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Impact of International Financial Reporting Standards on Cost of equity Capital for Asian countries

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Abstract

The present study examines whether adoption of IFRS reduces Cost of equity Capital for firms in Asia. The sample consists of firms from four Asian Countries, namely China, Hong Kong, Israel and Philippines, where IFRS has been made mandatory. Data for six years covering the period from 2006-2011 has been taken for analysis. Different types of panel data estimates were used and compared so as to interpret the results with the best suited parameters for different data sets for different countries. The results vary for different countries. The firms in Hong Kong and Philippines get benefit from the reduction in their cost of equity capital after adopting IFRS, but for firms in China and Israel cost of equity capital increased. It is also evident from the study that other firm specific control variables have no impact on cost of equity capital. The study contributes to the understanding of economic consequences of adopting IFRS across Asian countries. The findings would be important not only to countries that have already adopted IFRS, but also to countries that are in the process of adopting the standard. The outcomes will have important implications for the regulators, practitioners, academicians and auditors, as well as end-users of financial statements.

Keywords: IFRS, Cost of equity capital, Panel data, disclosure, information asymmetry, Asian countries

1. Introduction[1]

The present paper is mainly motivated by the evolution of financial reporting standards over the years. The development of a new standard called International Financial reporting standards (IFRS), replacing the already existing National GAAPs in different nations have encouraged the present study to test its implications on the capital market in terms of reducing the cost of equity capital.IFRS has been accepted in many parts of the world. At present more than 140 nations have either permit or require IFRS for publicly listed companies. Almost all the European countries have adopted IFRS on or after 1 January 2005. Australia, New Zealand and Israel have adopted IFRS as their national standards. Brazil started using IFRS in 2010. Canada adopted IFRS by 2011.Mexico has adopted IFRS for all the listed companies from 2012.China[2]has converged its accounting standards with IFRS from 2007Hong Kong[3] and Philippines[4] have adopted national standards that are equivalent to IFRS from 2005.Beginning in 2008, most Israeli[5] public companies were required to adopt IFRS.Other major Asian countries have recently started the transition or are in the process of making it mandatory in near future as indicated by the years: Thailand 2013, South Korea 2012, Malaysia 2012, Indonesia 2012, Japan 2015, India 2015 (IFRS adoption by country; PwC).

Several authors have observed the consequences of adopting IFRS; they substantiate that reports under IFRS are of higher quality as compared to the reports prepared under National GAAPs in various countries. These studies provide evidence that market liquidity and trading volume increases subsequent to adopting IFRS (Leuz &Verrecchia, 2000) Accounting quality increases due to less chances of earning management in the financial statements (Bartov, Goldberg, & Kim, 2005), More foreign mutual funds investments are attracted (Covrig, Defond, & Hung, 2007), Efficiency increases in the form of debt contracting (Kim & Shi, 2012c) and also forecasting errors are reduced by the financial analysts (Ashbaugh & Pincus, 2001). Further IFRS adoption leads to more cross-border comparability, transparency, decreases in the cost of collecting information, increase in competition and efficiency in the capital market by reducing the information asymmetry (Ball, 2006; Choi & Levich, 1991). The present paper contributes to this stream of literature by focusing on the Impact of IFRS adoption on Cost of equity in the selected Asian* countries. Most of the available literature relating IFRS and Cost of equity capital has findings and implications with reference to European countries as European countries adopted IFRS by the year 2005.But Asian countries have started adopting IFRS only after 2005. Hence studies pertaining to Asian countries are limited. This motivates us to study the impact of IFRS on Cost of equity capital for Asian countries. While earlier research on 'voluntary' adopters has provided valuable insights of the impact of IFRS disclosure, these results cannot be generalised in a mandatory setting (Horton &Serafeim, 2012).

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*Asian countries in the paper represent –China, Hong Kong, Israel & Philippines

[1] Information for this section has been retrieved from (http://www.ifrs.com/pdf/IFRSUpdate_V8.pdf)

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We expect effects from IFRS mandatory adoption to be different from those documented for voluntary IFRS adopters (Asbaugh & Pincus, 2001), since the former group is essentially forced to adopt IFRS, but the latter adopts it voluntarily. The effects from voluntary IFRS adoption are likely to reflect differences in the incentives for credible reporting, the circumstances that led to the adoption of IFRS in the first place, and the entire commitment strategy to transparency. Along with voluntary IFRS adoption, firms may also be seeking to cross-list in a stricter regime, to improve corporate governance, change ownership structures, or to raise additional capital. Thus, the effects of voluntary IFRS adoptions are likely to be larger but cannot be attributed to IFRS alone (Leuz & Verrecchia, 2000). Hence the main focus of our study is to determine the effects of mandatory IFRS adoption in some Asian countries. The mandatory adopters under study are from China, Hong Kong, Philippines and Israel, since in other Asian countries IFRS is yet to be mandated. The present study will try to determine if after adoption of IFRS, firms in these Asian countries benefit from a lower cost of equity capital as compared to the period when they were following National GAAP.

2. Literature Review

After the increased disclosure there will be a decrease cost of equity capital due to the reduction in information asymmetry that presently exists between the firms and investors.(Ly, 2010)have tried to explain this phenomenon by proposing three types of theories in their paper. The first theory says that investor's belief of the expected returns from the securities mainly rely on the available information provided by the companies. Estimation risk is higher for those companies that disclose less information as compared to those that disclose more information .Thus as a compensation for this high estimation risk, investors seek higher returns which eventually lead to higher cost of equity capital. The second theory points out that transaction cost increases with the information asymmetry. Investor's rejection for stocks with high transaction costs leads to low market liquidity. Now the companies are expected to provide discounts to investors for keeping these stocks in their portfolio which increases cost of equity capital. Hence more financial disclosure leads to less cost of equity by reducing transaction cost. Further information intermediation increases by more disclosure which in turn reduces cost of equity capital.Various empirical researches have tested these theoretical assumptions by using various proxies.After the introduction of IFRS in the financial statements, cost of equity capital decreases as supported by various empirical studies. Impact of mandatory adoption of IFRS on cost of capital is different for different firms in UK with different characteristics.(H. Christensen et al., 2008).Just before the date of announcement of the mandatory adoption of IFRS, there is a decrease in cost of equity capital expecting the economic consequences in the capital market,but later the cost increases after adoption actually happens(Dasgupta, Gan, & Gao, 2010). Further the study finds the effects are more apparent for firms that are voluntary adopters. After comparing the firms in a particular period, it was found that firms who adopted IFRS have lower cost of equity capital as compared to firms which have not(Hail & Leuz, 2006). Mandatory adoption of IFRS lowers the level of cost of equity capital for Dutch listed companies (Prather-Kinsey, Jermakowicz, & Vongphanith, 2008).The study of(Li, 2010)shows that mandatory adoption of IFRS significantly reduces the cost of equity capital and the effects highly depend on the legal coercion system.(Gao, 2010)says this relation holds only in certain circumstances. According to this study if there is perfect competition between the investors in the economy, the cost of equity capital will increase with the quality of disclosure when the new investments are perfectly elastic in nature.The list of studies on IFRS and cost of equity capital is presented in Table 1 in Appendix.

2.1Cost of Equity Capital Measures

Cost of equity capital is the required rate of return by investors for their investments in equity capital. It can be measured either directly or using proxies. Direct measures of calculating cost of equity capital is unable to calculate asymmetry of information, hence alternative proxies are used like trading volume, share price volatility (Leuz & Verrecchia, 2000). The Capital Asset Pricing Model (CAPM) is a widely used model to measure the cost of equity capital with the following formulae-

$$\text{CAPM: } R_e = R_f + \beta_e \text{ x } [E(R_m) - R_f].$$

The cost of equity capital depends on the risk free rate plus the equity sensitivity to market risk times the expected market return on equity minus the expected risk- free rate of return. On the other hand its shortcomings have been cited by various authors. The explanatory power of CAPM is fairly low(Hail & Leuz, 2006, p. 7). CAPM is not able to eliminate the information asymmetry between investors and the firms, which is considered to be the main component for measuring the estimation risk i.e. the investors' ability to measure future cash flows of a firm accurately (Lambert, Leuz, & Verrecchia, 2007). Beta in the CAPM model ignores investors' estimation risk and in contrast only incurs market-wide risk (Lambert et al., 2007)It was again confirmed that no harmony exists "in the literature regarding the ability to diversifiable or lack of estimation risk(Botosan & Plumlee, 2002).As our research objective tries to capture both firm specific as well as market risk, the CAPM model has not been used to calculate the cost of equity capital.

There are various models available to measure the cost of equity capital directly such as residual income valuation model(Ohlson, 1995)abnormal earnings growth valuation model (Ohlson & Juettner-Nauroth, 2005)and dividend discount model(M. J. Gordon & Shapiro, 1956).(Li, 2010)measured the implied cost of equity by taking the mean of the cost of equity measures of the restricted abnormal earnings model (rPEG), the industry ROE model (rGM), the economic wide growth model (rCT) and the unrestricted abnormal earnings growth model (rGLS)[6]. The Price Earnings Growth (PEG) ratio model is developed by (Easton, 2004) and is "the price-earnings (PE) ratio divided by the short-term earnings growth rate". Li motivated her choice to use the mean of these models to deal with substantial measurement error and potential bias in implied cost of capital estimates by the use of a single model.Similar along with (Daske et al., 2008; Hail & Leuz, 2006; Li, 2010) measured the implied cost of equity capital using the earlier defined four proxies. (Botosan & Plumlee, 2002) have criticised the above method suggesting that averaging cost of equity capital measures could mitigate unexpected returns due to firm-specific news, but not due to market-wide risks and hence discouraged its use. (P. O. Christensen et al., 2010; Li, 2010)measured the effect of mandatory IFRS adoption on the cost of equity capital by the model of (Ohlson & Juettner-Nauroth, 2005) and the rPEG of(Easton, 2004). They stated that, since no clean-surplus assumptions are required in the use of abnormal earnings growth valuation, these models are more suitable than the residual income valuation models. Clean-surplus accounting restrains the principle that all gains and losses, which are not related to transactions with shareholder equity – such as dividend payments and stock repurchases, are recorded in the profit and loss statement. According to (Easton, 2004), the clean-surplus assumption could not hold in practice, stating that this principle does not hold a total equity basis if investors buy shares

[6]See for rPEG: Easton [2004], rGM: Ohlson and Juettner-Nauroth [2005], rCT: Claus and Thomas [2001] and rGLS: Gebhardt, Lee, and Swaminathan [2001].

as a "positive net present value project" and in addition "many accounting rules violate the assumption". (Easton, 2004)stated that the model could be used to determine "the effects of various factors on the cost of equity capital", which is in compliance with the aim the current research. This model is applied in researches, both singly as well as combined with other proxy models-as in(H. B. Christensen, 2012; Daske et al., 2008; Hail & Leuz, 2006; Kim & Shi, 2012a; Li, 2010)used this model to study the effect of IFRS adoption on the cost of equity capital. (Hail & Leuz, 2006)opine that in case of alternative cost of equity capital "estimates from different methods are highly correlated with each other and are similar within a reasonable range". According to Hail and Leuz, estimates of the implied cost of equity capital based on abnormal earnings growth valuation models, including the rPEG, are "less likely to be affected by accounting differences than those from models using book values". (Francis, Khurana, & Pereira, 2005)referred to streams of researches that took one or a group of proxies to measure the implied cost of equity capital and stated that those estimates "are fairly similar, within reasonable ranges and are positively correlated". (Francis et al., 2005)followed this way of reasoning and used the PEG-model to measure the cost of equity capital. They provided the argument that this model "has less onerous data requirements, and only requires data on price and earnings growth to calculate the cost of equity capital". Further the choice of the accounting standards do not influence the variables used in the PEG-model. Hence PEG –model has been used to measure the cost of equity capital in this study.The PEG-model itself has some specific shortcomings-(Easton, 2004)stated two assumptions which should be made when applying this model to measure the implied cost of equity capital. One of the assumptions concerns the variables of the equation; the forecasted earnings per share for the second year should be higher compared with the forecasted earnings per share for the first year. This assumption is to prevent a negative input that would cause impossibility to resolve the equation giving the cost of equity capital. Another assumption necessary in the use of PEG-model is a constant growth in the accounting earnings, in addition guarding against a possible equation error. The model implicitly assumes, "that the short-run growth forecast also captures the long-run future".

After going through the literature review on the IFRS related studies and studies relating IFRS and Cost of equity Capital the following research gaps were identified. Number of studies on the influence of IFRS on cost of equity for capital market of various European countries exists but capital for Asian countries, the studiesare not limited. Not a single study is available which has traced the industry wise impact of IFRS on cost of equity within a single country and supported the reasons behind it. Most of the previous studies are only based on firms who have adopted IFRS voluntarily which cannot be generalizable to countries where adoption of IFRS has been made mandatory.

3. Research Methodology

The objective of the study is to determine the impact of IFRS on Cost of equity Capital in Asian Countries. The study would try to determine If IFRS adoption by a Country in Asia reduce the cost of equity Capital. To meet the above objectives the following research question has been framed.

RQ1 Does IFRS adoption reduces the cost of equity capital for listed firms in Asian countries?

To answer the research question the following hypothesis has been developedand tested-

H: IFRS adopters in Asian countries experienced a significant reduction in their cost of equity capital after the adoption of IFRS as compared to the period before the adoption

The initial sample consists of all active firms that are included in the databases: *DataStream, Worldscope & IBES* from 2002-2011.*Worldscope* has a data field *07536* that describes accounting standards followed by a specific firm. *Worldscope* identifies 23 different accounting standards adopted by firms, including local standards (*07536 = 01*), International Accounting Standards (IAS: *07536 = 02*), IFRS (*07536 =23*) and other hybrid accounting standards that partially adopt international standards (*07536 = 06, 08, 12, 16, 18,* and *19*). The present study sample has only those companies with code 07536=23 i.e. full IFRS adopters. All financial statement data, including a firm's adoption of particular accounting standards, are extracted from *Worldscope*. As the main focus of our study is to determine the effects of the mandatory IFRS adoption, firms that voluntarily adopted IFRS were deleted. Mandatory IFRS includes firms that adopted IFRS when their country mandated IFRS reporting. The mandatory adopters chosen for the study come from China, Hong Kong, Philippines and Israel which adopted IFRS between 2005 and 2009. Other major Asian countries such as India, Japan, Malasyia, Singapore, South Korea etc are not included because they were yet to make IFRS mandatory from either 2012 or later, i.e. 2015. Future studies can include these countries after they make IFRS mandatory. We also excluded firms in regulated industries such as financial firms, because equity values of regulated firms are expected to respond similarly to changes in underlying regulations and economic conditions (Piotroski & Roulstone 2004).

The study is restricted to a comparative analysis for 3 years before adoption of IFRS and 3 years after adoption of IFRS till the year 2011 so as to capture the real impact of IFRS on Cost of equity capital on a recent time period. For this we selected those firms which started adopting IFRS from the year 2009. Our study period now consists of six years, i.e. (2006-2008: Before IFRS adoption) and (2009-2011: after IFRS adoption). The year 2009 was chosen because it covered the adoption of IFRS in the four Asian countries; it also maximised the availability of financial data and has the advantage of not being influenced by the Global Financial Crisis of 2008. After putting these selection filters, four countries i.e. China (2007), Hon Kong (2005), Israel (2007), and Philippines (2005) were left where IFRS adoption has been made mandatory with 563 IFRS adopting firms over the 2006-2011 periods.

To examine the relation between Cost of equity capital and the adoption of IFRS, the following model is taken as represented by equation (1) as below-

$$COEC = \alpha_{0+} \beta_0 ADIFRS + \beta_2 FSALE + \beta_3 CL + \beta_4 LOGTA + \beta_5 RETV +$$

$$\beta_6 LEVG + \beta_7 Industry + Ɛ \quad (1)$$

Where,

COEC= thecost of equity capital.

ADIFRS = A dummy variable for adoption of IFRS, taken as 1 if a firm Adopt IFRS else taken as 0.

LOGTA = Log (Total assets),Used as a Proxy for firm size

RETV =Return variability, Calculated by taking the standard deviation of monthly stock returns for a year.

LEV = Leverageratio (Total Liabilities /Total Assets)

FSALE = Percentage of Foreign Sale

CL = Listing of a firm in Foreign stock exchange

Industry = Type of Industry the firm belongs to

All variables in model represented by equation (1) are discussed in more detail below. The dependent variable cost of equity capital is the required return rate by investors for their investments in equity capital where COEC is calculated by PEG model as proposed by Easton(2004)

$$COEC_{PEG} = \sqrt{\frac{EPS_2 - EPS_1}{P_0}} \quad (2)$$

Where Easton (2004) defined:

EPS_2=Expected accounting earnings for period t=2

EPS_1= Expected accounting earnings for period t = 1

P_0 = Current year price.

The PEG-ratio is a special case of (Ohlson & Juettner-Nauroth, 2005)model.Two important assumptions underlying the Easton formula are: (1) There is no change in abnormal earnings beyond the forecast horizon; and (2) There are no dividend payments prior to the earnings forecasts.Forecasts of earnings and forecasts of short-run earnings growth are readily available as a practical matter. The Institutional Brokers' Estimate System (I/B/E/S) provides forecasts of earnings for the current year, for the next year, and for the short-run future. Present study have taken data from I/B/E/S forecasts of earnings two years ahead as a proxy for $EPS_2$and I/B/E/S forecast of earnings one year ahead as a proxy for EPS_1.The Dummy Variable ADIFRS is introduced for adoption of IFRS for the study period 2006-2011.Log (Total Assets) reflects the firm size. Previous researches like(P. O. Christensen et al., 2010; Daske, 2006; Hail & Leuz, 2006; Kim & Shi, 2012b; Li, 2010)have control for firm size. They argue that large size firms have lower level of the cost of equity capital because investors of larger companies demand lower returns resulting in a lower level of cost. The data concerning the assets is gathered from the World Scope database and consequently modified by the log function. LEV reflecting the financial leverage of a company (total liabilities /total assets) is also used as a control variable. Low leverage companies have low cost of equity (Kim & Shi, 2012b; Li, 2010)because of higher return demand by investors for more levered companies. Return variability is another variable that is taken for the model.There is a higher demand for return by investors if there is less certainty of return (Daske, 2006; Hail & Leuz, 2006; Li, 2010). Type of Industry a firm belongs to is used as a control variable to control the differences in impact of IFRS adoption across industries.

4 . Data Analysis and Discussions

To determine the impact of IFRS adoption on cost of equity capital for listed firms in Asian countires, the above proposed hypothesis are being tested by using statistical tools such as descriptive, correlations and panel data analysis which are discussed below in detail.

4.1. Descriptive Statistics

Descriptive statistics are presented in Table 2-5 in Appendix for China, Hong-Kong, Israel and Philippines.For countries China and Israel thedependent variable in the modelCOEC (Cost of Equity) exhibits a feeble increasing pattern in the years 2009-2011 with a mean value of (0.1886-China &0.430679-Israel) when mandatory IFRS adoption became effective

as compared with a value of (0.1874-China &0.334838 –Israel) in the years 2006-2008 when firms were reporting under National GAAP. For Hong Kong and Philippines the dependent variable in the model, COEC (Cost of Equity) exhibits a decreasing pattern in the years 2009-2011 with a mean value of (0.297154-Hong Kong & 0.3832636 –Philippines) as compared with a value of (0.367781-Hong Kong & 0.539801-Philippines) in the year 2006-2008. Along with COEC, other variables like log (Total Assets), Percentage of Foreign Sales, Total Debt to total Assets and Return Variability also has regular patterns over time. Hence these variables are also controlled.

4.2. Correlations

Table 6-9 in Appendix represent results for Pearson pair wise correlations among the variables for different countries.The correlation between the dependent variable COEC and ADIFRS is slightly positive (0.0032) for China suggesting that there is a slight increase in cost after adopting IFRS but this relationship is not so significant. As expected the correlation between foreign sale, CL and LOGTA are positively correlated with Cost of Equity, whereas Return variability is negatively correlated with the cost. The correlation between leverage and cost of equity is found to be positive and significant which shows highly levered firms experience more cost of equity.For Hong Kong the correlation between the dependent variable COEC and ADIFRS is negative as expected suggesting that that there is a decrease in cost of equity after adopting IFRS and the relationship is significant with p (0.0015). COEC is negatively correlated with a value of -0.1371 and also statistically significant with p(0.0338)with firm size(log(Total Assets) by which it can be inferred that large size firms mostly get the benefit in terms of cost reduction after adopting IFRS.The correlation between the dependent variable COEC and ADIFRS is positive for Israel suggesting that that there will be an increase in cost of equity after adopting IFRS. Though the dependent variable is found to be negatively related with FSALE, RETV, and CL and positively related with industry, firm size and leverage, the correlations are not found to be significant. For Philippines the correlation between the dependent variable COEC and ADIFRS is negatively correlated suggesting that that there is a decrease in cost of equity after adopting IFRS .The dependent variable is found to be negatively related with leverage and CL are negatively correlated. Cost of equity is positively correlated with the firm size.Below panel data analysis has been done to segregate the effect of IFRS adoption on the cost of equity from the effect of other variables.

4.3 Panel Data Analysis

Considering the cross sectional time series effects of the dataset panel data is a more appropriate method compared to pooled ordinary least squares (OLS). We employ panel data analysis because the pooled OLS regression treats observations as being serially uncorrelated for a given firm, with homoscedastic errors across firms and time periods. Consequently, both panel data analysis and pooled OLS regression analysis results are reported, providing the opportunity to compare the differences under both the methods for all the countries. (Table10-Appendix) represents the panel data analysis by firm specific factors for China[7]. The combined results for Panel data analysis for the four countries are reported in Table 1 below. The p-values in parenthesis below each coefficient variable are the results of t-tests for individual parameters. Assuming no other factors impact the dependent variable, cost of equity for Chinese companies is expected to have a value of-0.1196123.

7 The detail Panel Data Analysis with all pooled regression, Fixed Effect and Random effect Model for other countries will be available when asked for. As we have finally analysed the data with Random effect model so we have compiled the results for Random effect model only for all countries in Table 1

Table 1. Impact of IFRS on Cost of Equity for Asian Countries -Panel data evidence on the firm specific factors

	CHINA	*HONG KONG*	*ISRAEL*	*PHILIPPINES*
CONSTANT	-0.1196 (0.5780)	0.9898235 (0.0030)	1.202504 (0.039)	-0.467743 (0.5343)
ADIFRS	0.00079 (0.97100)	-0.0497148** (0.0060)	0.1083908 (0.088)	-0.1897387** (0.0062)
LOGTA	0.02376 (0.3840)	-0.0012884 (0.2757)	-0.0022116 (0.4460)	-0.0055177 (0.4795)
LEVG	0.00187 (0.0670)	-0.0406832 (0.7462)	0.0383454 (0.857)	-0.227201 (0.7817)
FSALE	-0.00109 (0.3350)	-0.0685679 (0.1718)	-0.1915338 (0.074)	0.1573317 (0.2270)
RETV	-0.00079 (0.2080)	-0.0008422 (0.4384)	-0.0002684 (0.457)	0.0065681 (0.4280)
CL	0.08872 (0.2440)	-0.0021395 (0.3446)	-0.0000104 (0.192)	0.0018423 (0.6843)
F-test	21.24 (0.03238)	34.13 (0.0051)	23.85 (0.0326)	52.42 (0.0041)
R-Square	0.405	0.4037	0.5459	0.7157
Sigma_u θ	0.129138 0.409622	0.133332 0.113416	0.204185 0.157690	0.548446 0.220524
Hausman Test	4.14 (0.5301)	1.08 (0.9823)	8.94 (0.0625)	7.8 (0.1677
Breusch and Pagan Lagrangian multiplier tests	51.44 (0.001)	6.14 (0.0066)	12.46 (0.0002)	11.92 (0.0003)
Industry Dummies N	Included 3378	Included 3378	Included 3378	Included 3378

Note: Table Above places an asterisk (**) next to the coefficients only when the p-value is .05 or lower. The numbers in parenthesis below each coefficient variable are the p-values

It can be interpreted from the results that when IFRS was adopted by the Chinese firms in the period 2009-2011, holding all other variables constant, the cost of equity value increased by 0.0007729 units but is not significant at 0.05 with p value of .0.971.Moreover other variables such as firm size, percentage of foreign sale, return variability , leverage ratio and industry specific factors do not have any significant influence on cost of equity with all of them having p value greater than 0.05.Assuming no other factors impact the dependent variable, cost of equity for Hong Kong companies are expected to have a value of 0.9898235.We can interpret from the results that when IFRS was adopted by the Hong Kong firms in the period 2009-2011, holding all other variables constant, the cost of equity values get decreased by -0.0497148 units and is significant at 0.05 with p value of p (0.006). Moreover other variables such as firm size, percentage of foreign sale, Return variability , leverage ratio and industry specific factors are not having any significant influence on Cost of equity with all of them having p value greater than 0.05. Assuming no other factors impact the dependent variable i.e. Cost of equity for Israel companies are expected to have a value of 1.202504.We can interpret from the results that when IFRS was adopted by Israel firms in the period 2009-2011, holding all other variables constant, the cost of equity values increased by 0.1083908 units and is significant at 0.05 with p value of p (0.006). Moreover other variables such as percentage of foreign sale, Return variability, leverage ratio and industry specific factors are not having any significant influence on Cost of equity with all of them having p value greater than 0.05.Cost of equity for Philippines companies is expected to have a value of-0.4677438.When IFRS was adopted by firms in Philippines the period 2009-2011, holding all other variables constant, the cost of equity values got decreased by 0.1897387 units and is significant at 0.05 with p value of p (0.006). Moreover other variables such as percentage of foreign sale, Return variability, leverage ratio and industry specific factors do not have any significant influence on Cost of equity with all of them having p value greater than 0.05.

5. Summary & Conclusion

The present study examined the impact of adopting International Financial Reporting Standards on cost of equity Capital for Asian countries. A sixyears' time frame from 2006-2011 was taken and used a sample of 563 IFRS adopting firms in four Asian countries i.e. China, Hong Kong, Israel and Philippines. It was found that cost of equity capital got reduced for firms in Hong Kong and Philippines after adopting IFRS as compared to the period when they were reporting under their National GAAP. This supports the hypothesis of the study. But the study reports a different result of impact of IFRS on cost of equity capital for China and Israel .The cost of equity capital for these countries increased after the IFRS adoption period as compared to the years of adopting National GAAP. The hypothesis gets rejected for China and Israel. "A widely suggested explanation for these findings is that the effect of introducing new accounting standards depends on both the institutional features of the countries into which they are introduced and the incentives that the individual firms within those countries have for compliance"(Ball, 2006&Daske et al., 2008).A significant negative relation was found between the test variable i.e. ADIFRS and Cost of Equity which implies the significant role of adopting the new standard in Hong Kong and Philippines. Although there is a moderate increase in the cost of equity after Adoption of IFRS. ADIFRS is not able to explain significant relation with Cost of equity for China and Israel. Further firm specific factors are not influencing the cost of equity capital in all the sample countries. The published literature in the area of impact of IFRS on cost of capital is limited and findings of this study would contribute to the literature through its focus on the Asian equity markets. The study would contribute to the continuous debate on the economic consequences of changes in accounting standards in different countries. Another contribution of this study is to observe

whether IFRS adoption affected sectors within each country. After the adoption of a new standard i.e. IFRS in a country, its regulators, practitioners, and academicians would be more interested in the consequences for the firms and the country as a whole, the present findings would help them with such information. The outcome may bring important implications for the regulators, practitioners, academicians and auditors, as well as end-users of financial statements. Since IFRS could cause consequences on a longer time frame than 6 years, the results may not fully incorporate the long-term impacts of IFRS on the cost of equity capital. Results should be interpreted as the short-term effect of IFRS. But still the short-run findings would be useful due to the reason that it provides the original impact from an external shock to the existing system, without any influence of subsequent amendments, adjustments and reforms to enhance incentives and enforcements, which may arise in long term studies. Further the cost of equity capital is measured using the PEG-model, which also has its limitations. While the study uses all available IFRS adopting firms data from DataStream following (Morck et al., 2000), it may be possible that some IFRS adopting firms during the study period may have been ignored. Thus, a possible extension of the study could involve analysis of data taking the help of more extensive datasets as they become available. Future study should take in to account the role of audit quality, legal enforcement, and role of financial analysts and institutional investors which can influence effective adoption of IFRS. Present study covers only four countries in Asia where IFRS has been mandated till now. Future studies should involve other countries such as Japan, Singapore and India after IFRS is made mandatory in these countries.

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Appendix

Table1. Summary of Literature on IFRS and Cost of equity Capital

Author	Period of Study	Method	Findings
Leuz & Verrecchia, 2000	DAX 100 listed 102 German companies; 1998	By taking proxies such as trading volume and bid-ask spread	After switching from German GAAP to IFRS, cost of equity decreased.
Healy & Palepu, 2001	N.A	Review Paper	IFRS financial reports provide better relevant information to investor
Daske & Gebhardt, 2006	Austrian, German and Swiss firms,	Comparing the disclosure quality scores by detailed annual reports analysis	There is a significant increase in disclosure quality after IFRS
Hail & Leuz, 2006	21.656 firm-years from 5.683 unique EU firms;2001 - 2005	Analysing IFRS adoption with implied cost of equity and market liquidity	Lower cost of equity for those firms who have adopted IFRS against those which have not.
Daske, 2007a	About 20.500 firm-month observations for German companies; 1993 - 2002	Comparing the firms which have started adopting IFRS voluntarily before 2005 and after 2005	No decrease in cost of equity capital after mandatory adoption of IFRS for these pre adopters
Prather-Kinsey et al., 2008	157 European companies; 2004-2006	PEG-model	The introduction of IFRS increased the information content making financial statements more value relevant and lower cost of capital.

P. O. Christensen, de la Rosa, & Feltham, 2010	UK companies; 1996/1998 to 2001/2004	Earnings based valuation model	Impact of IFRS on cost of equity is different for different characteristics of companies
P. O. Christensen et al., 2010	433 German companies;1998 - 2005	Constructs for accounting standard i.e. earning management, loss recognition, etc are examined.	Higher accounting quality found for voluntary adopters of IFRS adoption
H. Christensen et al., 2008	17 European Countries form period 1995 to 2006	PEG model	Impact of IFRS on cost of equity has mixed evidences for firms with different incentive motives of adoption.
Daske, 2007b	26 Countries around the world; 2001 - 2005	Calculated change in cost of equity, Tobin's Q and liquidity	There is a decrease in cost just before mandatory announcement date expecting the economic consequences of adoption by the market
Daske, Hail, Leuz, & Verdi, 2008	International companies around the world; 1990 - 2005	Firms are classified according to their reporting incentive as label adopters or serious adopters and are examined for IFRS adoption	Great influence by firms having commitments for transparency instead of IFRS adoption. Serious adopters-decrease in cost Label adopters-Little evidence of reduction
Li, 2010	1.084 EU firms 1995 - 2006	Taking the average of four type of cost of equity measures	After adoption of IFRS- Enhanced comparability and increased disclosure Cost of equity capital reduced, but only in countries with strong legal enforcement
Kim & Shi, 2012	34 countries 1998 - 2004	Comparing voluntary adopting firms and non-adopting firms in the same period	Low cost of equity for voluntary adopters of IFRS and effect of reduction is more in countries with weak institutional infrastructures

Table 2. Descriptive Statistics
IFRS and Cost of equity -China

	Total Sample (2006-2011)			Before IFRS (2006-2008)			After IFRS (2009-2011)		
Variable	**Mean**	**Median**	**Stand.dev**	**Mean**	**Median**	**Stand.dev**	**Mean**	**Median**	**Stand.dev**
COEC	0.188	0.1307	0.1985	0.1874	0.1302	0.1912	0.1886	0.1333	0.2063
FSALE	6.6999	-	18.5798	6.9148	-	18.5027	6.4849	-	18.7317
LOGTA	6.5987	6.4288	1.129	6.4934	6.1993	1.0924	6.704	6.5883	1.1595
RETV	40.858	39.95	19.442	42.282	39.025	26.3134	39.434	40.535	7.9167
LEVG	27.268	23.535	21.9383	28.59	25.45	22.6792	25.946	20.955	21.1839

Note: WhereCOEC- Cost of equity Capital, FSALE-Percentage of Foreign Sale, LOGTA-log (Total Assets), RETV-Return Variability, LEV-Leverage

Table 3. Descriptive Statistics

IFRS and Cost of equity –Hong Kong

	Total Sample (2006-2011)			Before IFRS (2006-2008)			After IFRS (2009-2011)		
Variable	**Mean**	**Median**	**Stand.dev**	**Mean**	**Median**	**Stand.dev**	**Mean**	**Median**	**Stand.dev**
COEC	0.33246	0.20783	0.39958	0.36778	0.22754	0.42876	0.29715	0.20139	0.3665
FSALE	22.3577	-	38.68896	20.9053	-	37.41148	23.8102	-	40.0297
LOGTA	28.1918	23.7468	27.22471	29.2169	20.2281	34.40289	27.1666	25.1296	17.4046
RETV	19.066	17.29	16.79582	21.3915	20.61	17.0295	16.7988	10.78	16.31762
LEV	6.05486	5.98293	0.82641	5.83057	5.80414	0.81487	6.27916	6.22858	0.77857

Note: WhereCOEC- Cost of equity Capital, FSALE-Percentage of Foreign Sale, LOGTA-log (Total Assets), RETV-Return Variability, LEV-Leverage

Table 4. Descriptive Statistics Cost of equity – IFRS and Israel

	Total Sample (2006-2011)			Before IFRS (2006-2008)			After IFRS (2009-2011)		
Variable	**Mean**	**Median**	**Stand.dev**	**Mean**	**Median**	**Stand.dev**	**Mean**	**Median**	**Stand.dev**
COEC	0.38276	0.2507	0.543267	0.33484	0.23988	0.4622164	0.43068	0.26744	0.6119499
FSALE	4.56167	-	17.50729	3.304	-	15.08533	5.81933	-	19.61705
LOGTA	63.5991	23.9113	127.1213	63.216	24.618	112.7335	63.9822	22.8607	140.5215
RETV	612.85	31.905	4878.037	977.201	31.29	6746.59	248.498	32.1	1416.415
LEV	5.49709	5.42448	0.569403	5.4597	5.37856	0.5561562	5.53448	5.49013	0.5822674

Note: WhereCOEC- Cost of equity Capital, FSALE-Percentage of Foreign Sale, LOGTA-log (Total Assets), RETV-Return Variability, LEV-Leverage

Table 5. Descriptive Statistics
IFRS and Cost of equity –Philippines

	Total Sample (2006-2011)			Before IFRS (2006-2008)			After IFRS (2009-2011)		
Variable	**Mean**	**Median**	**Stand.dev**	**Mean**	**Median**	**Stand.dev**	**Mean**	**Median**	**Stand.dev**
COEC	0.46153	0.18992	1.156078	0.5398	0.19486	1.49149	0.38326	0.18977	0.66883
FSALE	3.75812	-	12.06386	2.55192	-	8.2357	4.96433	-	14.884
LOGTA	5.09581	5.16637	0.921735	4.95061	5.06709	0.9989	5.24102	5.2685	0.81608
RETV	37.946	40.535	14.53418	38.3206	41.74	14.99363	37.5714	39.84	14.1126
LEV	22.3817	14.245	23.92738	21.518	12.225	24.56757	23.2454	15.475	23.3405

Note: WhereCOEC- Cost of equity Capital, FSALE-Percentage of Foreign Sale, LOGTA-log (Total Assets), RETV-Return Variability, LEV-Leverage

Table 6 .Correlation Matrix IFRS and Cost of Equity-China

	COEC	*ADIFRS*	*LOGTA*	*LEVG*	*FSALE*	*RETV*	*CL*
COEC	1						
ADIFRS	0.0032 (0.9603)	1					
LOGTA	0.0844 (0.1927)	0.0934 (0.1489)	1				
LEVG	0.2922** (0.0000)	-0.0604 (0.3517)	0.0439 (0.4987)	1			
FSALE	0.018 (0.7813)	-0.0116 (0.8582)	0.0329 (0.6119)	-0.0218 (0.7300)	1		
RETV	-0.0281 (0.6652)	-0.0734 (0.2574)	-0.0433 (0.5044)	-0.0773 (0.2300)	0.0545 (0.4010)	1	
CL	0.0655 (0.3124)	-	0.5241** (0.0000)	-0.1242** (0.0500)	-0.1507** (0.0195)	-0.0556 (0.3909)	1

Note: Table Above represents correlation coefficients and p-values, and places an asterisk (**) next to the coefficients only when the p-value is .05 or lower. The numbers in parenthesis below each coefficient variable are the p-values

Table 7 .Correlation Matrix IFRS and Cost of Equity-Hong Kong

	COEC	*ADIFRS*	*LOGTA*	*LEVG*	*FSALE*	*RETV*	*CL*
COEC	1						
ADIFRS	-0.0886 (0.0015)	1					
LOGTA	-0.1371** (0.0338)	0.2720** (0.000)	1				
LEVG	-0.0034 (0.9583)	-0.1370** (0.035)	0.3701** (0.000)	1			
FSALE	0.0228 (0.725)	0.0376 (0.5619)	-0.0221 (0.7335)	0.0963 (0.1394)	1		
RETV	-0.1061 (0.101)	-0.0377 (0.5607)	0.0794 (0.2205)	0.0075 (0.9086)	0.0288 (0.657)	1	
CL	-0.1163 (0.072)	-0.0212 (0.7442)	0.2772** (0.000)	-0.0927 (0.1549)	0.1731** (0.0072)	0.2502** (0.0001)	1

Note: Table Above represents correlation coefficients and p-values, and places an asterisk (**) next to the coefficients only when the p-value is .05 or lower. The numbers in parenthesis below each coefficient variable are the p-values

Table 8 .Correlation Matrix IFRS and Cost of Equity-Israel

	COEC	*ADIFRS*	*LOGTA*	*LEVG*	*FSALE*	*RETV*	*CL*
COEC	1						
ADIFRS	0.0884 (0.1723)	1					
LOGTA	0.0471 (0.4677)	0.0658 (0.319)	1				
LEVG	0.0717 (0.2684)	-0.0748 (0.248)	0.1549** (0.0163)	1			
FSALE	-0.0532 (0.4115)	0.072 (0.2666)	0.0337 (0.6034)	-0.031 (0.6324)	1		
RETV	-0.0795 (0.2195)	0.003 (0.9629)	0.2714** (0.000)	0.0073 (0.911)	-0.0715 (0.2702)	1	
CL	-0.0029 (0.9638)	-	-0.3054** (0.000)	-0.0345 (0.5947)	0.4214** (0.000)	-0.111 (0.0863)	1

Note: Table Above represents correlation coefficients and p-values, and places an asterisk (**) next to the coefficients only when the p-value is .05 or lower. The numbers in parenthesis below each coefficient variable are the p-values

Table 9 .Correlation Matrix IFRS and Cost of Equity-Philippines

	COEC	*ADIFRS*	*LOGTA*	*LEVG*	*FSALE*	*RETV*	*CL*
COEC	1						
ADIFRS	-0.0678 (0.0052)	1					
LOGTA	0.1833** (0.0044)	0.1579** (0.0144)	1				
LEVG	-0.0199 (0.7592)	0.0362 (0.5771)	0.2047** (0.0014)	1			
FSALE	0.0096 (0.8823)	0.1002 (0.1216)	0.0625 (0.3352)	0.0152 (0.8144)	1		
RETV	0.1148 (0.0759)	-0.0258 (0.6906)	0.1515** (0.0189)	-0.0094 (0.8842)	0.0172 (0.7907)	1	
CL	0.0062 (0.9238)	-	0.1556** (0.0158)	0.0121 (0.8526)	-0.05 (0.4408)	0.2079** (0.0012)	1

Note: Table Above represents correlation coefficients and p-values, and places an asterisk (**) next to the coefficients only when the p-value is .05 or lower. The numbers in parenthesis below each coefficient variable are the p-values

Table 10. Impact of IFRS on Cost of Equity Capital in China: Panel data evidence

	Pooled OLS	Fixed Effect Model	Random Effect Model
CONSTANT	0.011	-0.282	-0.1196
	(0.9400)	(-0.4270)	(0.5780)
ADIFRS	0.0035	0.01	0.00079
	(0.8830)	(0.6650)	(0.97100)
LOGTA	0.0092	0.067	0.02376
	(0.5830)	(0.2100)	(0.3840)
LEVG	0.002**	0.0017	0.00187
	(0.0100)	(0.1850)	(0.0670)
FSALE	-0.0002	-0.0017	-0.00109
	(0.7800)	(0.2090)	(0.3350)
RETV	-0.0004	-0.0014	-0.00079
	(0.4540)	(0.0920)	(0.2080)
CL	0.0983**		0.08872
	(0.0180)	-	(0.2440)
F-test	3.12	1.49	21.24
	(0.0000)	(0.1844)	(0.03238)
R-Square	0.212	0.0857	0.405
Sigma_u			0.12913809
θ			0.40962244
Hausman Test			4.14
			(0.5301)
Breusch and Pagan Lagrangian multiplier tests			51.44
			(0.001)
Industry Dummies	Included	Included	Included
N	3378	3378	3378

Note: Table Above places an asterisk (**) next to the coefficients only when the p-value is .05 or lower. The numbers in parenthesis below each coefficient variable are the p-values