IFRS ADOPTION, INFORMATION ASYMMETRY AND THE HOME BIAS

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Abstract

This paper investigates whether IFRS adoption reduces the home bias equity using the information asymmetry as a mediator variable to this relationship. Focusing in countries included in the Coordinated Portfolio Investment Survey "CPIS" our sample is composed by 512 observations (country-year) that cover the period 2003 to 2012. Our finding indicates that the full IFRS adoption reduces the information asymmetry and then the home bias. These results validate our expectations. Nevertheless, the partial IFRS adoption doesn't clearly support our expectations. We found that the partial IFRS adoption increases significantly the information asymmetry but reduces the home bias. This paper examined the effect of others factors that prior researches indicate that they affect the home bias as the governance indicators, the economic indicators, equity market characteristics and the capital controls.

Keywords: IFRS, Information Asymmetry, Home Bias, Governance Indicators, Economic Indicators, Equity Market Characteristics And Capital Controls

1. INTRODUCTION

Based on the international version of the capital asset process model (CAPM), Levy and Sarnat (1970), Solnik (1974) and Alder and Dumas (1983) indicate that diversification across countries and markets lead to minimize the overall portfolio risk. Nevertheless, investors tend to invest in their domestic markets and don't exploit this risk sharing opportunity. The term used to describe these investors irrationality is the home bias. However, a common explanation by prior research as Khurana and Michas (2011) and Ahearne et al. (2004) is that this behavior is due to rational reasons such as informational asymmetry. They indicate that investors would be confronted with financial statements prepared with different sets of accounting principles. Then, they will be unable to compare between firms installed in different countries.

Consequently, the present paper will investigate whether the IFRS adoption as an informational change will reduce information asymmetry and then will decrease the home bias phenomenon. In fact, it is supposed that with the international financial reporting standards (IFRS) financial statements will be more informative and comparable and investors will know more about foreign firms and will be in a better position to interpret their financial statements.

This paper differs from prior research by two points: (1) to assess the effect of IFRS adoption on the home bias we weren't follow the prior research that examine voluntary (Covrig et al. 2007) or mandatory (Khurana and Michas 2011, Flotou and Pope 2008, Hamberg et al. 2009…) IFRS adoption. We distinguished between full and partial IFRS adoption. (2) Prior research have mentioned that the IFRS adoption will lead to a reduction of the information asymmetry and then to a decrease on the home bias phenomenon. However, they tested directly the relation between the IFRS and the home bias. They ignore the role of the information asymmetry as a mediator variable. Thus, the main purpose of this paper is to investigate the indirect effect of the IFRS adoption on the home bias through the information asymmetry reduction.

Focusing in countries included in the Coordinated Portfolio Investment Survey "CPIS" our sample is composed by 512 observations (country-year) that cover the period 2003 to 2012. To test the theoretical relationship between the IFRS adoption and the home bias, we follow both Barron and Kenny (1986) and the INSTITUTE FOR DIGITAL RESEARCH AND EDUCATION steps and adapted them to our data (categorical independent variable + panel data) as indicated below.

The findings suggest that the full IFRS adoption reduces the information asymmetry and then the home bias. The results confirm our expectations that predict an indirect relationship between the full IFRS adoption and the home bias through the information asymmetry. Nevertheless, the partial IFRS adoption increases the information asymmetry. In fact, investors will not waste their time to understand the differences between the country accounting references and the IFRS. Consequently, the indirect relation between partial IFRS and home bias via information asymmetry was rejected. However, we find that the partial IFRS adoption lead to a decrease of the home bias. Then, we can conclude that the adoption of the IFRS whatever full or partial adoption will attract investors. But to reduce information asymmetry countries should fully adopt the IFRS.

These findings confirm Beneish and Yohn (2008) expectations that indicates that countries and companies don't adopt IFRS specially to reduce

information costs because they are not significant to institutional investors. They choose to adopt IFRS to signal their quality. Thus, we estimate that the partial IFRS adoption doesn't reduce information asymmetry but it reduces the home bias. Then, investors estimate that the quality of financial statements will be better with the IFRS adoption (full or partial).

This paper is organized as follows: Section 2 provides a brief review of the literature and states the relevant hypothesis. Section 3 specifies the research methodology. Section 4 discusses the results and Section 5 concludes.

2. LITERATURE REVIEW

The principle objective of this paper is to investigate either IFRS adoption affect indirectly the home bias through information asymmetry reduction. To operationalize this theoretical framework, Barron and Kenny (1986) have presented four steps to examine this mediation. Firstly, it should be established that there is an effect between the independent variable (IFRS adoption) and the dependent variable (home bias). Secondly, it should be shown that the independent variable (IFRS adoption) affects significantly the mediator variables (information asymmetry). Thirdly, it should be demonstrated that the mediator variable (information asymmetry) affects significantly the dependent variable (home bias) in the presence of the causal variable (IFRS adoption). Finally, the direct effect between the dependent variable (home bias) and the independent variable (IFRS adoption) becomes insignificant by the introduction of the mediator variable (information asymmetry). Consequently, we propose to present a theoretical support of these three first steps.

2.1 IFRS adoption and the Home bias

The IFRS adoption is expected to influence investors' portfolio decisions. In fact, as indicated by Ahearne et al. (2004) home bias is due to the information asymmetry that arises from differences in accounting standards and disclosure requirements. Moreover, investor's decisions are based on accounting principles that differ across countries. Consequently, because the IFRS standards are an informational change that increases the quality and comparability of the financial statements, it is expected that their adoption decreases the home bias.

Thus, several researches were conducted to examine the effect of the IFRS adoption and the home bias. However, there is a contradiction in their results. Beneish and Yohn (2008) conclude that the IFRS adoption don't affect significantly the home bias. They states on the importance of the accounting standards but they estimate that the home bias is explained by the uncertainty related to the institutional factors and the distance that imply an uncertainty about the distribution of cash flows. Hamberg et al. (2009) stipulate that their research can't confirm that foreign ownership has increased since the introduction of the IFRS. However, their results suggest that the adoption of IFRS particularly increases the portion of foreign investors coming from an IFRS-adopting country. This result confirm Covrig et al. (2007) findings that showed that the voluntary IFRS adoption reduce the home bias among IAS adopters.

However, the result of Hamberg et al. (2013) confirms that the IFRS adoption increases the investors' ability to understand and compare between firms across countries. They found that investors have less home bias towards countries that adopted IFRS. However, they state that the IFRS effect is significant only on foreign institutional investors and not on non-institutional investors. Moreover, Florou and Pope (2009) showed that the mandatory IFRS adoption affects the asset allocation decisions of institutional investors but only in countries with strict legal enforcement and low levels of corruption and low levels of earnings management. Finally, Khurana and Michas (2011) found also that the mandatory IFRS adoption reduces the home bias especially in countries with larger differences between IFRS and their domestic accounting standards and with a strict legal environment.

Thus, it seems that the relation between IFRS adoption and the home bias is not well defined. To investigate this relationship, the present study hypothesizes that:

H1: *IFRS adoption has a negative effect on the home bias.*

2.2 IFRS adoption and the information asymmetry

It is expected that the IFRS adoption is considered as an informational change that facilitates to investors the financial statements' interpretation, the comparison between companies and then reduces the information asymmetry. Moreover, Beneish and Yohn (2008) indicate that global adoption of IFRS reduces information asymmetry costs to non-institutional investors by making the analyze of foreign financial statements less costly. However, they states that this evidence isn't valid for institutional investors that can gathering the information that they need to evaluate entities' performance.

Naranjo et al. (2014) find that post IFRS firms experience a significant reduction in information asymmetry. These authors used the principal component of three measure of market liquidity (Amihud, Zero returns and LDV[59]) to measure the information asymmetry. In addition, other researches have examined this relation between the IFRS adoption and the information asymmetry. Among these researches Leuz and Verrecchia (2000), Gassen and Sellhom (2006) and Daske et al. (2013) that measured the information asymmetry with the bid-ask spread. Theses authors confirmed the evidence that the IFRS adoption reduce the information asymmetry.

Moreover, Ashbaugh and Pincus (2001), Byard et al. (2011), Tan et al. (2011), Horton et al. (2013), Houqe et al. (2014) and Demmer et al. (2015) have measured the information asymmetry with the analyst forecasts of profitability. They found that

[59] Amihud is the price impact measure developed by Amihud (2002); Zero returns is the proportion of trading days with zero daily returns out of all potential trading days in a given years; LDV is an estimate of the total round trip transaction costs based on a yearly time series regression of daily stock returns on the aggregate market returns

the IFRS adoption is associated with an increase in the analyst forecast accuracy especially in countries that made substantial improvements to reporting enforcement. Consequently, they support the evidence that predict a reduction of the information asymmetry in firms that adopt IFRS. In addition, Demmer et al. (2015) indicates that the increase in the analyst forecast accuracy after IFRS adoption is significant in countries that made substantial improvements to reporting enforcement.

Despite many researches confirmed that the IFRS adoption reduces the information asymmetry. Cuijpers and Buijink (2005) have measure the information asymmetry with the cost of capital in a sample of firms (that adopted voluntary the IFRS or the US GAAP) across 12 countries from the European Union. Nevertheless, they fail to find evidence of a lower cost of capital and then a lower information asymmetry for IFRS or US GAAP adopters. These results were supported by Daske (2006) and Daske et al. (2013).

Despite the contradiction in the prior researches' results investigating the relationship between IFRS adoption and the reduction of information asymmetry, we predict that:

H2: *The IFRS adoption affect negatively and significantly the information asymmetry.*

2.3 Information asymmetry and the home bias

Obstfeld and Rogoff (2000) consider the home bias as one between the six major puzzles in the international macroeconomics. To understand this major puzzle, prior researches underline many factors that could explain this phenomenon like: (1) institutional barriers: international taxes and transaction costs, (2) market restrictions, (3) macroeconomics risks (4) psychologic factors and (5) information asymmetry.

However, French and Poterba (1991) indicate that institutional barriers are unable to explain the home bias. They states that transaction costs for example are low in liquid market. Consequently, investors should invest more in liquid market and not in their domestic markets. Moreover, macroeconomics factors, as the exchange rate volatility, are unlikely to explain the home bias. In fact, Solnik (1974) states that the risk of a portfolio unprotected against exchange risk is smaller than a comparable domestic portfolio.

In another hand, Ahearne et al. (2004) underlines the importance of the information asymmetry as a key factor that explains the home bias. They predict that foreign investors face implicit costs that arise from informational disadvantages compared to national investors. They notice that the information asymmetry that explain the home bias arise from differences in accounting standards, disclosure requirements and regulatory environments across countries. These proposals were supported by several other scholars such as Jeske (2001), Orpurt (2003), and Levis and al. (2015). Gehrig (1993) concludes that exchange rate risks and transaction costs are unlikely to explain home bias. This author confirms the hypothesis against the information asymmetry.

Nevertheless, we should notice that some researches didn't support the fact that the information asymmetry is a key factor that explains the home bias. Bradshaw et al. (2004) results indicate that the information asymmetry that affects home bias are multileveled and at least partially due to reporting decisions made by the firm's managers. Then, they conclude that the information asymmetry don't affect significantly the home bias. In another hand, Levis et al. (2015) have measured the information asymmetry with two proxies: international telephone minutes per capita and financial times (FT) circulation per capita. Nevertheless, they found conflicting results. The international telephone call variable is not significant. However, the FT circulation per capita is significant.

We hypothesize that:

H3: T*he information asymmetry affects positively the home bias.*

2.4 IFRS, Information asymmetry and the home bias

The main objective of the present study is to investigate the relationship between IFRS adoption and the home bias through the information asymmetry that are presumed to mediate this relationship. Hence the following hypothesis:

H4: *The IFRS adoption has a negative effect on home bias via information asymmetry.*

3. RESEARCH METHODOLOGY

3.1 Measurement of Variables

a. Home Bias Equity

The present paper has employed the measure used by Fidora et al. (2007), Schoenmaker and Bosch (2008) and Chen and Yuan (2011) and obtained from the CPIS "Coordinated Portfolio Investment Survey". The equity home bias is measured as the difference between the relative weight of domestic equity in the portfolio of country i and the relative weight of country i in the total world market portfolio. Then, following Chen and Yuan (2011) the home bias is equal to:

$$HB = wi - wi^*$$

Wi = country i's domestic asset / country i's market capitalization

Wi* = country's market capitalization / world market capitalization

Knowing that the weight Wi is country i's share of domestic assets to its domestic equity portfolio, while Wi* denotes the world portfolio.

b. IFRS adoption

Prior research has often measured the decision of a country to adopt IFRS through a binary variable that takes 1 if the country adopts IFRS and 0 otherwise (Khurana and Michas 2011 ; Clements et al. 2010 ; Archambault and Archambault, 2009 ; Zeghal and Mhedhbi, 2006).. Nevertheless, this paper

distinguished between two cases of IFRS adoption: (1) the IFRS full adoption and (2) the IFRS partial adoption or the adaptation of the national accounting system to the IFRS. Consequently, the IFRS adoption variable will be measured with a categorical variable that takes 1 if the country partially adopts the IFRS, 2 if the country totally adopts the IFRS (full adoption) and 0 if the country doesn't adopt the IFRS.

c. Information asymmetry

Ahearne et al. (2004), Giofré (2009) and Cao et Ward (2014) emphasize that there isn't direct measures of information asymmetries. There is a proxy for their reduction. The present paper will employ the six proxies used by Giofré (2009). Following Giofré (2009) the first three variables are labeled "size" and the others three variables are labeled "trade". These six proxies are:

- Logarithm of Gross Domestic Product per capita (log (GDP/POP)) indicates the market efficiency.
- M2 monetary aggregate over GDP: (M2/GDP) captures the financial sector development[60].
- The market capitalization over GDP (MCAP/GDP) associates the size of stock market capitalization to efficiency.
- The openness measures ((IMP+EXP)/GDP) captures the information factors.
- The export over GDP (EXP/GDP).
- The import over GDP (IMP/GDP).

It should be noted that the information asymmetry reduction variable will be assessed by doing a factor analysis[61] of these six proxies.

d. Control Variables

While the IFRS adoption is an important factor, home bias and information asymmetry appears to be explained by (1) governance indicators, (2) economic indicators, (3) equity market characteristics and (4) capital controls.

Governance Indicators

The governance of a country is a very important factor that affects the information asymmetry and the home bias. To measure this variable we employed in the present research the instrument developed by Kaufmann et al. (2011) and used by Daly and Vo (2011) and Mishra (2014). The governance indicator includes six dimensions: (1) Voice and accountability, (2) Political Stability and absence of violence, (3) Government effectiveness, (4) Regulatory quality, (5) Rule of law, and (6) Control of corruption. This variable is expected to have a negative effect on home bias and a positive effect on information asymmetry reduction. In the present paper, we used the factor analysis[62] of these six governance indicators given the higher correlation between them.

Economic Indicators

Four variables are used to capture countries' economic stability. The present paper supposes that the economic stability of a country affects cross border equity investment and the information asymmetry. The four variables are: (1) the inflation rate measured by the consumer price index, (2) real exchange rate volatility, (3) the growth rate of the gross domestic product and (4) net foreign direct investment scaled by GDP.

The first variable is expected to have a positive impact on home bias and a negative impact on the information asymmetry reduction. Indeed, a higher rate of inflation in a country indicates higher degree of economic instability which distorts the information environment and subsequently reduces foreign investment. The second variable is considered by Fidora et al. (2007) as an important factor that positively affects the home bias. In fact, they found an empirical support which indicates that the real exchange rate is considered as a key determinant of international portfolio allocation and home bias. Hence, we suppose that this variable has a negative impact on information asymmetry. The third variable captures the economic volatility in a country. It is expected that it will be positively (negatively) associated with the home bias (information asymmetry reduction). Finally, the fourth variable, as employed by Khurana and Michas (2011) to control the level of indirect investment in a country, is expected to be negatively associated with the home bias. We suppose then that the net foreign direct investment scaled by GDP will be positively associated with information asymmetry reduction.

Equity market characteristics

The equity market characteristics of a country influence its informational environment as well as the home bias. The present research supposes that more the equity market in a country is developed more is the information asymmetry reduction and less is the home bias. To capture the equity market characteristics three variables are used: (1) the equity market liquidity, (2) the stock market index and (3) stock market classification.

Firstly, following Daly and Vo (2013), we suppose that investors invest more in market with high degree of liquidity. In addition, information asymmetry will decrease in liquid market.

The present paper measure liquidity as the ratio of stock traded to GDP. Secondly, the second variable used to control the effect of the IFRS adoption on the information asymmetry and the home bias is the stock market index. This variable measures the equity market performance. It reflects the situation of an equity market. Hence, it allows investors to compare the performance of different equity market. Finally, the last variable is a categorical variable that describes the market classification obtained by Standards and Poors. This

[60] Giofré (2009) indicate that usually to capture the financial market development it is better to use the M2 aggregate. Nevertheless, he employs the M3 monetary aggregate because the M2 monetary aggregate wasn't available for all countries and years considered in his sample. In our paper we will use the M2 monetary aggregate obtained from the World Bank website

[61] The factor analysis was preceded by a correlation adjustment caused by panel data (using spss)

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variable takes the value of 1 if the market is developed, 0 if the market is emergent and 2 if the market is a frontier market.

Capital Controls

Despite the fact that capital controls have been reduced in many countries, nevertheless many others countries still have restrictions on international capital flows. The present paper considers that investors prefer to invest in countries with fewer restrictions in which there is less information asymmetry. To measure these restrictions imposed by countries on capital flows, we will follow Ferreira and Miguel (2011) and we will use the index creates by the Economic Freedom Network. This index is calculated based on the international capital controls reported by the International Monetary Fund. High (low) values in this index indicate less (more) restrictions.

3.2 Sample

To operationalize our theoretical framework, we empirically tested it via countries included in the Coordinated Portfolio Investment Survey "CPIS". In the beginning we started with 55 countries whose data are available during the period from 2003 to 2012. Nevertheless, it should be noted that the data linked to the equity market classification variable wasn't available for some countries like Barbados and Costa Rica. Thus, our sample consists of 512 observations (country-years). The countries included in our sample are:

Table 1. Countries included in our sample

Argentina	Colombia	Greece	Lebanon	Poland
Australia	Costa Rica	Hungary	Malaysia	Portugal
Austria	Chyprus	Iceland	Malta	Romania
Barbados	Czech Republic	Indonesia	Mauritius	Russian Federation
Belgium	Denmark	Israel	Mexico	Singapore
Brazil	Egypt	Italy	Netherlands	Slovak Republic
Bulgaria	Estonia	Japan	New Zealand	South Africa
Canada	Finland	Kazakhstan	Norway	Spain
Chile	France	Korea Republic	Pakistan	Sweden
Hong Kong	Germany	Kuwait	Philippines	Switzerland
Thailand	Turkey	Ukraine	United Kingdom	United States

3.3 Model specification

To operationalize our hypothesis, we will follow the different steps proposed by the INSTITUTE FOR DIGITAL RESEARCH AND EDUCATION and adapt these different steps to our data (categorical independent variable + panel data)[63]. Hence our three frst hypothesis we be tested by:

$$hb= \alpha i+\beta 1\ IFRSit+ \beta 2\ CVit+ \varepsilon it$$

$$iar= \alpha'i+\beta'1\ IFRSit+ \beta'2\ CVit+ \varepsilon'it$$

$$hb= \alpha''i+\beta''1\ IFRSit+ \beta''2\ iar + \beta''3\ CVit+ \varepsilon''it$$

To test the fourth hypothesis we proposed to follow Tao and Adrew (2007) and Lisi (2010). In fact, STATA don't offer a procedure that deals the Seemingly Unrelated Regression "SURE" in the case of panel Data. Then, we propose to use "xtdata" function followed by the "sureg" command. Finally to compute the indirect and the direct effects, the present paper will use respectively the nlcom and the lincom command.

4. INTERPRETATION OF RESULTS

To test our first three hypotheses we have employed Hausman test (annex) to decide between fixed or random effects. This test indicates that we should choose the fixed effect for our first three hypotheses. The table below indicates the regression results.

Table 2 shows fixed effect regression results. Furthermore, column 1 shows the fixed effect regression results of home bias on IFRS adoption and control variables. As expected both full and partial adoption of IFRS reduce the home bias phenomenon. Consequently, we validate our first hypothesis.

To test the effect of IFRS adoption on information asymmetry reduction (hypothesis 2) we refer to column 2. As indicated by prior research the IFRS adoption reduces the information asymmetry. Nevertheless, the results of the present paper show that only the full IFRS adoption reduce information asymmetry. The partial adoption doesn't lead to the information asymmetry reduction. Then, we validate our second hypothesis only for full IFRS adoption.

Finally, the third column tests the effect of information asymmetry reduction on the home bias in the presence of the IFRS adoption as an independent variable. This column confirm that the information asymmetry reduction affect negatively the home bias phenomenon and then validate our third hypothesis. The results reconfirm again that the full and the partial IFRS adoption reduces the home bias.

Finally, column 1 and 3 state on the effect of the control variables on the home bias. Our expectations were confirmed only for the growth rate of the GDP, the present paper found the same result as Khurana and Michas (2011). Consequently, we can conclude that the GDP growth captures the overall economic volatility and then implies an increase of the home bias. Concerning the governance indicators and the capital controls, we found (column 1 and 3) a positive effect of these variables on the home bias. To explain these results, this paper adopts the same explanation of Cormier (2014).

[63] http://www.ats.ucla.edu/stat/stata/faq/mediation_cativ.htm

Table 2. Regression results of the three first hypotheses

VARIABLES		***Signe***	***Hypothesis***	***Signe***	***Hypothesis***	***Signe***	***Hypothesis***
		attendu	(1)	Attend	(2)	attendu	(3)
			Hb		Rai		Hb
iar						-	-0.105***
							(0.0262)
IFRS1		-	-0.0657***	+	-0.111***	-	-0.0774***
			(0.0249)		(0.0419)		(0.0247)
IFRS2		-	-0.0860***	+	0.0725***	-	-0.0785***
			(0.0139)		(0.0234)		(0.0138)
gi		-	0.133***	+	-0.0990	-	0.123***
			(0.0456)		(0.0768)		(0.0450)
ei	icp	+	-0.00292*	-	0.0102***	+	-0.00186
			(0.00176)		(0.00296)		(0.00175)
	reervol	+	-0.000335	-	-0.00347	+	-0.000699
			(0.00182)		(0.00307)		(0.00180)
	gdpgrowth	+	0.00647***	-	0.00263	+	0.00674***
			(0.00128)		(0.00216)		(0.00127)
	fdigdp	-	0.00184**	+	-0.000790	-	0.00176**
			(0.000891)		(0.00150)		(0.000878)
Equity market	indibrsier	-	4.50e-05	+	0.000325*	-	7.90e-05
characteristics			(0.000108)		(0.000182)		(0.000107)
	liquidity	-	0.000200**	+	0.000191	-	0.000220**
			(8.95e-05)		(0.000151)		(8.84e-05)
	mc1	?	-0.0394	?	-0.101	?	-0.0499
			(0.0443)		(0.0746)		(0.0438)
	mc2	?	-0.0561	?	0.0257	?	-0.0534
			(0.0551)		(0.0927)		(0.0543)
capctrol		-	0.00981***	+	0.000881	-	0.00990***
			(0.00339)		(0.00570)		(0.00334)
Constant			0.725***		-0.0709		0.718***
			(0.0334)		(0.0562)		(0.0329)
Observations			512		512		512
R-squared			0.245		0.074		0.269

Legend : *Standard errors in parentheses; *** p<0.01; ** p<0.05; * p<0.1 ; hb : Home Bias ; iar : information asymmetry reduction ; gi: governance indicators; icp : inflation, consumer price; reervol: real exchange rate volatility; gdpgrowth : the growth rate of the gross domestic product; fdigdp : net foreign direct investment scaled by GDP ; indibrsier : the stock market index; liquidity : the equity market liquidity;* ***capctrol :*** *capital control ;* ***IFRS1:*** *this variable takes 1 if the country partially adopts the IFRS, 0 otherwise ;* ***IFRS2 :*** *This variable takes 1 if the country adopts totally the IFRS (full adoption), 0 otherwise ;* ***mc1*** *: this variable takes 1 if the market equity is classified by S&P as a developed market, 0 otherwise and* ***mc2*** *: this variable takes 1 if the market equity is classified by S&P as a frontier market, 0 otherwise.*

This author examined the effect of the governance on the information asymmetry and he found that the IFRS adoption reduces this effect. Then, we conclude that the IFRS adoption reduces also the effect of the governance indicators and the capital controls variables on the home bias. Especially because we founded a negative association between the governance indicators and the home bias and between the capital controls and the home bias in the bivariate analysis (annex 2).

Concerning the equity market classification variables column 1 and 3 indicate that the annual change of equity market indices and the market classification on developed or frontier markets don't affect the home bias equity. Khurana and Michas (2011) indicated that there is a contradiction concerning the results related to the relation between the market classification and the home bias. They argued that the emergent market offers a diversification to investors but it can also represent increased risk which could deter investments. Then, we can explain our results with this contradiction in the effect of the equity market classification. Furthermore, we notice that the liquidity have a positive effect on the home bias. Consequently, this result refutes our expectations and the findings of Daly and Vo (2013). But confirm the results of Hamberg et al. (2013) that indicates that the IFRS adoption encourages investors to invest in small firms despite their illiquidity. Finally, we found that the inflation and the real exchange volatility don't affect significantly the home bias.

The main objective of this study is to test the mediation between the IFRS adoption and the home bias via the information asymmetry reduction. As indicated above to test this hypothesis we transformed our panel data with the xtdata, fe function and then we used sureg command followed by nlcom and licom to detect the indirect and the direct effect (table 3).

Table 3. Decomposition of the effects in the model

	Direct effect	*Indirect effect*	*Total effect*
IFRS1	-7,74%***	1.16%***	-6.58%
	(0.0243)	(0.0052)	
IFRS2	-7.84%***	-0.76%***	-8.6%
	(0.0136)	(0.003)	
IFRS	-15.58 %***	0.4%	-15.18%
adoption	(0.0293)	(0.0053)	

*Legend : Standard errors in parentheses; *** p<0.01; ** p<0.05; * p<0.1 ; this variable takes 1 if the country partially adopts the IFRS, 0 otherwise ;* ***IFRS2 :*** *This variable takes 1 if the country adopts totally the IFRS (full adoption), 0 otherwise*

This table confirms that the full IFRS adoption affect negatively and significantly the home bias through the information asymmetry reduction. Then we can confirm our main hypotheses. Nevertheless, we notice that our expectations were confirmed only in the case of full IFRS adoption. The partial IFRS adoption has an indirect, positive and significant effect on the home bias via the information asymmetry reduction. Consequently, this result confirm our previous result that indicate that the partial IFRS adoption don't reduce the information asymmetry. The table indicates that the direct effect of the IFRS adoption (full and partial) is more important than the indirect effect. We can explain this result by the existence of other variables that can mediates this relation. This result implies that investors will not waste their time and their money to understand the financial statements that are prepared based on partial IFRS.

In conclusion, we can conclude that to reduce information asymmetry and the home bias a country should adopt totally the IFRS. A partial adoption doesn't reduce the information asymmetry in one hand. The full IFRS adoption allows a better reduction of the home bias.

5. CONCLUSION

The purpose of this paper is to investigate if the IFRS adoption at the counties level reduces the home bias. It is expected that the financial statements will be more informative and comparable with the IFRS adoption. Consequently, as the information asymmetry will be reduced with the IFRS adoption and then the home bias will be reduced. The main objective of this paper is to demonstrate that the IFRS adoption affect indirectly and negatively the home bias through the reduction of the information asymmetry.

By examining a sample of 512 (country years) observations, our results don't clearly support our expectations. In fact, we have distinguished between two cases of IFRS adoption: (1) the full adoption and (2) the partial adoption. Then, our results support that the full IFRS adoption reduce the information asymmetry and consequently the bias. The indirect relation was supported in the case of the full IFRS adoption. Nevertheless, despite the fact that the partial adoption reduces the home bias it doesn't reduce the information asymmetry. Thus, our expectations weren't supported in the case of the partial adoption. The present paper considers that this result seems to be reasonable because investors will not waste their time and their money to understand the difference between the country accounting reference and the IFRS. In conclusion, only a full IFRS adoption will lead to a reduction of the information asymmetry and then the reduction of the home bias.

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Annex 1: Descriptive analysis

Table 1. Numeric variables

Variable		*Mean*	*Std. Dev.*	*Min*	*Max*	*Observations*	
Hb	overall	.7260909	.2520101	0	1	N =	550
	between		.2319146	.013	1	n =	55
	within		.1029875	.1740909	1.174091	T =	10
Icp	overall	4.169382	3.549495	-2.5	25.3	N =	550
	between		2.769072	-.124	1.872	n =	55
	within		2.248745	-6.142618	18.96938	T =	10
Reervol	overall	2.9302	2.667677	.01	2.4	N =	550
	between		1.455389	.98	6.781	n =	55
	within		2.24345	-3.3008	17.6052	T =	10
Gdpgrowth	overall	3.085782	3.569858	-14.8	17.32	N =	550
	between		1.780772	-.049	7.25	n =	55
	within		3.102374	-15.36422	14.95278	T =	10
Fdigdp	overall	5.146309	6.794419	-16.42	51.9	N =	550
	between		5.041721	.18	26.277	n =	55
	within		4.600205	-23.99269	44.32731	T =	10
Indibrsier	overall	18.42302	37.50099	-82.19	189.23	N =	550
	between		9.892402	-.345	43.146	n =	55
	within		36.19488	-102.434	181.599	T =	10
Liquidity	overall	58.58996	86.57642	.02	741.58	N =	550
	between		75.3217	.378	434.835	n =	55
	within		43.76212	-225.285	365.335	T =	10
Capctrol	overall	4.600382	2.67476	0	10	N =	550
	between		2.393615	0	9.153	n =	55
	within		1.232426	-1.319618	9.135381	T =	10
Va	overall	.6896	.7825	-1.26	1.83	N =	550
	between		.7828	-1.097	1.64	n =	55
	within		.0975	.255	1.22	T =	10
Psnv	overall	.2928	.9269	-2.81	1.66	N =	550
	between		.9111	-2.273	1.486	n =	55
	within		.2066	-.6172	1.2498	T =	10
Ge	overall	.8925	.8551	-.81	2.43	N =	550
	between		.8539	-.656	2.189	n =	55
	within		.118	.5325	1.6295	T =	10
Rq	overall	.8623	.7480	-.96	2	N =	550
	between		.7446	-.737	1.921	n =	55
	within		.1194	.3633	1.2333	T =	10
Rl	overall	.7589	.9167	-1.05	1.2332	N =	550
	between		.9196	-.861	1.948	n =	55
	within		.0925	.4279	1.0999	T =	10
Cc	overall	.7581	1.0519	-1.1	2.55	N =	550
	between		1.0512	-.951	2.459	n =	55
	within		.1328	.1041	1.2541	T =	10
Logppc	overall	9.591436	1.092076	6.3	11.51	N =	550
	between		1.065205	6.763	11.245	n =	55
	within		.2767108	8.521437	10.71344	T =	10
M²gdp	overall	102.7999	60.52285	21.07	335.26	N =	550
	between		58.98315	28.221	295.163	n =	55
	within		15.52535	35.55693	157.5519	T =	10
Mcapgdp	overall	74.38709	73.44891	3.52	606	N =	550
	between		69.15078	6.278	441.345	n =	55
	within		26.29263	-25.3879	239.0421	T =	10
Mgdp	overall	47.37222	33.91515	10.22	223.54	N =	550
	between		33.68804	12.258	194.349	n =	55
	within		5.827341	12.05322	76.56321	T =	10
Xgdp	overall	48.54325	37.41403	9.06	233.35	N =	550
	between		37.25854	11.375	214.722	n =	55
	within		5.862405	14.22826	71.43825	T =	10
Mxgdp	overall	95.9156	70.80934	22.09	448.31	N =	550
	between		70.50408	25.68	402.465	n =	55
	within		11.16365	26.29062	147.4306	T =	10

Table 2. Categorical variables

IFRS	Freq.	Overall Percent	Between Freq.	Percent	Within Percent
0	213	38.73	47	85.45	45.32
1	59	10.73	9	16.36	65.56
2	278	50.55	40	72.73	69.50
Total	550	100.00	96 (n = 55)	174.55	57.29

mc	Freq.	Overall Percent	Between Freq.	Percent	Within Percent
0	180	35.16	19	35.85	94.74
1	245	47.85	27	50.94	90.74
2	87	16.99	11	20.75	95.45
Total	512	100.00	57 (n = 53)	107.55	92.98

Annex 2. Bivariate analysis

Table 1. Numeric variables

	hb	rai	Ig	icp	reervol	gdpgrowth	fdigdp	indibrsier	liquidity	capctrol
Hb	1,0000									
Rai	-0.2720	1,0000								
Ig	-0.6621	0.3374	1,0000							
Icp	0.3722	-0.2053	-0.5816	1,0000						
Reervol	0.1349	-0.1790	-0.0676	0.1164	1,0000					
Gdpgrowth	0.3560	0.0449	-0.2982	0.2125	-0.0188	1,0000				
Fdigdp	-0.0729	0.5075	0.1279	0.0259	-0.0383	0.1532	1,0000			
Indibrsier	0.1826	-0.0464	-0.1416	0.0077	0.0345	0.1120	-0.0680	1,0000		
Liquidity	-0.1985	0.1924	0.3909	-0.2304	-0.0872	-0.0217	0.2941	-0.0906	1,0000	
capctrol	-0.3522	0.2487	0.4602	-0.2490	-0.0952	-0.1371	0.1297	-0.0339	0.1918	1,0000

Table 2. Categorical variables

.sort IFRS
.by IFRS : sum hb
-> IFRS = 0

Variable	Obs	Mean	Std. Dev.	Min	Max
Hb	213	.8276526	.1905457	.25	1

-> IFRS = 1

Variable	Obs	Mean	Std. Dev.	Min	Max
Hb	59	.7605085	.2087601	.37	1

-> IFRS = 2

Variable	Obs	Mean	Std. Dev.	Min	Max
Hb	278	.6409712	.2711151	0	1

.by IFRS : sum rai
-> IFRS = 0

Variable	Obs	Mean	Std. Dev.	Min	Max
rai	213	-.2993991	.9638553	-2.149505	2.828863

Table 2. Categorical variables *(Continued)*

-> IFRS = 1

Variable	Obs	Mean	Std. Dev.	Min	Max
rai	59	.2530954	1.87348	-2.165287	3.364622

-> IFRS = 2

Variable	Obs	Mean	Std. Dev.	Min	Max
rai	278	.1756812	.637975	-2.206238	1.402764

. sort mc
. by mc : sum hb
-> mc = 0

Variable	Obs	Mean	Std. Dev.	Min	Max
Hb	180	.9273333	.0881695	6	1

-> mc = 1

Variable	Obs	Mean	Std. Dev.	Min	Max
Hb	245	.5693469	.19729	0	.97

-> mc = 2

Variable	Obs	Mean	Std. Dev.	Min	Max
Hb	87	.728046	.3335114	0	1

-> mc = .

Variable	Obs	Mean	Std. Dev.	Min	Max
Hb	38	.7789474	.1640993	.32	1

. by mc : sum hb
-> mc = 0

Variable	Obs	Mean	Std. Dev.	Min	Max
rai	180	-.4164302	.943802	-2.206238	1.680183