

THE ECONOMIC IMPACT OF IFRS ADOPTION ON ECONOMIC DEVELOPMENT IN POOR JURISDICTIONS

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Abstract

This paper examines the relationship between international accounting standardisation and economic development in poor jurisdictions. The research hypotheses are tested on a sample of 25 heavily indebted poor jurisdictions with active equity capital markets which have received external debt relief under programs implemented by the World Bank and the International Monetary Fund. Results indicate that International Financial Reporting Standards adoption in heavily indebted poor jurisdictions has a positive effect on their level of economic development. Our study adds to the growing literature on the financial statements effects of International Financial Reporting Standards adoption and holds interest for many groups, primarily national and international regulatory bodies and in particular the International Accounting Standards Board.

Keywords

IFRS adoption, economic development, poor jurisdictions, economic freedom, political stability

JEL Classification

O16, O47, M41

Introduction

Extensive research has been carried out on IFRS adoption in both developed and developing countries. However, far too little attention has been paid to accounting standardization in poor jurisdictions alone. Although the accounting literature considers poor jurisdictions as being part of the developing countries group, they have certain economic and social particularities that may be relevant to the process of IFRS adoption and implementation.

The major concern among academics remains if a common set of accounting standards and principles can serve the interests of both developed and developing countries (Gray and Roberts, 1991; Falk, 1994; FASB, 1999) and it is able to increase the quality of financial reporting within the latter, to attract a higher number of investors and increase the dynamic of economic exchanges.

The aim of this study is to investigate the relevance and impact of IFRS adoption on economic development in poor jurisdictions. This account seeks to analyse the extent to

which the adoption of the IFRS can contribute to economic development and, by default, reduce the extent of poverty in these jurisdictions.

Numerous studies conclude that if IFRS have an acceptable flexibility level that permits cultural differences among jurisdictions, then a single set of accounting rules may be useful to both developed and developing countries (Richter Quinn, 2004; Meeks and Swann, 2009; Cai and Wong, 2010). Yet there are still researchers who argue that differences between developed and developing countries are vast and no set of accounting standards can serve the interests of both categories of jurisdictions (Woolley, 1998; Irvine and Lucas, 2006).

The paper is structured as follows: the first section presents the literature review and correlations between economic development and IFRS adoption, the degree of political stability and the degree of economic freedom. The literature review is followed by an econometric study in which correlations between the previous listed factors are identified and analysed. After discussing the results, new research ideas are proposed for a more detailed analysis of the economic impact of IFRS adoption in poor jurisdictions.

1. LITERATURE REVIEW AND RESEARCH HYPOTHESES

In light of the accounting research undertaken so far, the present study develops a set of explorative hypotheses related to the economic development of poor jurisdictions.

1.1. Economic development and IFRS

Economic development has a key role in reducing poverty and improving living standards in low income countries. According to the study conducted by Akisik (2013), economic growth is strongly associated with accounting regulations even after controlling for the effects of various macroeconomic and socio-economic variables such as: government spending, inflation, economic openness, population's growth rate and the number of years spent in education. This determines us to believe that the international accounting standardization plays a significant role in the economic development of poor jurisdictions.

Evidence of the quantitative study conducted by Chamisa (2000) indicates that IFRS adoption leads to an improvement in the quality of financial information produced by an ECM in developing countries. Thus, we are inclined to believe that IFRS adoption in these jurisdictions might pave the way to financing through ECMs and consequently increase the levels of foreign direct investment for a certain jurisdiction.

Based on the arguments outlined above, we formulate the following hypothesis:

H1: There is a positive association between IFRS adoption and the evolution of the degree of economic development in poor jurisdictions.

1.2. The influence of political stability on accounting standardization and economic growth

Results of previous research seem to indicate that government and monetary stability can significantly influence the economic environment, which may in turn affect the development of accounting practices (Larson, 1995). The quantitative study conducted by Alesina, Ozler, Roubini and Swagel (1996) on 113 countries between 1950 and 1982 indicates that GDP growth is much lower in countries where there is a higher probability of government collapse. In a more recent study, Jong-a-Pin (2009) finds that high political instability levels lead to lower growth rates. Detailed examination of private investment by Alesina and Perotti (1996) showed that socio-political instability generates an uncertain political-economic environment, increasing risk and reducing investment levels. Therefore,

we expect jurisdictions with higher levels of political stability to have higher levels of economic development.

H2: A higher degree of political stability generates a higher degree of economic development within poor jurisdictions.

1.3. The influence of economic freedom on accounting standardization and economic development

Economic freedom can be described as a measure that characterizes the extent to which an economy is a market economy. In other words, it is a measure of the ability to voluntarily close contracts with minimal state intervention in the form of reduced taxes or regulations as to support contracts and encourage the development of private property (Berggren, 2003). Through economic liberalization and ECMs development, poor jurisdictions aim at increasing their economic growth rates, stimulating investment to create new jobs and increase household income. Trade also becomes a stimulus for economic growth as developing countries integrate into the global economy and generate benefits for their inhabitants (WB, 2013).

Thus, we are inclined to believe that jurisdictions with a high degree of economic freedom are willing to adopt IFRS in order to increase the quality of their financial reporting, to enhance comparability of accounting information in the internationalization millennium and to increase their ECMs degree of integration and competitiveness. All of these may in turn generate a higher degree of economic development. Hence the following hypothesis:

H3: Increasing economic freedom leads to an increase in the level of economic development within poor jurisdictions.

2. RESEARCH METHODOLOGY

2.1. Sample and data sources used

In order to test the research hypotheses, poor jurisdictions, which have ECMs and benefited from external debt relief from the World Bank (WB) and the International Monetary Fund (IMF) under the Heavily Indebted Poor Countries (HIPC) initiative, were selected. Data were collected for the 1998-2008 period in order to control for the effects of the business cycle, those of the economic crisis and due to data availability. There are two reasons for choosing this particular sample: first, there is an international consensus with regard to the high poverty levels in these jurisdictions and second, the global organizations have taken action towards stimulating their economic growth and put pressure on them for accounting harmonization in order to ease the monitoring process of debt relief programs. Consistent with the accounting literature suggesting that IFRS are relevant only within active ECMs (Gray, McSwenney and Shaw, 1984), the sample was constructed using 25 poor countries that have ECMs. Out of these, 8 require preparation of financial statements in accordance with IFRS (Ghana, Haiti, Malawi, Rwanda, Sierra Leone, Tanzania, Uganda, Zambia) and 17 apply national accounting standards for the preparation of financial statements of listed companies (Benin, Bolivia, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Guyana, Mali, Mozambique, Nicaragua, Niger, Republic of Congo, Guinea-Bissau, Sudan, Senegal, Togo). Given the lack of data on the indicators of interest to this study, Somalia was removed from the sample, its final size being of 275 observations.

2.2. Research method

A multivariate approach is used to empirically test the research hypotheses. This approach is considered appropriate due to the complex nature of international accounting research and to the fact that the studied phenomena variation may have multiple generating sources.

2.2.1. The study's variables

The evolution of the degree of economic development (*EGROW*) is the dependent variable in this study and is measured by the annual percentage change in GDP. This is a basic economic indicator that measures the relative economic productivity of a nation and reflects the changes in its standard of living. Source: World Development Indicators (WB, 2013).

The adoption variable (*IFRS*) is a binary variable that takes the value 1, for jurisdictions that apply IFRS and 0 otherwise. Source: PwC report on the state of IFRS adoption (PwC, 2013) IasPlus website published by Deloitte (Deloitte, 2014), research reports on the adoption of IFRS published by Simon Fraser University (Simon Fraser University, 2014).

Degree of political stability (*POLSTAB*) measures the probability that the ruling government will be destabilized by unconventional methods, including acts of violence and terrorism. Source: World Governance Indicators (WB, 2013).

The degree of economic freedom (*EFREEDOM*) is measured by means of an index computed by researchers at the Heritage Foundation. Source: Heritage Foundation (Heritage Foundation, 2014).

Within the econometric interpretation we want to control the effects of the following variables: enforcement effectiveness, financial intermediation and the level of economic openness.

Previous studies conclude that IFRS adoption benefits could be shadowed by their faulty enforcement. Given the lack of data regarding accounting enforcement, Kaufmann, Kraay and Mastruzzi's (2010) government effectiveness index is used as proxy for *enforcement effectiveness* (*GOV*). Source: World Governance Indicators (WB, 2013).

The *financial intermediation* (*PRIV*) variable reflects the extend to which a particular jurisdiction uses capital obtained through bank loans instead of ECMs to finance its private sector and is measured by the share in GDP of domestic credit to the private sector Source: World Development Indicators (WB, 2013).

The *degree of economic openness* (*FDI*) is measured through the net foreign direct investment to GDP ratio. Source: World Development Indicators.

When looking at the WB country classification, the sample contains both low-income and middle low income countries within the sample. These countries exhibit great differences in terms of economic development. Thus, it is imperative to control for the effect of a country being part of one group or another, by mean of the dichotomus variable *low income* (*LOWINCOME*).

2.2.2. The econometric model

The research hypotheses are tested base on the following equation:

$$EGROW = \alpha_0 + \alpha_1 IFRS + \alpha_2 POLSTAB + \alpha_3 GOV + \alpha_4 EFREEDOM + \alpha_5 FDI + \alpha_6 PRIV + \alpha_7 LOWINCOME + \varepsilon, \quad (1)$$

where

EGROW – evolution of the degree of economic development;

IFRS – binary adoption variable;

POLSTAB – political stability index;

GOV – government effectiveness index;

EFREEDOM – degree of economic freedom index;

FDI – degree of economic openness

PRIV – financial intermediation indicator;

LOWINCOME – dichotomous low-income classification variable

α_i – correlation coefficient;

ε - residuals.

Validation tests were carried out using the functions implemented in Stata 12.0: Shapiro-Wilk test for normality, t-test and Mann-Whitney test for determining the significance of the difference between the degree of economic development of countries applying IFRS compared to those applying national standards, Pearson and Spearman-R to determine the correlation between the dependent and the independent variables, Breusch-Pagan Lagrangian multiplier for detecting random effects, Cook-Weisberg test for heteroscedasticity, variation influence factors to detect multicollinearity and Wooldridge test for autocorrelation.

3. RESULTS OF THE ECONOMETRIC STUDY

3.1. Data statistics analysis and interpretation

A preliminary analysis of the data was carried out in order to find potential errors and outliers. Following this, we found extreme values for the following continuous variables: EGROW, GOV, EFREEDOM, FDI and PRIV. In order to minimise the potential adverse effects on analysing and interpreting the results, data were winsorized at the 5% and 95% percentile. Table 1 presents the descriptive statistics for these variables after winsorization.

Table 1 – *Descriptive statistics*

	EGROW	GOV	EFREEDOM	FDI	PRIV
Mean	4.32	-0.80	53.69	3.19	13.49
Median	4.47	-0.75	54.5	2.59	11.05
Maxim	10.06	-0.14	63.8	9.52	47.88
Minim	-1.96	-1.6	42.5	0.8	2.22
Standard deviation	3.17	0.43	5.87	2.74	10.85
Skewness	-0.22	-0.16	-0.24	0.9	1.85
Kurtosis	2.46	1.83	2.18	2.85	6.35
Shapiro-Wilk W	0.98	0.96	0.98	0.90	0.79
Probability	0.05465	0.00006	0.00315	0.00000	0.00000

The mean and the median have close values for all data series. The standard deviation for EGROW, GOV, FDI and PRIV has relatively high values, indicating a low degree of homogeneity of the data series. The values of these statistical indicators determine the application of several tests in order to verify the normality of data distribution.

Skewness and Shapiro-Wilk tests show that POLSTAB, GOV, EFREEDOM and FDI have relatively normal distributions. In order to reduce skewness, the PRIV variable is logged. Of the 275 sample observations, in only 17.82% of cases is required reporting under IFRS. Comparative descriptive statistics indicate that there are not major differences between countries applying IFRS and those applying national standards regarding the mean values of economic growth rates, degree of political stability, degree of economic freedom, enforcement effectiveness, financial intermediation and economic openness.

Skewness and kurtosis figures determine the application of the parametric t test and Pearson-R as well as the nonparametric tests Mann-Whitney and Spearman, considered being more relevant when looking at data series which are not normally distributed.

3.2. The association between IFRS adoption, government effectiveness and economic openness

Next, the a priori significant difference between the group of countries that adopted IFRS and group of countries that has not adopted these standards is tested. Results of the t-test seem to indicate that there are significant differences between changes in the level of economic development registered in poor jurisdictions that have adopted IFRS compared to those which have not adopted these standards ($t = -2.3106$, $p\text{-value} = 0.0216$). Results generated by the nonparametric Mann-Whitney test, are consistent with those of the t test.

The Pearson R coefficient indicates a positive association between IFRS adoption and the evolution of the degree of economic development in poor jurisdictions, but its intensity is very low (0.1387). Furthermore, the Spearman correlation coefficient of 0.1546 ($p = 0.0104$), seems to indicate that IFRS adoption and the evolution of the degree of economic development are not independent.

When working with non-experimental data in social sciences, the independent variables are often correlated. The correlation coefficients obtained by applying Pearson-R and Spearman tests on all independent variables do not indicate the presence of severe problems caused by multicollinearity.

3.3. The analysis of the impact of IFRS adoption, government effectiveness and economic freedom on the level of economic development

The multivariate analysis indicates that within heavily indebted poor jurisdictions that have adopted IFRS, the changes in the level of economic development is on average with 1.327169 percentage points higher than in jurisdictions applying national standards for financial reporting. The result is consistent with those obtained by Akisik (2013) and the statistically significant effect of the IFRS adoption coefficient supports the first hypothesis of the study, H1.

The second hypothesis is rejected on the basis of the positive but statistically insignificant coefficient ($p = 0.491$) that estimates the level of political stability. Although the result is consistent with those obtained by Alesina and Perotti (1996) and Jong-a-Pin (2009), the coefficient obtained after applying the model may be statistically insignificant due to frequent changes in political stability levels in poor jurisdictions. This may trigger the companies' preservation instinct, causing them to favour prudent policies at the expense of profit oriented ones.

Surprisingly, the degree of economic freedom, has an unexpected negative and statistically insignificant impact ($p = 0.471$) on the evolution of the level of economic development achieved in the poor countries at a confidence level of 95%. The result is not consistent with the findings of previous studies conducted by Abeyasinghe (2004) and Berggren (2003) and thus we were unable to prove the third hypotheses of the study. The negative coefficient can be explained by the fact that in poor jurisdictions, high levels of corruption may hinder economic freedom and consequently, its effect on economic growth.

The Cook-Weisberg test result indicates that the model is homoscedastic. The high Shapiro-Wilk test result, 0.98162 ($p = 0.00766$) indicates a normal distribution of the residual values. Variation inflation factors indicate the absence of multicollinearity between the independent variables of the model. The Wooldridge test indicates that the residuals are not correlated (p -value = 0.4755).

The research is subject to limits and therefore we must be cautious in generalizing the results previously obtained. Coefficient R^2 indicates that only 29.70% of the variation of EGROW can be explained by changes recorded in the independent variables of the research model. As a result, most of the variation of the variable EGROW is due to other factors that were not included in the multivariate analysis due to the inability to implement them.

Conclusions

This study addresses the debate on the extent to which the adoption of the international accounting standards may lead in time to the economic development of the poorest countries of the world by increasing the quality of financial information reported in their ECMs and by increasing their integration into the global economy.

Taken together, the adoption of international accounting standards in poor jurisdictions has a positive impact on their economic development. In general, therefore, it seems that a reliable accounting system, characterized by a high level of financial disclosure plays a significant role in attracting foreign capital. Results also indicate that higher levels of political stability lead to an increase in the economic development of the poor jurisdictions. This view is consistent with previous findings in the accounting literature (Alesina and Perotti, 1996; Jong-a-Pin, 2009).

Contrary to what we were expecting, the investigation has shown that increased economic freedom may hinder economic development.

Finally, a number of important limitations need to be considered. First, due to data availability, only 25 low income and middle low income jurisdictions with active ECMs were included in the sample. Second, several factors suggested by the accounting literature that it may have a significant effect on economic development (eg, type of culture or legislative framework) could not be included in the research model due to the difficulty to operationalize them.

Future research should focus on the study of the economic impact of IFRS adoption within heavily indebted countries by taking into consideration additional factors such as the private sector's level of development, the level of democracy and the level of corruption. It would also be interesting to assess the implications of accounting education on IFRS level of compliance within poor jurisdictions.

Bibliography

- Abeyasinghe, R., 2004. *Democracy, Political Stability, and Developing Country Growth: Theory and Evidence*. [pdf]. Bloomington, Illinois: Honors Projects. Available at: <http://digitalcommons.iwu.edu/cgi/viewcontent.cgi?article=1000&context=econ_honproj> [Accessed 22 March 2014].
- Akisik, O., 2013. Accounting Regulation, Financial Development and Economic Growth. *Emerging Markets Finance and Trade*, 49(1), pp.33-67.
- Alesina, A., and Perotti, R., 1996. Income distribution, political instability, and investment. *European Economic Review*, 40(6), pp.1203- 1228.
- Alesina, A., Ozler, S., Roubini, N., and Swagel, P., 1996. Political instability and economic growth. *Journal of Economic Growth*, 1(2), pp.189-211.
- Berggren, N., 2003. The Benefits of Economic Freedom- A survey. *The Independent Review*, 8(2), pp.193-211.
- Cai, F., and Wong, H., 2010. The Effects of IFRS adoption on global capital market integration. *International Business and Economic Research Journal*, 9(10), pp.25-34.
- Deloitte, 2014. *IAS Plus*, [online] Available at: <<http://www.iasplus.com/en>> [Accessed 27 March 2014].
- Falk, H., 1994. International accounting: A quest for research. *Contemporary Accounting Research*, 11(1), pp.595-615.
- Gray, S. G., McSwenney, L. B., and Shaw, J. C., 1984. *Information Disclosure and the Multinational Corporation*. London: John Wiley and Sons.
- Gray, S. J., and Roberts, C. B., 1991. East-west accounting issues: A new agenda. *Accounting Horizons*, 2(1), pp.42-50.
- Heritage Foundation, 2014. *Index of Economic Freedom*, [online] Available at: <<http://www.heritage.org/index/>> [Accessed 20 April 2014].
- Irvine, H. J., and Lucas, N., 2006. The rationale and impact of the adoption of international financial reporting standards on developing nations: the case of the United Arab

- Emirates. In *18th Asian-Pacific Conference on International Accounting Issues*. Maui, Hawaii, 15-18 October 2006 .
- Jong-a-Pin, R., 2009. On the measurement of political instability and its impact on economic growth. *European Journal of Political Economy*, 25(1), pp.5-29.
- Kaufmann, D., Kraay, A., & Mastruzzi, M., 2014. *World Governance Indicators*, [online] s.l.:World Bank. Available at: <<http://info.worldbank.org/governance/wgi/index.aspx#home>> [Accessed 1 April 2014].
- Larson, R, 1995. An Empirical Analysis of International Accounting Standards, Equity Markets, and Economic Growth in Developing Countries. *Journal of International Financial Management and Accounting*, 6(2), pp.130-157.
- Perera, H., 1989. Accounting in Developing Countries: A Case for Localized Uniformity. *The British Accounting Review* , 21(2), pp.141-158.
- PwC, 2013. *IFRS adoption by country*. s.l: PwC.
- Richter Quinn, L., 2004. Emerging pains, [online] Available at : <<http://www.camagazine.com/archives/print-edition/2004/april/features/camagazine15680.aspx> > [Accessed 27 April 2014].
- Simon Fraser University, 2014. *Adopt IFRS*. [online] Available at: <<http://www.adoptifrs.org/>> [Accessed 18 April 2014].
- WB, 2013. *World Development Indicators*, [online] s.l.: World Bank. Available at:<<http://data.worldbank.org/data-catalog/world-development-indicators>> [Accessed 8 April 2014].
- WB, 2013. *World Governance Indicators*, [online] s.l.: World Bank. Available at: <<http://info.worldbank.org/governance/wgi/index.aspx#home>> [Accessed 1 April 2014].