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**The Impact of Cash Flow Hedge Accounting on Future Profitability and Stock Returns:
A Country Comparison**

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A Country Comparison**

Tese apresentada ao Programa de Pós-Graduação em Controladoria e Contabilidade do Departamento de Contabilidade da Faculdade de Economia, Administração, Contabilidade e Atuária da Universidade de São Paulo, como requisito parcial para a obtenção do título de Doutor em Ciências.

Orientador: Prof. Dr. Eduardo da Silva Flores

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Aos meus pais e minha esposa por todo apoio e paciência.

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O sucesso nasce do querer, da determinação e persistência em se chegar a um objetivo.
Mesmo não atingindo o alvo, quem busca e vence obstáculos, no mínimo fará coisas admiráveis (José de Alencar)

ABSTRACT

Paula, D. A. D. (2024). *The Impact of Cash Flow Hedge Accounting on Future Profitability and Stock Returns: A Country Comparison* (Doctoral dissertation) Faculdade de Economia, Administração, Contabilidade e Atuária, Universidade de São Paulo, São Paulo.

This study analyzes the effects of cash flow hedges on future profitability and stock returns. It investigates a comprehensive sample of 44 (forty-four) countries. This work's first finding is a negative and significant relationship between cash flow hedges and future profitability in every country, however, this relationship is mixed and heterogeneous among countries, which may indicate that there are various drivers of the relationship between cash flow hedges and future profitability. Secondly, it employs a three-horizon model of the effects that cash flow hedges have on stock returns which proved to be a positive and significant relationship for returns one and two years in the future. In a complementary manner, one of this study's findings is that investors interpret the gains of cash flow hedges as positive for current returns, but negative for a two-year time frame. These results present some similarities to previous studies and complement specific findings related to gains and losses that could be interpreted by investors in different ways. Finally, no evidence was found that countries with common law legal regime present statistically significant differences in terms of investor information regarding the immediate prices of cash flow hedges.

Keywords: Profitability. Cash Flow Hedges. Stock Returns. Legal Regime.

RESUMO

Paula, D. A. D. (2024). *O Impacto da Contabilidade de Hedge do Fluxo de Caixa na Lucratividade Futura, Retornos das Ações: Uma Comparação entre Países* (Doctoral dissertation) Faculdade de Economia, Administração, Contabilidade e Atuária, Universidade de São Paulo, São Paulo.

Este estudo analisa os efeitos das operações de hedge de fluxo de caixa sobre a rentabilidade futura e o retorno das ações. Investiga uma amostra abrangente de 44 (quarenta e quatro) países. O primeiro achado deste trabalho é uma relação negativa e significativa entre hedge de fluxo de caixa e rentabilidade futura em todos os países, no entanto, essa relação é mista e heterogênea entre os países, o que pode indicar que existem vários direcionadores da relação entre hedge de fluxo de caixa e lucratividade futura. Em segundo lugar, emprega um modelo de três horizontes dos efeitos que os hedges de fluxo de caixa têm sobre os retornos das ações, o que provou ser uma relação positiva e significativa para os retornos de um e dois anos no futuro. De forma complementar, uma das conclusões deste estudo é que os investidores interpretam os ganhos dos hedges de fluxo de caixa como positivos para os retornos correntes, mas negativos para um período de dois anos. Esses resultados apresentam algumas semelhanças com estudos anteriores e complementam achados específicos relacionados a ganhos e perdas que poderiam ser interpretados pelos investidores de diferentes maneiras. Finalmente, não foram encontradas evidências de que países com regimes jurídicos de direito consuetudinário apresentam diferenças estatisticamente significativas em termos de informações dos investidores em relação aos preços imediatos do hedge de fluxo de caixa.

Palavras-chave: Lucratividade. Hedge de Fluxo de Caixa. Retorno de Ações. Regime Legal.

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ACRONYMS AND ABBREVIATIONS

Big 4	Big Four Auditing Firms
FASB	Financial Accounting Standards Board
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
SFAS	Statement of Financial Accounting Standards
U.S.	United States of America

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1 INTRODUCTION

1.1 CONTEXT AND BACKGROUND LITERATURE

The use of derivatives by companies has grown considerably in recent decades. At the end of June 2021, the notional volume of derivatives used for speculative and hedge proposals reached 610 trillion dollars (BIS, 2021). Derivatives have a significant importance in the economy and finance. However, some incidents involving failures in control and speculation have become famous, mainly due to the volumes of the financial losses involved. Cases of crises and derivative losses are known around the world, for example: Orange County and Proctor and Gamble (U.S.), Metallgesellschaft (Germany), Sadia and Aracruz (Brazil), and Société Generali (France) as well as its participation in the crisis of 2007.

In response to these cases, there has been an improvement in financial statements and a reduction in asymmetry of information through standards that regulate how companies can represent hedge operations. In 2000, the FASB presented FAS 133, and in 2005, the IASB presented IAS 39 (Financial Instruments), explaining how companies can present derivative information. However, these practices are notoriously complex (Makar et al., 2013) and relatively understudied (Campbell, Mauler, & Pierce, 2019). After all these years, there need to be clarifications about how companies and investors should interpret this content.

There is previous research in the United States about the effects of cash flow hedge disclosures in predicting firm profitability and the impact on the stock market (Ranasinghe, Sivaramakrishnan, & Yi, 2021; Campbell, 2015; Campbell, Downes, & Schwartz Jr., 2015; Makar et al., 2013). The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) regulate how these instruments should be treated worldwide.

In this study, I examine whether unrealized gains and losses on cash flow hedges predict changes in firm profitability according to the IFRS Framework and compare different accounting contexts. A cash flow hedge is exposure to variability in cash flows attributable to a particular risk associated with all of, or a component of, a recognized asset or liability or a highly probable forecast transaction that could affect gains and losses (IASB, 2014). Previous studies have found evidence that cash flow hedge gains/losses are negatively associated with future profitability in the U.S. (Makar et al., 2013; Campbell, 2015; Bratten et al., 2014). However, there is a gap regarding countries regulated by the IASB when this behavior happens in other countries with different market demands for information. First of all, this study

contributes by including a more comprehensive sample with forty-four countries which are more exposed to derivatives to compare the impact of the association between cash flow hedges and future profitability.

My second hypothesis contributes to this discussion by focusing on whether investors immediately price information for cash flow hedges in accordance with IASB standards and comparing different accounting contexts. Previous studies note that investors underreact to disclosures because of the complexity of these transactions and the incompleteness of the related disclosures also results in investor underreaction (Bloomfield, 2002; Hirshleifer & Teoh, 2003). Based on these studies, Campbell (2015) investigates whether investors immediately price this information in unrealized cash flow hedge gains/losses.

Accounting research regarding derivatives has focused on changes and requirements designed to increase their transparency (Campbell, Mauler, & Pierce, 2019). Several studies argue that institutional factors such as investor protection laws, corporate governance, and legal regime are essential in determining disclosure quality (e.g., Li & Yang, 2016; Ball, Kothari, & Robin, 2000; Kothari, 2000; Bushman & Piotroski, 2006). Within this context, market development, enforcement, level, and disclosure quality can influence whether investors immediately price information concerning cash flow hedges.

This study investigates whether unrealized gains and losses on cash flow hedges predict changes in firm profitability in a more comprehensive context consisting of various countries. It uses panel data for a sample of more than 2,000 non-financial companies from 44 countries from 2005 to 2017 after the publication of IAS 39. Previous studies have presented mixed results about the impact of cash flow hedges in predicting future profitability and value relevance, along with a negative association between cash flow hedges (Makar, 2013; Bratten, 2014; Campbell, 2015). However, most of them examine only the U.S. under the FASB framework. This study investigates future profitability using the difference between gross profits with different variances and cash flow hedges.

Previous studies have argued that this effect is mediated by several characteristics, such as the sector's competitiveness (Campbell, 2015), liquidity (Bratten, 2014), or partial hedging (Makar, 2013). This study's sample is very heterogeneous in terms of levels of market development and transparency. It investigates whether cash flow hedges affect future stock returns in these countries as well. Initially, no differences would be expected due to the regulatory standards for hedge accounting being remarkably similar; in this context, factors related to market development, on the part of both companies and investors, may have a more

significant influence. In this scenario, we need to identify whether the cash flow hedge variable significantly affects the identified relationship of having an impact on future gross margins.

This study's first hypothesis finds that cash flow hedges have a significant negative variance coefficient one and two years in the future. This corroborates previous studies, in that unrealized cash flow hedge gains or losses are negatively associated with changes in gross profits after firms reclassify their existing hedges into earnings (Campbell, 2015; Makar, et al., 2013; Campbell et al., 2021). However, previous studies have presented evidence that companies in different countries utilize derivatives with original maturities of up to one year or one-year anticipated transactions with great frequency. In terms of individual countries, the findings have been mixed, with countries such as Brazil, Mexico, the Philippines, and Saudi Arabia presenting a positive and significant relationship. On the other hand, India, Germany, Luxembourg, Finland, Hong Kong, Israel, Malaysia, and Greece have a negative association between cash flow hedges and gross profit variations over a two-year period. These results lead to a heterogeneous sample with very different coefficients and significance, but also makes it possible to investigate factors related to each country's individual market as potential drivers of this relationship between cash flow hedges and future profitability.

Hypothesis Two uses a three-horizon model regarding the effect of cash flow hedges on returns to show a positive and significant relationship with returns one and two years in the future. The return two years in the future has the highest value, which reinforces the developed hypothesis that the price is affected by the realization of the cash flow hedge values, but in the opposite manner to Campbell's findings (2015) in the United States. In a complementary manner, the way gains and losses in cash flow hedges are interpreted was also investigated. The results indicate that the relationship between cash flow hedges and gains is positive and significant for one-year returns, but negative for two-year returns. These results are somewhat similar to Campbell's findings (2015) in the U.S. and complement specific findings that gains and losses can be interpreted by investors in different ways.

In the individual country analyses, there were mixed results, but some countries exhibited this behavior of turning from a positive association to a negative association over time, such as Australia, South Korea, and the United Kingdom. In the study's last hypothesis, no statistical significance was found for the coefficient in countries with a common law legal regime. The Legal Regime variable in previous studies indicates differences between countries, but in this instance, it may not capture differences due to other linked factors such as competitiveness or exposure to market factors. As a suggestion, the inclusion of other factors

may capture this relationship better and identify the determinants linked to the countries that have a direct relationship in this problem.

This study provides a country comparison regarding whether unrealized gains and losses on cash flow hedges predict changes in firm profitability and affect stock returns. The accounting literature presents improvements in derivative regulations and reduced asymmetry of information as being useful to users. However, there is still much to improve. Specifically, there is a gap between the information and disclosures required to present cash flow hedges in IAS 39 and IFRS 9 in IASB, and SFAS 133 and 166 in FASB, to price them correctly for earnings forecasts and asset pricing (Hairston & Brooks, 2019).

Previous studies in the U.S. indicate that unrealized cash flow hedge gains and losses are leading to mispriced profitability figures, earnings forecasts, and stock markets (Campbell, 2015; Campbell, Downes, & Schwartz Jr., 2015). This study uses a large international sample to investigate whether unrealized cash flow hedge gains and losses are leading to mispriced profitability figures due to the quality of disclosures. It also investigates the effects of cash flow hedges in stock markets depending on their legal regimes (La Porta et al., 1998; Ball, Kothari, & Robin, 2000).

1.2 RESEARCH QUESTION

Based on previous studies and arguments, this study's research question is: **How do cash flow hedges affect future profitability and stock returns, and what is their impact in different markets?**

1.3 DISSERTATION STRUCTURE

This chapter presents a brief introduction to the study including its context, research question, and expected contributions to the accounting literature. The second chapter will discuss its theoretical background and how the hypotheses were developed. The third chapter will describe the methodological process that addresses the research question. The fourth chapter will present data analyses of the relationship between hedge accounting, future profitability, and stock returns and how disclosure quality affects this relationship in different countries. Finally, the fifth chapter will present the concluding remarks.

2 THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

This chapter will discuss hedge and derivative accounting standards, concepts, and findings regarding future profitability and stock returns.

2.1 HEDGE ACCOUNTING STANDARDS

Hedge accounting is an accounting choice with specific eligibility and qualification criteria that modify the standard basis for recognizing gains and losses (or revenues and expenses). These accounting practices make it possible for gains and losses on the hedging instrument to be recognized as profits or losses (or in OCI in the case of hedges of equity instruments using FVOCI) in the same period as offsetting losses and gains on the hedged item. Hedge accounting allows an entity to reflect risk management activities in its financial statements (Ramirez, 2015; IASB, 2023).

The IASB issued the documents IAS No. 32 - Financial Instruments: Disclosure and Presentation and IAS No. 39 - Financial Instruments: Recognition and Measurement. The FASB and the IASB addressed Hedge Accounting through IAS 39. As of 2018, it was replaced by IFRS 9 (Financial Instruments). Hedge Accounting was standardized by IAS 39, which established principles for recognizing and measuring financial assets, financial liabilities, and some contracts to buy or sell non-financial items. It also presented principles for recognizing financial instruments and hedge accounting. The presentation and disclosure of financial instruments are the subjects of IAS 32 and IFRS 7, respectively (IASB, 2023).

The International Accounting Standards Committee (IASC) first released IAS - 39 Financial Instruments: Recognition and Measurement in March 1999, and the board adopted it in April 2001. This standard replaced the previous one, IAS 39 - Financial Instruments: Recognition and Measurement, published in December 1998. March 1986's IAS 25 - Accounting for Investments was partially superseded by the initial IAS 39 (IASB, 2023).

IFRS 9 Financial Instruments completely replaces IAS 39, as the board has long planned. However, according to IFRS 9, the organization can follow IAS 39's hedge accounting guidelines or implement IFRS 9's standards as its accounting policy (IASB, 2023). To avoid any noise due to this issue, I have analyzed the period between 2005 and 2017, in which companies could only apply IAS 39.

The FASB standard in the U.S. GAAPs is FAS 133 - Accounting for Derivative Instruments and Hedging Activities, which is equivalent to IAS 39. FAS 133 presents principles

similar to IAS 39, however some differences exist. Specifically, the definition of cash flow hedges that I investigate in this research is very similar. FAS 133 defines a cash flow hedge as:

a derivative designated as hedging the exposure to variable cash flows of a forecasted transaction (referred to as a cash flow hedge), the effective portion of the derivative's gain or loss is initially reported as a component of other comprehensive income (outside earnings) and subsequently reclassified into earnings when the forecasted transaction affects earnings. The ineffective portion of the gain or loss is reported in earnings immediately. (FAS 133, 2008, pp. FAS133-7)

Whereas IAS 39 define it as:

a hedge of the exposure to variability in cash flows that (i) is attributable to a particular risk associated with a recognized asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecast transaction and (ii) could affect profit or loss. (IAS 39, 2005, pp. A1533)

Table 1 - Differences between Hedge Accounting Standards under IFRS and GAAP presents an overview of IAS 39 and the differences and similarities between Topic 815 and Topic 848, the hedge accounting standard in the FASB. Overall, the main standards are substantially similar. I highlighted these excerpts to identify whether the differences in standards among these countries could affect the results. In my opinion, these differences should not influence the analyses.

Table 1 - Differences between Hedge Accounting Standards under IFRS and GAAP

Overview IAS 39	Main Differences Topic 815, Topic 848
Hedge accounting is voluntary and, elected, allows an entity to measure assets, liabilities, and firm commitments selectively on a basis different from that otherwise stipulated in IFRS Accounting Standards or to defer the recognition in profit or loss of gains or losses on derivatives.	Similar IFRS Accounting Standard
There are three hedge accounting models: fair value hedges of fair value exposures, cash flow hedges of cash flow exposures, and net investment hedges of foreign currency exposures on net investments in foreign operations.	Similar IFRS Accounting Standard. However, the requirements differ from IFRS in certain respects
Hedge accounting is permitted only when strict requirements related to documentation and effectiveness are met.	
Qualifying hedged items can be recognized assets or liabilities, unrecognized firm commitments, highly probable forecast transactions or net investments in foreign operations.	Similar IFRS Accounting Standard
In general, only derivative instruments entered into with an external party qualify as hedging instruments. However, for hedges of foreign exchange risk only, non-derivative financial instruments may qualify as hedging instruments.	
The hedged risk should be one that could affect profit or loss.	

Overview IAS 39	Main Differences Topic 815, Topic 848
<p>Effectiveness testing is conducted on both a prospective and a retrospective basis. A hedge is 'highly effective' if changes in the fair value or cash flows of the hedged item attributable to the hedged risk are offset by changes in the hedging instrument's fair value or cash flows within a range of 80-125 per cent.</p>	<p>Although the requirement differs, specific hedge effectiveness requirements need to be met for a hedge relationship to be eligible for hedge accounting like IFRS, including that a hedge needs to be "highly effective". Effectiveness testing is conducted on both a prospective and retrospective basis. However, the 80-125 per cent range is not specified. However, it is very commonly used in practice, and SEC Staff has indicated that it is an acceptable range.</p>
<p>For a cash flow hedge and a net investment hedge, the ineffective portion of the gain or loss on the hedging instrument is recognized in profit or loss, even if the hedge has been highly effective.</p>	<p>Unlike IFRS, when a cash flow hedging relationship or net investment hedge is deemed highly effective, the entire change in the fair value of the designated hedging instrument included in the hedge effectiveness assessment is recognized in OCI and becomes a component of accumulated OCI.</p>
<p>Hedge accounting is discontinued prospectively if the hedged transaction is no longer highly probable; the hedging instrument expires or is sold, terminated or exercised; the hedged item is sold, settled, or otherwise disposed of; the hedge is no longer highly effective; or the entity revokes the designation.</p>	<p>Similar IFRS Accounting Standard. However, the requirements differ from IFRS in certain respects.</p>

Source: Adapted by KPMG (2023).

2.2 HEDGE ACCOUNTING RESEARCH

This section discusses research related to Hedge Accounting specifically, including its theoretical concepts and empirical evidence concerning the impact of standard hedge accounting on investors. In order to identify the state of the art, I used the Scopus database and the keyword "Hedge Accounting". After manual checking, I only kept articles that addressed the subjects of derivative accounting and their impact on future profitability and stock return.

The theoretical framework for hedging determinants presents some channels, through market imperfections, that would increase the firm's value, including managerial risk aversion costs (Smith & Stulz, 1985; Stulz, 1984), bankruptcy costs (Smith & Stulz, 1985; Mayers & Smith, 1982), a progressive tax burden (Smith & Stulz, 1985), and the cost of external financing (Froot, Scharfstein, & Stein, 1993).

The derivative literature in accounting has grown substantially over the past two decades, in keeping with the growth in the use of derivatives. (Campbell, Mauller, & Pierce, 2019). Nearly 90% of non-financial firms present increased expected cash flow as the main reason to hedge. Also, companies hedge to smooth earnings or satisfy shareholder expectations (Giambona, Graham, Harvey, & Bodnar, 2018).

Theoretical studies shed some light on hedges and the hedge accounting disclosures mandated by the FASB as well as their efficiency in futures markets and stakeholder decisions. For example, Demarzo and Duffie (1995) stress the informational content of hedge positions and manager decisions. The authors argue that hedging can eliminate a source of noise and make profits more informative.

Figure 1 presents the 34 most cited articles connected in clusters through an analysis by bibliometric website VosViewer 1.6.10.

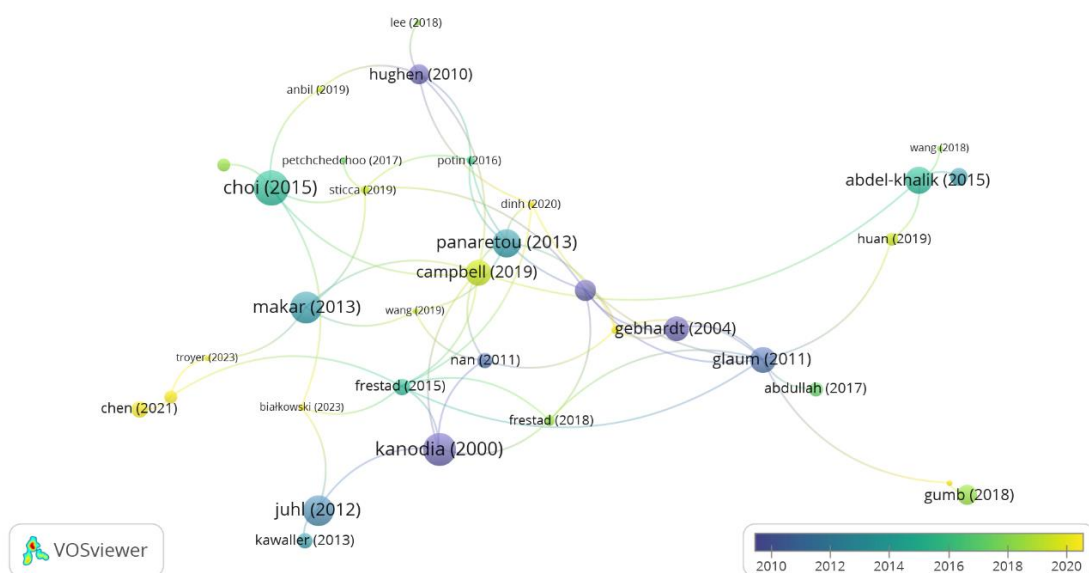
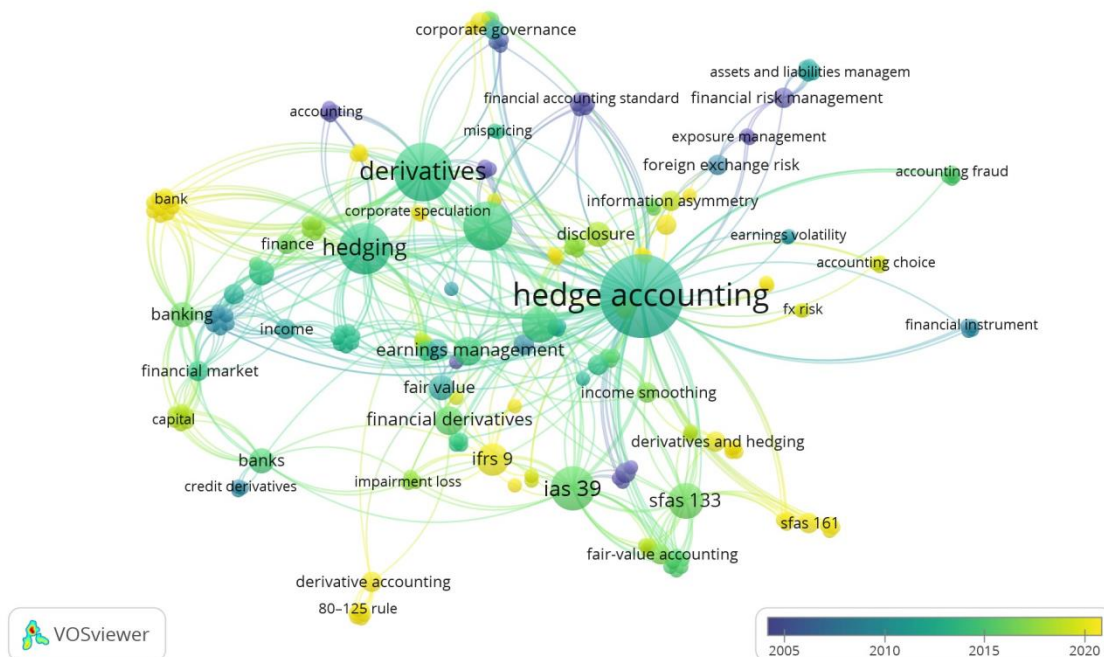


Figure 1 - Most Cited Articles

Source: Author.

Figure 2 shows the most cited keywords from these articles. In summary, between 2005 and 2010, the terms were more associated with risk, such as exposure management, financial risk management, corporate governance, and foreign exchange risk. After 2015, the terms hedge accounting, hedging, and derivatives became more relevant. In 2020, the discussion focus changed to IFRS 9, SFAS 161, the 80-125 rule, and derivative accounting.

Figure 2 - Most Cited Keywords



Source: Author.

Early examples of research into FAS 119 show that information provided by derivative disclosure has value, relevance, and usefulness. For example, Venkatachalam (1996) focuses on banks, Schrand (1997) on a sample of savings and loan associations (S&Ls), and Wong (2000) on manufacturing firm exposure to foreign exchange risk to help explain currency exposure.

Moreover, other studies investigated U.S. Securities and Exchange Commission Financial Reporting Release No. 48 (FRR No. 48), which requires firms to make specific quantitative and qualitative disclosures about exposure to market risk and derivatives. This disclosure requirement contributed helpful information to investors (Linsmeier et al. (2002); Thornton & Welker (2004); Jorion (2002)). However, the level of disclosure presents difficulty in comparing the results because different risk attributes have different requirements (Roulstone (1999); Rajgopal (1999)). Jorion (2002) and Liu, Ryan and Tan (2004) investigated specific Value-at-risk (VAR) in financial companies with similar results related to usefulness and disclosure. In a more recent article, Lobo, Siqueira, Tam, and Zhou (2019). relate the importance of disclosure quality required by FRR N°48 to applicable content on risk management effectiveness.

Abdel-Khalik and Chen (2015) investigate regulatory factors in the increased use of derivatives by financial institutions in the U.S. One of their findings indicates that hedge

accounting implemented by SFAS 133 encourages firms to use more derivatives to reduce their risk exposure.

Previous studies have found that SFAS 133 - Accounting for Derivative Instruments and Hedging Activities (FAS 133) changed corporate risk-management behavior. On the other hand, SFAS 133 enhances corporate information transparency. Kang and Kim (2022) found that this standard can contribute to corporate governance by encouraging managerial compensation contracts and aligning shareholder monitoring and managers. Furthermore, Zou (2022) finds that entry decisions in the American airline industry are affected by company risk management disclosures.

On the other hand, investors and analysts have difficulty understanding the impact of derivatives on earnings (Campbell, 2015; Chang, Donohoe, & Sougiannis, 2016). In a survey of Brazil and Chile, Malaquias and Zambra (2020) corroborate this view of financial instruments and hedge accounting being quite complex. However, the standard has reduced this complexity (Chang, 2016). In this sense, Ranasinghe, Konduru and Yi (2021) find derivatives are used for hedging to improve earnings predictability and forecasts. On the other hand, derivatives that do not meet the designated requirements reduce earnings predictability.

Hecht (2021) investigates determinants of F.X. speculation. The author finds an association between speculation and companies that adopt hedge accounting. However, the author indicates that more research must be done to interpret a possible causal relationship.

The SFAS 161 - Disclosures about derivative instruments and hedging activities—an amendment of FASB statement 133 (FAS 161) includes specific requirements for U.S. company disclosures. Recent studies have found that SFAS 161 disclosures resulted in less asymmetry of information for investors (Steffen, 2022), an increase in stock liquidity (Chen, Dou, & Zou, 2021), and a better user understanding of the effects of derivative and hedging operations on future firm performance, and less mispricing by investors (Campbell, Khan, & Pierce, 2021).

Troyer, Johnston, and Trimble (2023) find that derivative disclosure practices decreased after the implementation of ASU 2017-12 (Topic 815). This standard update aims to better align hedge accounting with an organization's risk management activities in terms of its financial statements. Moreover, it simplifies the application of hedge accounting guidance (FASB, 2017).

Campbell, D'Adduzio, Downes and Utke (2021) investigate hedge accounting and its impact as understood by credit analysts. The authors find that sophisticated investors, such as public debt markets, can incorporate cash flow hedge accounting information in the same risk analysis. However, the authors do not find that this happens in credit ratings or new debt.

Campbell, D'Adduzio, Downes and Utke (2021) point out that improved disclosure can benefit users when analyzing different kinds of risks.

In an IASB context, Muller (2020), in a simulation study compares IAS 39 and IFRS 9 portfolio earnings. The author finds that portfolio earnings are affected differently; overall, the IAS 39 hedge accounting standard can lead to higher portfolio earnings volatility and more (less) sensitivity to F.X. rate changes. In an IFRS context, previous studies have found that hedge accounting reduces asymmetry of information in the U.K. (Panaretou, Schackleton, & Taylor, 2013), and Brazil (Potin, Bortolon, & Sarlo Neto, 2016).

Yet in terms of IAS 39 in Brazil, Sticca and Nakao show that companies under financial crisis are exposed to currency volatility; they choose cash flow hedges to avoid losses and aggressive taxes.

There are several studies of hedge accounting in Europe. Overall, hedge accounting information is valued (Dinh & Seitz, 2020). On one hand, banks that use more derivatives are riskier (Huan & Parbonetti, 2019); on the other, banks that use hedges more efficiently have lower risk and more value. Auditing fees are higher for companies that maintain financial derivatives in order to hedge (Cameran & Perotti, 2014).

The cash flow hedge is one of the Other Comprehensive Income (OCI) elements. IAS 1 defines Other Comprehensive Income as consisting of "items of income and expense (including reclassification adjustments) that are not recognized in profit or loss as required or permitted by other IFRSs". One of the elements is the effective portion of gains and losses on hedging instruments in a cash flow hedge and the gains and losses on hedging instruments that hedge investments in equity instruments measure at fair value through other comprehensive income.

Previous studies have examined the impact of OCI elements on value relevance (Dhaliwal et al., 1999; Cahan et al., 2000; Kanagaretnam, Mathieu, & Shehata, 2009; Goncharov & Hodgson, 2011; Campbell, 2015; Khan, Bradbury, & Courtenay, 2018), predictability (Lipe, 1986; Barton et al., 2010; Campbell, 2015; Lee, J., Lee, S., Choi, & Kim, 2020), and forecast ability (Dhaliwal et al., 1999; Kanagaretnam, Mathieu, & Shehata, 2009; Barton et al., 2010; Goncharov & Hodgson, 2011; Dong et al., 2014; Campbell, Downes, & Schwartz, 2015). This study seeks to find the specific effects of cash flow hedges on predicting future profits and stock returns.

2.2.1 Cash Flow Hedges and Future Profitability

Previous studies have found a negative relationship between future profitability and cash flow hedges in the U.S. for non-financial companies (Campbell, 2015; Markar, Wang, & Alam, 2013) and financial companies (Britten et al., 2014). In the IASB context, a study investigated non-financial firms in South Korea (Lee, J., Lee, S., Choi, & Kim, 2020). To the best of my knowledge, there has been no previous comparative study of the impact of cash flow hedges and future earnings in various countries.

Markar, Wang and Alam (2013) study non-financial companies in the U.S., specifically F.X. derivatives, and find that cash flow hedges in OCI's present a negative and significant relationship with future earnings one year in the future.

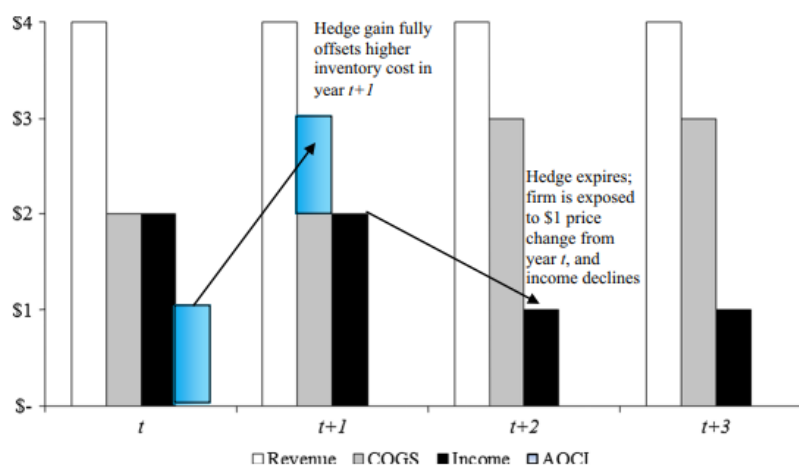
Britten, Causholli and Khan (2014) find that individual components of fair value-based OCI's predict future earnings one and two years in the future in the banking industry. The authors investigate two components: unrealized gains and losses on available-for-sale securities and unrealized gains and losses on derivative contracts classified as cash flow hedges. The latter presents a negative association with future earnings. Moreover, the authors argue that the reliable measurement of fair values enhances predictive value.

Campbell (2015) examines non-financial companies in the U.S. and argues that unrealized cash flow hedge gains or losses are negatively associated with future profitability after the companies reclassify these hedges into earnings. An illustration of this relationship appears in Figure 3.

Figure 3 Figure 3 presents an example of the implications of cash flow hedge gains/losses for future profitability. In this case, a company sells its product for \$4 (Revenue) and presents a Cost of Goods Sold (COGS) for \$2, indicating an income of \$2. The company uses cash flow hedge derivatives to protect itself from the volatility of costs that charge \$1. So, in years t and $t+1$, the company continues to have an income of \$2. However, in years $t+2$ and $t+3$, the cost becomes \$3, reducing the income to \$1.

Campbell, Khan and Pierce (2021) show that unrealized cash flow hedge gains/losses serve as an inverse summary measure for the effect of underlying price changes on the firm's future profitability after the hedges have expired. In a complementary manner, the authors investigate the power of pricing in moderating this relationship. Their study finds that a less competitive market has a less negative relationship between cash flow hedges and future profitability.

Figure 3 – Illustration of the Implications of Cash Flow Hedge Gains/Losses for Future Profitability



Journal Entries:

	Year t	Year t+1	Year t+2	Year t+3
Dr. Accounts Receivable (or Cash)	\$4	\$4	\$4	\$4
Cr. Revenue	\$4	\$4	\$4	\$4
Dr. COGS	\$2	\$2	\$3	\$3
Dr. AOCI (hedge gain)	\$2	\$3	\$3	\$3
Cr. Inventory (at cost)		\$1		
Dr. Derivative Asset	\$1			
Cr. AOCI (hedge gain)	\$1			
Dr. Cash		\$1		
Cr. Derivative Assets		\$1		

Source: Campbell, Downes and Schwartz Jr. (2015).

In South Korea, Lee, Lee, Choi and Kim (2020) found a positive and significant relationship between AOCI elements and predicting the future performance for one and two quarters in the future for non-financial firms. However, when the authors broke it down into individual components, the cash flow hedge relationship was insignificant.

In the present study, I seek to complement these previous studies with no significant results with a heterogeneous and comprehensive sample by investigating whether different countries, in accordance with the IFRSs, present an association between unrealized cash flow hedges and changes in gross profits due to the heterogeneity of market factors, pricing power, liquidity, or partial hedging. It is essential to determine whether this has happened in countries that follow the IFRSs.

Hypothesis 1 (H1): *Unrealized cash flow hedge gains/losses are associated with changes in gross profits after firms reclassify their existing hedges into earnings.*

2.2.2 Cash Flow Hedges and Stock Returns

Previous studies have reported mixed results in terms of an association between cash flow hedges and stock returns. On one hand, some studies found a negative relationship between cash flow hedges and stock returns for non-financial companies in the U.S. (Makar, Wang, & Alam, 2013; Campbell, 2015; Campbell, D'Adduzio, Downes, & Utke, 2021). On the other, cash flow hedges in studies about the relationship between comprehensive income, stock returns, and value relevance did not present a significant effect (Khan, Bradbury, & Courtenay, 2018).

Makar, Wang, and Alam (2013) find evidence that suggests that the market systematically misprices Other Comprehensive Income Cash Flow (OCICF). The authors support this study by relating the partial use of foreign exchange derivatives (Bodnar et al., 1998; Naylor & Greenwood, 2008) in companies that hedge less than 100% of their exposure to the theoretical mispricing of the mixed attribute problem (MAP) under SFAS 133 (Gigler, Kanodia, & Venugopalan, 2007).

Gigler, Kanodia and Venugopalan (2007) present the MAP, in which cash flow hedge accounting presents a mixed attribute model, which mixes elements of fair value and historical cost accounting that will be recognized only in the future when a company uses derivatives to protect itself from future cash flow variability in forecasted transactions. Other Comprehensive Income reports gains or losses in cash flow hedges, while the changes in the value of forecast transactions are recognized only upon their realization in the future. Complementary to this is that the authors show that SFAS 133 does not provide enough information for an investor to understand the derivative's effects.

Similarly, Campbell (2015) presents evidence that investors do not immediately price the implications of unrealized cash flow hedge results for various reasons. The author argues that complex and incomplete disclosure in FAS 133 affects investor understanding. According to Campbell (2015), these findings are essential for two reasons. First, they show that investors fully convert comprehensive income components into firm value. Second, these results suggest that the complexity of these transactions and the incompleteness of the related disclosures result in investor underreaction. For example, companies do not present changes in the fair value of a future hedged transaction until it occurs; in this case, an investor cannot observe its impact on future gross profits.

As a result, they may have a hard time pricing this information. The present study is consistent with Campbell's view (2015) that investors underreact to information that is costly

to process and incomplete, as presented by Bloomfield (2002) and Hirshleifer & Teoh (2003). Bloomfield (2002) presents the Incomplete Revelation Hypothesis (IRH), which "asserts that statistics that are more costly to extract from public data are less completely revealed in market prices" Bloomfield (2002, p. 2). The IRH predicts an underreaction to more complex footnotes.

In a complementary manner, Hirshleifer and Teoh (2003) argue that due to limited attention, these choices can affect investor perceptions and stock market pricing. Within this context, the authors suggested that investors could interpret firms that hedge their operations as riskier than marked to market firms.

More recently, Campbell, Khan and Pierce (2021) argue that enhanced mandatory derivative disclosures due to FAS 161 improve user understanding of firm hedging activities. In New Zealand, Khan, Bradbury and Courtenay (2018) find a strong association between comprehensive income and stock price, but the authors did not find evidence of the signaling effect associated with cash flow hedges.

In this paper, I seek to complement previous studies with a more comprehensive sample with different levels of market development. As has been previously presented, the IASB standard does not present significant differences that would lead one to expect different results; however, different levels in terms of the market and investment environment can produce different results. Like Campbell (2015), I have investigated whether unrealized cash flow hedge reserves are associated with future stock returns.

***Hypothesis 2(H2):** Unrealized cash flow hedge gains or losses are associated with future stock returns.*

2.2.2.1 Legal Regime Background

In recent decades, accounting research on derivatives has focused on changes and requirements to increase their transparency (Campbell, Mauler, & Pierce, 2019). Institutional factors such as investor protection laws, corporate governance, and legal regimes are essential factors to determining the disclosure quality and level of transparency (e.g., Li & Yang, 2016; Ball, Kothari, & Robin, 2000; Kothari, 2000; Bushman & Piotroski, 2006).

Porta, Shleifer and Vishny (1998) present two broad legal traditions: civil and common law. Civil law is typically divided into the French, German, and Scandinavian traditions. The authors investigate investor protection, quality of enforcement, and ownership in 49 countries. They find evidence that countries with common law legal regimes present the most robust legal

protections compared with French code law, with traditional German and Scandinavian law placed in the middle of these two extremes. In comparison, the legal regimes in common law countries are modelled after English law, such as the British colonies, for example.

Ball, Kothari and Robin (2000) present timeliness and conservatism as capturing the concept of transparency. The authors characterize code law shareholder and stakeholder models. They analyzed 25 countries from 1985 to 1995 and divided their sample into qualitative variables for political influence, with a code law system mainly characterized by political influence and a common law system characterized by accounting practices guided by the private sector. In contrast, code-law income is substantially less timely and conservative than common-law income.

In a complementary manner, Kothari (2000) argues that institutional factor enforcement also affects the demand for accounting information. In common law, countries usually have diffuse ownership and segregated management control. In this situation, the demand for disclosure accounting is high. Meanwhile in the stakeholder-oriented model, the state, banks, and other institutions are the primary financiers and users of information. In this situation, public disclosure is in less demand by economic participants and can present higher degrees of asymmetry of information.

Bushman, Piotroski and Smith (2004) analyze two factors of the information environment: financial transparency and governance transparency. These factors measure the intensity and timeliness of financial disclosure and the intensity of governance disclosure. The authors argue that there is greater transparency in countries with characteristics of common law legal regimes. In contrast, countries with low state ownership in enterprises and banks and a low risk of expropriation by the state present lower financial transparency.

Similarly, Bushman and Piotroski (2006) investigated 38 countries from 1992 to 2001 and presented the impact of legal regimes and the behavior of corporate executives, investors, regulators, and other market participants. The authors document that firms in countries with a common law legal regime and a high level of state influence tend to recognize good news faster and bad news slower than firms in countries with less state involvement. However, the situation is the opposite for firms in countries with civil law legal regimes and a high degree of state involvement, where the recognition of good news tends to be slower, and the recognition of bad news tends to be faster than in countries with less state involvement.

Therefore, due to the low demand for public disclosure, lower quality of transparency is expected, and the consequence of Hypothesis Two is a more negative impact in terms of the effect of unrealized hedge accounting gains or losses on future stock returns.

Transparency is a proxy for the legal rules of investor and creditor protection and the litigation environment due to local legal regimes (Ball, Kothari, & Robin, 2000). Ball, Kothari and Robin (2000) present timeliness and conservatism together to capture the concept of transparency. The authors find evidence that code-law income is substantially less timely and less conservative than common-law income.

In this context, the present study argues that countries with the highest level of disclosure, with a higher level of transparency and timeliness being expected in common law countries, will potentially present a reduction in this timeliness. In this sense, I hypothesize that the relationship between cash flow hedge reserves and common law has a positive and significant coefficient.

Hypothesis 2a. (H2a): *The association between unrealized cash flow hedge gains/losses and future stock returns is reduced in countries with a common law legal regime.*

3 METHODOLOGY

3.1 SAMPLE SELECTION

For the implementation of the study, data was collected from the Refinitiv Eikon Database, covering the years from 2005 to 2017. The examined period is limited to 2017 to control for differences between IAS 39 and IFRS 9 which came into force in 2018. Data was collected only from non-financial companies because of the difference between the strategies of these two types of companies. Companies were selected whose cash flow hedge activity is not zero for at least one year during the period of study in 76 countries. A more representative sample of the volume of derivatives was achieved after merging this data with country information on BIS Turnover of OTC foreign exchange instruments for countries with data in 2017. A sample of 44 countries with 16,038 observations was left. The first year of each country's adoption of the IASB Framework is considered. However, not all countries are full IFRS adopters with substantial conversion. These countries include China, India, Japan and Singapore.

Table 2 presents country, year, and industry observations of companies that applied cash flow hedges for at least one year between 2005 and 2017. Japan, the United Kingdom, and Australia are the countries with the most observations in the sample, making up 34.19%, 8.88%, and 6.48%, respectively. The first years, 2005 and 2006, present fewer observations, as expected, due to the first period of adoption for most companies. According to the Thomson Reuters Business Classifications (TRBC), the industries are divided in ten groups. The industrials companies, consumer cyclicals, and consumer non-cyclicals are the most significant. Table 3 shows the observations by country and year.

Table 2 – Cash Flow Hedges by Country, Year, and Industry

Panel A: Sample Selection Strategy	
Number of observations in Refinitiv with non-missing cash flow hedge reserve data and non-financial companies with at least one observation between 2005 and 2017	64,010
Removal of firms missing total assets and cash flow hedge reserves	(39,752)
Subtotal of observations	24,258
Removal of firms in countries other than the BIS and the U.S (the U.S. represents 77% of the excluded observations) and considers the initial year that the country adopted IAS 39 or a very similar standard	(4,043)
Subtotal of observations	20,215
Removal of dependent and control variable observations due to multivariate tests	(4,052)
Final Sample	16,038
Panel B: Observations Distribution by Country	

Countries	Obs.	Countries	Obs.	Countries	Obs.
Argentina	7	Hungary	6	Philippines	37
Australia	1,039	India	850	Poland	122
Austria	116	Indonesia	64	Portugal	25
Belgium	181	Ireland	161	Romania	6
Brazil	28	Israel	186	Russia	19
Canada	321	Italy	256	Saudi Arabia	51
Chile	389	Japan	5,484	Singapore	413
China	85	South Korea	497	South Africa	298
Colombia	8	Lithuania	13	Spain	212
Denmark	293	Luxembourg	70	Sweden	256
Finland	152	Malaysia	283	Switzerland	264
France	153	Mexico	98	Thailand	62
Germany	565	Netherlands	216	Turkey	228
Greece	47	New Zealand	329	United Kingdom	1,424
Hong Kong	604	Norway	120	Total	16,038

Panel C: Sample Distribution by Year

Year	Obs.	Percent	Cum.
2005	176	1.10	1.10
2006	252	1.57	2.67
2007	362	2.26	4.92
2008	472	2.94	7.87
2009	983	6.13	14.00
2010	1,280	7.98	21.98
2011	1,381	8.61	30.59
2012	1,624	10.13	40.72
2013	1,710	10.67	51.38
2014	1,811	11.29	62.67
2015	1,896	11.82	74.49
2016	2,016	12.57	87.06
2017	2,075	12.94	100.00
Total	16,038	100.00	

Panel D: Sample Distribution by Industry

Industry	Obs.	Per cent	Cum.
Academic & Educational Services	21	0.13	0.13
Basic Materials	2,330	14.53	14.66
Consumer Cyclicals	3,138	19.57	34.22
Consumer Non-Cyclicals	2,011	12.54	46.76
Energy	767	4.78	51.55
Healthcare	667	4.16	55.71
Industrials	3,737	23.30	79.01
Real Estate	1,130	7.05	86.05
Technology	1,507	9.40	95.45
Utilities	730	4.55	100.00
Total	16,038	100.00	

Notes: Panel A describes the sample selection strategy. The initial sample started with 64,010 observations from 76 countries; after eliminations, the final sample consisted of 16,038 from 44 countries. Panel B presents country distribution by cash flow hedge observations from 2005 to 2017. Panel C shows year distribution observations from 2005 to 2017. Panel D shows observation distribution by industry according to the TRBC (Thomson Reuters Business Classification).

3.2 HYPOTHESIS 1 - EFFECT OF UNREALIZED CASH FLOW HEDGE GAINS AND LOSSES ON THE FUTURE PROFITABILITY OF COMPANIES

Campbell (2015) presents two assumptions for a negative association with future profitability. The first is that most hedges on balance expire within a year. According to the author, this evidence suggests that companies use hedges on a rolling basis. In the U.S., 82% of non-financial companies utilize foreign-currency derivatives with an original maturity of 90 days or less and 77% of them use derivatives with an original maturity from 91 to 180 days (Bodnar et al., 1998). Several studies investigate countries with similar results, with the majority of non-financial companies utilizing derivatives with original maturities of up to one year or twelve month anticipated transactions with great frequency, e.g., New Zealand (Prevost, Rose, & Miller, 2000), U.S. and Germany (Bodnar & Gebhardt, 1999), Sweden and Korea (Pramborg, 2005).

In this study, I investigated a random company sample. In most cases, the companies present the same risk protection in the last year as the previous year. In a complementary manner, the same companies express in the footnotes that they use hedges on a rolling basis. Here are a few examples of company practices that corroborate this perspective of continuous protection.

For the Australian company Ansell in 2017:

Major revenue and cost currency net cash flow exposures are predominantly hedged back to US\$ on a 12-18 month rolling basis to reduce any significant adverse impact of exchange rate fluctuations on the Earnings Per Share guidance provided by the Company to the market.

For City Chic Collective Ltd. in 2017:

To protect against exchange rate movements, the consolidated entity has entered into forward foreign exchange contracts. These contracts are hedging highly probable forecasted cash flow for the ensuing financial year. Under the Group's risk management policy, foreign currency transactions are hedged for 18 months, with foreign currency transactions hedged between 80* to 100% over the next six months.

For Air Canada in 2016:

Fuel price risk is the risk that future cash flows will fluctuate because of changes in jet fuel prices. In order to manage its exposure to jet fuel prices and to help mitigate volatility in operating cash flows, the Corporation enters into derivative contracts with financial intermediaries. The Corporation's policy permits hedging up to 75% of the projected jet fuel purchases for the next 12 months, 50% for the next 13 to 24 months, and 25% for the next 25 to 36 months. These are maximum (but not mandated) limits.

There is no minimum monthly hedging requirement. They are regular reviews to adjust the strategy in light of market conditions.

The second assumption condition is that the underlying price changes represent persistent price changes, not just transitory price shocks that will reverse the next year. This condition follows random-walk processes where tomorrow's price is today's expected value. These conditions are essential to ensure that prices present persistence, and they do not mean reverting.

Similarly, this study seeks to satisfy similar conditions to investigate the relationship between hedges and future profitability in different countries. The first condition to guarantee persistent price changes is investigated in two ways. Thus, I employ a regression of the monthly price with a lagged price, and when the Beta coefficient is positive and significant, the price presents persistence. Table 4 presents a concise sample of this information and the equation used.

Table 3 - Tabulation of Countries and Years

Country	Year													Total
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Argentina	0	0	0	0	0	0	1	1	1	1	1	1	1	7
Australia	20	22	45	63	74	86	96	91	95	104	108	119	116	1039
Austria	1	1	1	1	0	3	11	14	15	16	17	18	18	116
Belgium	5	6	7	7	8	8	13	16	18	18	23	25	27	181
Brazil	0	0	0	1	1	2	3	3	4	4	4	3	3	28
Canada	0	0	0	0	0	0	35	42	43	48	49	52	52	321
Chile	0	0	0	0	14	17	40	46	53	54	54	55	56	389
China	0	4	4	3	3	5	6	8	9	9	8	12	14	85
Colombia	0	0	0	0	0	0	0	0	0	2	1	2	3	8
Denmark	9	14	13	18	19	19	23	24	29	30	30	32	33	293
Finland	5	5	6	7	8	9	13	16	17	18	19	15	14	152
France	5	6	6	5	5	7	9	13	15	15	17	24	26	153
Germany	3	7	10	10	12	21	39	55	71	82	84	87	84	565
Greece	2	2	2	2	2	2	2	3	4	5	7	8	6	47
Hong Kong	24	30	35	39	43	47	49	56	54	60	58	53	56	604
Hungary	0	0	0	0	0	0	0	0	0	1	1	2	2	6
India	3	11	30	48	56	66	80	85	87	87	87	99	111	850
Indonesia	1	0	1	2	3	5	6	7	6	6	7	9	11	64
Ireland	4	4	6	7	10	10	13	12	15	16	21	21	22	161
Israel	0	0	0	6	8	11	11	18	19	24	29	30	30	186
Italy	6	8	8	8	9	12	12	20	24	29	37	39	44	256
Japan	3	23	19	21	454	583	502	601	620	642	649	678	689	5,484
South Korea	0	0	0	0	0	57	58	63	53	53	62	73	78	497
Lithuania	0	0	0	0	0	0	0	1	1	2	2	3	4	13
Luxembourg	0	0	0	1	1	4	5	6	8	9	11	11	14	70
Malaysia	0	0	0	0	0	15	21	31	35	38	42	50	51	283
Mexico	0	0	0	1	2	4	12	15	12	15	12	14	11	98
Netherlands	2	2	5	7	9	13	16	18	24	25	28	31	36	216
New Zealand	5	6	21	21	25	25	27	26	32	33	35	36	37	329
Norway	0	0	3	3	2	6	8	12	15	17	18	18	18	120
Philippines	0	0	1	1	1	1	2	4	4	4	6	6	7	37
Poland	1	1	5	5	7	8	8	11	14	15	15	16	16	122
Portugal	0	1	1	1	1	1	1	0	4	4	4	3	4	25
Romania	0	0	0	1	1	1	1	0	0	0	1	1	0	6
Russia	0	0	0	0	0	0	0	3	3	3	3	3	4	19

Country	Year													Total
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Saudi Arabia	1	1	0	2	4	4	4	5	4	4	5	9	8	51
Singapore	9	14	23	25	30	28	37	39	42	41	42	43	40	413
South Africa	5	6	10	17	23	25	27	29	29	29	31	32	35	298
Spain	5	6	11	14	15	17	16	19	19	21	22	22	25	212
Sweden	6	7	7	7	9	10	14	23	24	32	36	42	39	256
Switzerland	3	4	6	9	9	13	20	29	30	29	37	39	36	264
Thailand	1	1	1	0	0	2	1	4	6	9	9	12	16	62
Turkey	1	2	5	7	8	14	17	24	27	30	29	31	33	228
United Kingdom	46	58	70	102	107	119	122	131	125	127	135	137	145	1424
Total	176	252	362	472	983	1,280	1,382	1,625	1,711	1,811	1,896	2,016	2,075	16,038

Note: The table describes the sample observations by country according to Refinitiv and the year of the financial statements.

Table 4 - Persistence of Derivative Prices

$Monthly_Price_t = \alpha_0 + \beta_1 Monthly_Price_{t-1} + \varepsilon$ (1)		
Foreign Currencies	Coefficient (β_1)	p-value
Euro	0,975	(<0.001)
British Pound	0,990	(<0.001)
Canadian Dollar	0,985	(<0.001)
Australian Dollar	0,981	(<0.001)
Japanese Yen	0,984	(<0.001)
Brazilian Real	1,006	(<0.001)
Chinese Yuan	0,995	(<0.001)
Israeli Shekel	0,992	(<0.001)
Indian Rupee	1,002	(<0.001)
South African Rand	0,996	(<0.001)
Hong Kong Dollar	0,945	(<0.001)
Indonesia Rupiah	0,993	(<0.001)
Average coefficient for all 37 foreign currencies	0,992	(<0.001)

Notes: The table presents the main foreign currency regressions using month price at t and t-1. All p-values are significant at 0.001.

Similar to Campbell (2015), in the first equation I investigate the dependent proxy of future profitability as the change in G.P. (Gross Profits) scaled by contemporaneous net sales with the variable of interest cash flow hedge (CFH) as the unrealized hedging gains and losses in year t scaled by total assets and market value equity. In a complementary manner, I include the Legal Regime, based on Ball, Kothari and Robinet (2000), with a dummy equal to 1 for common law countries and 0 for code law countries. Moreover, the interaction between Legal Regime and CFH captures the impact on both variables.

Makar et al. (2013) find a negative relationship between future cash flow and gains and losses in the OCICFs in a sample of U.S. multinational users of foreign exchange (FX) derivatives under SFAS 133. Also, the authors argue that investors underestimate the implications of this relationship.

Campbell (2015) finds evidence that unrealized cash flow hedge gains and losses negatively affect future profitability in a sample of U.S. non-financial companies with different risks (interest, exchange, and commodities) under FAS 133. However, this negative association is weaker for firms with pricing power. Campbell (2015) finds that one standard deviation (S. D.) in a firm's cash flow hedge implies incremental derivative gains of 1.75 percent of sales.

Bratton, Causholli and Khan (2016) investigate the fair value adjustments of OCI in future performance for a sample of banks. The authors find that OCI components have different impacts on predicting earnings 1 and 2 years in the future. Similar to Campbell (2015) and

Makar (2013), this study finds that unrealized gains and losses from derivatives negatively affect future earnings.

Moreover, Bratten, Causholli and Khan (2016) identify that the predictive ability to estimate future performance improves with more fair value measurement reliability. This study investigates two factors affecting the reliability of fair value estimates: market-wide liquidity periods and U.S. government-guaranteed investment securities.

More recently, Campbell, Khan and Pierce (2018) have documented that mispricing does not persist after SFAS 161. SFAS 161 substituted SFAS 133 within the USGAAP in 2009, and this standard required enhanced derivative disclosure.

According to previous studies, I expect there to be a relationship between CFH and future profitability, or in other words, $\beta_1 \neq 0$. Equation 1 includes control variables. Size is measured by the natural logarithm of Total Assets; Leverage is measured by total liabilities in year t scaled by Total Assets in year t; Market-to-Book (MTB) is the equity value at the end of year t divided by the book value of assets at the end of year t. The market value of assets is calculated as the book value of assets minus the book value of shareholder equity plus the market value of equity; Year (dummy variable) and the industry fixed effect (TRBC Classification) (Campbell, 2015; Campbell et al., 2021; Manchiraju, et al., 2014).

$$H1: \Delta GP_{i,t \text{ to } t+k} = \alpha_0 + \beta_1 CFH_{it} + \gamma' Controls_{it} + \sum_j^n \beta_j Year + \varepsilon_{i,t} \quad (2)$$

Table 5 – Hypothesis 1 Variable Descriptions

Variable	Description
$\Delta G.P.$ (Gross Profits)	Gross profit scaled by contemporaneous net sales from year t and t+k where k is equal 1 or 2.(Campbell, 2015)
CFH_ASSETS	Accumulated comprehensive cash flow hedge reserves, Hedging Reserves variable in Refinitiv divided by Corporate income tax rate for each country according to OECD Statistics to account for taxes scaled by the Total Assets in year t. (Campbell, Downes, and Schwartz Jr.,2015; Campbell, Khan, and Pierce, 2021)
CFH_MKT	Accumulated comprehensive cash flow hedge reserves, Hedging Reserves variable in Refinitiv divided by corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by the market value equity of the previous final year (t-1) (Campbell, Downes, and Schwartz Jr., 2015; Campbell, Khan, and Pierce, 2021)

Controls: Size (Natural Logarithm of Total Assets); Leverage; Market-to-book (MTB); Industry, Year (dummy variable) and Country (Campbell, 2015; Campbell et al., 2021; Manchiraju, Pierce, & Shridharan, 2014)

Source: Author.

3.3 HYPOTHESIS 2 - EFFECT OF UNREALIZED CASH FLOW HEDGE GAINS AND LOSSES ON FUTURE STOCK RETURNS

The dependent variable is R (returns) which represents buy and hold returns at the present, and one, two, or three years in the future. I use the price available three months after the fiscal year to ensure that the investor had access to the information (Kanagaretnam, Mathieu, & Shehata, 2009). Net income in year t is scaled by the market value of equity at the end of year t-1 (Campbell, 2015; Kanagaretnam, Mathieu, & Shehata, 2009). The interest variable is CFH_MKT scaled by market value equity. In this hypothesis, since all of the variables are scaled by market value in year t-1, I decided to only analyze this combination of metrics to ensure more accuracy.

Campbell (2015) finds a significant negative association between CFH and stock returns. In the sample, the author finds that in a 2-year horizon, an increase of one standard deviation in cash flow hedge reserves reduces annualized stock returns by 5.2 percent. In a more recent study, Campbell, Khan and Pierce (2018) found that with the issuing of FAS 161 investors are fully pricing information about cash flow hedges without delays.

In Equation 2, I include the following control variables: Net Income (NI) in year t scaled by the market value of equity at the end of year t-1 (Campbell, 2015; Kanagaretnam, Mathieu, & Shehata, 2009); Net Income variation (ΔNI) which is the difference between the NI variable in year t-1 and year t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year t-1 (Campbell, 2015). Year (dummy variable) and the industry fixed effect (TRBC industry classification) (Campbell, 2015; Campbell et al., 2018; Manchiraju, et al., 2014).

$$H2: R_{i,t+k} = \alpha_0 + \beta_1 NI_{i,t} + \beta_2 \Delta NI_{it} + \beta_3 CFH_MKT_{it} + \sum_j^n \beta_j Year + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (3)$$

Kanagaretnam, Mathieu, and Shehata (2009) and Campbell (2015) test whether Gains and Losses lead to differences in future returns. Kanagaretnam, Mathieu and Shehata (2009) argue that possibly losing positions can be interpreted as a positive signal that these companies are engaging in hedging activities. Similarly, I include the GAIN variable in Equation 4 when CFH is greater than or equal to zero, and set it equal to zero otherwise. That is, I seek to identify whether gains and losses have a different impact on the future returns of shares.

$$H2: R_{i,t+k} = \alpha_0 + \beta_1 NI_{i,t} + \beta_2 \Delta NI_{i,t} + \beta_3 CFH_MKT_{i,t} + \beta_4 GAIN_{i,t} + \beta_5 CFH_MKT_{i,t} * GAIN + \sum_j^n \beta_j Year + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (4)$$

Table 6 - Hypothesis 2 Variable Descriptions

Variable	Description
R (Returns) Current, t+1 and t+2	Returns using different horizons (Current, t+1 and t+2). To t+k, where k is equal 0, 1 or 2. For firm i (12 months starting three months after the end of the year scaled by the market value of equity at the end of year t-1 (Kanagaretnam, Mathieu, & Shehata, 2009).
CFH_MKT	Accumulated comprehensive cash flow hedge reserves, variable Hedging Reserves in Refinitiv divided by the Corporate Income Tax Rate of each country according to OECD Statistics to account for taxes scaled by the market value equity of the previous final year (t-1) (Campbell, Downes, & Schwartz Jr., 2015; Campbell, Khan, and Pierce, 2018).
N.I. (Net Income)	Net income in year t scaled by the market value of equity at the end of year t-1 (Campbell, 2015; Kanagaretnam, Mathieu, & Shehata, 2009)
$\Delta NI_{i,t}$	Difference between the NI variable in year t-1 and year t ($NI_t - NI_{t-1}$) scaled by market value of equity at the end of year t-1 (Campbell, 2015).
GAIN	GAIN is a dummy variable equal to 1 when CFH in Accumulated Other Comprehensive Income for that year is higher or equal a zero, and 0 otherwise (Campbell, 2015; Kanagaretnam, Mathieu, & Shehata, 2009).

Controls: Industry, Year (dummy variable) and Country. (Campbell 2015; Campbell et al. 2021, (Manchiraju, Pierce, & Sridharan, 2014)

Source: Author

3.3.1 Hypothesis 2a - Interactive Effect between Unrealized Cash Flow Hedge Gains and Losses in Common Law Countries on Future Stock Returns

Complementary to investigating the impact of disclosures, I include the Legal Regime (La Porta, 1998; Ball, Kothari, & Robin, 2000) with a dummy variable which is equal to 1 in countries with a common law tradition, and zero otherwise, which includes the civil or code law, mixed law, and Muslim law traditions. Moreover, the interaction between Common Law and CFH captures the impact on both variables.

The H2a model is the same in Hypothesis 2, with the addition of the qualitative control variable Legal Regime according to the classifications of JuriGlobe (n.d) and La Porta (1998), displayed in Table 8. In previous discussions, countries with a common law tradition present some characteristics related to transparency and tempestivity that are investigated in this study to analyze if these characteristics could have an effect on the association between cash flow hedges and future stock returns. The main impact investigated in this relationship is the β coefficient of the interaction between CFH_MKT and Common_Law. In other words, the effect of this variable in countries with a common law tradition may affect future stock returns.

$$H2a: R_{i,t+k} = \alpha_0 + \beta_1 NI_{i,t} + \beta_2 \Delta NI_{i,t} + \beta_3 CFH_MKT_{it} + \beta_4 CFH_MKT_{it} * \\ Common_Law_{it} + \beta_5 Common_Law_{it} + \sum_j^n \beta_j Legal_Regime + \sum_j^n \beta_j Industry + \\ \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (5)$$

Table 7 - Hypothesis 2a Variable Descriptions

Variable	Description
R (Returns)	Returns using the difference for firm i over a 12-month period (starting at the fourth month after the end of the year.)
CFH_MKT	Result of cash flow coverage in comprehensive income divided by the market value equity of the previous year in the final year. Campbell, Downes and Schwartz Jr. (2015), Campbell, Khan and Pierce (2021)
N.I. (Net Income)	Net income in year t scaled by the market value of equity at the end of year t-1 (Campbell, 2015)
$\Delta NI_{i,t}$	Difference between NI variable in year t and year t-1 ($NI_t - NI_{t-1}$) scaled by market value of equity at the end of year t-1. (Campbell, 2015)
Common_Law	A dummy variable equal to 1 for countries with a common law legal regime and 0 otherwise, according to La-Porta et al. (1998) and JuriGlobe (n.d.)

Controls: Legal Regime (Civil, Common, Mixed and Muslim Law) according to La-Porta et al. (1998) and JuriGlobe (n.d.), Industry, Year (dummy variable) and Country

Source: Author.

Table 8 - Countries by Legal Regime

Civil Law	Common Law	Mixed Law	Muslim Law
Argentina	Australia	China	Saudi Arabia
Austria	Canada	Hong Kong	
Belgium	Ireland	India	
Brazil	New Zealand	Indonesia	
Chile	United Kingdom	Israel	
Colombia		Japan	
Denmark		South Korea	
Finland		Malaysia	
France		Philippines	
Germany		Singapore	
Greece		South Africa	
Hungary			
Italy			
Lithuania			
Luxembourg			
Mexico			
Netherlands			
Norway			
Poland			
Portugal			
Romania			
Russia			
Spain			
Sweden			
Switzerland			
Thailand			
Turkey			

Notes: Table presents countries according to the Legal Regime classification by JuriGlobe (n.d).

3.4 LIBBY BOX

In Figure 4, I present a Libby Box to help the understanding of this study and summarize the conceptual and operational relationships between the topics and variables analyzed in this research (Libby, Bloomfield, & Nelson, 2002).

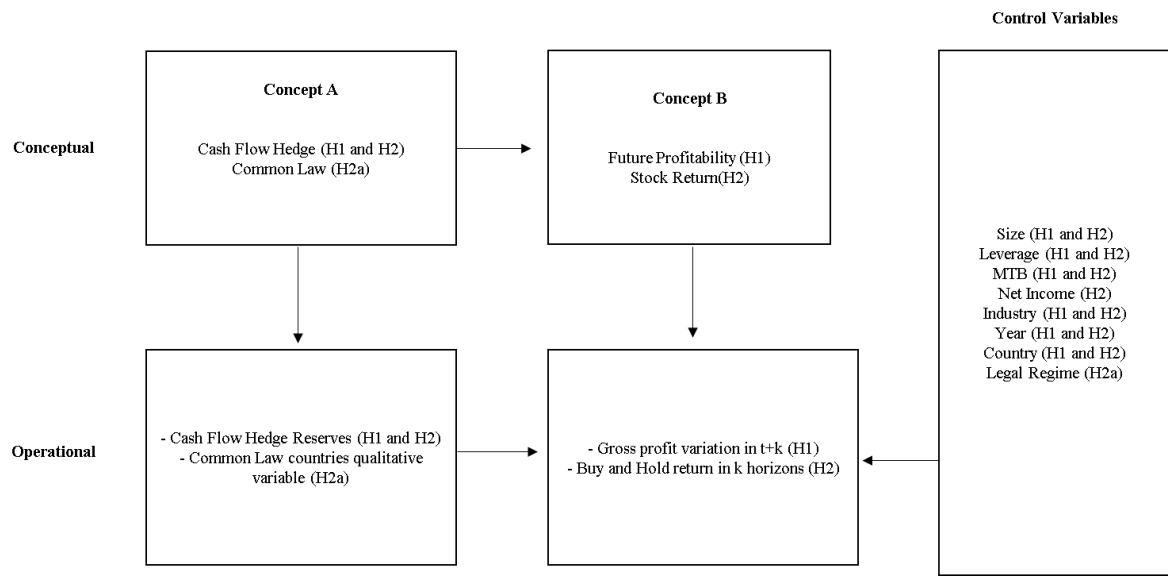


Figure 4 - Libby Box

Notes: This figure is adapted from Libby et. al, 2002, p. 795 and represents the conceptual relationships between Hypotheses 1, 2, and 2a. The Hypothesis seek to find the effect of Concept A, Cash Flow Hedges in Concepts B, Future Profitability (H1), Stock Returns (H2). The Operational present as this conceptual relationship is investigated. Cash Flow Hedge Reserves in H1 and H2 have investigated the impact on Gross Profit variance in some horizons t+k where k is equal one or two. Stock Returns are measured by Buy and Hold returns in k horizons. In a complementary manner, in H2a the dummy variable Common Law is included to find if countries with different characteristics present have an impact on this relationship. On the right is a list of the Control Variables used in these equations.

4 RESULTS

4.1 CASH FLOW HEDGES AND PROFITABILITY

This section investigates Hypothesis 1. It begins with a descriptive analysis to find initial evidence. After this it analyzes a Pearson correlation matrix to show the associations between the variables. This is followed by regressions for the model with $GP_{t \text{ to } t+2}$ and $GP_{t \text{ to } t+1}$. Finally, regressions are performed for each country individually.

Table 9 - Hypothesis 1 Descriptive Statistics

Variable	Obs.	Mean	Median	Std. Dev.	Min	Max
$\Delta GP_{t \text{ to } t+2}$	16,038	-0.002	0.000	0.067	-0.331	0.251
$\Delta GP_{t \text{ to } t+1}$	16,038	0.000	0.000	0.050	-0.244	0.200
CFH_ASSETS	16,038	-0.006	-0.000	0.032	-0.181	0.105
CFH_MKT	15,604	-0.021	-0.001	0.102	-0.660	0.253
LEV	16,038	0.269	0.256	0.168	0.000	0.710
SIZE	16,038	7.422	7.382	1.764	3.704	11.625
MTB	16,038	1.938	1.226	2.232	0.197	15.136

Note: This table shows the descriptive statistics of the variables used in Hypothesis 1. $\Delta GP_{i, t \text{ to } t+k}$ is the difference in gross profits scaled by total revenues in year $t+k$ and year t , where k is equal 1 or 2. CFH_ASSETS is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t . CFH_MKT is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by market value in year t . LEV is total debt divided by total assets. SIZE is the natural logarithm of total assets in year t . MTB is the equity value divided by the price to book value calculated by Refinitiv. All continuous variables are winsorized at the 1% and 99% levels.

Table 10 - Hypothesis 1 Pearson Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) $\Delta GP_{t \text{ to } t+2}$	1.000						
(2) $\Delta GP_{t \text{ to } t+1}$	0.640 (0.000)	1.000					
(3) CFH_ASSETS	-0.025 (0.002)	-0.023 (0.004)	1.000				
(4) CFH_MKT	-0.021 (0.008)	-0.023 (0.004)	0.766 (0.000)	1.000			
(5) LEV	0.030 (0.000)	0.025 (0.001)	-0.141 (0.000)	-0.193 (0.000)	1.000		
(6) SIZE	-0.011 (0.146)	-0.011 (0.164)	-0.023 (0.004)	-0.018 (0.029)	0.130 (0.000)	1.000	
(7) MTB	-0.025 (0.001)	-0.013 (0.092)	-0.021 (0.007)	0.043 (0.000)	0.001 (0.897)	0.032 (0.000)	1.000

Notes: This table presents the Pearson correlation coefficients between the variables in Hypothesis 1. The sample consists of 16,038 firm observations during the period from 2005 to 2017 in 44 countries. $\Delta GP_{i, t \text{ to } t+k}$ is the difference in gross profits scaled by total revenues in year $t+k$ and year t , where k is equal 1 or 2. CFH_ASSETS is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t . CFH_MKT is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by market value in year $t-1$. LEV is total debt divided by total assets. SIZE is the natural logarithm of total assets in year t . MTB is the equity value divided by the price to book value calculated by Refinitiv. The p-values are reported in parentheses.

The Pearson correlations show negative significant coefficients between variations in Gross Profits for both one and two years and CFH which indicate an association that supports Hypothesis One, indicating that unrealized cash flow hedge gains or losses are negatively associated with changes in gross profits after firms reclassify their existing hedges into earnings. These results are similar to the findings of Campbell (2015) in the U.S. The R^2 is smaller than previous studies with all sample, probably because countries with higher sample present small potential of explanation such as United Kingdom and Japan, with 3 and 1.5% respectively. In individually country we can observe that variance of R^2 is very high with countries such as United Kingdom with less 2% and Saudi Arabi with more that 50%. In addition, we do not observe any multicollinearity problems with the dependent variables.

Table 11 - Multivariate Regression of Variations in Gross Profits One and Two Years in the Future and Cash Flow Hedges scaled by Total Assets

$$\Delta GP_{i,t \text{ to } t+k} = \alpha_0 + \beta_1 CFH_ASSETS_{it} + \gamma' Controls_{it} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year \Sigma_j^n + \beta_j Country + \varepsilon_{i,t} \quad (2)$$

VARIABLES	$\Delta GP_{i,t \text{ to } t+2}$			$\Delta GP_{i,t \text{ to } t+1}$		
CFH_ASSETS	-0.056** (0.023)	-0.050** (0.024)	-0.047* (0.024)	-0.035** (0.016)	-0.031* (0.016)	-0.030* (0.017)
LEV		0.016*** (0.004)	0.019*** (0.004)		0.007*** (0.002)	0.008*** (0.002)
SIZE		-0.001* (0.000)	-0.001 (0.000)		-0.000** (0.000)	-0.000 (0.000)
MTB		-0.001*** (0.000)	-0.001*** (0.000)		-0.000* (0.000)	-0.000 (0.000)
Constant	-0.002*** (0.000)	0.001 (0.003)	0.052*** (0.012)	-0.001* (0.000)	0.000 (0.001)	0.009 (0.008)
Adjusted R ²	0.000	0.002	0.017	0.000	0.001	0.013
Industry F.E.	No	No	Yes	No	No	Yes
Year F.E.	No	No	Yes	No	No	Yes
Country F.E.	No	No	Yes	No	No	Yes
Observations	16,038	16,038	16,038	16,038	16,038	16,038
Number of ids	2,832	2,832	2,832	2,832	2,832	2,832

Notes: This table presents panel data for the results of the multivariate regressions for changes in gross profits on the level of unrealized cash flow hedge gains or losses in years t+2 less t and t+1 less t (Equation 2). CFH_ASSETS is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t. LEV is total debt divided by total assets. SIZE is the natural logarithm of total assets in year t. MTB is the equity value divided by the price to book value calculated by Refinitiv. All variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. Robust standard errors are listed in parentheses.

Table 11 presents a negative and significant coefficient between CFH_ASSETS and variations in Gross Profits for one and two years. As mentioned, previous studies have presented evidence that companies in different countries utilize derivatives with original maturities of up

to one year or twelve month anticipated transactions with great frequency (Prevost et al., 2000; Bodnar & Gebhardt, 1999; Pramborg, 2005).

Table 12 - Multivariate Regression of Variations in Gross Profits One and Two Years in the Future and Cash Flow Hedges scaled by Market Value

$$\Delta GP_{i,t \text{ to } t+k} = \alpha_0 + \beta_1 CFH_MKT_{it} + \gamma' Controls_{it} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (2)$$

VARIABLES		$GP_{i,t+2}$			$GP_{i,t+1}$	
CFH_MKT	-0.015* (0.008)	-0.011 (0.008)	-0.010 (0.008)	-0.011** (0.005)	-0.009* (0.005)	-0.009* (0.005)
LEV		0.016*** (0.004)	0.019*** (0.004)		0.007*** (0.002)	0.008*** (0.002)
SIZE		-0.001* (0.000)	-0.001 (0.000)		-0.000** (0.000)	-0.000 (0.000)
MTB		-0.001*** (0.000)	-0.000** (0.000)		-0.000 (0.000)	-0.000 (0.000)
Constant	-0.002*** (0.001)	0.001 (0.003)	0.051*** (0.012)	-0.001* (0.000)	0.001 (0.001)	0.010 (0.008)
Adjusted R ²	0.000	0.002	0.017	0.000	0.001	0.013
Industry F.E.	No	No	Yes	No	No	Yes
Year F.E.	No	No	Yes	No	No	Yes
Country F.E.	No	No	Yes	No	No	Yes
Observations	15,604	15,604	15,604	15,604	15,604	15,604
Number of IDs	2,766	2,766	2,766	2,766	2,766	2,766

Notes: This table presents panel data for a multivariate regression of variations in gross profits on the level of unrealized cash flow hedge gains or losses in year t+1 less t and t+2 less t (Equation 2). CFH_MKT is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by the market value in year t-1. LEV is total debt divided by total assets. SIZE is the natural logarithm of total assets in year t. MTB is the equity value divided by the price to book value calculated by Refinitiv. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. Robust standard errors appear in parentheses.

Regressions were performed for each country individually to investigate the differences between countries, and the results only present significance for the countries in Table 13 and have different association directions. For example, Brazil, Mexico, the Philippines, and Saudi Arabia present positive and significant relations. On the other hand, Finland, Germany, Greece, Hong Kong, India, Israel, Luxembourg, and Malaysia present a negative association between CFH and variations in Gross Profits after two years. These results are specified by Hypothesis 1, but the very different coefficients and significance demonstrate the heterogeneity of the sample. The negative association found in some countries corroborates previous studies (Campbell, 2015; Makar et al., 2013; Campbell et al., 2020).

Table 12 presents robustness tests with different proxies for cash flow hedges and cash flow hedge reserves scaled by market value, and significant negative coefficients only appear for variations in Gross Profits after one year.

Table 13 - Multivariate Regression of Variations in Gross Profits Two Years in the Future and Cash Flow Hedges by Country

$$\Delta GP_{i,t \text{ to } t+2} = \alpha_0 + \beta_1 CFH_{it} + \gamma' Controls_{it} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \varepsilon_{i,t} \quad (2)$$

COUNTRY	CFH_ASSETS	LEV	LASSETS	MTB	CONSTANT	ADJUSTED R ²	OBS.	NUMBER OF IDS
Australia	-0.079 (0.148)	0.056** (0.026)	-0.003 (0.002)	-0.003** (0.001)	0.142*** (0.029)	0.041	1,039	164
Austria	-0.056 (0.187)	-0.113 (0.116)	-0.008 (0.012)	0.000 (0.008)		0.175	116	20
Belgium	-0.084 (0.183)	0.026 (0.077)	-0.003 (0.006)	-0.008 (0.005)		0.184	181	32
Brazil	1.728*** (0.182)	0.164* (0.088)	-0.033 (0.026)	-0.013** (0.005)	0.224 (0.242)	0.666	28	6
Canada	0.058 (0.0890)	0.016 (0.034)	0.001 (0.003)	-0.004** (0.002)		0.097	321	71
Chile	-0.247 (0.188)	0.079 (0.069)	0.001 (0.005)	-0.004 (0.006)		0.127	389	70
China	-0.343 (0.306)	0.041 (0.098)	0.010 (0.007)	-0.002 (0.005)	-0.097 (0.103)	0.413	85	18
Denmark	-0.247 (0.171)	0.021 (0.021)	-0.004* (0.002)	0.001 (0.001)	0.045 (0.037)	0.109	293	41
Finland	-0.259** (0.122)	-0.079 (0.089)	-0.007*** (0.002)	-0.006* (0.003)	-0.031 (0.077)	0.151	152	21
France	0.151 (0.554)	0.016 (0.052)	0.007** (0.003)	-0.001 (0.002)		0.253	153	30
Germany	-0.138** (0.0560)	0.051* (0.029)	-0.003** (0.001)	-0.001 (0.001)	0.060 (0.047)	0.065	565	106
Greece	-0.733* (0.399)	0.382 (0.394)	0.087 (0.060)	0.069 (0.072)	-0.872 (0.668)	0.327	47	9
Hong Kong	-0.247** (0.102)	-0.002 (0.022)	0.002 (0.003)	-0.000 (0.001)	-0.004 (0.026)	0.044	604	88
India	-0.316* (0.168)	0.015 (0.020)	-0.002 (0.002)	0.001 (0.001)		0.070	850	150
Indonesia	0.596 (0.470)	0.081 (0.084)	-0.014 (0.015)	-0.002 (0.004)		0.363	64	18
Ireland	0.068 (0.0983)	-0.012 (0.030)	-0.003 (0.003)	-0.003** (0.002)		0.113	161	26
Israel	-0.272** (0.125)	0.007 (0.033)	-0.006 (0.004)	-0.008 (0.005)	0.047 (0.039)	0.114	186	36
Italy	-0.048 (0.232)	0.001 (0.065)	0.001 (0.004)	0.005 (0.003)		0.062	256	53
Japan	0.0111 (0.0389)	0.036*** (0.006)	0.000 (0.001)	0.000 (0.001)	-0.050 (0.047)	0.033	5,484	976
South Korea	-0.077 (0.263)	0.052** (0.025)	-0.004 (0.003)	-0.006* (0.003)		0.110	497	130
Luxembourg	-0.217* (0.131)	0.015 (0.086)	0.001 (0.016)	0.002 (0.005)	-0.003 (0.188)	0.263	70	15
Malaysia	-0.331 (0.210)	0.038 (0.025)	-0.007 (0.004)	0.001 (0.001)	0.037 (0.056)	0.075	283	63
Mexico	0.475* (0.265)	0.039 (0.089)	-0.003 (0.005)	-0.004* (0.002)	0.154** (0.060)	0.192	98	26
Netherlands	0.036 (0.125)	-0.062 (0.056)	0.001 (0.003)	-0.002 (0.002)		0.161	216	38

COUNTRY	CFH_ASSETS		LEV		LASSETS		MTB		CONSTANT		ADJUSTED R ²	OBS.	NUMBER OF IDS
New Zealand	0.262**	(0.109)	0.010	(0.043)	0.002	(0.004)	0.004	(0.003)			0.139	329	45
Norway	0.071	(0.117)	0.023	(0.036)	-0.010	(0.008)	-0.005	(0.003)	0.132*	(0.069)	0.071	120	21
Philippines	6.106***	(2.083)	-0.190	(0.457)	0.047	(0.096)	0.005	(0.011)			0.440	37	7
Poland	-0.190	(0.235)	0.024	(0.074)	0.008	(0.007)	-0.014*	(0.008)	-0.109*	(0.058)	0.255	122	18
Portugal	6.157	(9.673)	-0.446	(0.539)	-0.080	(0.465)	-0.031	(0.023)	1.451	-6.046	0.666	25	6
Russia	0.125	(0.306)	-0.079***	(0.030)	-0.011	(0.0425)	-0.003	(0.003)	0.194	(0.431)	0.840	19	5
Saudi Arabia	4.133**	(2.003)	0.011	(0.345)	-0.034	(0.0428)	0.025**	(0.011)	0.353	(0.407)	0.572	51	11
Singapore	-0.056	(0.155)	-0.020	(0.033)	0.001	(0.003)	-0.004**	(0.002)	0.022	(0.027)	0.091	413	67
South Africa	-0.200	(0.197)	-0.008	(0.031)	0.001	(0.004)	-0.001	(0.001)	-0.011	(0.084)	0.048	298	52
Spain	0.509	(0.475)	0.036	(0.051)	-0.008	(0.006)	0.002	(0.002)			0.105	212	38
Sweden	0.046	(0.101)	-0.060	(0.043)	0.002	(0.002)	-0.004	(0.002)			0.300	256	52
Switzerland	0.013	(0.061)	0.064**	(0.026)	0.004**	(0.002)	-0.000	(0.002)			0.139	264	44
Thailand	0.395	(0.711)	0.171**	(0.071)	0.000	(0.010)	-0.023*	(0.014)	-0.042	(0.097)	0.300	62	18
Turkey	-0.041	(0.123)	0.037	(0.035)	0.000	(0.002)	-0.003**	(0.001)			0.080	228	40
United Kingdom	-0.026	(0.050)	0.022	(0.017)	-0.001	(0.001)	-0.000	(0.001)	0.005	(0.020)	0.015	1,424	189

Notes: This table presents panel data for the results of a multivariate regression of variations in gross profits on the level of unrealized cash flow hedge gains or losses in year $t+2$ less t for each country as a subsample. (Equation 2). CFH_ASSETS is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t . The sample includes all countries except Japan. All variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t -statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 14 - Multivariate Regression of Variations in Gross Profits One Year in the Future and Cash Flow Hedges scaled by Market Value by Country

$$\Delta GP_{i,t+1} = \alpha_0 + \beta_1 CFH_MKT_{it} + \gamma' Controls_{it} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \varepsilon_{it} \quad (2)$$

COUNTRY	CFH_ASSETS		LEV		LASSETS		MTB		CONSTANT		ADJUSTED R ²	OBS.	NUMBER OF IDS
Australia	0.008	(0.104)	0.038***	(0.014)	0.000	(0.001)	-0.001	(0.001)	0.020	(0.021)	0.025	1,039	164
Austria	-0.100	(0.141)	-0.019	(0.056)	-0.004	(0.007)	0.002	(0.005)			0.160	116	20
Belgium	-0.029	(0.132)	0.047	(0.038)	-0.002	(0.003)	-0.003	(0.002)	0.006	(0.020)	0.137	181	32
Brazil	1.728***	(0.608)	0.185	(0.146)	-0.043	(0.036)	0.004	(0.006)			0.581	28	6
Canada	-0.118	(0.155)	0.027	(0.021)	-0.002	(0.002)	-0.001	(0.001)			0.066	321	71
Chile	-0.317**	(0.147)	0.016	(0.037)	0.001	(0.003)	-0.002	(0.004)			0.073	389	70
China	-0.008	(0.261)	-0.080*	(0.042)	0.002	(0.004)	0.001	(0.002)	0.037	(0.042)	0.337	85	18
Denmark	-0.139	(0.120)	0.026*	(0.014)	-0.001	(0.001)	0.000	(0.001)	-0.023	(0.016)	0.088	293	41
Finland	-0.214**	(0.088)	-0.086*	(0.048)	-0.004	(0.003)	-0.003	(0.004)	-0.080	(0.069)	0.154	152	21
France	-0.001	(0.334)	-0.006	(0.028)	0.003*	(0.002)	-0.002	(0.002)	0.002	(0.046)	0.243	153	30
Germany	-0.0670*	(0.035)	0.004	(0.018)	-0.001**	(0.001)	0.000	(0.001)	0.025	(0.017)	0.061	565	106
Greece	-0.450	(0.437)	0.287	(0.276)	0.068	(0.049)	0.050	(0.055)	-0.641	(0.524)	0.306	47	9
Hong Kong	-0.089	(0.073)	-0.005	(0.015)	0.000	(0.002)	0.000	(0.001)	0.000	(0.019)	0.057	604	88
India	-0.173*	(0.095)	0.015	(0.011)	-0.002*	(0.001)	0.001	(0.001)			0.039	850	150
Indonesia	0.312	(0.292)	0.036	(0.048)	-0.006	(0.008)	-0.001	(0.003)			0.382	64	18
Ireland	0.109	(0.086)	-0.025	(0.032)	0.002	(0.004)	-0.001	(0.002)			0.150	161	26
Israel	-0.171**	(0.084)	0.003	(0.018)	-0.003	(0.002)	-0.001	(0.001)			0.129	186	36
Italy	-0.074	(0.093)	0.015	(0.027)	-0.003	(0.002)	0.002	(0.001)	0.019	(0.020)	0.077	256	53
Japan	0.019	(0.026)	0.013***	(0.003)	0.000	(0.000)	0.000	(0.001)	-0.076	(0.055)	0.028	5,484	976
South Korea	-0.201	(0.204)	0.026**	(0.012)	-0.002*	(0.001)	-0.005*	(0.003)			0.100	497	130
Luxembourg	-0.196*	(0.105)	-0.040	(0.056)	-0.003	(0.009)	0.002	(0.003)	0.037	(0.102)	0.217	70	15
Malaysia	-0.234	(0.172)	0.037**	(0.017)	-0.005**	(0.003)	0.000	(0.001)	0.027	(0.034)	0.066	283	63
Mexico	0.118	(0.238)	-0.009	(0.071)	-0.006	(0.006)	-0.003	(0.002)	-0.048	(0.052)	0.213	98	26
Netherlands	0.018	(0.053)	-0.008	(0.021)	0.000	(0.001)	-0.002**	(0.001)	0.0211*	(0.012)	0.102	216	38
New Zealand	0.060	(0.049)	0.011	(0.027)	0.001	(0.002)	0.002	(0.002)			0.72	329	45
Norway	0.041	(0.098)	0.007	(0.020)	-0.005*	(0.003)	-0.002	(0.002)	0.052	(0.038)	0.063	120	21
Philippines	5.802*	(3.402)	-0.144	(0.387)	0.046	(0.081)	0.008	(0.010)			0.478	37	7

COUNTRY	CFH_ASSETS		LEV		LASSETS		MTB		CONSTANT		ADJUSTED R ²	OBS.	NUMBER OF IDS
Poland	-0.169	(0.145)	0.013	(0.038)	0.001	(0.005)	-0.010**	(0.005)	-0.034	(0.039)	0.162	122	18
Portugal	8.527	(13.930)	-0.366	(0.369)	0.084	(0.262)	-0.017	(0.014)	-0.856	(3.507)	0.638	25	6
Russia	0.173	(0.396)	0.184**	(0.073)	-0.043	(0.061)	-0.008	(0.005)	0.360	(0.624)	0.702	19	5
Saudi Arabia	3.317	(2.303)	0.053	(0.304)	-0.010	(0.042)	0.020**	(0.009)	-0.210	(0.405)	0.505	51	11
Singapore	-0.011	(0.073)	-0.002	(0.021)	0.001	(0.002)	-0.001	(0.001)	-0.048	(0.039)	0.074	413	67
South Africa	-0.186	(0.182)	-0.008	(0.019)	-0.001	(0.002)	0.000	(0.001)	-0.036	(0.041)	0.058	298	52
Spain	0.313	(0.222)	0.028	(0.029)	-0.006*	(0.003)	0.002**	(0.001)			0.148	212	38
Sweden	0.033	(0.073)	-0.033	(0.030)	0.001	(0.001)	-0.002	(0.003)			0.227	256	52
Switzerland	0.021	(0.044)	0.033**	(0.013)	0.002*	(0.001)	0.000	(0.001)	-0.001	(0.022)	0.066	264	44
Thailand	0.273	(0.423)	0.153***	(0.033)	0.005	(0.005)	-0.012**	(0.006)	-0.088	(0.054)	0.326	62	18
Turkey	-0.032	(0.045)	0.013	(0.020)	0.000	(0.001)	-0.002***	(0.001)	-0.009	(0.022)	0.056	228	40
United Kingdom	0.004	(0.031)	0.008	(0.009)	0.000	(0.001)	0.000	(0.001)	-0.010	(0.015)	0.013	1,424	189

Notes: This table presents panel data for the results of a multivariate regression of variations in gross profits on the level of unrealized cash flow hedge gains or losses in year $t+1$ less t for each country as a subsample. (Equation 2). CFH_ASSETS is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t . All variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 15 - Multivariate Regression of Variations in Gross Profits Two Years in the Future and Cash Flow Hedges scaled by Market Value by Country

COUNTRY	CFH_MKT		LEV		LASSETS		MTB		CONSTANT		ADJUSTED R ²	OBS.	NUMBER OF ID
Australia	-0.010	(0.065)	0.057**	(0.027)	-0.003*	(0.002)	-0.003*	(0.001)	0.145***	(0.029)	0.036	1,005	159
Austria	-0.045	(0.041)	-0.217**	(0.107)	-0.014	(0.011)	-0.001	(0.008)	0.173	(0.14)	0.221	114	19
Belgium	-0.010	(0.041)	0.016	(0.078)	-0.003	(0.005)	-0.006	(0.004)			0.144	165	32
Brazil	1.432***	(0.192)	-0.235**	(0.116)	-0.019	(0.029)	-0.063**	(0.028)			0.836	22	6
Canada	-0.044	(0.043)	0.025	(0.035)	0.003	(0.003)	-0.004**	(0.002)			0.101	318	71
Chile	-0.052	(0.048)	0.063	(0.073)	0.002	(0.006)	-0.003	(0.007)	-0.013	(0.050)	0.116	371	67
China	-0.209	(0.135)	-0.067	(0.087)	0.005	(0.007)	-0.002	(0.005)	-0.031	(0.086)	0.435	80	17
Denmark	-0.079	(0.068)	0.009	(0.027)	-0.004	(0.002)	0.001	(0.001)	0.064	(0.042)	0.109	287	39
Finland	-0.0514**	(0.022)	-0.075	(0.093)	-0.006***	(0.002)	-0.005	(0.003)	-0.038	(0.074)	0.143	150	21
France	0.248	(0.214)	0.038	(0.058)	0.006**	(0.003)	0.001	(0.002)	0.028	(0.046)	0.274	152	29
Germany	-0.068***	(0.022)	0.053*	(0.028)	-0.003**	(0.001)	0.000	(0.001)			0.083	551	105
Greece	-0.088	(0.095)	0.385	(0.388)	0.091	(0.064)	0.090	(0.080)	-0.931	(0.686)	0.320	46	9
Hong Kong	-0.053**	(0.025)	-0.004	(0.022)	0.002	(0.003)	0.000	(0.001)	-0.006	(0.027)	0.041	597	88
India	0.035	(0.075)	0.021	(0.019)	-0.002	(0.002)	0.001	(0.001)	-0.042	(0.026)	0.070	823	147
Indonesia	0.034	(0.148)	0.072	(0.093)	-0.004	(0.019)	-0.001	(0.004)	-0.022	(0.124)	0.326	61	18
Ireland	0.059	(0.058)	-0.007	(0.030)	-0.003	(0.003)	-0.003*	(0.002)			0.114	156	25
Israel	0.008	(0.024)	0.035	(0.041)	-0.009*	(0.005)	-0.003	(0.004)	0.065	(0.045)	0.089	181	33
Italy	-0.016	(0.083)	-0.006	(0.063)	-0.001	(0.005)	0.006*	(0.003)	0.054	(0.039)	0.073	242	49
Japan	0.002	(0.013)	0.036***	(0.006)	-0.001	(0.001)	0.001	(0.001)	-0.054	(0.049)	0.035	5,401	960
South Korea	-0.073	(0.077)	0.057**	(0.025)	-0.004	(0.003)	-0.006*	(0.003)	0.024	(0.033)	0.122	485	126
Luxembourg	-0.016	(0.074)	0.024	(0.122)	-0.009	(0.025)	-0.005	(0.007)	0.109	(0.304)	0.269	59	13
Malaysia	-0.084**	(0.042)	0.048**	(0.024)	-0.007	(0.004)	0.001	(0.001)	0.040	(0.057)	0.077	276	63
Mexico	0.072	(0.079)	0.024	(0.099)	-0.001	(0.006)	-0.004*	(0.002)			0.125	95	26
Netherlands	0.002	(0.021)	-0.065	(0.053)	0.000	(0.003)	-0.002	(0.002)	0.010	(0.029)	0.178	207	37
New Zealand	0.157**	(0.063)	0.016	(0.042)	0.001	(0.004)	0.005*	(0.003)	-0.183***	(0.071)	0.146	322	44
Norway	0.011	(0.055)	0.024	(0.054)	-0.010	(0.009)	-0.006	(0.004)			0.071	117	21
Philippines	9.842*	(5.570)	-0.205	(0.442)	0.053	(0.094)	0.006	(0.010)			0.437	36	7
Poland	-0.103	(0.064)	0.042	(0.050)	0.014**	(0.006)	-0.016**	(0.007)	-0.165***	(0.064)	0.337	112	18

COUNTRY	CFH_MKT		LEV		LASSETS		MTB		CONSTANT		ADJUSTED R ²	OBS.	NUMBER OF ID
Portugal	13.51**	(5.631)	-0.214	(0.244)	-0.518	(0.368)	-0.015	(0.012)			0.828	24	6
Russia	0.026	(0.081)	-0.078*	(0.042)	-0.014	(0.044)	-0.004	(0.003)	0.227	(0.441)	0.838	19	5
Saudi Arabia	0.945	(1.054)	0.033	(0.360)	-0.012	(0.046)	0.019	(0.012)	0.317	(0.510)	0.490	50	11
Singapore	-0.001	(0.034)	-0.017	(0.036)	0.001	(0.003)	-0.004**	(0.002)			0.087	408	67
South Africa	-0.014	(0.046)	-0.006	(0.031)	0.000	(0.004)	-0.001	(0.001)	-0.010	(0.084)	0.045	292	51
Spain	0.174	(0.118)	0.063	(0.066)	-0.009	(0.007)	0.001	(0.002)			0.122	207	36
Sweden	0.005	(0.026)	-0.064	(0.046)	0.002	(0.002)	-0.004	(0.003)			0.300	252	52
Switzerland	0.007	(0.019)	0.065***	(0.024)	0.004**	(0.002)	0.000	(0.002)			0.139	258	44
Thailand	0.289	(0.217)	0.133	(0.105)	-0.011	(0.018)	-0.041	(0.041)			0.309	56	16
Turkey	-0.033	(0.055)	0.028	(0.030)	0.000	(0.002)	-0.003**	(0.001)	0.037**	(0.019)	0.084	225	39
United Kingdom	-0.021	(0.027)	0.026	(0.019)	0.000	(0.002)	0.000	(0.001)	0.003	(0.021)	0.017	1,342	178

Notes: This table presents panel data for the results of a multivariate regression of variations in gross profits on the level of unrealized cash flow hedge gains or losses in t+2 less t for each country as a subsample (Equation). CFH_MKT is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by market value in year t-1. All variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 16 - Multivariate Regression for Variations in Gross Profits One Year in the Future and Cash Flow Hedges scaled by Market Value by Country

COUNTRY	CFH_MKT		LEV		LASSETS		MTB		CONSTANT		ADJUST ED R ²	OBS	NUMBER OF ID
Australia	0.024	(0.047)	0.040***	(0.015)	-0.000	(0.001)	-0.001	(0.001)	0.020	(0.021)	0.025	1,005	159
Austria	-0.030	(0.041)	-0.086***	(0.027)	-0.008*	(0.005)	0.001	(0.005)	0.174***	(0.057)	0.197	114	19
Belgium	0.029	(0.030)	0.036	(0.042)	-0.002	(0.003)	-0.004	(0.003)			0.140	165	32
Brazil	1.441***	(0.270)	0.085	(0.079)	-0.041***	(0.010)	0.007	(0.016)			0.664	22	6
Canada	-0.069	(0.047)	0.032	(0.023)	-0.001	(0.002)	0.000	(0.001)			0.068	318	71
Chile	-0.039	(0.036)	0.018	(0.041)	0.002	(0.003)	-0.001	(0.003)	0.019	(0.021)	0.051	371	67
China	-0.018	(0.141)	-0.123***	(0.045)	0.001	(0.004)	0.001	(0.002)	-0.032	(0.076)	0.367	80	17
Denmark	-0.047	(0.044)	0.019	(0.017)	-0.000	(0.001)	0.000	(0.001)	-0.081***	(0.015)	0.092	287	39
Finland	-0.047**	(0.022)	-0.077	(0.051)	-0.003	(0.002)	-0.003	(0.004)	-0.087	(0.067)	0.148	150	21
France	0.132	(0.119)	0.008	(0.028)	0.002	(0.002)	-0.001	(0.002)	-0.010	(0.045)	0.255	152	29
Germany	-0.041**	(0.020)	0.006	(0.019)	-0.001*	(0.001)	0.000	(0.001)	-0.012	(0.039)	0.068	551	105
Greece	-0.079	(0.104)	0.320	(0.290)	0.074	(0.055)	0.078	(0.065)	-0.720	(0.563)	0.337	46	9
Hong Kong	-0.006	(0.019)	-0.013	(0.014)	-0.001	(0.001)	0.000	(0.000)	0.004	(0.019)	0.050	597	88
India	-0.008	(0.041)	0.017	(0.011)	-0.001	(0.001)	0.001	(0.001)	-0.003	(0.016)	0.037	823	147
Indonesia	0.105	(0.071)	0.048	(0.050)	-0.009	(0.011)	-0.002	(0.003)			0.373	61	18
Ireland	0.086**	(0.038)	-0.019	(0.025)	-0.000	(0.002)	-0.001	(0.002)			0.174	156	25
Israel	-0.032	(0.028)	0.001	(0.018)	-0.003*	(0.002)	-0.001	(0.002)	0.044*	(0.026)	0.147	181	33
Italy	-0.020	(0.035)	0.013	(0.029)	-0.003*	(0.002)	0.003*	(0.002)			0.085	242	49
Japan	0.000	(0.010)	0.013***	(0.003)	-0.000	(0.000)	0.000	(0.001)	-0.078	(0.056)	0.030	5,401	960
South Korea	-0.087*	(0.050)	0.025**	(0.013)	-0.002	(0.001)	-0.004	(0.003)			0.094	485	126
Luxembourg	-0.065	(0.060)	-0.053	(0.088)	-0.003	(0.018)	0.001	(0.006)	0.039	(0.215)	0.218	59	13
Malaysia	-0.089**	(0.040)	0.043***	(0.016)	-0.005**	(0.003)	0.000	(0.001)			0.074	276	63
Mexico	-0.070	(0.103)	-0.027	(0.074)	-0.005	(0.005)	-0.001	(0.002)	-0.114**	(0.053)	0.229	95	26
Netherlands	-0.001	(0.022)	-0.025	(0.032)	0.001	(0.002)	-0.001	(0.001)	-0.019	(0.015)	0.104	207	37
New Zealand	0.042	(0.040)	0.013	(0.027)	0.001	(0.002)	0.002	(0.002)	-0.048***	(0.016)	0.071	322	44

COUNTRY	CFH_MKT		LEV		LASSETS		MTB		CONSTANT		ADJUSTED R ²	OBS	NUMBER OF ID
Norway	0.0135	(0.038)	0.016	(0.026)	-0.004*	(0.003)	-0.002	(0.002)			0.064	117	21
Philippines	8.180	(5.277)	-0.155	(0.374)	0.049	(0.079)	0.009	(0.010)			0.488	36	7
Poland	-0.130*	(0.072)	0.006	(0.030)	0.00504	(0.004)	-0.011**	(0.005)			0.201	112	18
Portugal	8.895**	(4.489)	-0.170	(0.177)	-0.178	(0.233)	-0.006	(0.008)			0.781	24	6
Russia	-0.022	(0.138)	0.182**	(0.092)	-0.070	(0.073)	-0.009*	(0.005)	0.635	(0.737)	0.693	19	5
Saudi Arabia	0.382	(1.105)	0.066	(0.308)	0.011	(0.042)	0.014	(0.011)	0.085	(0.471)	0.310	50	11
Singapore	-0.000	(0.019)	-0.0027	(0.023)	0.001	(0.002)	-0.001	(0.001)			0.075	408	67
South Africa	-0.053	(0.054)	-0.006	(0.020)	-0.001	(0.003)	0.000	(0.001)	-0.033	(0.042)	0.055	292	51
Spain	0.063	(0.069)	0.030	(0.040)	-0.005	(0.004)	0.002***	(0.001)			0.148	207	36
Sweden	-0.012	(0.012)	-0.039	(0.032)	0.0011	(0.001)	-0.003	(0.003)			0.231	252	52
Switzerland	0.020	(0.018)	0.039***	(0.013)	0.002*	(0.001)	0.000	(0.001)	-0.009	(0.021)	0.064	258	44
Thailand	0.096	(0.109)	0.129**	(0.054)	0.003	(0.008)	-0.020	(0.019)			0.271	56	16
Turkey	-0.010	(0.015)	0.015	(0.020)	-0.000	(0.001)	-0.002***	(0.001)	-0.007	(0.022)	0.054	225	39
United Kingdom	-0.015	(0.014)	0.007	(0.011)	-6.20e-06	(0.001)	0.000	(0.001)	-0.009	(0.015)	0.014	1,342	178

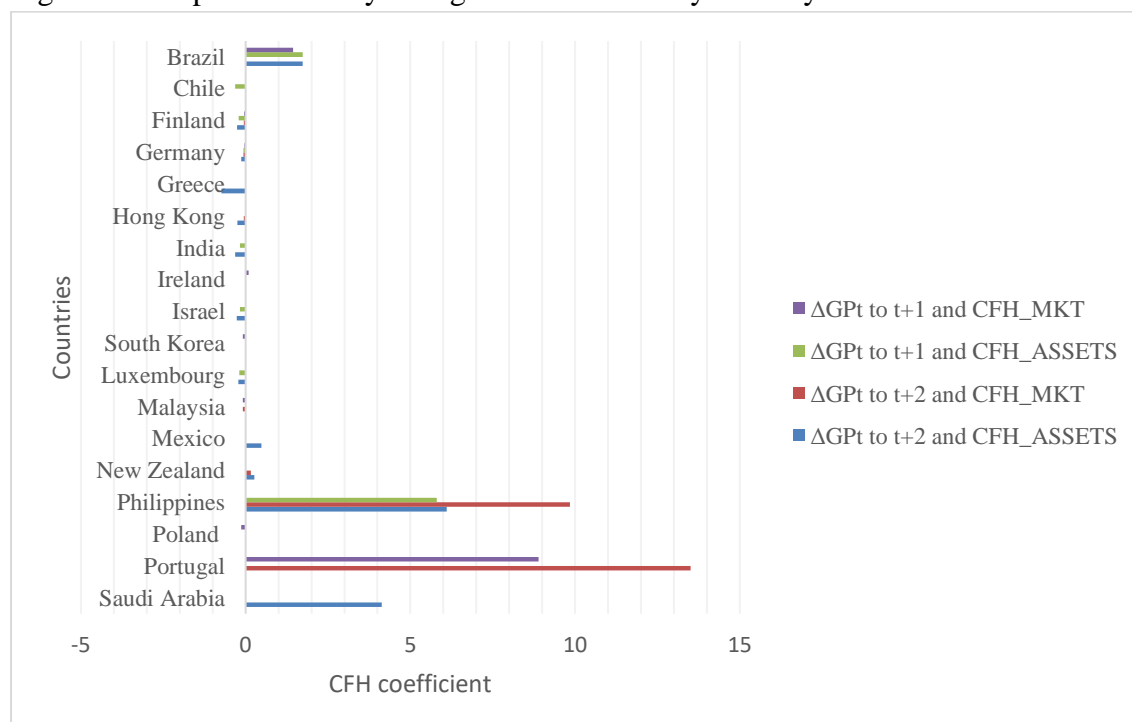
Notes: This table presents panel data for the results of a multivariate regression of variations in gross profits on the level of unrealized cash flow hedge gains or losses in year $t+2$ less t for each country as a subsample (Equation). CFH_MKT is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by market value in year $t-1$. All variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

The same analysis was applied to variations in Gross Profits after a year and CFH. Table 14 presents the results of the significant coefficients. In general, their magnitude is smaller in all countries. The Philippines and Brazil maintain a positive association. Germany, India, Luxembourg, Israel, and Finland present negative associations. Chile was the only country that presented a significant coefficient, and it was not significant in the previous analysis. The other countries, Saudi Arabia, New Zealand, Hong Kong, Malaysia, and Greece did not present statistical significance.

The variable CFH_MKT was run for each country as well and the results are presented in Table 15 and 16, for variations in Gross Profits after two years and one year, respectively. For two years, Brazil, the Philippines, and Portugal present positive and significant coefficients, and Finland, Germany, Hong Kong, and Malaysia presented negative and significant coefficients. For one year, Brazil and Ireland present positive and significant results, and Finland, Germany, South Korea, and Malaysia present negative and significant results, which are similar to the results of the entire sample. In sum, the countries that present significant coefficients in the different metrics for Gross Profits and CFH are displayed in

Figure 5.

Figure 5 - Graphic Summary of Significant Results by Country



Notes: This graph presents the significant coefficients of CFH_MKT and CFH_ASSETS in multivariate regressions with $\Delta GP_{t \text{ to } t+1}$ and $\Delta GP_{t \text{ to } t+2}$.

4.1.1 Robustness Test for Cash Flow Hedges and Profitability

Japan has the highest representation with approximately 34% of the total sample. In order to identify whether the results were altered by its presence, the tests were carried out excluding Japan and the results still presented the same signs and significance, but with higher values for the variables CFH_ASSETS and CFH_MKT. This effect shows that Japan has a smaller effect than the total mean of the Cash Flow Hedge variables with Future Profitability, one and two years in the future. This can be seen in the results of Table 15 and Table 16.

Table 17 - Multivariate Regression of Variations in Gross Profits One and Two Years in the Future and Cash Flow Hedges scaled by Total Assets excluding Japan

$$\Delta GP_{i,t \text{ to } t+k} = \alpha_0 + \beta_1 CFH_ASSETS_{it} + \gamma' Controls_{it} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (2)$$

VARIABLES		$GP_{i,t+2}$			$GP_{i,t+1}$	
CFH_ASSETS	-0.070*** (0.026)	-0.064** (0.026)	-0.054** (0.026)	-0.045** (0.018)	-0.040** (0.018)	-0.036* (0.019)
LEV		0.010* (0.006)	0.012** (0.006)		0.006* (0.003)	0.007** (0.003)
SIZE		-0.001 (0.000)	-0.001 (0.001)		-0.000** (0.000)	-0.000* (0.000)
MTB		-0.001** (0.000)	-0.001*** (0.000)		-0.000 (0.000)	-0.000 (0.000)
Constant	-0.003*** (0.001)	-0.000 (0.004)	0.055*** (0.012)	-0.002*** (0.000)	0.001 (0.002)	0.011 (0.009)
R ² Adjusted	0.001	0.002	0.016	0.000	0.001	0.012
Industry F.E	No	No	Yes	No	No	Yes
Year F.E.	No	No	Yes	No	No	Yes
Country F.E.	No	No	Yes	No	No	Yes
Observations	10,554	10,554	10,554	10,554	10,554	10,554
Number of ids	1,856	1,856	1,856	1,856	1,856	1,856

Notes: This table presents panel data for a multivariate regression of variations in gross profits on the level of unrealized cash flow hedge gains or losses in t+2 years less t (Equation 2). CFH_ASSETS is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t. The sample includes all of the countries except Japan. All variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 18 - Multivariate Regression of Variations in Gross Profits One and Two Years in the Future and Cash Flow Hedges scaled by Market Value excluding Japan

$$\Delta GP_{i,t+k} = \alpha_0 + \beta_1 CFH_MKT_{it} + \gamma' Controls_{it} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (2)$$

VARIABLES	$GP_{i,t+2}$			$GP_{i,t+1}$		
	CFH_MKT	-0.019** (0.009)	-0.015 (0.009)	-0.012 (0.009)	-0.014** (0.005)	-0.012** (0.006)
LEV		0.011* (0.006)	0.0130** (0.006)		0.006 (0.003)	0.006* (0.004)
SIZE		-0.000 (0.000)	-0.000 (0.001)		-0.000* (0.000)	-0.000* (0.000)
MTB		-0.001** (0.000)	-0.001** (0.000)		-0.000 (0.000)	-0.000 (0.000)
Constant	-0.003*** (0.001)	-0.001 (0.005)	0.055*** (0.013)	-0.002*** (0.000)	0.001 (0.002)	0.012 (0.009)
R ² Adjusted	0.000	0.001	0.015	0.000	0.001	0.012
Industry F.E.	No	No	Yes	No	No	Yes
Year F.E.	No	No	Yes	No	No	Yes
Country F.E.	No	No	Yes	No	No	Yes
Observations	10,203	10,203	10,203	10,203	10,203	10,203
Number of ids	1,806	1,806	1,806	1,806	1,806	1,806

Notes: This table presents panel data for a multivariate regression of variations in gross profits on the level of unrealized cash flow hedge gains or losses in t+2 and t+1 years (Equation 2). CFH_MKT is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by market value in year t-1. The sample includes all of the countries except Japan. All the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

4.2 CASH FLOW HEDGES AND STOCK RETURNS

This section investigates Hypothesis 2. It begins with a descriptive analysis to find initial evidence. Then the Pearson correlation matrix will be presented to show the associations between the variables. This will be followed by the model regression with three different horizons: the current one, and one and two years in the future. After this, regressions for each country individually will be presented. In turn, a regression between the gains and losses of cash flow hedges in all samples will be presented along with regressions for each country individually. Finally, for a robustness test, the same equation was run without Japan to present a more quantitative sample to avoid the results being affected by it.

Table 19 - Hypothesis Two Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Ret _{current}	15,421	0.120	0.425	-0.702	2.019
Ret _{t+1}	15,159	0.231	0.681	-0.805	3.460
Ret _{t+2}	14,821	0.312	0.844	-0.844	4.131
CFH_MKT	15,421	-0.020	0.100	-0.646	0.253
NI	15,421	0.102	0.171	-0.631	0.828
Δ NI	15,421	0.020	0.189	-0.673	1.048

Note: This table **Erro! Fonte de referência não encontrada.** shows descriptive statistics for the variables used in Hypothesis 2. Ret_{current}, t+1 and t+2 are the returns using the differences in firm returns at 12-month intervals (starting after the third month of the year). CFH_MKT is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by a corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t. NI is Net income in year t scaled by the market value of equity at the end of year t-1. Δ NI net income difference is the difference for the NI variable in year t-1 and year t (NI_t – NI_{t-1}) scaled by the market value of equity at the end of year t-1. All continuous variables are winsorized at 1% and 99%. The sample comprises 15,421 firm-observations during the period from 2005 to 2017 from 44 countries. The sample is reduced compared the Hypothesis 1, because the variables Returns and Net Income are not available for all companies.

Table 20 - Hypothesis Two Pearson Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) Ret _{current}	1.000					
(2) Ret _{t+1}	0.556 (0.000)	1.000				
(3) Ret _{t+2}	0.361 (0.000)	0.621 (0.000)	1.000			
(4) CFH_MKT	-0.005 (0.503)	0.053 (0.000)	0.069 (0.000)	1.000		
(5) NI	0.283 (0.000)	0.296 (0.000)	0.245 (0.000)	0.033 (0.000)	1.000	
(6) Δ NI	0.240 (0.000)	0.181 (0.000)	0.063 (0.000)	-0.026 (0.001)	0.457 (0.000)	1.000

Notes: This table presents the Pearson correlation matrix for the variables in Hypothesis 2. Ret_{current}, t+1 and t+2 are the returns using 12 month differences in firm i's returns (starting the third month after the year). CFH_MKT is the cash flow hedge of the variable Hedging Reserves in Refinitiv divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by market value in year t-1. NI is Net Income in year t scaled by the market value of equity at the end of year t-1. Δ NI net income difference is the difference between variable NI in years t-1 and t (NI_t – NI_{t-1}) scaled by the market value of equity at the end of year t-1. The p-values are reported in parentheses.

The correlation matrix shows positive and significant coefficients for Returns in horizons t+1 and t+2 with CFH which indicates an association that supports Hypothesis Two in that unrealized cash flow hedge gains or losses are associated with changes in returns after firms reclassify their existing hedges into earnings. In addition, no multicollinearity problems were observed with the dependent variables.

Table 26 shows the results of the three-horizon model for the effects of cash flow hedges on returns which demonstrate a positive and significant relationship with the returns in years t+1 and t+2 in the models with all of the control variables. The Returns coefficient in year t+2 had the highest value. The other NI and Δ NI variables show a significant relationship in all of the models. Their significance reinforces the hypothesis developed that price is affected in

accordance with the realization of the cash flow hedge values, but in the opposite way as Campbell (2015) found in the United States. This reinforces the positive value of Cash Flow Hedges, and in this sense the driver of the impact on prices could be different than just the realization of the value of a Cash Flow Hedge.

In the individual country analyses, the results are mixed with the countries identified as having an effect on $Ret_{current}$ appearing in Table 22 Belgium, Brazil, Canada, India, Norway, and Turkey have a positive relationship, while Ireland, Israel, and Spain have a negative relationship

The Ret_{t+1} horizon in Table 23 presents positive results for Belgium, Brazil, France, Italy, Mexico, Norway, Russia, and Turkey, and negative results for Chile, Ireland, Israel, Malaysia, Singapore, and Spain. Finally, the Ret_{t+2} horizon in Table 24 presents most of the countries with a negative relationship, as identified in the test with the complete sample, in which Belgium, Brazil, Canada, India, Indonesia, Mexico, Norway, Singapore, and Turkey having a positive relationship, and Ireland, Malaysia, and Poland having a negative relationship.

Many countries did not display significant relationships in either horizon which corroborates studies that also did not find significant effects. (Khan, Bradbury, & Courtenay, 2018).

Table 21 - Multivariate Regression of Stock Returns and Cash Flow Hedges scaled by Market Value

$$R_{i,t+k} = \alpha_0 + \beta_1 NI_{i,t} + \beta_2 \Delta NI_{i,t} + \beta_3 CFH_MKT_{i,t} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (3)$$

VARIABLES	Ret _{current}				Ret _{t+1}			Ret _{t+2}	
CFH_MKT	-0.039 (0.048)	-0.084* (0.045)	-0.059 (0.045)	0.290*** (0.080)	0.130* (0.076)	0.155** (0.078)	0.469*** (0.112)	0.261*** (0.010)	0.286*** (0.100)
NI	0.547*** (0.034)	0.563*** (0.033)	0.573*** (0.033)	1.131*** (0.052)	1.092*** (0.052)	1.102*** (0.053)	1.403*** (0.065)	1.307*** (0.060)	1.311*** (0.061)
ΔNI	0.311*** (0.031)	0.226*** (0.028)	0.222*** (0.028)	0.161*** (0.041)	0.021 (0.038)	0.0157 (0.038)	-0.349*** (0.043)	-0.315*** (0.039)	-0.316*** (0.039)
Constant	0.057*** (0.004)	0.188*** (0.065)	0.0226 (0.063)	0.120*** (0.007)	0.579*** (0.127)	0.472*** (0.121)	0.185*** (0.010)	1.779*** (0.219)	1.723*** (0.211)
Industry F.E.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Year F.E.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Country F.E.	No	No	Yes	No	No	Yes	No	No	Yes
Adjusted R ²	0,096	0,288	0,295	0,092	0,265	0,278	0,067	0,231	0,250
Observations	15,421	15,421	15,421	15,159	15,159	15,159	14,821	14,821	14,821
Number of ids	2,749	2,749	2,749	2,705	2,705	2,705	2,635	2,635	2,635

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 4). CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t-1. R (Returns)_{current} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the third month after year t-1 until the third month after year t+2. Net income in year t is scaled by the market value of equity at the end of year t-1. ΔNI is the difference between the NI variable in years t-1 and t (NI_t – NI_{t-1}) scaled by the market value of equity at the end of year t-1. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 22 - Multivariate Regression of Current Stock Returns and Cash Flow Hedges scaled by Market Value by Country

VARIABLES	CFH_MKT		NI		ΔNI		CONSTANT		ADJUSTED R ²	OBSERVATIONS	NUMBER OF IDS
Australia	-0.050	(0.177)	0.646***	(0.158)	0.171*	(0.099)	0.658***	(0.113)	0.393	1,000	159
Austria	-0.453	(0.292)	1.231	(0.884)	0.385	(0.749)	-0.094	(0.113)	0.435	112	19
Belgium	0.414***	(0.136)	0.164*	(0.099)	-0.063	(0.197)	-0.562***	(0.081)	0.415	164	32
Brazil	5.379***	(1.609)	1.243**	(0.532)	2.531	(2.650)	0.361	(0.265)	0.777	22	6
Canada	0.267*	(0.162)	0.008	(0.294)	0.148	(0.133)	-0.098**	(0.048)	0.130	318	71
Chile	-0.085	(0.121)	0.332***	(0.108)	0.089	(0.129)	0.309***	(0.079)	0.503	352	66
China	-1.049	(1.037)	1.048***	(0.321)	1.172	(0.717)	0.127	(0.379)	0.556	79	17
Denmark	-0.233	(0.159)	0.676***	(0.180)	0.325	(0.227)	0.564***	(0.165)	0.501	277	38
Finland	-0.092	(0.279)	0.548***	(0.119)	0.148	(0.135)	-0.139	(0.148)	0.487	150	21
France	0.550	(0.523)	0.303	(0.185)	0.101	(0.123)	0.144	(0.139)	0.436	151	29
Germany	-0.071	(0.171)	0.431**	(0.194)	0.122	(0.170)	-0.252	(0.161)	0.176	542	105
Greece	0.130	(0.488)	0.175	(0.309)	-0.186**	(0.089)	0.724*	(0.375)	0.733	43	8
Hong Kong	-0.169	(0.138)	0.570***	(0.126)	-0.125	(0.131)	0.016	(0.085)	0.420	587	88
India	0.276*	(0.155)	0.361***	(0.091)	0.464***	(0.065)	-0.309	(0.398)	0.638	818	147
Indonesia	0.367	(0.405)	0.868	(0.541)	0.642*	(0.365)	-0.382*	(0.208)	0.611	61	18
Ireland	-1.057**	(0.438)	0.410*	(0.242)	0.612**	(0.274)	0.103	(0.091)	0.575	155	25
Israel	-0.805***	(0.267)	0.505***	(0.154)	0.182	(0.175)	-0.582***	(0.097)	0.538	176	32
Italy	-0.281	(0.318)	0.420	(0.293)	0.261	(0.231)	0.136	(0.214)	0.438	242	49
Japan	-0.087	(0.079)	0.614***	(0.051)	0.344***	(0.052)	-0.034	(0.059)	0.232	5,348	953
South Korea	0.124	(0.438)	0.539***	(0.123)	0.258***	(0.094)	-0.166**	(0.083)	0.309	483	126
Luxembourg	0.247	(0.405)	-0.213	(0.370)	0.773***	(0.220)	0.966***	(0.087)	0.619	54	12
Malaysia	-0.766	(0.489)	0.666***	(0.156)	0.093	(0.118)	0.479***	(0.081)	0.352	274	63
Mexico	-0.308	(0.535)	-0.542***	(0.195)	0.573***	(0.183)	0.251	(0.345)	0.484	90	26
Netherlands	-0.198	(0.134)	0.145	(0.207)	-0.126	(0.156)	0.094	(0.145)	0.530	198	36
New Zealand	0.008	(0.357)	0.814***	(0.268)	0.108	(0.242)	-0.373***	(0.057)	0.459	318	44
Norway	0.627**	(0.255)	0.298	(0.224)	0.078	(0.158)	0.357**	(0.165)	0.410	117	21
Philippines	-15.92	(12.94)	-0.0652	(1.361)	1.750	(2.960)	-1,628	(3,529)	0.874	36	7

VARIABLES	CFH_MKT		NI		Δ NI		Constant		Adjusted R ²	Observations	Number of ids
Poland	-0.516	(0.775)	0.948**	(0.392)	0.037	(0.237)	-0.676***	(0.151)	0.680	112	18
Portugal	26.40	(30.83)	-2.349	(2.068)	1.087	(1.544)	2,323	(1,529)	0.800	24	6
Russia	1.345	(0.881)	0.790	(0.598)	0.176	(0.225)	-0.318	(0.399)	0.714	19	5
Saudi Arabia	-6.901	(4.196)	0.0490	(0.666)	0.757	(0.763)	-0.941***	(0.220)	0.454	49	11
Singapore	-0.065	(0.111)	0.416***	(0.123)	0.215	(0.226)	0.128	(0.085)	0.529	401	67
South Africa	-0.194	(0.361)	0.064	(0.181)	0.304	(0.217)	0.768***	(0.135)	0.538	289	51
Spain	-0.713**	(0.304)	0.476***	(0.172)	-0.026	(0.133)	0.312***	(0.095)	0.548	207	36
Sweden	-0.240	(0.190)	0.659***	(0.238)	0.273	(0.231)	0.400**	(0.197)	0.464	251	52
Switzerland	-0.011	(0.116)	0.672***	(0.174)	0.028	(0.310)	-0.025	(0.146)	0.464	258	44
Thailand	-1.931	(1.684)	0.983	(0.698)	-0.722	(0.589)	-0.337***	(0.107)	0.393	56	16
Turkey	0.822*	(0.485)	0.646***	(0.146)	0.318*	(0.179)	0.549***	(0.148)	0.552	225	39
United Kingdom	-0.023	(0.113)	0.445***	(0.148)	0.127	(0.124)	0.219***	(0.054)	0.451	1,324	175

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 1) for each country. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year $t-1$. R (Returns) current consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year t . Net income in year t scaled by the market value of equity at the end of year $t-1$. Δ NI is the difference between the NI variable in years $t-1$ and t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year $t-1$. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. All regressions are controlled by year and the industry fixed effect. The robust standard errors appear in parentheses. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance levels of 10%, 5%, and 1%, respectively.

Table 23 - Multivariate Regression of Stock Returns One Year in the Future and Cash Flow Hedges scaled by Market Value by Country

VARIABLES	CFH_MKT		NI		ΔNI		CONSTANT		ADJUSTED R ²	OBSERVATIONS	NUMBER OF IDS
Australia	-0.018	(0.377)	1.310***	(0.218)	-0.248**	(0.115)	0.781***	(0.207)	0.359	976	156
Austria	0.084	(0.353)	1.999**	(0.796)	0.226	(0.647)	-0.260***	(0.094)	0.498	110	19
Belgium	0.656**	(0.298)	0.282	(0.255)	0.550	(0.337)	0.597**	(0.283)	0.415	164	32
Brazil	8.995***	(3.184)	0.919	(0.977)	1.434	(2.790)	0.011	(0.225)	0.895	22	6
Canada	0.128	(0.271)	0.737**	(0.314)	-0.238*	(0.124)	-0.113	(0.115)	0.135	313	70
Chile	-0.625*	(0.375)	0.624***	(0.200)	-0.145	(0.156)	1.659***	(0.228)	0.578	333	62
China	0.874	(2.284)	1.654**	(0.758)	2.778*	(1.455)	1.270	(1.166)	0.527	74	16
Denmark	0.087	(0.202)	1.286***	(0.289)	0.213	(0.273)	0.479	(0.345)	0.449	275	37
Finland	0.008	(0.396)	1.460***	(0.362)	-0.452	(0.334)	-0.031	(0.227)	0.529	149	21
France	1.598*	(0.928)	0.804**	(0.376)	-0.065	(0.117)	0.352*	(0.193)	0.379	150	29
Germany	-0.127	(0.384)	0.941***	(0.317)	0.039	(0.176)	0.098	(0.490)	0.199	526	102
Greece	0.320	(0.911)	0.524	(0.545)	-0.017	(0.122)	0.240	(0.236)	0.769	43	8
Hong Kong	-0.239	(0.234)	0.888***	(0.149)	-0.062	(0.115)	0.361***	(0.137)	0.369	579	88
India	0.453	(0.415)	1.031***	(0.283)	0.248	(0.179)	1.467***	(0.183)	0.492	803	144
Indonesia	0.311	(0.240)	1.679***	(0.577)	-0.821**	(0.385)	0.500	(0.351)	0.632	58	18
Ireland	-1.283***	(0.363)	3.097***	(0.991)	-0.446	(0.487)	0.283*	(0.148)	0.619	152	24
Israel	-0.856***	(0.263)	0.970***	(0.200)	-0.335	(0.236)	-0.490***	(0.180)	0.546	174	32
Italy	0.897*	(0.485)	0.949*	(0.574)	-0.226	(0.293)	1.045***	(0.377)	0.388	231	47
Japan	0.007	(0.170)	1.355***	(0.0884)	0.053	(0.062)	-0.407**	(0.206)	0.232	5,304	945
South Korea	0.016	(0.673)	1.302***	(0.224)	-0.159	(0.173)	1.634***	(0.346)	0.441	473	122
Luxembourg	0.050	(0.699)	0.643	(0.834)	0.051	(0.467)	-0.279	(0.209)	0.572	50	12
Malaysia	-2.458**	(1.093)	1.593***	(0.335)	-0.297	(0.233)	1.696***	(0.258)	0.501	267	63
Mexico	1.405***	(0.423)	-0.431	(0.569)	0.922***	(0.273)	1.994***	(0.638)	0.523	89	26
Netherlands	0.289	(0.203)	0.771	(0.624)	0.411*	(0.223)	0.369***	(0.107)	0.507	193	34
New Zealand	0.135	(0.669)	1.646***	(0.393)	-0.491	(0.316)	-0.605***	(0.097)	0.453	304	41
Norway	0.946***	(0.333)	0.601**	(0.269)	0.259	(0.241)	-0.299***	(0.066)	0.582	114	21
Philippines	12.93	(45.96)	-1.833	(1.833)	3.227	(3.433)	-0.758	(6.420)	0.866	36	7
Poland	-0.282	(0.997)	1.854***	(0.422)	-0.210	(0.268)	-0.644***	(0.209)	0.643	108	18
Portugal	16.92	(50.48)	-8.574	(5.263)	5.315	(3.576)	7.267	(4.464)	0.732	23	6
Russia	0.912***	(0.226)	1.422***	(0.420)	0.581**	(0.242)	-0.645	(0.652)	0.838	19	5
Saudi Arabia	-3.327	(4.566)	0.803*	(0.438)	-0.112	(0.459)	-0.837*	(0.456)	0.512	49	11

VARIABLES	CFH_MKT		NI		Δ NI		CONSTANT		ADJUSTED R ²	OBSERVATIONS	NUMBER OF IDS
Singapore	0.309**	(0.156)	0.883***	(0.224)	0.082	(0.134)	0.777***	(0.197)	0.526	393	67
South Africa	-0.737	(0.535)	-0.126	(0.248)	1.080***	(0.328)	1.848***	(0.120)	0.567	282	49
Spain	-0.801*	(0.433)	0.862***	(0.262)	-0.217	(0.151)	1.265***	(0.226)	0.519	200	33
Sweden	-0.471	(0.450)	1.098***	(0.379)	0.043	(0.317)	1.256***	(0.114)	0.521	246	52
Switzerland	-0.0673	(0.255)	1.324***	(0.506)	-0.237**	(0.103)	0.315	(0.335)	0.444	253	43
Thailand	-0.299	(1.413)	1.935**	(0.784)	0.841**	(0.422)	-0.109	(0.213)	0.620	54	15
Turkey	0.714*	(0.408)	1.239***	(0.305)	-0.284	(0.185)	0.210	(0.236)	0.574	223	39
United Kingdom	0.279	(0.170)	0.943***	(0.214)	0.358**	(0.156)	0.681***	(0.0771)	0.454	1,309	174

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 1) for each country. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year $t-1$. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year $t+1$. Net income in year t is scaled by the market value of equity at the end of year $t-1$. Δ NI is the difference between the NI variable in years $t-1$ and t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year $t-1$. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. All of the regressions are controlled by year and the industry fixed effect. The robust standard errors appear in parentheses. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively.

Table 24 - Multivariate Regression of Stock Returns Two Years in the Future and Cash Flow Hedges scaled by Market Value by Country

VARIABLES	CFH_MKT		NI		Δ NI		CONSTANT		ADJUSTED R ²	OBSERVATIONS	NUMBER OF IDS
Australia	0.411	(0.378)	1.476***	(0.219)	-0.392***	(0.125)	1.539***	(0.300)	0.309	946	150
Austria	0.399	(0.459)	3.087***	(0.802)	-0.250	(0.616)	1.084***	(0.101)	0.516	108	18
Belgium	1.709***	(0.658)	0.942*	(0.512)	0.169	(0.239)	-0.012	(0.253)	0.367	163	31
Brazil	11.14***	(4.183)	0.341	(1.054)	0.347	(2.136)	-0.280*	(0.159)	0.952	22	6
Canada	0.769**	(0.358)	0.436	(0.649)	-0.207	(0.289)	1.305***	(0.243)	0.265	307	69
Chile	-0.243	(0.288)	0.708***	(0.231)	-0.424***	(0.127)	0.903***	(0.193)	0.544	322	59
China	2.067	(2.353)	0.984	(1.019)	3.378	(2.206)	2.197	(1.401)	0.469	68	15
Denmark	0.480	(0.377)	1.699***	(0.389)	-0.309	(0.211)	3.391***	(0.502)	0.479	270	35
Finland	-0.099	(0.285)	1.807***	(0.382)	-0.836***	(0.274)	1.549***	(0.536)	0.571	147	20
France	1.416	(1.525)	0.854	(0.544)	-0.221	(0.289)	1.790***	(0.463)	0.407	148	29
Germany	0.075	(0.313)	1.414***	(0.364)	-0.241	(0.194)	1.458	(0.973)	0.210	509	98
Greece	-0.250	(0.512)	1.347***	(0.303)	-0.592***	(0.167)	0.860***	(0.240)	0.871	43	8
Hong Kong	0.274	(0.255)	0.866***	(0.256)	-0.276**	(0.138)	1.250***	(0.233)	0.309	566	87
India	1.056**	(0.444)	1.031***	(0.307)	0.024	(0.216)	3.648***	(0.197)	0.309	783	139
Indonesia	1.068**	(0.506)	0.425	(0.295)	0.011	(0.219)	1.695***	(0.655)	0.590	54	16
Ireland	-1.683***	(0.479)	3.876***	(0.612)	-1.406***	(0.482)	1.112***	(0.406)	0.560	148	24
Israel	-0.781	(0.582)	1.294***	(0.319)	-0.395	(0.276)	-0.345	(0.293)	0.356	171	32
Italy	0.721	(0.450)	1.506***	(0.551)	-0.285	(0.342)	1.097**	(0.489)	0.388	218	43
Japan	0.292	(0.195)	1.569***	(0.097)	-0.378***	(0.062)	1.451	(1.081)	0.213	5,232	926
South Korea	0.272	(0.475)	1.606***	(0.226)	-0.565***	(0.150)	0.807*	(0.449)	0.272	464	120
Luxembourg	0.057	(0.856)	0.226	(0.741)	-0.037	(0.331)	-0.915***	(0.198)	0.522	44	10
Malaysia	-3.270**	(1.628)	1.503***	(0.460)	-0.403	(0.285)	1.780***	(0.264)	0.438	258	62
Mexico	1.636**	(0.677)	0.427*	(0.245)	0.262	(0.324)	-1.391***	(0.482)	0.479	85	24
Netherlands	-0.051	(0.562)	0.284	(0.862)	-0.602	(0.680)	0.945***	(0.104)	0.430	188	34
New Zealand	-0.620	(0.987)	2.113***	(0.533)	-0.692***	(0.204)	-0.174**	(0.0829)	0.434	291	41
Norway	1.326***	(0.324)	0.641***	(0.160)	-0.191	(0.159)	0.074	(0.429)	0.653	111	21
Philippines	108.0	(114.0)	-3.070	(4.639)	9.743***	(3.078)	3.566	(11.16)	0.765	36	7

VARIABLES	CFH_MKT		NI		Δ NI		CONSTANT		ADJUTED R ²	OBSERVATIONS	NUMBER OF IDS
Poland	-1.543***	(0.496)	2.185***	(0.504)	-0.548	(0.377)	-0.936***	(0.257)	0.548	102	18
Portugal	48.70	(45.57)	-7.734***	(2.308)	4.979***	(1.800)	8.396**	(3.312)	0.875	22	6
Russia	-0.675	(1.252)	0.983	(0.680)	0.200	(0.357)	-0.559	(0.550)	0.707	19	5
Saudi Arabia	-7.751	(9.283)	1.267	(1.008)	-0.515	(0.662)	-0.776***	(0.064)	0.401	48	11
Singapore	0.522*	(0.301)	1.038***	(0.321)	-0.309	(0.218)	0.924**	(0.424)	0.441	380	66
South Africa	0.524	(0.925)	-0.414	(0.505)	0.652**	(0.259)	3.991***	(0.325)	0.549	276	49
Spain	-0.001	(0.535)	1.015***	(0.296)	-0.483***	(0.141)	1.708***	(0.314)	0.536	193	31
Sweden	-0.541	(0.780)	1.654***	(0.435)	-0.341	(0.387)	1.622***	(0.276)	0.521	240	51
Switzerland	-0.481	(0.424)	1.444**	(0.714)	-0.488***	(0.171)	1.510*	(0.894)	0.345	247	42
Thailand	-4.986	(3.180)	4.570***	(1.173)	-2.500***	(0.915)	-0.369**	(0.182)	0.698	50	14
Turkey	0.623*	(0.320)	1.465***	(0.257)	-0.423***	(0.142)	3.837***	(0.192)	0.566	221	39
United Kingdom	0.211	(0.318)	1.085***	(0.297)	-0.115	(0.162)	2.095***	(0.190)	0.427	1,284	168

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 1) for each country. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year $t-1$. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year $t+2$. Net income in year t is scaled by the market value of equity at the end of year $t-1$. Δ NI is the difference between the variable NI in years $t-1$ and t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year $t-1$. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. All of the regressions are controlled by year and the industry fixed effect. The robust standard errors appear in parentheses. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance levels of 10%, 5%, and 1%, respectively.

4.2.1 Cash Flow Hedges by Gains and Losses and Stock Returns

As discussed above, the win-loss ratio can make a difference in the impact on future prices. Table 25 divides the sample with positive and negative CFH values in order to identify this composition. As noted, most of the observations have negative values, which indicate the effect of a negative hedging instrument going to the company's results, However, due to hedge accounting, this amount is deferred until the moment when the hedging object will affect the company's results.

Table 25 - Hypothesis 2 Descriptive Statistics for Cash Flow Hedges divided into Gains and Losses

Variables	LOSSES				GAINS			
	n	mean	min	max	n	Mean	min	max
Ret _{current}	9,124	0.116	-0.702	2.019	6,297	0.126	-0.702	2.019
Ret _{t+1}	8,965	0.207	-0.805	3.460	6,194	0.265	-0.805	3.460
Ret _{t+2}	8,760	0.285	-0.844	4.131	6,061	0.351	-0.844	4.131
NI	9,124	0.100	-0.631	0.827	6,297	0.106	-0.630	0.828
ΔNI	9,124	0.018	-0.673	1.048	6,297	0.023	-0.673	1.048
CFH_MKT	9,124	-0.049	-0.646	-0.000	6,297	0.022	0.000	0.253

Notes: This table presents descriptive statistics for stock returns and unrealized cash flow hedge gains or losses in year t. The sample is divided into Gain and Losses, Gains when CFH is equal to or greater than 0 and Losses when CFH is less than 0. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets of year t-1. R (Returns) current consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value after the third month of year t-1 until after the third month of year t+1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value after third month of year t-1 until after the third month of year t+2. Net income in year t is scaled by the market value of equity at the end of year t-1. ΔNI is the difference between the NI variable in years t-1 and t (NI_t – NI_{t-1}) scaled by the market value of equity at the end of year t-1. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference.

The results are presented in Table 26. The coefficients for the interactive variables CFH and GAINS are positive and significant in Ret_{current} and in Ret_{t+2} they are also significant but negative. In Ret_{t+1} they are not significant. These results present some similarities with Campbell's results (2015) in the U.S., and complement specific findings related to Gains and Losses that could be interpreted by investors in a different way.

In Table 27, which presents subsamples divided into Gains and Losses, this difference in effect is evident as well. Losses have a positive relationship with future returns for both Ret_{t+1} and t+2, however they have a negative relationship for Current Returns. For Gains this effect is positive for the Current Horizon, insignificant for t+1, and negative for t+2.

Table 26 - Multivariate Regression of Stock Returns for Three Horizons and the Interaction between Cash Flow Hedges and Gains

$$R_{i,t+k} = \alpha_0 + \beta_1 CFH_MKT_{it} + \beta_2 CFH_MKT_{it} * GAIN_{i,t} + \beta_3 GAIN_{i,t} + \beta_4 NI_{i,t} + \beta_5 \Delta NI_{it} + \sum_j^n \beta_j Year + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (4)$$

VARIABLES	Ret _{current}			Ret _{t+1}			Ret _{t+2}		
CFH_MKT	-0.108*	-0.172***	-0.144***	0.340***	0.138*	0.179**	0.695***	0.448***	0.496***
	(0.055)	(0.051)	(0.051)	(0.086)	(0.082)	(0.084)	(0.123)	(0.111)	(0.113)
CFH*GAIN	0.416***	0.573***	0.551***	-0.684***	-0.183	-0.235	-1.954***	-1.268***	-1.323***
	(0.143)	(0.136)	(0.132)	(0.230)	(0.221)	(0.219)	(0.350)	(0.320)	(0.321)
GAIN	0.006	-0.000	-0.002	0.031***	0.012	0.009	0.056***	0.022*	0.017
	(0.006)	(0.005)	(0.005)	(0.010)	(0.009)	(0.009)	(0.013)	(0.012)	(0.012)
NI	0.549***	0.565***	0.575***	1.131***	1.092***	1.103***	1.405***	1.308***	1.313***
	(0.034)	(0.033)	(0.034)	(0.052)	(0.052)	(0.053)	(0.065)	(0.060)	(0.061)
ΔNI	0.308***	0.222***	0.218***	0.162***	0.021	0.016	-0.343***	-0.310***	-0.311***
	(0.031)	(0.028)	(0.028)	(0.041)	(0.038)	(0.038)	(0.043)	(0.039)	(0.039)
Constant	0.049***	0.185***	0.011	0.111***	0.567***	0.466***	0.178***	1.758***	1.730***
	(0.005)	(0.065)	(0.064)	(0.009)	(0.127)	(0.121)	(0.012)	(0.217)	(0.210)
Industry F.E.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Year F.E.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Country F.E.	No	No	Yes	No	No	Yes	No	No	Yes
Adjusted R ²	0.097	0.289	0.296	0.094	0.265	0.278	0.071	0.232	0.252
Observations	15,421	15,421	15,421	15,159	15,159	15,159	14,821	14,821	14,821
Number of ids	2,749	2,749	2,749	2,705	2,705	2,705	2,635	2,635	2,635

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 3). The sample includes all of the countries except Japan. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t-1. R (Returns) current consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+2. GAIN is a dummy variable which equals 1 when CFH is greater than or equal to zero, and 0 otherwise. CFH*GAIN is the multiplicative variable that combines CFH_MKT and the GAIN dummy. Net income in year t is scaled by the market value of equity at the end of year t-1. ΔNI is the difference between the NI variable in years t-1 and t (NI_t - NI_{t-1}) scaled by the market value of equity at the end of year t-1. All variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 27 – Multivariate Regression of Stock Returns for Three Horizon and Cash Flow Hedges by Gains and Losses

$$R_{i,t+k} = \alpha_0 + \beta_1 CFH_MKT_{it} + \beta_2 NI_{i,t} + \beta_3 \Delta NI_{it} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (3)$$

VARIABLES	Losses			Gain		
	Ret _{current}	Ret _{t+1}	Ret _{t+2}	Ret _{current}	Ret _{t+1}	Ret _{t+2}
CFH_MKT	-0.144*** (0.051)	0.215*** (0.081)	0.590*** (0.113)	0.374*** (0.126)	-0.033 (0.213)	-0.722** (0.309)
NI	0.567*** (0.042)	1.047*** (0.065)	1.305*** (0.075)	0.585*** (0.050)	1.156*** (0.078)	1.354*** (0.086)
ΔNI	0.179*** (0.034)	0.019 (0.044)	-0.330*** (0.049)	0.282*** (0.046)	0.039 (0.060)	-0.296*** (0.062)
Constant	-0.363*** (0.081)	-0.187 (0.135)	0.901*** (0.246)	0.073 (0.081)	0.852*** (0.191)	2.518*** (0.648)
Industry F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.308	0.277	0.249	0.294	0.288	0.263
Observations	9,124	8,965	8,760	6,297	6,194	6,061
Number of ids	2,416	2,374	2,310	2,089	2,058	2,011

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 3). The sample is divided into Gains and Losses. Gains occur when CFH is greater than or equal to 0 and Losses occur when CFH is less than zero. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t-1. R (Return) current consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value after the third month of year t-1 until after the third month of year t+1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+2. GAIN is a dummy variable equal to 1 when CFH is greater than or equal to zero, and 0 otherwise. CFH*GAIN is the interaction between CFH_MKT and the GAIN dummy variable. Net income in year t is scaled by the market value of equity at the end of year t-1. ΔNI is the difference between the NI variable in years t-1 and t (NI_t – NI_{t-1}) scaled by the market value of equity at the end of year t-1. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 28 - Multivariate Regression of Current Stock Returns and the Interaction between Cash Flow Hedges and Gains by Country

COUNTRY	CFH_MKT		CFH*GAIN		GAIN		NI		ΔNI		Constant		Adjusted R ²	Obs
Australia	-0.269	(0.214)	1.612***	(0.606)	-0.047	(0.035)	0.689***	(0.164)	0.155	(0.103)	0.682***	(0.113)	0.400	1,000
Austria	-0.501	(0.316)	0.348	(1.451)	0.028	(0.113)	1.240	(0.945)	0.377	(0.798)	-0.117	(0.127)	0.437	112
Belgium	0.556***	(0.167)	0.059	(0.361)	-0.133*	(0.075)	0.146	(0.0889)	-0.053	(0.199)	0.507***	(0.112)	0.434	164
Brazil	6.795***	(2.185)	25.23*	(13.18)	-0.260**	(0.128)	1.582**	(0.669)	1.582	(2.470)	0.139	(0.218)	0.802	22
Canada	0.376*	(0.196)	0.203	(0.555)	-0.067*	(0.040)	0.0508	(0.300)	0.132	(0.129)	0.057	(0.072)	0.138	318
Chile	-0.127	(0.138)	-0.054	(0.313)	0.029	(0.041)	0.335***	(0.107)	0.088	(0.128)	0.579***	(0.108)	0.504	352
China	-0.870	(1.122)	0.019	(3.869)	-0.022	(0.061)	1.041***	(0.327)	1.173	(0.753)	0.824	(0.610)	0.556	79
Denmark	-0.331***	(0.126)	5.869**	(2.609)	-0.088*	(0.051)	0.726***	(0.173)	0.260	(0.198)	0.530***	(0.124)	0.520	277
Finland	-0.044	(0.333)	-0.739	(0.552)	0.097**	(0.045)	0.571***	(0.125)	0.137	(0.141)	-0.124	(0.132)	0.502	150
France	0.128	(0.678)	0.812	(0.667)	0.016	(0.050)	0.290	(0.198)	0.115	(0.129)	0.146	(0.166)	0.442	151
Germany	-0.096	(0.219)	-0.236	(0.657)	0.044	(0.042)	0.430**	(0.195)	0.115	(0.173)	-0.0787	(0.312)	0.180	542
Greece	-0.490***	(0.188)	7.338	(6.270)	0.076	(0.130)	0.0673	(0.282)	-0.237**	(0.117)	0.813	(0.625)	0.780	43
Hong Kong	-0.314*	(0.187)	0.200	(0.472)	0.062*	(0.034)	0.582***	(0.128)	-0.128	(0.130)	-0.035	(0.094)	0.423	587
India	0.144	(0.125)	1.202*	(0.628)	-0.025	(0.027)	0.342***	(0.092)	0.461***	(0.066)	-0.345	(0.387)	0.640	818
Indonesia	0.637	(0.444)	-1.676	(2.870)	-0.129	(0.166)	1.079	(0.879)	0.545	(0.508)	-0.237	(0.219)	0.621	61
Ireland	-1.390**	(0.562)	2.187***	(0.599)	-0.068	(0.050)	0.561**	(0.258)	0.548**	(0.274)	0.042	(0.104)	0.597	155
Israel	-0.560*	(0.300)	-1.397**	(0.588)	-0.021	(0.073)	0.544***	(0.160)	0.203	(0.174)	0.969***	(0.294)	0.553	176
Italy	-0.524	(0.370)	1.521*	(0.880)	-0.008	(0.056)	0.462	(0.298)	0.189	(0.224)	0.376*	(0.196)	0.441	242
Japan	-0.168*	(0.092)	0.196	(0.172)	0.011	(0.009)	0.617***	(0.0513)	0.342***	(0.051)	-0.0446	(0.059)	0.233	5,348
South Korea	-0.476	(0.470)	1.377*	(0.718)	-0.056	(0.039)	0.556***	(0.130)	0.245**	(0.098)	0.00200	(0.084)	0.316	483
Luxembourg	0.472	(0.420)	3.086***	(0.645)	-0.293***	(0.052)	-0.418	(0.308)	0.924***	(0.179)	-0.361***	(0.070)	0.699	54
Malaysia	-0.679	(0.648)	0.346	(0.747)	-0.063*	(0.037)	0.648***	(0.173)	0.101	(0.139)	0.551***	(0.090)	0.358	274
Mexico	-0.298	(0.551)	3.626	(2.853)	-0.024	(0.112)	-0.523**	(0.207)	0.606***	(0.200)	-0.169	(0.183)	0.498	90
Netherlands	-0.349**	(0.144)	2.735**	(1.297)	0.068	(0.056)	0.0173	(0.229)	-0.017	(0.178)	0.005	(0.167)	0.553	198
New Zealand	-0.302	(0.497)	1.138	(0.806)	-0.043	(0.041)	0.801***	(0.261)	0.114	(0.237)	-0.425***	(0.078)	0.465	318
Norway	0.551*	(0.294)	0.785	(1.844)	-0.011	(0.077)	0.295	(0.226)	0.102	(0.172)	0.291*	(0.173)	0.414	117

COUNTRY	CFH_MKT		CFH*GAIN		GAIN		NI		ΔNI		Constant		Adjusted R ²	Obs.
Philippines	-9.927	(78.16)	-62.07	(64.34)	0.113	(0.193)	0.515	(1.669)	0.859	(3.374)	-0.432	(10.02)	0.884	36
Poland	-0.794	(0.854)	1.863	(1.429)	-0.095	(0.091)	0.886**	(0.368)	0.085	(0.219)	-0.700***	(0.164)	0.691	112
Portugal	-10.64	(85.33)	39.54	(68.71)	0.040	(0.279)	-2.119	(2.701)	0.960	(1.930)	2.143	(2.052)	0.803	24
Russia	1.884	(1.220)	8.810	(9.024)	-0.821	(0.955)	0.368	(0.736)	-0.305	(0.732)	0.553	(0.902)	0.814	19
Saudi Arabia	-6.919	(4.607)	131.2	(92.09)	-0.116	(0.207)	0.0991	(0.703)	0.592	(0.605)	-0.789**	(0.362)	0.472	49
Singapore	-0.0683	(0.133)	-0.277	(0.657)	0.020	(0.045)	0.426***	(0.119)	0.214	(0.227)	0.418***	(0.098)	0.529	401
South Africa	-0.777	(0.571)	1.289*	(0.686)	0.027	(0.043)	0.0678	(0.198)	0.299	(0.218)	0.748***	(0.134)	0.540	289
Spain	-0.773**	(0.323)	1.005	(1.038)	0.023	(0.061)	0.492***	(0.172)	-0.036	(0.134)	0.468***	(0.139)	0.550	207
Sweden	-0.382	(0.345)	0.0282	(0.509)	0.078*	(0.045)	0.680***	(0.231)	0.267	(0.225)	0.298*	(0.169)	0.471	251
Switzerland	-0.075	(0.119)	0.671	(0.470)	0.0073	(0.033)	0.684***	(0.173)	0.0365	(0.315)	-0.036	(0.139)	0.467	258
Thailand	-2.496	(1.571)	11.11	(17.34)	0.033	(0.145)	1.145*	(0.590)	-0.907	(0.600)	-0.365***	(0.089)	0.410	56
Turkey	0.141	(0.265)	5.425***	(1.443)	0.048	(0.073)	0.612***	(0.139)	0.185	(0.142)	0.271**	(0.105)	0.607	225
United Kingdom	-0.136	(0.148)	0.688*	(0.362)	-0.004	(0.021)	0.456***	(0.149)	0.119	(0.125)	0.226***	(0.054)	0.452	1,324

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 1) for each country. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year $t-1$. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year $t+2$. Net income in year t is scaled by the market value of equity at the end of year $t-1$. ΔNI is the difference between the NI variable in years $t-1$ and t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year $t-1$. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. All of the regressions are controlled by year and the industry fixed effect. The robust standard errors appear in parentheses. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively.

Table 29 - Multivariate Regression of Stock Returns One Year in the Future and the Interaction between Cash Flow Hedges and Gains by Country

COUNTRY	CFH_MKT		CFH*GAIN		GAIN		NI		ΔNI		CONSTANT		ADJUSTED R ²	OBS.
Australia	-0.074	(0.522)	0.072	(0.723)	0.018	(0.064)	1.318***	(0.215)	-0.253**	(0.117)	0.771***	(0.204)	0.359	976
Austria	0.091	(0.362)	-1.067	(1.764)	0.048	(0.114)	1.913**	(0.836)	0.284	(0.659)	-0.290**	(0.146)	0.500	110
Belgium	0.872**	(0.357)	-1.218	(1.033)	-0.049	(0.161)	0.231	(0.244)	0.558	(0.347)	0.294	(0.342)	0.416	164
Brazil	12.33***	(2.516)	-0.531	(16.04)	-0.302**	(0.125)	1.040	(1.207)	0.438	(2.970)	0.121	(0.440)	0.912	22
Canada	0.475	(0.444)	-0.429	(0.794)	-0.113**	(0.057)	0.793**	(0.332)	-0.247**	(0.123)	0.165	(0.153)	0.159	313
Chile	-0.792*	(0.473)	-0.422	(0.744)	0.153**	(0.068)	0.644***	(0.192)	-0.152	(0.154)	-0.247***	(0.0824)	0.585	333
China	-0.904	(2.369)	4.060	(8.843)	0.132	(0.185)	1.697**	(0.817)	2.836*	(1.536)	1.098	(1.258)	0.534	74
Denmark	-0.147	(0.190)	8.541***	(2.440)	-0.033	(0.091)	1.377***	(0.305)	0.111	(0.243)	0.367	(0.332)	0.465	275
Finland	0.067	(0.412)	-0.519	(0.858)	0.052	(0.102)	1.469***	(0.370)	-0.455	(0.336)	-0.0220	(0.213)	0.531	149
France	2.090*	(1.142)	-1.041	(1.199)	-0.012	(0.099)	0.819**	(0.365)	-0.0822	(0.103)	0.487*	(0.255)	0.380	150
Germany	0.038	(0.484)	-1.024	(1.043)	0.043	(0.059)	0.943***	(0.305)	0.0294	(0.170)	0.0328	(0.262)	0.206	526
Greece	-0.418	(0.589)	4.918	(9.047)	0.276	(0.287)	0.361	(0.661)	-0.0790	(0.272)	0.190	(0.334)	0.784	43
Hong Kong	-0.242	(0.307)	-0.373	(0.634)	0.040	(0.063)	0.909***	(0.151)	-0.0636	(0.115)	0.324**	(0.141)	0.371	579
India	0.052	(0.333)	2.820*	(1.575)	-0.029	(0.059)	0.990***	(0.270)	0.241	(0.170)	1.527***	(0.187)	0.495	803
Indonesia	0.633	(0.670)	9.199***	(3.078)	-0.367*	(0.209)	0.302	(0.843)	-0.0503	(0.488)	0.608	(0.413)	0.689	58
Ireland	-1.424***	(0.349)	1.469***	(0.555)	-0.093	(0.090)	3.219***	(1.013)	-0.521	(0.507)	0.220	(0.165)	0.625	152
Israel	-0.584	(0.359)	-2.587***	(0.974)	0.133	(0.099)	1.031***	(0.223)	-0.315	(0.227)	-0.0600	(0.194)	0.568	174
Italy	0.602	(0.391)	2.669	(2.152)	-0.120	(0.100)	1.059*	(0.570)	-0.345	(0.319)	0.470	(0.402)	0.399	231
Japan	-0.081	(0.207)	0.080	(0.408)	0.025	(0.016)	1.357***	(0.088)	0.0508	(0.062)	-0.429**	(0.207)	0.232	5,304
South Korea	0.057	(0.798)	0.021	(1.175)	-0.014	(0.067)	1.302***	(0.234)	-0.160	(0.176)	0.800***	(0.198)	0.442	473
Luxembourg	0.212	(0.734)	4.119***	(0.914)	-0.263**	(0.108)	0.483	(0.797)	0.159	(0.441)	-0.987***	(0.160)	0.617	50
Malaysia	-2.214	(1.430)	-0.558	(1.793)	-0.063	(0.0621)	1.563***	(0.342)	-0.261	(0.265)	0.140	(0.141)	0.503	267
Mexico	1.437***	(0.378)	7.768***	(2.962)	-0.141	(0.104)	-0.221	(0.597)	0.866***	(0.248)	1.183**	(0.591)	0.537	89
Netherlands	0.009	(0.203)	2.983**	(1.309)	0.149	(0.106)	0.620	(0.650)	0.553**	(0.278)	0.353***	(0.065)	0.528	193
New Zealand	-0.278	(0.707)	1.041	(1.747)	-0.001	(0.069)	1.637***	(0.398)	-0.490	(0.314)	-0.592***	(0.100)	0.454	304

COUNTRY	CFH_MKT		CFH*GAIN		GAIN		NI		Δ NI		CONSTANT		ADJUSTED R ²	OBS.
Norway	0.718*	(0.417)	2.055	(2.656)	0.045	(0.105)	0.559**	(0.225)	0.290	(0.276)	-0.416	(0.307)	0.588	114
Philippines	144.1***	(47.72)	-245.1***	(57.12)	0.016	(0.142)	-0.890	(2.041)	1.737	(3.716)	15.27***	(4.907)	0.888	36
Poland	-0.283	(1.326)	-0.465	(1.060)	0.049	(0.0972)	1.878***	(0.445)	-0.227	(0.277)	-0.628***	(0.208)	0.644	108
Portugal	-46.91	(251.5)	59.58	(231.8)	0.382	(0.271)	-8.266	(5.139)	5.131	(3.436)	5.841	(9.379)	0.759	23
Russia	1.932*	(0.997)	5.023	(11.51)	-0.862	(1.268)	1.206**	(0.591)	0.109	(0.920)	0.379	(1.412)	0.865	19
Saudi Arabia	-3.100	(5.962)	20.94	(78.07)	-0.039	(0.221)	0.799	(0.487)	-0.134	(0.460)	-0.677	(0.563)	0.513	49
Singapore	0.377**	(0.181)	-1.539***	(0.550)	0.037	(0.0579)	0.907***	(0.217)	0.0961	(0.134)	0.315**	(0.143)	0.530	393
South Africa	-0.849	(0.736)	-0.046	(1.006)	0.043	(0.0761)	-0.140	(0.247)	1.066***	(0.336)	1.817***	(0.134)	0.567	282
Spain	-1.016**	(0.441)	1.796	(1.533)	0.100	(0.104)	0.848***	(0.257)	-0.237	(0.153)	0.469*	(0.268)	0.519	200
Sweden	-0.270	(0.463)	-0.937	(0.763)	0.036	(0.0753)	1.092***	(0.385)	0.0622	(0.328)	0.826***	(0.193)	.0525	246
Switzerland	-0.209	(0.219)	1.491**	(0.721)	0.007	(0.0588)	1.334***	(0.474)	-0.211**	(0.103)	0.308	(0.317)	0.444	253
Thailand	-1.324	(1.837)	31.95	(23.41)	-0.105	(0.183)	2.358***	(0.755)	0.551	(0.679)	-0.194	(0.185)	0.649	54
Turkey	0.200	(0.434)	1.165	(1.015)	0.204*	(0.122)	1.241***	(0.321)	-0.323*	(0.191)	0.161	(0.208)	0.590	223
United Kingdom	0.303	(0.207)	-0.055	(0.539)	-0.009	(0.039)	0.943***	(0.215)	0.357**	(0.156)	0.686***	(0.082)	0.454	1,309

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 1) for each country. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year $t-1$. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until after the third month after year $t+2$. Net income in year t is scaled by the market value of equity at the end of year $t-1$. Δ NI is the difference between the NI variable in years $t-1$ and t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year $t-1$. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. All of the regressions are controlled by year and the industry fixed effect. The robust standard errors appear in parentheses. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively.

Table 30 - Multivariate Regression of Stock Returns Two Years in the Future and the Interaction between Cash Flow Hedges and Gains by Country

COUNTRY	CFH_MKT		CFH*GAIN		GAIN		NI		ΔNI		CONSTANT		ADJUSTED R ²	OBS.
Australia	0.971**	(0.490)	-2.608***	(0.981)	-0.003	(0.079)	1.376***	(0.219)	-0.352***	(0.130)	1.560***	(0.295)	0.310	946
Austria	0.381	(0.515)	0.0168	(2.231)	0.018	(0.132)	3.082***	(0.886)	-0.247	(0.649)	1.311***	(0.167)	0.516	108
Belgium	1.408**	(0.587)	0.445	(2.535)	-0.251	(0.217)	0.965**	(0.469)	0.190	(0.238)	-0.179***	(0.063)	0.401	163
Brazil	15.65***	-3.239	-13.50	(13.80)	-0.342	(0.213)	0.360	-1.265	-0.733	-1.987	-0.033	(0.553)	0.965	22
Canada	1.446***	(0.480)	-1.584	(1.142)	-0.096	(0.098)	0.457	(0.674)	-0.212	(0.306)	1.327***	(0.244)	0.284	307
Chile	-0.0187	(0.276)	-1.293	(0.891)	0.068	(0.075)	0.710***	(0.233)	-0.442***	(0.121)	0.910***	(0.146)	0.549	322
China	-0.878	(3.195)	2.855	(11.63)	0.305	(0.239)	1.005	-1.070	3.534	(2.334)	1.838	(1.574)	0.482	68
Denmark	0.504	(0.336)	-3.816	(4.321)	0.097	(0.156)	1.683***	(0.347)	-0.271	(0.201)	3.489***	(0.536)	0.481	270
Finland	-0.101	(0.254)	0.306	(1.045)	-0.051	(0.133)	1.792***	(0.390)	-0.828***	(0.278)	1.541***	(0.528)	0.572	147
France	2.427	(1.689)	-2.230	(1.794)	-0.009	(0.170)	0.881*	(0.534)	-0.252	(0.279)	1.548***	(0.444)	0.413	148
Germany	0.580	(0.383)	-3.243***	(1.063)	0.155	(0.096)	1.383***	(0.332)	-0.252	(0.178)	1.431*	(0.852)	0.234	509
Greece	-0.602	(0.443)	-2.850	(4.401)	0.384*	(0.208)	1.222***	(0.308)	-0.624***	(0.192)	0.252	(0.196)	0.876	43
Hong Kong	0.411	(0.330)	-1.800*	(0.953)	0.115	(0.084)	0.948***	(0.257)	-0.284**	(0.132)	1.136***	(0.258)	0.317	566
India	0.744**	(0.370)	1.621	(2.491)	0.029	(0.093)	1.004***	(0.303)	0.0222	(0.210)	3.633***	(0.229)	0.310	783
Indonesia	1.748***	(0.509)	1.802	(2.590)	-0.424	(0.275)	0.00841	(0.675)	0.323	(0.389)	1.890***	(0.507)	0.621	54
Ireland	-1.482***	(0.555)	0.465	(0.898)	-0.176	(0.119)	3.993***	(0.647)	-1.535***	(0.521)	1.276***	(0.399)	0.567	148
Israel	-0.260	(0.581)	-3.651***	(1.154)	0.271**	(0.111)	1.329***	(0.337)	-0.379	(0.274)	-0.736***	(0.259)	0.375	171
Italy	0.876**	(0.404)	-0.119	(1.307)	-0.150	(0.113)	1.511***	(0.572)	-0.261	(0.375)	1.652***	(0.508)	0.392	218
Japan	0.435**	(0.212)	-0.702	(0.662)	0.020	(0.020)	1.566***	(0.0981)	-0.375***	(0.0622)	1.441	(1.082)	0.214	5,232
South Korea	1.424	(0.891)	-1.785*	(0.994)	-0.030	(0.080)	1.566***	(0.229)	-0.542***	(0.148)	0.881*	(0.477)	0.273	464
Luxembourg	0.241	(0.977)	1.457	(1.168)	-0.171	(0.136)	0.119	(0.659)	0.060	(0.325)	-0.039	(0.288)	0.540	44
Malaysia	-2.798	(2.265)	-1.050	(2.500)	-0.074	(0.087)	1.495***	(0.472)	-0.384	(0.283)	1.820***	(0.252)	0.435	258
Mexico	1.694**	(0.661)	-3.869	(2.851)	-0.032	(0.146)	0.567**	(0.270)	0.098	(0.234)	-0.915***	(0.230)	0.482	85
Netherlands	-0.373	(0.432)	3.624	(3.927)	0.119	(0.153)	0.110	(0.853)	-0.448	(0.698)	1.218***	(0.084)	0.446	188
New Zealand	0.383	(0.966)	-2.693	(2.765)	-0.006	(0.108)	2.086***	(0.543)	-0.676***	(0.224)	0.046	(0.104)	0.436	291

COUNTRY	CFH_MKT		CFH*GAIN		GAIN		NI		ΔNI		CONSTANT		ADJUSTED R ²	OBS.
Norway	0.916***	(0.325)	-0.122	(2.476)	0.232	(0.145)	0.870***	(0.234)	-0.315	(0.237)	-0.144	(0.578)	0.671	111
Philippines	337.3***	(122.0)	-404.9***	(145.2)	-0.025	(0.277)	-1.670	-5.796	7.520**	(3.436)	31.37**	(13.83)	0.807	36
Poland	-0.317	(1.144)	-5.710***	(2.165)	0.220	(0.199)	2.303***	(0.522)	-0.676*	(0.366)	2.186***	(0.805)	0.573	102
Portugal	-39.25	(238.7)	87.62	(270.3)	0.324	(0.283)	-7.254***	-2.635	4.703**	(1.861)	-0.109	(7.291)	0.888	22
Russia	0.283	(1.183)	-8.511	(17.36)	-0.026	(1.608)	1.441**	(0.689)	0.257	(1.016)	-0.645	(1.494)	0.740	19
Saudi Arabia	-5.005	(10.07)	-125.1**	(58.81)	-0.126	(0.232)	1.080	(1.100)	-0.312	(0.803)	-0.735	(0.908)	0.417	48
Singapore	0.705**	(0.306)	-3.809***	(1.431)	0.075	(0.0854)	1.117***	(0.297)	-0.289	(0.222)	0.874**	(0.421)	0.454	380
South Africa	0.628	(1.002)	-0.353	(2.192)	0.013	(0.122)	-0.414	(0.506)	0.643**	(0.266)	3.979***	(0.348)	0.549	276
Spain	-0.322	(0.535)	4.097*	(2.288)	0.107	(0.144)	0.977***	(0.275)	-0.497***	(0.139)	1.499***	(0.339)	0.531	193
Sweden	-0.228	(0.781)	-1.545	(1.019)	0.063	(0.096)	1.705***	(0.463)	-0.355	(0.397)	1.666***	(0.345)	0.524	240
Switzerland	-0.772**	(0.336)	2.847**	(1.201)	0.023	(0.071)	1.462**	(0.646)	-0.424***	(0.159)	1.261	(0.870)	0.337	247
Thailand	-5.880	(3.609)	4.234	(25.16)	0.220	(0.200)	4.650***	(1.018)	-2.880**	(1.174)	0.467**	(0.203)	0.711	50
Turkey	0.216	(0.383)	0.724	(1.859)	0.184	(0.173)	1.509***	(0.279)	-0.469***	(0.139)	3.971***	(0.280)	0.571	221
United Kingdom	0.520	(0.383)	-1.799**	(0.839)	0.008	(0.051)	1.055***	(0.283)	-0.0971	(0.161)	2.079***	(0.199)	0.429	1,284

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 1) for each country. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t-1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+2. Net income in year t scaled by the market value of equity at the end of year t-1. ΔNI is the difference between NI variable in $(NI_t - NI_{t-1})$ scaled by market value of equity at the end of year t-1. All variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. All regressions are controlled by Year and Industry fixed effect. Robust standard errors in parentheses. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by the firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at 10%, 5% and 1% level, respectively.

Table 31 - Multivariate Regression of Stock Returns for Three Horizons and Cash Flow Hedges Using Gain and Neutral Subsamples

$R_{i,t+k} = \alpha_0 + \beta_1 CFH_MKT_{it} + \beta_2 NI_{i,t} + \beta_3 \Delta NI_{i,t} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (3)$						
VARIABLES	Zero			Gain		
	Ret _{current}	Ret _{t+1}	VARIABLES	Ret _{current}	Ret _{t+1}	VARIABLES
CFH_MKT				0.428*** (0.129)	-0.068 (0.215)	-0.736** (0.325)
NI	0.583*** (0.119)	1.023*** (0.167)	1.042*** (0.189)	0.586*** (0.0555)	1.186*** (0.076)	1.418*** (0.093)
ΔNI	0.281*** (0.106)	0.107 (0.144)	-0.137 (0.148)	0.279*** (0.052)	0.014 (0.064)	-0.350*** (0.064)
Constant	0.049 (0.169)	0.587* (0.341)	2.258** (0.954)	0.070 (0.121)	0.774*** (0.109)	1.906*** (0.437)
Industry F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.301	0.307	0.316	0.303	0.294	0.260
Observations	1,065	1,045	1,023	5,232	5,149	5,038
Number of id	751	737	718	1,827	1,803	1,762

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 3). The sample include all countries. The sample is divided in Gains and CFHs equal to zero. Gains are when CFH is greater than 0, and CFH=0 only for observations where CFH is exactly equal to 0. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t-1. R (Returns) current consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+2. GAIN is a dummy variable equal to 1 when CFH is greater than or equal to 0, and 0 otherwise. CFH*GAIN is the multiplicative variable between CFH_MKT and the GAIN.dummy. Net income in year t is scaled by the market value of equity at the end of year t-1. ΔNI is the difference between the NI variable in years t-1 and t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year t-1. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

In the individual analyses in Table 28, Table 29, and 30 for each of the countries, the changes in signs between current and future effects are identified. In some cases, there were no previous significant effects observed, such as Australia, Germany, Hong Kong, South Korea, and the United Kingdom. The summary Table 32 lists the signs of the CFH*GAIN variable for each country and each horizon. One change involves Australia, South Korea, and the United Kingdom which go from a positive sign in the current horizon to a negative sign for the t+2 horizon. Israel was negative in both the current and t+1 horizons, while Denmark, India, Ireland, and the Netherlands were positive in both the current and t+1 horizons. In the robustness test in Table 31, the subsample in neutral, that is CFH is equal 0 and positive results continue to be positive.

Table 32 - Summary of the Signs of Cash Flow Hedges for Three Horizons and Gains by Country

Sign Variable CFH*GAIN	Current	t+1	t+2
Positive Coefficient	Australia Brazil Denmark India Ireland South Korea Luxembourg Netherlands South Africa Turkye United Kingdom	Denmark India Indonesia Ireland Luxembourg Mexico Netherlands Switzerland	Switzerland Spain
Negative Coefficient	Israel	Israel Philippines Singapore	Australia Germany Hong Kong Israel Korea Philippines Poland Saudi Arabia Singapore United Kingdom

Notes: Summary table of the results obtained in Table 28, Table 29 and Table 30 for the interactive variable CFH*GAIN in the Current, t+1, and t+2 horizons in terms of positive or negative signs.

4.2.2 Robustness Test for Cash Flow Hedges and Stock Returns Excluding Japan

Since Japan has the largest representation with approximately 34% of the total sample, the robustness test excluded it to see if the results were affected by its presence. The results still presented the same signs and significance, but the coefficients for the Cash Flow Hedge variable and stock returns were higher for the three horizons due to its exclusion, because Japan had lower coefficients in the individual tests.

Table 33 - Multivariate Regression of Stock Returns for Three Horizons and Cash Flow Hedges excluding Japan

VARIABLES	Ret _{current}	Ret _{t+1}	Ret _{t+2}
CFH_MKT	-0.020 (0.046)	0.145* (0.082)	0.298*** (0.109)
NI	0.491*** (0.039)	0.994*** (0.064)	1.222*** (0.075)
ΔNI	0.214*** (0.033)	0.007 (0.046)	-0.282*** (0.048)
Constant	0.054 (0.073)	0.553*** (0.130)	1.767*** (0.225)
Industry F.E.	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
Country F.E.	Yes	Yes	Yes
Adjusted R ²	0,357	0,345	0,281
Observations	10,073	9,855	9,589
Number of ids	1,796	1,760	1,709

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 3). The sample includes all of the countries except Japan. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year $t-1$. R (Returns) current consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year t . Ret_{t+1} consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year $t+1$. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year $t+2$. Net income in year t scaled by the market value of equity at the end of year $t-1$. ΔNI is the difference between the NI variable in years $t-1$ and t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year $t-1$. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 34 - Multivariate Regression of Stock Returns for Three Horizons and the Cash Flow Hedges Using Gain and Loss Subsamples excluding Japan

VARIABLES	Losses			Gain		
	Ret _{current}	Ret _{t+1}	Ret _{t+2}	Ret _{current}	Ret _{t+1}	Ret _{t+2}
CFH_MKT	-0.090*	0.209**	0.589***	0.328**	-0.003	-0.770**
	(0.051)	(0.085)	(0.123)	(0.152)	(0.260)	(0.365)
NI	0.494***	0.972***	1.254***	0.503***	1.016***	1.234***
	(0.049)	(0.077)	(0.093)	(0.063)	(0.092)	(0.106)
ΔNI	0.185***	0.023	-0.319***	0.251***	0.016	-0.232***
	(0.040)	(0.052)	(0.059)	(0.053)	(0.076)	(0.082)
Constant	-0.330***	-0.091	1.012***	0.113	0.941***	2.521***
	(0.087)	(0.146)	(0.270)	(0.088)	(0.185)	(0.651)
Industry F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.376	0.338	0.282	0.343	0.365	0.294
Observations	6,178	6,043	5,878	3,895	3,812	3,711
Number of ids	1,587	1,553	1,501	1,335	1,307	1,274

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 3). The sample includes all of the countries except Japan and is divided into Gain and Losses, Gains occur when CFH is greater than or equal to 0 e Losses occur when CFH is less than 0. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year $t-1$. R (Return) current consists of the annual buy and hold returns for each firm using the value for the third month after year $t-1$ until the third month after year t . Ret_{t+1} consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year $t+1$. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year $t-1$ until the third month after year $t+2$. GAIN is a dummy variable equal to 1 when CFH is greater than or equal to 0, and 0 otherwise. CFH*GAIN is the multiplicative variable between CFH_MKT and the GAIN dummy. Net income in year t is scaled by the market value of equity at the end of year $t-1$. ΔNI is the difference between NI variable in years $t-1$ and t ($NI_t - NI_{t-1}$) scaled by the market value of equity at the end of year $t-1$. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

Table 35 - Multivariate Regression of Stock Returns for Three Horizons and Cash Flow Hedges Using Gain and Neutral Subsamples excluding Japan

$$R_{i,t+k} = \alpha_0 + \beta_1 CFH_MKT_{it} + \beta_2 NI_{i,t} + \beta_3 \Delta NI_{i,t} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (3)$$

VARIABLES	Zero			Gain		
	Ret _{current}	Ret _{t+1}	Ret _{t+2}	Ret _{current}	Ret _{t+1}	Ret _{t+2}
CFH_MKT				0.414*** (0.156)	-0.039 (0.267)	-0.778** (0.388)
NI	0.544*** (0.146)	0.917*** (0.212)	1.018*** (0.273)	0.495*** (0.069)	1.017*** (0.090)	1.255*** (0.110)
ΔNI	0.323** (0.133)	0.125 (0.200)	-0.085 (0.229)	0.227*** (0.059)	-0.008 (0.078)	-0.274*** (0.083)
Constant	0.377*** (0.115)	0.743** (0.336)	2.770*** (0.925)	0.115 (0.127)	0.881*** (0.135)	1.917*** (0.467)
Industry F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.342	0.380	0.327	0.360	0.377	0.295
Observations	694	675	658	3,201	3,137	3,053
Number of id	503	490	475	1,169	1,148	1,119

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 3). The sample includes all of the countries except Japan and is divided into Gains and Neutral Results. Gains occur when CFH is greater than 0 and Neutral Results occur when CFH is exactly equal to 0. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t-1. R (Returns) current consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+2. GAIN is a dummy variable equal to 1 when CFH is greater than or equal to 0, and 0 otherwise. CFH*GAIN is the multiplicative variable between CFH_MKT and the GAIN dummy. Net income in year t is scaled by the market value of equity at the end of year t-1. ΔNI is the difference between the NI variable in years t-1 and t (NI_t - NI_{t-1}) scaled by the market value of equity at the end of year t-1. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

4.2.3 Cash Flow Hedges, Stock Returns, and Legal Regimes

Table 36 shows the division of the sample among legal regimes. The mixed law regime has the largest participation, mainly due to its presence in Japan. Muslim law presents the smallest sample, due to its being associated only with Saudi Arabia.

Table 36 - Frequency of Legal Regimes

Legal Regime	Freq.	Percent	Cum.
Civil Law	3,705	24.03	24.03
Common Law	3,115	20.20	44.23
Mixed Law	8,552	55.46	99.68
Muslim Law	49	0.32	100.00
Total	15,421	100.00	

Note: JuriGlobe (n.d).

As discussed above, the present study, as identified in Hypotheses 2 and 2a, seeks to identify whether the effect of the legal regime affects factors such as the level of transparency and timeliness and market development itself. In the equation, it seeks to identify the significance of the interaction between the CFH and Common Law variables.

As can be seen in Table 37, the results obtained for the CFH_MKT variable are similar to the identified results, even when the Legal Regime is included in the equation. However, the coefficient for this interaction effect did not have statistical significance. In addition, the test was also performed excluding Japan in Table 38, which could have affected the results, but even so, the variables still do not present statistical significance. From the tests carried out for Hypothesis 2, in which the effects by country were identified, it was possible to initially notice a relationship of significance that did not have an effect linked to these countries. The Legal Regime variable in previous studies has indicated differences between countries, but for this purpose, it was not captured due to other possible linked factors such as competitiveness or exposure to market factors that are not captured in Equation 5.

As a suggestion, a future study using some of these countries and some other factors could possibly better capture this relationship and identify the determinants linked to countries that have a direct relationship with this problem.

Table 37 - Multivariate Regression of Stock Returns for Three Horizons, Cash Flow Hedges, and Common Law Legal Regimes

$$R_{i,t+k} = \alpha_0 + \beta_1 CFH_MKT_{it} + \beta_2 CFH_MKT_{it} * Common_Law + \beta_3 NI_{i,t} + \beta_4 \Delta NI_{it} + \sum_j^n \beta_j Legal_Regime + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{i,t} \quad (5)$$

VARIABLES		Ret _{current}			Ret _{t+1}			Ret _{t+2}	
CFH_MKT	-0.011 (0.053)	-0.080 (0.051)	-0.064 (0.050)	0.293*** (0.095)	0.132 (0.091)	0.149 (0.092)	0.474*** (0.126)	0.292*** (0.112)	0.313*** (0.112)
CFH*Common	-0.140 (0.130)	0.035 (0.112)	0.023 (0.111)	0.002 (0.170)	0.043 (0.160)	0.0269 (0.160)	0.040 (0.289)	-0.114 (0.249)	-0.127 (0.246)
NI	0.547*** (0.034)	0.572*** (0.033)	0.573*** (0.033)	1.133*** (0.052)	1.100*** (0.053)	1.102*** (0.053)	1.414*** (0.066)	1.312*** (0.060)	1.310*** (0.061)
ΔNI	0.312*** (0.031)	0.223*** (0.028)	0.222*** (0.028)	0.161*** (0.041)	0.018 (0.038)	0.016 (0.038)	-0.352*** (0.043)	-0.317*** (0.039)	-0.316*** (0.039)
Common Law	-0.000 (0.009)	0.008 (0.009)	0.171*** (0.012)	0.006 (0.019)	0.012 (0.018)	0.145*** (0.027)	0.038 (0.029)	0.026 (0.028)	0.135*** (0.040)
Mixed Law	0.001 (0.007)	-0.026*** (0.007)	0.118*** (0.022)	-0.010 (0.015)	-0.037** (0.015)	0.039 (0.046)	-0.045** (0.022)	-0.027 (0.022)	0.014 (0.071)
Muslim Law	-0.021 (0.065)	-0.032 (0.059)	0.130** (0.059)	-0.119** (0.059)	-0.121* (0.067)	0.016 (0.066)	-0.223*** (0.078)	-0.175** (0.074)	-0.046 (0.074)
Constant	0.057*** (0.007)	0.193*** (0.061)	0.023 (0.063)	0.124*** (0.013)	0.591*** (0.123)	0.472*** (0.121)	0.204*** (0.019)	1.785*** (0.214)	1.723*** (0.211)
Adjusted R ²	0.096	0.289	0.295	0.092	0.266	0.278	0.069	0.232	0.250
Industry F.E.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Year F.E.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Country F.E.	No	No	Yes	No	No	Yes	No	No	Yes
Observations	15,421	15,421	15,421	15,159	15,159	15,159	14,821	14,821	14,821
Number of ids	2,749	2,749	2,749	2,705	2,705	2,705	2,635	2,635	2,635

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 5). The sample includes all of the countries. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t-1. R (Returns) current consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+2. Net income in year t is scaled by the market value of equity at the end of year t-1. ΔNI is the difference between the NI variable in years t-1 and t (NI_t - NI_{t-1}) scaled by the market value of equity at the end of year t-1. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5% and 1%, respectively. The robust standard errors appear in parentheses.

Table 38 – Multivariate Regression of Stock Returns for Three Horizons, Cash Flow Hedges, and Common Law Legal Regimes excluding Japan

$$R_{i,t+k} = \alpha_0 + \beta_1 CFH_MKT_{it} + \beta_2 CFH_MKT_{it} * Common_Law + \beta_3 NI_{i,t} + \beta_4 \Delta NI_{it} + \sum_j^n \beta_j LegalRegime_{it} + \sum_j^n \beta_j Industry + \sum_j^n \beta_j Year + \sum_j^n \beta_j Country + \varepsilon_{it}(5)$$

VARIABLES	Ret _{current}				Ret _{t+1}			Ret _{t+2}	
	CFH_MKT	-0.020 (0.061)	-0.039 (0.054)	-0.027 (0.053)	0.377*** (0.101)	0.142 (0.099)	0.155 (0.099)	0.522*** (0.139)	0.330*** (0.125)
CFH*Common_Law	-0.134 (0.134)	0.041 (0.102)	0.030 (0.101)	-0.104 (0.170)	-0.027 (0.161)	-0.041 (0.161)	-0.017 (0.285)	-0.187 (0.248)	-0.195 (0.245)
NI	0.574*** (0.043)	0.487*** (0.038)	0.491*** (0.039)	1.028*** (0.062)	0.988*** (0.063)	0.994*** (0.064)	1.288*** (0.079)	1.219*** (0.074)	1.221*** (0.075)
ΔNI	0.258*** (0.038)	0.219*** (0.033)	0.214*** (0.033)	0.186*** (0.051)	0.013 (0.046)	0.008 (0.046)	-0.298*** (0.054)	-0.279*** (0.048)	-0.281*** (0.049)
Common Law	0.000 (0.009)	-0.005 (0.009)	0.140*** (0.014)	0.000 (0.018)	-0.005 (0.018)	0.106*** (0.030)	0.034 (0.028)	0.010 (0.028)	0.157*** (0.046)
Mixed Law	-0.007 (0.010)	-0.010 (0.009)	0.091*** (0.022)	0.013 (0.019)	-0.005 (0.020)	0.004 (0.046)	0.028 (0.030)	0.027 (0.030)	0.030 (0.073)
Muslim Law	-0.020 (0.065)	-0.049 (0.063)	0.100 (0.063)	-0.136** (0.059)	-0.141* (0.074)	-0.019 (0.074)	-0.232*** (0.080)	-0.183** (0.074)	-0.016 (0.077)
Constant	0.055*** (0.007)	0.189*** (0.070)	0.054 (0.073)	0.137*** (0.013)	0.624*** (0.132)	0.553*** (0.130)	0.216*** (0.019)	1.823*** (0.229)	1.766*** (0.225)
Adjusted R ²	0.091	0.350	0.357	0.084	0.332	0.345	0.061	0.260	0.281
Industry F.E.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Year F.E.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Country F.E.	No	No	Yes	No	No	Yes	No	No	Yes
Observations	10,073	10,073	10,073	9,855	9,855	9,855	9,589	9,589	9,589
Number of ids	1,796	1,796	1,796	1,760	1,760	1,760	1,709	1,709	1,709

Notes: This table presents panel data for a multivariate regression of stock returns and unrealized cash flow hedge gains or losses in year t (Equation 5). The sample include all of the countries except Japan. CFH_MKT is a cash flow hedge divided by the corporate income tax rate of each country according to OECD Statistics to account for taxes scaled by total assets in year t-1. R (Return) current consists of the annual buy and hold returns for each firm using the value of third month after year t-1 until the third month after year t. Ret_{t+1} consists of the annual buy and hold returns for each firm using the value in the third month after year t-1 until the third month after year t+1. Ret_{t+2} consists of the annual buy and hold returns for each firm using the value of the third month after year t-1 until the third month after year t+2. GAIN is a dummy variable equal to 1 when CFH is greater than or equal to 0, and 0 otherwise. CFH*GAIN is the multiplicative variable between CFH_MKT and the GAIN dummy. Net income in year t is scaled by the market value of equity at the end of year t-1. ΔNI is the difference between the NI variable in years t-1 and t (NI_t – NI_{t-1}) scaled by the market value of equity at the end of year t-1. All of the variables are winsorized at 1 per cent and 99 per cent to avoid the influence of outliers on statistical inference. Industry fixed effects are based on the TRBC 10-industry classifications. The t-statistics presented in parentheses are calculated using White's (1980) standard errors clustered by firm to control for both heteroscedasticity and serial correlation. *, **, and *** indicate statistical significance at levels of 10%, 5%, and 1%, respectively. The robust standard errors appear in parentheses.

5 FINAL REMARKS

The current body of evidence from various countries has led to discussions of the value relevance of elements of comprehensive income, one of them being cash flow hedges and the effects of hedge accounting on results and investors. This study contributes to this research by presenting panel data for a sample of more than 2,000 non-financial companies from 44 countries from 2005 to 2017 under IAS 39. It examines whether unrealized gains and losses on cash flow hedges predict changes in firm profitability in different accounting contexts present in countries around the world. It also contributes to this discussion by focusing on whether investors immediately price information on cash flow hedges.

Overall, the findings reflect a negative association between cash flow hedges and future profitability, corroborating previous studies (Campbell, 2015; Makar et al., 2013; Campbell et al., 2020). However, many countries present mixed results in terms of this relationship, with frequent cases of no significant results or positive associations. These results are interesting and indicate that more specific information about markets could help us understand other factors that could affect this relationship. I believe, as Campbell does (2015), that factors like market power could have an impact, however given that these countries are very heterogeneous, factors like their exposure to different risks could influence how companies change their margins.

Part of the results indicated the expected negative relationship between the cash flow hedges and future profitability, i.e., with the expiration of a cash flow hedge, the company's margins suffer an opposite pressure in relation to the historical accumulated value. Although this impact does not happen in all countries in the sample. It could be interesting to look for more determinant factors and variables that could represent and help to explain this relationship.

In terms of Hypothesis Two, the findings indicate that cash flow hedges affect future stock returns after they expire, however, gains and losses have different impacts on future stock returns. Gains present a negative relationship with future stock returns two years in the future, and losses present a positive relationship. An insignificant relationship has also been previously mapped in the literature in studies that did not identify the value relevance of cash flow hedge information for stock prices or returns.

Finally, I did not find significant results related to legal regime moderating the relationship between cash flow hedges and stock returns. I believe that other more specific proxies could possibly better capture this relationship and identify the determinants linked to the countries that have a direct relationship in this problem.

It is important to note that these results should be interpreted with caution. These associations do not signify causality of the studied variables, moreover, the rejection of the null hypothesis of no significance cannot be interpreted as the impact of expiring cash flow hedges being the same for all companies and it may not necessarily affect some companies. Future research can use more specific proxies and especially subsamples to provide a more detailed investigation of the behavior of different markets.

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