} , ΔFDI_{t-2}), due to the presence of obstacles that prevent the flow of foreign direct investment. As for the application of international accounting standards, it was observed that there was a negative and significant impact on the teams of applying international accounting standards ($IFRS_t$). Moreover, a positive and significant impact of the teams of implementing international accounting standards for the past year ($\Delta IFRS_{t-1}$), which is consistent with the study of [Zouita et al., 2019](#).

Consequently, we say that the application of international accounting standards shows its positive impact on the flow of foreign direct investment a year after its application, and this is because the application of international accounting standards makes the accounting of foreign companies compatible and accountable in their home country, which contributes to the efficiency of the company and increases its revenues.

The current study is not without limitations. This study was only conducted in one African country. Therefore, further investigation of other areas may provide a better understanding of the impact of IFRS adoption and employment on FDI inflows. Also, the present paper is limited to the impact of IFRS adoption for a short period, mostly since its application was recent, that is, ten years ago, which resulted in an imbalance of the application period in the study.

In conclusion, the above limitations could be used as venues for further research. Future research could conduct comparative studies among other African countries. Furthermore, Future studies are encouraged to replicate the study by economic sectors to verify whether the findings of the current study hold valid across different sectors.

References

- Anuchitworawong, C., Thampanishvong, K. (2015). Determinants of foreign direct investment in Thailand: Does natural disaster matter? *International Journal of Disaster Risk Reduction* 14, 312–321. <https://doi.org/10.1016/j.ijdrr.2014.09.001>.
- Chowdhury, M. A., F. (2017). The nexus between institutional quality and foreign direct investments (FDI) in South Asia: a dynamic heterogeneous panel approach. In *Outward Foreign Direct Investment (FDI) in Emerging Market Economies* (pp. 293-310). IGI Global.
- Esther, O. N., David, E. T., & Scholastica, E. U. (2018). Effect of Small and Medium Enterprises on Economic Growth in Nigeria. *Sumerians Journal of Business Management and Marketing*, 1(2), 73-78.
- Eze, T. C., & Okpala, C. S. (2015). Quantitative analysis of the impact of small and medium scale enterprises on the growth of the Nigerian economy:(1993-2011). *International Journal of development and emerging economics*, 3(1), 26-38.
- Hassan Al-Hajj (2003). Labor Market Indicators ,Development Bridge, No.16 , Arab Planning Institute, Kuwait ,April 2003 ,P : 3.
- Hassan Khidr (2003) ,Foreign Direct Investment - Definitions and Issues ,Arab Planning Institute, Bridge of Development Magazine, Issue No .33 September 2003.
- Inekwe, J. N. (2013). FDI, employment and economic growth in Nigeria, *African Development Review*, 25(4), 421-433. <https://doi.org/10.1111/1467-8268.12039>
- Khlif, H., Ahmed, K., & Alam, M. (2020). Accounting Regulations and IFRS Adoption in Francophone North African Countries: The Experience of Algeria, Morocco, and Tunisia. *The International Journal of Accounting*, 2050004. [DOI :10.1142/s1094406020500043](https://doi.org/10.1142/s1094406020500043)
- Kwiatkowski, D., Phillips, P. C., Schmidt, P., & Shin, Y. (1992). Testing the null hypothesis of stationarity against the alternative of a unit root: How sure

- are we that economic time series have a unit root? *Journal of econometrics*, 54(1-3), 159-178.
- Louail, B. (2019). Determinants of foreign direct investment in Arab countries during 1970– 2016. *International Journal of Advanced and Applied Sciences* 6(3), 102-110. <https://doi.org/10.21833/ijaas.2019.03.015>.
- Lungu, C. I., Caraiani, C., & Dascălu, C. (2017). The Impact of IFRS Adoption on Foreign Direct Investments: Insights for Emerging Countries. *Accounting in Europe*, 14(3), 331-357
<https://doi.org/10.1080/17449480.2017.1374546>
- Mameche, Y. (2020). Empirical evidence on the short-run & long-run effect of IFRS adoption on FDI in developing economies: The Algerian context. *SMART Journal of Business Management Studies*, 16(1), 13-25.
[DOI : 10.5958/2321-2012.2020.00002.0](https://doi.org/10.5958/2321-2012.2020.00002.0)
- Márquez-Ramos, L. (2008). The effect of IFRS adoption on trade and foreign direct investments. *International Trade and Finance Association Conference Papers*. (19). bepress.
- Nejad, M.Y., Ahmad, A., Salleh, F., Rahim, R.A., 2017. IFRS Adoption, Information Asymmetry and FDI 7.
- Nnadi, M., Soobaroyen, T., 2015. International financial reporting standards and foreign direct investment: The case of Africa. *Adv. Account.* 31, 228–238.
<https://doi.org/10.1016/j.adiac.2015.09.007>
- Owusu, G. M., Saat, N. A. M., Suppiah, S. D. K., & Siong, H. L. (2017). IFRS Adoption, Institutional Quality and Foreign Direct Investment Inflows: A Dynamic Panel Analysis. *Asian Journal of Business and Accounting*, 10(2), 43-75.
- Pesaran, HM (1997), “The role of economic theory in modelling the long run”, *The Economic Journal*,
- Pesaran, M. H., & Shin, Y. (1998). An autoregressive distributed lag modelling approach to cointegration analysis. *Econometric Society Monographs*, 31, 371-413.
- Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), 289–326. <https://doi.org/10.1002/jae.616>.

- Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous panels. *Journal of the American Statistical Association*, 94(446), 621-634.
- Rong, S., Liu, K., Huang, S., & Zhang, Q. (2020). FDI, labor market flexibility and employment in China. *China Economic Review*, 101449. <https://doi.org/10.1016/j.chieco.2020.101449>
- Sadi, N. (2012). Epistemologie de la normalisation comptable dans les pays en transition à l'économie de marché. L'expérience d'un PED du Sud à ex-orientation socialiste: l'Algérie. Unpublished Working Paper, University of Grenoble. Available at http://hal.grenoble-em.com/docs/00/69/10/22/PDF/512_Sadi.pdf.
- Said, S. E., & Dickey, D. A. (1984). Testing for unit roots in autoregressive-moving average models of unknown order. *Biometrika*, 71(3), 599-607.
- Wang, Hao and Ji, Yuemei and Luo, Qi, The Employment Effect of Inward FDI in China: What Do We Learn from the History? (2020). CESifo Working Paper No. 8392, Available at SSRN: <https://ssrn.com/abstract=3642390>
- World Bank. (2020). World development indicators. World Bank, Washington, DC.
- Zerrin KILIÇARSLAN, 2018. The Relationship between Exchange Rate Volatility and Foreign Direct Investment in Turkey: Toda and Yamamoto Causality Analysis, *International Journal of Economics and Financial Issues*, *Econjournals*, vol. 8(4), pages 61-67.
- Zouita, MS, Louail B, and Mameche Y (2019). The impact of the local SMEs sector on FDI and the mediating effect of IFRS adoption in developing economies: The case of Algeria. *International Journal of Advanced and Applied Sciences*, 6(11): 120-129. <https://doi.org/10.21833/ijaas.2019.11.015>.