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IFRS adoption and capital flows sensitivity to global uncertainty in Latin America

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Introduction

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- Capital flows (Ahmed & Zlate, 2014; Milesi-Ferretti & Tille, 2011):
 - Provide much-needed external funding for investment, growth, and productivity improvements;
 - Their instability can amplify macroeconomic vulnerabilities, generating boom-and-bust cycles that complicate monetary policy, exchange rate management, and fiscal planning;
 - Latin America: a region historically characterized by both substantial inflows of foreign capital and repeated episodes of sudden stops and capital flights.
- Literature on capital flows:
 - Financial determinants, where global uncertainty (VIX) has been shown to play a central role (Broto et al., 2011; Neumann et al., 2009);
 - Relatively little attention has been given to institutional and information dimensions, such as the quality of financial reporting.

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Introduction

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- Implications of the global spread of International Financial Reporting Standards (IFRS):
 - Accounting differences are one of the indirect barrier hampering financial integration (Bekaert & Harvey, 2003);
 - IFRS adoption is intended to enhance the quality of accounting information (DeFond et al., 2011; Florou & Pope, 2012);
 - Evidence links IFRS adoption to positive capital market outcomes, including regarding capital flows (Gordon et al., 2012; Khurana & Michas, 2011; Opare et al., 2021), though concentrated on the early (developed markets) adopters.
- Potential effects to emerging economies:
 - Might not apply due to weaker enforcement capacity and institutional quality (Ball, 2006; Daske et al., 2008; Li, 2010);
 - May have the most to gain because of their lower baseline in reporting quality (Gordon et al., 2012).

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Introduction

- IFRS adoption in Latin America:
 - No direct evidence on how IFRS adoption affects the volatility of cross-border investment flows;
 - Potential positive effects: stabilize flows reducing information frictions and increasing investors' familiarity with foreign markets (Covrig et al., 2007; Karolyi & Stulz, 2003);
 - Potential negative effects: heighten exposure to global shocks by fostering greater financial integration and amplify volatility due to contagion (Bekaert et al., 2005; Yu et al., 2010).
- Nuances in the adoption (similar to Daske et al. (2013)):
 - "Label" adopters: first attract more foreign investment, but investors later perceive information is not actually better, and flight when uncertainty hits;
 - "Serious" adopters: attracts more foreign investment that does not flight as soon as uncertainty hits.

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Introduction

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- Objective: analyze the role of IFRS adoption on the level and on the volatility of capital inflows in Latin America.
- Data: quarterly data for six major Latin American economies (Argentina, Brazil, Chile, Colombia, Mexico, and Peru) from 1995 to 2018.
- Preview of the results:
 - IFRS adoption is associated with higher capital flows to Latin American countries;
 - IFRS adoption is also associated with higher volatility of capital flows;
 - IFRS adoption decreases the susceptibility of capital flows to the Volatility Index (VIX).

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Literature Review



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- IFRS adoption and cross-country heterogeneity:
 - Differences in the adoption process (Ball, 2006; Nobes & Zeff, 2008, 2016), in market and legal features that lead to differences in standards' enforcement (Daske et al., 2008; Holthausen, 2009; Li, 2010).
- IFRS adoption and international capital flows:
 - IFRS facilitates cross border investment in mutual funds (Covrig et al., 2007), in Foreign Direct Investment (FDI) (Gordon et al., 2012; Márquez-Ramos, 2011), and Foreign Portfolio Investment (FPI) (Amiram, 2012).

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Literature Review

- IFRS adoption in Latin America
 - Mixed results: there is evidence of poorer quality due to greater complexity (Mongrut & Winkelried, 2019), some evidence of positive effects in the information environment (García et al., 2017; Moura & Gupta, 2019; Moura et al., 2020);

References

- Several studies on accounting quality (see, e.g., Cardona Montoya, 2018; Lopez et al., 2020; Melgarejo, 2024), but literature is scarce regarding capital flows.
- Capital flows volatility and financial integration risks:
 - When capital inflows overwhelm the recipient country's ability to absorb them: bubbles (and inflation), followed by sudden stops (foreign investors abruptly cut funding) and costly macroeconomic adjustment (Milesi-Ferretti & Tille, 2011);
 - For emerging economies, uncertainty is the main explanatory factor for these extreme episodes of capital flows (Forbes & Warnock, 2012).

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To evaluate the role of IFRS adoption on the amount of capital inflows in Latin America:

$$KF_{ct} = \beta_0 + \beta_1 IFRS_{c,t-1} + \beta \mathbf{X} + u_{ct}.$$

- Gross capital flows (KF) data: Balance of Payments (BOPS) database of the International Monetary Fund (IMF);
- Only six Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico and Peru) have data from 1995;
- Control variables: Gross Domestic Product (GDP) growth, risk, trade openness, stock market size, a dummy for floating exchange rates, and a dummy for FDI and/or FPI controls;
- IFRS adoption variable is a composite score:
 - Type of adoption: required or permitted;
 - Extent of adoption: for which types of firms and financial statements;
 - Other aspects: Endorsement, changes in the original standards, official translation, etc.

• IFRS adoption scores:

Year	Argentina	Brazil	Chile	Colombia	Mexico	Peru
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0.07
2007	0	0.07	0	0	0	0.07
2008	0	0.14	0	0	0.14	0.07
2009	0.14	0.14	0.14	0.07	0.14	0.07
2010	0.14	0.905	0.793	0.07	0.14	0.07
2011	0.14	0.905	0.793	0.07	0.14	0.07
2012	0.374	0.94	0.793	0.07	0.563	0.676
2013	0.374	0.94	0.793	0.14	0.563	0.746
2014	0.64	0.94	0.793	0.14	0.563	0.746
2015	0.64	0.94	0.793	0.85	0.563	0.746
2016	0.64	0.94	0.793	0.85	0.563	0.746
2017	0.64	0.94	0.793	0.85	0.563	0.746
2018	0.864	0.94	0.793	0.85	0.563	0.746

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To evaluate the role of IFRS adoption on the volatility of capital inflows (KFVolat) in Latin America:

$$KFVolat_{ct} = \beta_0 + \beta_1 IFRS_{c.t-1} + \beta \mathbf{X} + u_{ct}.$$

- GARCH models to estimate quarterly volatility of capital flows;
- If β_1 is negative and statistically significant: "transparency effect";
- If β_1 is positive and statistically significant: "contagion effect".

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3 To further investigate these "transparency" and "contagion" effects:

$$KFVolat_{ct} = \beta_0 + \beta_1 MktInt_{c,t-1} + \beta_2 VIX_{c,t-1} + \beta \mathbf{X} + u_{ct}.$$

- Market integration (*MktInt*) is estimated using country index returns (Pukthuanthong & Roll, 2009);
- International uncertainty is proxied by the VIX (Friedrich & Guérin, 2020).

Mediating effect of market integration and the VIX with IFRS adoption scores:

$$\begin{aligned} \textit{KFVolat}_{ct} &= \beta_0 + \beta_1 \textit{MktInt}_{c,t-1} + \beta_2 \textit{IFRS}_{c,t-1} + \beta_3 \textit{MktInt} \times \textit{IFRS}_{c,t-1} + \\ &+ \beta_4 \textit{VIX}_{c,t-1} + \beta_4 \textit{VIX} \times \textit{IFRS}_{c,t-1} + \beta_3 \textit{X} + \textit{u}_{ct}. \end{aligned}$$

• Estimation procedures: the data form a "long panel" so the model must be robust to heteroskedasticity and correlation across time and across countries.

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1 IFRS and the amount of Gross Capital Flows:

	1	Dependent variable:	
	Total Inflow	FPI Inflow	FDI Inflow
	(1)	(2)	(3)
IFRS adoption score (t-1)	1.404*** (0.227)	0.648*** (0.124)	0.541*** (0.112)
Controls	Yes	Yes	Yes
Observations	469	469	469
Adjusted R ²	0.346	0.188	0.335
F Statistic	31.967***	16.483***	34.663***

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IFRS and the Volatility of Gross Capital Flows:

	Dependent variable:		
	Total Volatility	FPI Volatility	FDI Volatility
	(1)	(2)	(3)
IFRS adoption score (t-1)	0.214***	0.374***	0.054
	(0.059)	(0.034)	(0.038)
Controls	Yes	Yes	Yes
Observations	469	469	469
Adjusted R ²	0.498	0.610	0.449
F Statistic	52.506***	92.609***	48.645***

• Consistent with the "contagion" effect.

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3 Market Integration, VIX, and the Volatility of Gross Capital Flows:

	Dependent variable:		
	Total Volatility	FPI Volatility	FDI Volatility
	(1)	(2)	(3)
Market Integration (t-1)	0.004	-0.223**	-0.159
	(0.145)	(0.092)	(0.102)
VIX (t-1)	0.202***	-0.027	0.074
	(0.062)	(0.038)	(0.046)
Controls	Yes	Yes	Yes
Observations	469	469	469
Adjusted R ²	0.523	0.584	0.488
F Statistic	52.345***	74.004***	50.607***

 Market integration is not relevant for FDI and is negatively related to FPI volatility, suggesting it helps investors' trust.

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• VIX is positively related to total investment volatility.

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4 Mediating Effect of IFRS Adoption:

		Dependent variable:	
	Total Volatility	FPI Volatility	FDI Volatility
	(1)	(2)	(3)
Market Integration (t-1)	-0.416***	-0.312***	-0.478***
	(0.161)	(0.097)	(0.112)
IFRS Adoption Score (t-1)	0.958**	0.435	0.759**
	(0.449)	(0.323)	(0.319)
VIX (t-1)	`0.348 [*] **	0.048	0.163 [*] **
` ,	(0.067)	(0.035)	(0.045)
Mkt Int \times IFRS (t-1)	`1.356 [*] **	0.289	`1.041 [*] **
, ,	(0.364)	(0.234)	(0.241)
$VIX \times IFRS (t-1)$	-0.412 [*] **	$-0.063^{'}$	_0.395 [*] **
	(0.159)	(0.117)	(0.114)
Controls	Yes	Yes	Yes
Observations	469	469	469
Adjusted R ²	0.536	0.615	0.518
F Štatistic	42.630***	63.334***	42.955***

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- Larger IFRS scores precedes higher volatility of capital flows;
- Higher market integration seems to signal higher foreign investors' trust;
- Higher uncertainty seems to increase foreign investment volatility in Latin America;
- Interactions:
 - The higher is market integration, the higher is the positive effect of IFRS adoption;
 - IFRS helps subside the increase in capital flows volatility after uncertainty shocks.
- Therefore, IFRS seems to ameliorate countries' sensitivity of capital flows to international uncertainty;
- The "transparency effect" minimizes the "contagion effect".

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- Robustness checks:
 - Traditional IFRS dummy identifying mandatory adoption: same conclusion but weaker effects, suggesting stronger effects when considering the composite score that accounts for different intensity of IFRS adoption across countries and over time:
 - Volatility for the Euro Stoxx 50 Index (Eurozone) and for the FTSE 100 index (United Kingdom) instead of the S&P500 VIX: same conclusion but weaker effects, suggesting IFRS have a role particularly for United States (US)-related market uncertainty.

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Concluding remarks

Contributions:

- Enriches the limited literature on IFRS effects in emerging markets, particularly in Latin America, which adopted these standards later than the European Union (EU).
- Highlights the importance of managing foreign capital flows in the region, especially following the Global Financial Crisis, as such growing flows can create inflationary pressures and require policy adjustments during sudden stops;
- Suggests policy recommendations to enhance accounting quality in Latin America through more complete IFRS adoption.

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Thank you!

Obrigada!

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