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The Effect of Fair Value Accounting on Firm Public Debt – Evidence from Business Combinations Under Common Control

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ABSTRACT We analyze the choice allowed to parent firms under IFRS of how to account for a business combination under common control (BCUCC), and provide evidence on the motivation to select fair values and the economic implications of this choice. A BCUCC is a merger of two firms owned by the same parent. Under IFRS, parent firms can use the acquisition method (fair values) to record the BCUCC or use assets' historical cost. We show that parents are likely to choose fair values when they desire to increase the transparency of their financial reports and when they likely need to raise capital. Using propensity-score matching, we find that firms that used fair values are more likely to issue new public debt following the transaction. We also find that the cost of issuing new debt for these firms is 55 basis points lower than that of comparable firms that did not do BCUCCs. Our results suggest that using fair values in BCUCCs can increase transparency and lower firms' cost of debt.

Keywords: Business combination under common control; Real effect of accounting choices; Fair value accounting; Balance sheet leverage

JEL codes: M41; G32; G34; G12

1. Introduction

This study examines business combinations under common control (BCUCCs), which despite their pervasiveness – between 2005 and 2020, 5878 BCUCCs occurred within the European Union – have received little academic attention. BCUCCs are intra-group acquisitions, in which all the combining businesses are controlled by the same parent, both before and after the merger.¹ Paragraph B1 of IFRS 3 *Business Combinations* describes a business combination under common control as:

A business combination in which all of the combining entities or businesses are ultimately controlled by the same party or parties both before and after the business combination, and that control is not transitory.

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¹Figure 1 illustrates possible structures of internal mergers. Parent firms that engage in internal merger provide a broad spectrum of reasons to justify their transactions.

BCUCCs differ from other combinations in two key ways: their price and the fact that their motivation may not reflect what would be seen in an arm's length business combination. The IASB describes these differences as follows:

(a) [BCUCCs] are directed transactions rather than arm's-length exchanges and therefore the transaction price might not be representative of the fair value of the transferred business; and (b) the purpose of such transactions could be different from the purpose of business combinations that are not under common control. (IFRS staff paper: Business combination under common control, June 2014, page 1)

Because of these unique characteristics, U.S. GAAP does not allow parent firms to use the acquisition method of accounting – the method required for regular business combinations under ASC805 – for BCUCCs and instead stipulates that these transactions be recorded at the historical cost carried on the parent's balance sheet (ASC 805-50). Unlike U.S. GAAP, IFRS 3 is silent on the accounting treatment for BCUCCs and allows parent firms to use a consistent policy to record the transactions (IAS 8.10). Parents can thus choose between (1) carrying the target's book values on the parent's balance sheet, which is consistent with historical cost accounting (hereafter HC_BCUCC), and (2) the acquisition method, which is consistent with fair-value accounting (hereafter FV_BCUCC). Under the acquisition method, the parent allocates the purchase price to the target's assets and liabilities. The allocation typically involves stepping up the values of tangible and intangible assets to their fair values and recording intangible assets and goodwill not previously recorded on the parent's balance sheet. The flexibility allowed by IFRS makes a BCUCC a unique form of group-firm re-organization, one that allows parent firms, by choosing the acquisition method, to revalue a wide range of assets.

We investigate the motivation for the selection of fair value accounting versus historical cost when engaging in BCUCCs. We focus on two motivations documented in the literature for the choice of fair value accounting. The first is a desire to increase financial reporting transparency. Multiple studies show allowing firms to use fair values could enhance financial reports' transparency. Christensen and Nikolaev (2013) document that IFRS firms are more likely to choose fair values when they possess reliable information on the economic values of their assets, due to assessments required by lenders. Florou and Kosi (2015) show that the adoption of IFRS in Europe improved the transparency of financial reports and resulted in lower cost of debt for firms in adopting countries.

The adoption of IFRS, however, introduced many changes that could explain an increase in transparency, beyond the flexibility with respect to fair value revaluations. Most notably, the adoption of IFRS increased transparency, because it introduced greater standardization and made financial reports easier to understand for foreign investors, which likely reduced the cost of borrowing. Thus, it is unclear whether increased flexibility with regard to recording assets at fair value for large ad hoc events, such as BCUCCs, increased transparency.

The second possible motivation for the selection of an FV_BCUCC is the opportunistic window-dressing of financial reports. The step-up in assets' values and the recording of new intangible assets involved in accounting for a BCUCC using the acquisition method are likely to result in the somewhat mechanical effect of reduced balance sheet leverage. Several studies suggest firms may use fair value revaluation opportunistically when they have an incentive to reduce balance sheet leverage (Aboody et al., 1999). This is likely to matter in the context of a debt contract (e.g., Beatty et al., 2002; Beatty & Weber, 2003). To the extent that lenders naïvely use balance sheet leverage to price firms' debt, this can motivate highly levered firms to use fair values for BCUCCs. The literature, however, suggests that debt investors are unlikely fooled by a mechanical change in balance sheet leverage (Altamuro et al., 2014; Batta et al., 2014; Kraft, 2015), which makes it unclear whether window-dressing figures in the selection of the accounting method for BCUCCs.

Given that both motivations, to the extent that they exist, aim at reducing firms cost of borrowing, we investigate the implications of FV_BCUCCs by analyzing the effect on parent firms' indebtedness and cost of debt.

Our investigations are based on a sample of European parent firms that re-organized through BCUCCs between 2005 and 2020. The final sample consists of 602 BCUCCs, of which 337 were accounted at fair value and 265 at historical cost. We start by analyzing the motivation for the selection of the method to account for the transaction. We identify two variables that are consistent with the motivation of increased transparency (1) asset tangibility, which measures the cost of providing more transparent information (managers are more likely to have reliable information on tangible assets than on intangible assets) and (2) country financial development, which measures the benefits of providing more transparent financial information (transparent financial reports are more valuable when financial development is relatively low and there are no alternative sources of information). We find that the likelihood that a parent firm chooses fair values to account for a BCUCC increases with the benefit and decreases with the cost of providing more transparent financial reports. We also find that the likelihood of selecting fair values to account for a BCUCC increases with the parent firm's pre-acquisition leverage. This latter result is consistent both with the transparency (Christensen & Nikolaev, 2013) and window-dressing motivations. Finally, we find that parent firms that are more cash-strapped and thus more likely to need debt are more likely to revalue a target's assets to fair values in a BCUCC.

Given that the positive relation between pre-BCUCC balance sheet leverage and the selection of an FV_BCUCC can be explained by both motivations, we attempt to understand which one drives the relation. To that end, we rely on evidence of Christensen and Nikolaev (2013), who show that IFRS firms with high leverage are more likely to choose the fair value option to value some or all of their long-lived assets. They explain this preference as a consequence of lenders demanding fair value estimates of borrowers' assets. This demand implies that borrowers have information on the fair values readily available, which reduces the costs of reporting fair values on the balance sheet. Thus, parent firms that regularly use fair value accounting are likely to be more informed about the fair values of their assets and better able to increase transparency when choosing an FV_BCUCC. If indeed the positive relation between leverage and FV_BCUCCs is explained by the transparency motivation, we expect the relation to strengthen in parent firms that regularly make the fair value choice for long-lived assets. If, instead, the positive relation between leverage and FV_BCUCC is driven by window-dressing, we expect the relation to be unaffected by whether the parent firm regularly values its long-lived assets at fair value. We find that relation does strengthen in firms that regularly make the fair value choice for some of their long-lived assets. This finding is consistent with the transparency motivation explaining the positive relation between pre-BCUCC leverage and the selection of fair values.

Next, we analyze the implications of the selection of a FV_BCUCC over an HC_BCUCC. Florou and Kosi (2015) show that the adoption of IFRS results in lower cost of debt in adopting countries. We therefore investigate the implication of a FV_BCUCC for firms' debt. We conduct the investigation along two dimensions: (i) whether FV_BCUCC parent firms take advantage of the more transparent financial statements to issue more public debt and (ii) whether they enjoy lower borrowing costs when issuing public debt after a BCUCC.

We start by comparing the likelihood that a parent firm issues new public debt following an FV_BCUCC versus an HC_BCUCC and find that FV_BCUCC parents are far more likely to issue new debt (24.6% of firms issued new debt in the next four quarters after the BCUCC) than HC_BCUCC parents (9.5%). Given that FV_BCUCC parents may differ fundamentally from HC_BCUCC parents with respect to fund-raising needs, we need to identify an appropriate sample of firms for comparison. Using propensity-score matching, we identify a control firm for each FV_BCUCC parent. We find that treated firms are more likely than control firms to

issue new bonds in each of the four quarters after the BCUCC: 14.4% (24.6%) of the firms in the treatment group issue bonds in the first quarter (fourth quarter) following the BCUCC compared to 4.2% (11.7%) in the control group, with all differences being significant at 1%. Using a regression analysis, we corroborate the evidence from the univariate comparison.

In a second set of tests, we analyze the cost of new debt following a BCUCC. Using a similar approach as for the debt issuance, we use propensity-score matching to identify matching firms for each FV_BCUCC parent that issued public debt following the transaction. For each FV_BCUCC parent, we identify four debt issuers with similar attributes with respect to the need to raise cash. Our analysis on the matched sample shows that the yield to maturity on new bonds is lower for our treatment group by 55 basis points relative to our matched firms. Using a regression analysis, we corroborate the evidence from the univariate comparison.

Finally, even though we use year and country fixed effects in all our tests as well as *country_industry* pair matching in our propensity-score matching, we cannot rule out the alternative explanation that results might be – *at least partially* – driven by the Financial Crisis for the early years of our sample. We conduct a sensitivity test to alleviate this concern. Our results are unaffected by the Financial Crisis of 2008–2009 and hold even when its time window is excluded. We also conduct a plethora of sensitivity analysis, including replacing the country level measure for the benefit of financial reports transparency (country financial development) with a firm level one (analysts coverage), to ascertain that results are not an artifact of the selection of variables and specifications for analyses.

Our study makes several contributions to the literature. First, it contributes to the understanding of the implications on firms' transparency of fair value revaluation, especially as pertains to IFRS, which is more liberal with fair value choices. The choice between fair value and historical cost accounting is one of the most investigated and debated issues in the accounting research and among regulators (Christensen & Nikolaev, 2013). The debate dates back to the 1930s (Fabricant, 1936; Paton, 1932) and remains unsettled (e.g., Ball & Shivakumar, 2006; Hail et al., 2010; Laux & Leuz, 2009; Schipper, 2005; Watts, 2006). Florou and Kosi (2015) show that IFRS adoption, in general, increases reporting transparency and leads to more public debt issuance and lower bond yields. The adoption of IFRS, however, introduced many changes unrelated to the flexibility of using fair values that could explain an increase in transparency. Most notably, IFRS increases standardization of financial reporting and comparability across countries, which likely increases the transparency of financial reports. This in turn can increase the access of foreign investors to the capital markets of adopting countries, which can reduce the cost of raising debt. Our study shows that actual fair value revaluations in IFRS contribute to the improvement in transparency and to the reduction in cost of debt. Second, our work highlights the economic implications of business combinations under common control, which, despite their complexity and ubiquity, have received little academic attention. BCUCC is a form of re-organization that, under IFRS, allows firms to provide more accurate information about their assets' economic values. Whereas Tarca (2021) points to the drawbacks of the accounting choice allowed in these transactions. Specifically, firms' ability to select different accounting for similar transactions may result in financial statements providing different information about similar transactions, inhibiting investors' understanding of the effects of these transactions and their ability to compare companies undertaking them. Our study suggests that using this form of re-organization allows firms to reap financial benefits beyond the operational benefits a re-organization can bring. From a regulatory standpoint, with the SEC allowing international firms listed in U.S. exchanges to use IFRS, this sort of transaction might also impact U.S. investors.

The remainder of the paper proceeds as follows. In Section 2, we review the literature and develop hypotheses. In Section 3, we discuss sample selection and descriptive statistics. In Section 4, we present our model and the empirical results. We conclude in section 5.

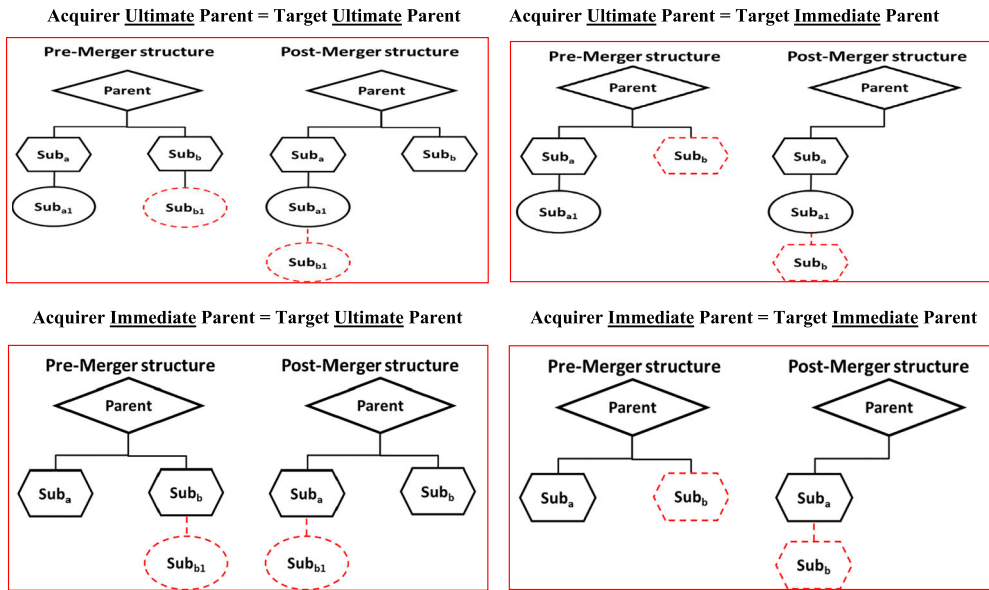


Figure 1. Examples of BCUCCs

2. Institutional Background and Hypotheses Development

2.1. Institutional Background

BCUCCs are intra-group transactions in which both merging firms are controlled by the same parent before and after the transaction. From a financial reporting perspective, both the acquirer and target were consolidated into the parent firm’s financial reports before the BCUCC, and the merged firm continues to be consolidated in the parent’s reports after it. Figure 1 illustrates possible structures of BCUCCs. Parent firms that engage in BCUCCs provide many reasons for these transactions. A common one is ‘rationalizing group operations.’ Firms also offer explanations such as helping to develop a premium brand at the acquiring firm or enabling a better balance between capital-intensive and less capital-intensive activities.² The common theme of the explanations is that parent firms seek to re-organize the group structure to enhance operations. This purpose differs from the purpose provided by acquirers in arm’s length open market transactions. The other key difference between a BCUCC and a regular acquisition is that the transaction prices may not reflect those of an arm’s length deal.

Given the differences described above, U.S. GAAP does not allow parent firms to use the BCUCC transaction price as a measure for the value of the target and consequently prohibits a change in the value of the target’s assets on the parent’s balance sheet as a result of the transaction. Specifically, ASC 805-50-30-05 does not allow parent firms to use the acquisition method to record the BCUCC and requires parent firms to carry the value of the target’s assets and liabilities using the historical cost method. IFRS, in contrast, allows a parent firm to decide how to account for a BCUCC, provided that it consistently applies the same accounting method to similar transactions over time. Because BCUCCs do not occur regularly, each transaction practically involves an *ad hoc* decision on the accounting method to use, that is, the acquisition method versus the historical cost method.

²See for example Fiat to buy Maserati brand from Ferrari (<https://www.nytimes.com/2005/02/19/business/worldbusiness/after-gm-an-emboldened-fiat-charts-new-course.html?mwgrp=c-dbar\&smid=url-share>).

The acquisition method is used to record regular mergers, in which the target is from outside the group. Under this method, the acquirer must conduct a purchase price allocation. As part of the allocation, the acquirer must re-value the target's assets and liabilities and record them on its balance sheet – and thus also on the parent's balance sheet – at their fair values. The acquirer – and thus the parent – can also record at fair value intangible assets not previously recorded on the target's balance sheet. The difference between the deal price and the fair value of target's net assets (assets minus liabilities) is recorded as goodwill.

2.2. The Potential Effects the Fair Value Re-Valuations in BCUCCs

The first potential effect of re-valuing a target's assets and liabilities to their fair value in BCUCCs is providing valuable information to investors. When compared to US GAAP, IFRS is more amenable to allowing firms to record assets at fair values. Several studies show that IFRS results in more transparent financial reporting than the local GAAPs that preceded it. Most notably and with particular relevance to our study, Florou and Kosi (2015) investigate the implementation of IFRS in Europe and show that adoption resulted in lower cost of debt for firms in the adopting countries. The authors conclude that IFRS adoption improved the transparency of financial reports. Implementation of IFRS, however, introduced changes to firms' information environments that go beyond the greater flexibility allowed to record assets at fair values. Most notably, the adoption of IFRS introduced standardization, uniformity, and comparability between financial reports of the adopting countries, which likely helped investors across the continent process and interpret financial reports. Florou and Kosi (2015), however, remain silent on which of the changes introduced by IFRS contributed to the improvement in transparency. Christensen and Nikolaev (2013) suggest that managers would use fair values when they have reliable information on the firms' assets values. They exploit the setting of IFRS fair-value choice, in which, under IAS 16 – Property Plant and Equipment and IAS 40 – Investment Property, a firm can use either fair value or historical cost to account for certain long-lived assets and investments. The authors show that highly levered IFRS firms are more likely to choose fair values, and argue that managers of these firms possess reliable information on the fair values of their assets, due to assessments required by lenders. Christensen and Nikolaev's (2013) findings suggest that fair values can increase financial reports transparency. If indeed recording assets at fair value increases financial report transparency, parent firms motivated to increase their reports transparency will choose a FV_BCUCC over a HC_BCUCC.

Another potential implication is window-dressed balance sheet, in particular balance sheet leverage. Using the acquisition method (FV_BCUCC) to account for a BCUCC likely increases the value of firm assets. First, because firms' assets on the balance sheet are recorded at the lower of the (depreciated) cost or market value, the market value is the upper bound for the pre-revaluation balance sheet. This means that the value of assets already on the balance sheet is likely to step up in the purchase price allocation. Second, intangible assets, such as patents, trademarks, and brand names, that are internally generated are not allowed to be recorded on the balance sheet of the firm that creates them (the target), but are recorded at their fair value on acquirer's balance sheet following an acquisition. This increase in the balance sheet assets' value means that the likely outcome of choosing the acquisition method is a reduction in the parent's balance sheet leverage. The increase in asset value and the reduction in balance sheet leverage are not the only effects of choosing a FV_BCUCC. A FV_BCUCC is also likely to damp earnings through an increased likelihood of write-offs of goodwill, if it is recorded at the purchase price allocation, and potentially additional amortization and depreciation expense for newly recorded intangible assets and stepped-up property, plant, and equipment. This damper on earnings could have negative implications for firms (Bens et al., 2011; Dechow et al., 1994; Gaver & Gaver,

1998; Li et al., 2011; Shalev et al., 2013). The increase in the asset base and the likely decrease in earnings are likely to hurt critical ratios, such as ROA. To the extent that managers believe investors interpret these ratios naïvely, that may affect the decision to choose fair values.

The literature generally suggests that reducing balance sheet leverage is the factor that managers consider when they revalue assets at fair value. Easton et al. (1993) survey Australian firm managers on the incentive to revalue tangible long-lived assets, and suggest that managers consider the need to maintain a low debt-to-equity ratio when making a revaluation decision. Aboody et al. (1999) analyze upward fair-value revaluations of fixed assets in the United Kingdom and find a positive association between revaluation and future firm performance. This positive association, however, weakens in firms with high debt-to-equity ratios, suggesting that, while firms use an upward fair-value revaluation to convey positive information to investors, the incentive to window-dress balance sheet leverage also figures in the decision. If indeed firms benefit from reduced balance sheet leverage, parents with high pre-BCUCC leverage may be motivated to choose an FV_BCUCC over an HC_BCUCC.

Note that the magnitude of the effect on parent's financial reports for a FV_BCUCC depends on the pre-BCUCC gap between the book value and the fair value of the assets of the target in the BCUCC. The magnitude of the effect and thus possibly the incentive to select a FV_BCUCC increase with the gap between the book value and the fair value of balance sheet assets as well as the target's internally generated intangible assets not recorded on the balance sheet.

2.3. Hypotheses Development

We develop two sets of hypotheses. The first concerns the motivations for the selection of the accounting method to record the BCUCC, and the second concerns the implications of the choice to select a FV_BCUCC over a HC_BCUCC. Along the lines of section 2.2, we develop a three-part hypothesis regarding the drivers of the selection of the method to account for the BCUCC. First, the desire to increase financial statement transparency is likely to decrease (increase) with the costs (benefits) of increasing the transparency of the financial report. The cost of increasing transparency is likely smaller in firms that have large tangible asset bases. In the spirit of Christensen and Nikolaev (2013), we argue that, on these assets, firms are likely to have readily available fair values because banks are more likely to use them as collateral or as a basis for debt covenants. The benefits of increased transparency are also likely larger in situations where capital markets are less developed and alternative information channels are unavailable. These arguments lead us to the first part of our first testable hypothesis on the relation between financial report transparency and the selection of an accounting method in BCUCCs:

H1A: The likelihood a parent firm would choose the acquisition method to account for a BCUCC increases with parent firm pre-BCUCC asset tangibility and decreases with the development of the firm's capital markets.

The second part of the first hypothesis focuses on the window-dressing motivation. Parent firms are likely to be more motivated to window-dress when leverage is high. This predicted relation between balance sheet leverage and the likelihood of an FV_BCUCC comes with two caveats. The first is with respect to the benefits of reduced balance sheet leverage. Benefits can be generated only to the extent investors interpret balance sheet leverage naïvely when pricing transactions with the firm. The literature (e.g., Altamuro et al., 2014; Batta et al., 2014; Kraft, 2015) suggests that debt investors may not be fooled by a mechanical change in balance sheet leverage. This caveat suggests that we may not find the expected relation between balance sheet leverage and the selection of an FV_BCUCC. The second caveat is that a positive relation between leverage and the likelihood of an FV_BCUCC may be consistent not only with window-dressing but also with the increased transparency motivation. Christensen and Nikolaev (2013) suggest that

firms with higher leverage possess better information on the fair value of their assets and thus are more likely to make the IFRS fair value choice for their long-lived assets. This caveat suggests that, to the extent we find the expected relation, we cannot interpret it without further analysis. With these caveats in mind, the second part of the first testable hypothesis is as follows:

H1B: The likelihood a parent firm would choose the acquisition method to account for a BCUCC increases with parent firm pre-BCUCC leverage.

The third part of the first hypothesis focuses on the benefits of the potential positive implications of a FV_BCUCC (increased transparency and window-dressed balance sheet leverage), namely a lower cost of debt. Firms that are likely to benefit more are those in greater need of borrowing, in particular, cash-strapped firms. This leads us to the third part of the first testable hypothesis:

H1C: The likelihood a parent firm would choose the acquisition method to account for a BCUCC decreases with firms cash holdings.

Our second hypothesis concerns with the implications of choosing the acquisition method for BCUCCs. As discussed above, the two motivations to select an FV_BCUCC – increased transparency and window-dressed balance sheet leverage – may reduce the cost of firm borrowing. Bank loans in Europe are more relationship-based than transaction-based (Boot, 2000; Boot & Thakor, 2000). Relationship lending involves the lender gathering customer information over time and monitoring the borrower closely. Repeated transactions allow the lender to generate private information about the borrower and thus reduce information asymmetry (Boot, 2000; Boot & Thakor, 2000; Goddard et al., 2007). Therefore, banks are more likely to possess information on firms' fair values, even without a fair value revaluation, and are less likely to benefit from financial report transparency or to use firm balance sheet leverage as a factor in pricing debt. Public lenders, by contrast, where information gaps may exist, are more likely to benefit from more transparent financial reports. This leads us to focus on public debt and to formalize the following two-part testable hypothesis relating to both the likelihood of issuing new public debt and the cost of that debt:

H2A: Parent firms that used the acquisition method to record a BCUCC are more likely than comparable firms that did not to issue new public debt in the period following the BCUCC.

H2B: The yield to maturity of debt issued by fair-value BCUCC parent firms is lower than the yield to maturity of similar debt issued by similar firms at the same time.

3. Sample Selection and Descriptive Statistics

3.1. Sample Selection

To identify BCUCCs, we start with the SDC database and select acquisitions that satisfy the following requirements: (1) the acquirer gained control over the target in the transaction; (2) the acquirer and the target both have the same immediate or ultimate parent; and (3) the parent is incorporated and headquartered within the European Union. These requirements result in 5878 deals. Our sample covers the 2005–2020 period; 2005 is the first year in which IFRS was mandatory for the consolidated financial statements of all listed firms in Europe.³ We drop transactions in which the acquirer, target, or parent is a financial institution. To isolate the effect of the BCUCC on firms' financial statements, we keep only parents that performed a single

³Christensen et al. (2013) provide a list of countries shown in Table 1 with relative dates when IFRS reporting becomes mandatory.

Table 1. Sample selection

	Acquisitions
<i>BCUCC deals identification</i>	
BCUCCs involving European-listed firms between 2005 and 2020	5878
(Less) BCUCCs in which the acquirer, seller, or parent is a financial institution	(2045)
(Less) BCUCCs in which the parent (or group) is involved in a Business Combination other than the BCUCCs during the same quarter	(2324)
<i>BCUCC sample</i>	1509
(Less) Missing Financial, Market Based, Deals and Controls Data	(907)
Final Sample	602

BCUCC during the reporting quarter. We exclude firms that were involved in any additional mergers because the other mergers could confound both the parent group financial reports and the group fundamentals. This leaves us with 1509 BCUCCs. We then require parent firms to have financial data available in Compustat Global. After applying the above restrictions, we have 602 transactions. Sample selection and the final sample are summarized in Table 1.

3.2. Descriptive Statistics

We read all 602 parent firms' financial reports to identify the accounting method used to record the BCUCC.⁴ This results in 337 BCUCCs that re-valued the target's assets to their fair market values (acquisition method) and 265 that did not (historical cost). The sample distribution by recording method is reported in Panel A of Table 2.

Table 2 Panel B reports a sample breakdown for the two types of BCUCCs recording method by fiscal year. The portion of firms within a sample year that choose the acquisition method to record the BCUCC ranges from 31% in 2012 to 71% in 2007, with no clear clustering across years. Table 2 Panel C reports industry distribution using the Fama-French 12-industry classification. The portion of parent firms that chose to record target assets at fair market value ranges from a low of 46% in durables to a high of 66% in chemicals and allied products, with no clear clustering across industries. Finally, Panel D reports the sample distribution by country of incorporation. The number of BCUCCs ranges from three in Luxemburg to 110 in France. Though there are differences in the within country choice of recording method, there is no clear clustering across countries. Table 3 reports descriptive statistics of the sample firms, broken down by whether the BCUCC was recorded at fair value. There are no statistically significant differences between the pre-BCUCC means of the two groups in terms of parent firm size, asset tangibility, market-to-book ratio, and ROA as well with respect to the proportion of BCUCCs in which the parent firm did not fully own the acquirer or the target (minority interest). With regard to the parent's asset base: pre-BCUCC, average total assets of a parent before a FV_BCUCC is 9.2 B€ compared to 8.5 B€ before a HC_BCUCC with the difference insignificant at conventional levels. The post-BCUCC asset base for FV_BCUCC parents increased on average by 19% to 11 B€, whereas the asset base of HC_BCUCC parents increased by 2% to 8.6 B€, with the difference significant at the 1% level. FV_BCUCC parent firms are more levered (*LEVERAGE_pre*), with a mean (median) pre-BCUCC debt-to-equity ratio of 68.9% (56.7%), compared with 52.9% (41.4%) for HC_BCUCC firms. The difference between the means and the medians is significant at the 5% level. Measuring leverage as the debt-to-assets ratio, instead of

⁴We also manually code the fair value propensity, i.e., whether the parent firm recorded at fair value at least one of the following groups of assets: PPE, investment property, or intangibles.

debt-to-equity, yields a similar relation. Notably, the post-BCUCC debt-to-equity ratio (*LEVER-AGE_post*) exhibits a sharp decline for FV_BCUCC parent firms to a mean (median) of 57.6% (48.2%). Parents in HC_BCUCCs do not exhibit a similar decline. The difference in means for

Table 2. Sample distribution

Panel A: Accounting Treatment of BCUCCs					
	Acquisitions				
	#	%			
Acquisition Method (Fair Value)	337	56.0			
Non-Fair Value	265	44.0			
TOTAL	602	100.0			

Panel B: FV and NON-FV BCUCCs by Fiscal Year					
Fiscal Year	Fair Value		Non-Fair Value		Total #
	#	%	#	%	
	<i>(n = 337)</i>		<i>(n = 265)</i>		
2005	12	54.5	10	45.5	22
2006	25	69.4	11	30.6	36
2007	29	70.7	12	29.3	41
2008	17	50.0	17	50.0	34
2009	25	69.4	11	30.6	36
2010	20	69.0	9	31.0	29
2011	26	60.5	17	39.5	43
2012	13	31.0	29	69.0	42
2013	18	48.6	19	51.4	37
2014	23	54.8	19	45.2	42
2015	20	54.1	17	45.9	37
2016	31	59.6	21	40.4	52
2017	15	45.5	18	54.5	33
2018	23	52.3	21	47.7	44
2019	24	53.3	21	46.7	45
2020	16	55.2	13	44.8	29
TOTAL	337	56.0	265	44.0%	602

Panel C: FV and NON-FV BCUCCs by Fama-French 12-Industry Classification					
Fama-French Industry	Fair Value		Non-Fair Value		Total #
	#	%	#	%	
	<i>(n = 337)</i>		<i>(n = 265)</i>		
Non-Durables	31	51.7	29	48.3	60
Durables	19	46.3	22	53.7	41
Manufacturing	67	62.6	40	37.4	107
Energy, Oil, Gas, and Coal Extraction	4	57.1	3	42.9	7
Chemicals and Allied Products	27	65.9	14	34.1	41
Business Equipment	48	58.5	34	41.5	82
Telephone and Television	17	60.7	11	39.3	28
Utilities	18	62.1	11	37.9	29
Wholesale, Retail, and some Services	22	55.0	18	45.0	40
Healthcare, Medical Equip., and Drugs	17	53.1	15	46.9	32
Other	67	49.6	68	50.4	135
TOTAL	337	56.0	265	44.0	602

(Continued)

Table 2. Continued.

Panel D: FV and NON-FV BCUCCs by Headquarters Country

Country	Fair Value (n = 337)		Non-Fair Value (n = 265)		Total #
	#	%	#	%	
Austria	7	63.64	4	36.36	11
Belgium	13	59.09	9	40.91	22
Denmark	16	55.17	13	44.83	29
Finland	29	67.44	14	32.56	43
France	56	50.91	54	49.09	110
Germany	61	68.54	28	31.46	89
Greece	4	57.14	3	42.86	7
Italy	25	62.50	15	37.50	40
Luxembourg	2	66.67	1	33.33	3
Netherlands	14	66.67	7	33.33	21
Norway	9	47.37	10	52.63	19
Poland	23	76.67	7	23.33	30
Portugal	9	64.29	5	35.71	14
Spain	14	56.00	11	44.00	25
Sweden	13	40.63	19	59.38	32
Switzerland	7	35.00	13	65.00	20
Turkey	13	54.17	11	45.83	24
United Kingdom	22	34.92	41	65.08	63
TOTAL	337	55.98	265	44.02	602

LEVERAGE_pre versus *LEVERAGE_post* is significant at 1% level for FV_BCUCC parents, while it is not statistically different for HC_BCUCCs.

4. Research Design and Empirical Findings

4.1. Determinants of BCUCC Accounting Choice

To test hypothesis 1, we estimate the following logit regression:

$$\begin{aligned}
 FV_BCUCC_{i,t} = & \beta_0 + \beta_1 ASSET_TANGIB_{i,t-1} + \beta_2 FINANCIAL_DEVELOPMENT_{i,t-1} \\
 & + \beta_3 LEVERAGE_pre_{i,t-1} + \beta_4 CASH_HOLDINGS_{i,t-1} + \beta_{5-17} CONTROLS \\
 & + COUNTRY_FE_k + INDUSTRY_FE_j + TIME_FE_t + \varepsilon_{i,t}
 \end{aligned} \tag{1}$$

where *FV_BCUCC* is an indicator variable equal to 1 if a parent of a business group used the acquisition method to record the BCUCC and zero otherwise. Our variables of interest are defined as follows: (1) *ASSET_TANGIB* is the firm’s asset tangibility before the BCUCC; (2) *FINANCIAL_DEVELOPMENT* is a binary classification into developed and emerging markets as given in the MSCI/Barras database in 2000; (3) *LEVERAGE_pre* is a firm’s debt-to-equity ratio in the quarter before the BCUCC; and (4) *CASH_HOLDINGS* is the ratio of cash and cash equivalents to total assets in the quarter before the BCUCC. We control for the following

Table 3. Descriptive statistics by accounting method

Variables	Fair value (<i>n</i> = 337)			Non-Fair Value (<i>n</i> = 265)			Differences Sign Level = *	
	Obs.	Mean	Median	Obs.	Mean	Median	<i>t</i> -test	Wilcoxon
<i>ACC_TRAD</i>	337	0.265	0.000	265	0.253	0.000	0.012	0.000
<i>ASSETS_pre</i> (€ mil.)	337	9196	3167	265	8477	2567	719	600
<i>ASSETS_post</i> (€ mil.)	337	10,988	4280	265	8648	2823	2341**	1457*
<i>ASSET_TANGIB</i>	337	47.29	48.02	265	47.05	47.93	0.240	0.090
<i>BOND_RATING</i>	337	2.889	3.000	265	2.983	3.000	-0.094	0.000
<i>BOND_YIELD</i>	337	0.052	0.043	265	0.051	-0.041	-0.001	-0.002
<i>CAPEX_CH</i>	337	0.122	0.089	265	0.062	0.048	0.060*	0.041
<i>CASH</i>	337	0.201	0.000	265	0.222	0.000	-0.021	0.000
<i>CASH_HOLDINGS</i>	337	0.118	0.042	265	0.124	0.049	-0.006	-0.007
<i>EBITDA_CH</i>	337	0.012	0.010	265	0.014	0.011	-0.002	-0.001
<i>FINANCIAL_DEVELOPMENT</i>	337	0.811	1.000	265	0.831	1.000	-0.020	0.000
<i>FV_PROPENSITY</i>	337	0.108	0.000	265	0.103	0.000	0.005	0.000
<i>FIRM_AGE</i> ^a	337	32.72	28.36	265	31.19	27.85	1.530	0.510
<i>ISSUE_Q4</i>	337	0.246	0.000	265	0.095	0.000	0.151***	0.000
<i>LEVERAGE_pre</i>	337	0.689	0.567	265	0.529	0.414	0.160**	0.153**
<i>LEVERAGE_post</i>	337	0.576	0.482	265	0.534	0.436	0.064	0.034
<i>LIQUID_IND_T</i>	337	0.111	0.104	265	0.110	0.103	0.001	0.001
<i>MINORITY</i>	337	0.452	0.000	265	0.442	0.000	0.010	0.000
<i>MTB</i>	337	2.851	1.823	265	2.76	2.111	0.091	-0.288
<i>REL_SIZE</i>	337	1.43	1.64	265	1.38	1.62	0.050	0.020
<i>RESEARCH</i>	337	0.178	0.162	265	0.172	0.158	0.006	0.004
<i>ROA</i>	337	0.042	0.028	265	0.035	0.019	0.007	0.009
<i>SIZE</i>	337	8.495	8.175	265	8.053	8.096	0.442	0.079
<i>SMOOTH</i>	337	0.381	0.000	265	0.363	0.000	0.018	0.000
<i>YEAR_MAT</i>	337	6.073	4.460	265	5.600	4.273	0.473	0.187

Notes: Table 3 reports the descriptive statistics of BCUCC at FV and at BV in our sample. Quarter *t* is the BCUCC quarter, for treated firms, and control variables are measured, where applicable, using financial data available in the period right before the BCUCC (i.e., *t*-1). *P*-values are based on two-tailed significance levels. All continuous variables are winsorized at 1%. For a definition of variables, see Appendix A. ***, **, and * denote significance at the 1%, 5%, or 10% levels, respectively.

^aPlease note that in regression analysis we use the natural logarithm of the firm age.

factors: (1) parent firm bond rating (*BOND_RATING*),⁵ measured as the Standard and Poor's rating at the end of the quarter before the business combination (AAA, AA, A, BBB, BB, B, etc.). Starting from the S&P ratings definitions of Issuer Credit Rating, we cluster close ratings into groups having the same number of rating categories, ending up with six clusters, where 6 is the highest rating cluster; (2) the existence of minority interest (*MINORITY*), measured as an indicator variable that takes the value of 1 if either the target or the acquirer in the BCUCC has noncontrolling interests (i.e., minority shareholders) and 0 otherwise; (3) the relative size of the target (*REL_SIZE*), measured as the ratio of total assets of the acquirer over total assets of the target firm at the fiscal year-end before the acquisition announcement; (4) the form of payment (*CASH*), measured as the ratio of cash to the total consideration paid for the BCUCC; and (5) *LIQUID_IND_T*, the target's liquidity index. It is measured following Moeller et al. (2004) as

⁵We use ratings of existing bonds at the beginning of the BCUCC quarter. Though, we checked bond rating changes around the BCUCC and we find no significant changes in bond ratings in the pre-post comparison. This at the same time suggests that rating agencies can more accurately assess financial statements, regardless the accounting treatment; and our results are not driven by rating changes.

the value of all corporate control transactions for \$1 million or more reported by SDC for each year and two-digit SIC code divided by the total book value of assets of all Compustat Global firms in the same two-digit SIC code and year.

We also control for parent firm characteristics. Specifically, we include size (*SIZE*), return on assets (*ROA*), market-to-book ratio (*MTB*), research expense⁶ (*RESEARCH*), capital expenditure change (*CAPEX_CH*), change in profitability (*EBITDA_CH*), and firm age (*FIRM_AGE*). Finally, we control for other factors identified in the literature as potentially affecting the choice between fair value and historical cost. In particular, *SMOOTH* is an indicator variable that captures firms' tendency to smooth earnings, and *ACC_TRAD* measures the closeness of IFRS with a country's local GAAP to control for the endogenous propensity to use fair value. We further control for fixed effects at the country, industry, and year levels to mitigate any confounding factors and absorb any omitted variables. Throughout the analyses, the independent variables in the regression are measured, when applicable, at the quarter before that of the BCUCC. More detailed variable definitions are provided in Appendix A.

Table 4 reports regressions results. Columns 1–4 report results for a specification in which we include one variable of interest and all control variables. In Column 5, we include all the variables of interest in one regression. We discuss results based on the coefficients produced by the full model in Column 5. The coefficients on the variables that measure the cost and benefits of financial report transparency are both significant and in the predicted direction (*ASSET_TANGIB*, coeff: 0.152, *t*-stat: 2.17; *FINANCIAL_DEVELOPMENT*, coeff: –0.221, *t*-stat: –2.28). These results suggest that the likelihood a parent firm chooses a FV_BCUCC over a HC_BCUCC increases with asset tangibility and decreases with the country's capital market financial development, providing support to the prediction that the desire to increase transparency drives the accounting choice in BCUCCs. The preference for an FV_BCUCC is also driven by the parent firm's need to raise funds (*CASH_HOLDINGS*, coeff: –0.091, *t*-stat: –1.87) as well as by the parent firm's pre-BCUCC balance sheet leverage (*LEVERAGE_pre*, coeff: 0.372, *t*-stat: 3.44). Given that the positive relation between pre-BCUCC leverage could indicate both the desire to increase transparency and window-dressing to fool investors, in the next section, we investigate which of the two drives the results.

4.2. Explaining the Effect of Leverage on the Accounting Method Selection

To explain the effect of leverage on the accounting choice, we rely on the work of Christensen and Nikolaev (2013), who suggest that the positive relation between firm leverage and fair value reporting may reflect efficient contracting, because it is less costly for a highly levered firm to reliably report assets' fair values. Specifically, they show that, under IFRS, levered firms are more likely to choose to report long-lived assets at fair values on a consistent basis. Thus, if the effect of leverage on the selection of fair value for BCUCCs is driven by the ability of the firm to provide transparent information, we expect the relation between leverage and the selection of a FV_BCUCC to strengthen in firms that regularly report fair values via the fair value selection. If the effect of leverage is unrelated to the ability to provide transparent information on firm assets and relates to the desire to window-dress balance sheet leverage, we expect the relation not to vary based on whether firms regularly report fair values. To test this prediction, we add to the regression model 1 an indicator variable that takes the value of 1 if the parent firm makes the fair

⁶Research activity creates intangible assets that are not recorded on the firm (and thus also the parent) balance sheet. If the acquisition method is chosen, these assets are likely to have positive value and thus be recorded. The ability to record previously unrecorded intangible assets may affect the decision whether to re-value target's assets. Ideally, research should be measured at the target-firm level. Since R&D data on group firms besides the parent is generally unavailable, we use data at the parent level.

Table 4. Motivation for the accounting choice in BCUCCs
$$FV_BCUCC_{i,t} = \beta_0 + \beta_1 ASSET_TANGIB_{i,t-1} + \beta_2 FINANCIAL_DEVELOPMENT_{i,t-1} \\ + \beta_3 LEVERAGE_pre_{i,t-1} + \beta_4 CASH_HOLDINGS_{i,t-1} + \beta_{5-17} CONTROLS \\ + COUNTRY_FE_k + INDUSTRY_FE_j + TIME_FE_t + \varepsilon_{i,t}$$

Variables	Pred.	Column 1	Column 2	Column 3	Column 4	Column 5
<i>ASSET_TANGIB</i>	+	0.086** (2.11)				0.152** (2.17)
<i>FINANCIAL_DEVELOPMENT</i>	-		-0.104** (-2.14)			-0.221** (-2.28)
<i>LEVERAGE_pre</i>	+			0.378*** (3.52)		0.372*** (3.44)
<i>CASH_HOLDINGS</i>	-				-0.085** (-2.00)	-0.091* (-1.87)
<i>BOND_RATING</i>	-	-0.042 (-1.08)	-0.038 (-1.06)	-0.041 (-0.95)	-0.040 (-0.96)	-0.072 (-1.54)
<i>MINORITY</i>	?	-0.011 (-1.45)	-0.013 (-1.31)	-0.014 (-1.44)	-0.014 (-1.46)	-0.015 (-1.44)
<i>REL_SIZE</i>	?	-0.003 (-1.33)	-0.010 (-1.41)	-0.008 (-1.12)	-0.008 (-1.32)	-0.008 (-1.32)
<i>CASH</i>	?	-0.013 (-1.49)	-0.022 (-1.45)	-0.018 (-1.49)	-0.016 (-1.46)	-0.018 (-1.49)
<i>LIQUID_IND_T</i>	?	0.008 (0.94)	0.005 (1.11)	0.008 (0.94)	0.009 (0.96)	0.009 (0.94)
<i>SIZE</i>	?	0.093** (2.32)	0.094*** (2.98)	0.091** (2.82)	0.063** (2.87)	0.093** (2.72)
<i>ROA</i>	?	-0.019 (-1.61)	-0.019 (-1.34)	-0.019 (-1.44)	-0.020 (-1.68)	-0.019 (-1.54)
<i>MTB</i>	?	-0.014 (-1.30)	-0.013 (-1.42)	-0.014 (-1.12)	-0.010 (-1.32)	-0.015 (-1.32)
<i>RESEARCH</i>	?	-0.037 (-1.17)	-0.030 (-1.26)	-0.018 (-1.16)	-0.038 (-1.00)	-0.038 (-1.16)
<i>CAPEX_CH</i>	?	0.023** (1.97)	0.029** (1.94)	0.028** (1.92)	0.027** (1.92)	0.027** (1.92)
<i>EBITDA_CH</i>	?	-0.011 (-1.47)	-0.009 (-1.46)	-0.011 (-1.42)	-0.011 (-1.42)	-0.011 (-1.42)
<i>SMOOTH</i>	-	-0.032** (-1.91)	-0.075** (-1.97)	-0.082** (-1.91)	-0.072** (-1.91)	-0.085** (-1.97)
<i>ACC_TRAD</i>	?	0.020 (1.43)	0.018 (1.28)	0.014 (1.48)	0.011 (1.47)	0.015 (1.60)
<i>FIRM_AGE</i>	-	-0.111 (-1.23)	-0.098 (-1.24)	-0.111 (-1.21)	-0.131 (-1.23)	-0.108 (-1.23)
<i>Country, Industry and Time FE</i>		Yes	Yes	Yes	Yes	Yes
<i># of Observations</i>		602	602	602	602	602
<i>Pseudo R-squared</i>		0.276	0.274	0.269	0.271	0.279

Notes: Table 4 reports the results of a logit regression to identify the motivation of the FV choice. The dependent variable is *FV_BCUCC*, an indicator variable equal to 1 if a firm account for a BCUCC at fair value and 0 otherwise. The variables of interest are 1) *ASSET_TANGIB* – the firm asset tangibility before the BCUCC; (2) *FINANCIAL_DEVELOPMENT* – a binary classification into developed and emerging markets as given in MSCI/Barra database in 2000. (3) *LEVERAGE_pre* – a firm’s debt-to-equity ratio in the quarter before the BCUCC; (4) *CASH_HOLDINGS* – the ratio of cash and cash equivalents to total assets in the quarter before the BCUCC. Z-statistics are reported in parentheses. P-values are based on two-tailed significance levels. Regression is run by double-clustering standard errors by year, industry, and country. Columns 1 to 4 report regression results for each potential determinant, while in Column 5 the full model is reported. For a definition of variables, see Appendix A. ***, **, and * denote significance at the 1%, 5%, or 10% levels, respectively.

value choice and routinely records at fair value some of its long-lived assets (*FV_PROPENSITY*) as well as an interaction between the latter and *LEVERAGE_pre*. Specifically, we estimate the following logistic regression:

$$\begin{aligned}
 FV_BCUCC_{i,t} = & \beta_0 + \beta_1 LEVERAGE_pre_{i,t-1} + \beta_2 FV_PROPENSITY_{i,t-1} \\
 & + \beta_3 LEVERAGE_pre_{i,t-1} * FV_PROPENSITY_{i,t-1} + \beta_4 ASSET_TANGIB_{i,t-1} \\
 & + \beta_5 FINANCIAL_DEVELOPMENT_{i,t-1} + \beta_6 CASH_HOLDINGS_{i,t-1} \\
 & + \beta_{7-20} CONTROLS + COUNTRY_FE_k \\
 & + INDUSTRY_FE_j + TIME_FE_t + \varepsilon_{i,t}
 \end{aligned} \tag{2}$$

If the motivation to increase transparency drives the relation between leverage and the preference for an *FV_BCUCC*, we expect *LEVERAGE_pre*FV_PROPENSITY* to load positively in the regression. If the relation is driven by the desire to window-dress balance sheet leverage, we expect the coefficient on the interaction variable to be insignificant. All other variables in the regression are defined as in Equation (1) and described in Appendix A. Table 5 reports the results. We report two specifications. In Column 1, we add the interaction variable without the main effect of *FV_PROPENSITY*, and, in Column 2, we include the main effect. The coefficient on *LEVERAGE_pre*FV_PROPENSITY* is positive and significant in both columns (e.g., in Column 2: coeff: 1.095, t-stat: 3.23), suggesting that likelihood a parent firm chooses an *FV_BCUCC* increases in firms that are both (1) highly levered and thus likely have information on the fair values of their assets (Christensen & Nikolaev, 2013) and (2) regularly make the fair value choice for their long-lived assets. These results support the argument that the ability to increase transparency explains the positive relation between pre-*BCUCC* leverage and the selection of a *FV_BCUCC* over a *HC_BCUCC*.

4.3. Fair Value *BCUCC* and the Likelihood of Raising New Public Debt

This section reports the results of testing the first part of hypothesis 2, which aims at understanding the effect of the selection of fair value revaluation in a *BCUCC* on parent firms' indebtedness. Specifically, we investigate whether parent firms that chose the acquisition method to record a *BCUCC* issue more public debt following the transaction. To that end, we first partition our *BCUCCs* sample between parent firms that chose to re-value the target's assets and those that do not. We find that 24.6% of *FV_BCUCC* firms issued public debt in the four quarters after the *BCUCC*, compared with only 9.5% of *HC_BCUCC* firms, with the difference significant at the 1% level.

This comparison, while consistent with *FV_BCUCC* parent firms taking advantage of the increased transparency post-*BCUCC* to issue new public debt, could also be affected by other differences between the two groups. Further, comparing the *FV_BCUCC* firms with the *HC_BCUCC* firms does not properly isolate the effect of the *BCUCC* on the ability to take advantage of the accounting choice. Whereas the decision to go through a *BCUCC* is motivated primarily by factors related to the efficiency of group operation, which is likely independent of the accounting choice, the accounting choice and the decision to raise more debt are likely simultaneous and therefore endogenous – firms that need to raise more debt will be more motivated to increase transparency by choosing a *FV_BCUCC*. To properly address this concern, we identify a sample of firms that likely had the same need to raise more debt but that were not involved in a

BCUCC, so the opportunity to increase transparency by massively re-evaluating their assets did not exist.

Table 5. Disentangling the effect of leverage on the selection of a FV_BCUCC

$$FV_BCUCC_{i,t} = \beta_0 + \beta_1 LEVERAGE_pre_{i,t-1} + \beta_2 FV_PROPENSITY_{i,t-1} \\ + \beta_3 LEVERAGE_pre_{i,t-1} * FV_PROPENSITY_{i,t-1} + \beta_4 ASSET_TANGIB_{i,t-1} \\ + \beta_5 FINANCIAL_DEVELOPMENT_{i,t-1} + \beta_6 CASH_HOLDINGS_{i,t-1} \\ + \beta_{7-20} CONTROLS + COUNTRY_FE_k + INDUSTRY_FE_j + TIME_FE_l + \varepsilon_{i,t}$$

Variable	Prediction	Column 1	Column 2
<i>LEVERAGE_pre</i>	+	0.456*** (2.91)	0.430** (2.66)
<i>FV_PROPENSITY</i>	?		1.340 (1.61)
<i>LEVERAGE_pre*FV_PROPENSITY</i>	?	1.089*** (2.90)	1.095*** (3.23)
<i>ASSET_TANG</i>	?	0.091*** (3.16)	0.027*** (3.14)
<i>FINANCIAL_DEVELOPMENT</i>	?	0.096** (2.26)	0.092*** (2.99)
<i>CASH_HOLDINGS</i>	?	0.021** (2.26)	0.047** (2.14)
<i>BOND_RATING</i>	?	0.026** (2.70)	0.004** (2.14)
<i>MINORITY</i>	?	-0.024 (-0.14)	-0.027 (-0.17)
<i>REL_SIZE</i>	?	-0.047 (-0.14)	-0.067 (-0.17)
<i>CASH</i>	?	-0.027 (-1.14)	-0.026 (-1.91)
<i>LIQUID_IND_T</i>	?	-0.012 (-0.64)	-0.011 (-0.67)
<i>SIZE</i>	?	0.006** (1.99)	0.007** (2.14)
<i>ROA</i>	?	0.617 (1.44)	0.616 (1.61)
<i>MTB</i>	?	-0.001 (-1.07)	-0.001 (-0.77)
<i>RESEARCH</i>	?	-0.002 (-1.06)	-0.004 (-0.64)
<i>CAPEX_CH</i>	?	0.106** (2.06)	0.112** (2.07)
<i>EBITDA_CH</i>	?	0.077** (1.70)	0.072** (2.16)
<i>SMOOTH</i>	?	-0.092 (-0.94)	-0.029 (-0.97)
<i>ACC_TRAD</i>	?	-0.017 (-0.74)	-0.017 (-0.77)
<i>FIRM_AGE</i>	?	0.002 (1.29)	-0.09 (1.46)
<i>Country, Industry and Time fixed effects</i>		Yes	Yes
<i># of Observations</i>		602	602
<i>R-squared</i>		0.310	0.331

(Continued)

Table 5. Continued.

Notes: Table 5 reports the results of a logit regression aiming at disentangling the effect of leverage on the selection of a FV_BCUC. Z-statistics are reported in parentheses. P-values are based on two-tailed significance levels. The regression is run by double-clustering standard errors by year and industry. The dependent variable is *FV_BCUC*, an indicator variable equal to 1 if a firm account for a BCUC at fair value and 0 otherwise. The variables of interest is *LEVERAGE_pre*FV_PROPENSITY* which is an interaction between the following two variables: (1) *LEVERAGE_pre*, that is, the debt in current liabilities + long-term debt, divided by book value of equity (D/E) computed in quarter $t - 1$, and (2) *FV_PROPENSITY*, that is, an indicator variable equal 1 if the company declares in the accounting policy that at least one among PPE, investment property, or intangibles is accounted for at fair value and 0 otherwise. We also include the interaction between the two, to carry out any eventual marginal effect. All continuous variables are winsorized at 1%. For a definition of variables, see Appendix A. ***, **, and * denote significance at the 1%, 5%, or 10% levels, respectively.

For each parent firm that re-valued a target's assets, we identify on a country-industry pair a matched firm based on propensity score-matching (Armstrong et al., 2010; Heckman et al., 1997; Rosenbaum & Rubin, 1983).

We use the following first-stage model on a *Country_Industry* pair basis:

$$\begin{aligned} FV_BCUC_{i,t} = & \beta_0 + \beta_1 ASSET_TANGIB_{i,t-1} + \beta_2 LEVERAGE_pre_{i,t-1} \\ & + \beta_3 CASH_HOLDINGS_{i,t-1} + \beta_4 BOND_RATING_{i,t-1} + \beta_{5-12} CONTROLS \\ & + TIME_FE_t + \varepsilon_{i,t} \end{aligned} \quad (3)$$

All variables in the regression are defined the same way as in model 1. We include in the regression all variables included in model 1 with the necessary changes. For example, since the regression is run on a country-industry pair basis, we exclude *FINANCIAL_DEVELOPMENT* and industry fixed effects. We also exclude BCUC-specific controls included in model 1, as most firms included in the regression did not do a BCUC. Finally, as we use *country_industry* pair matching, we also include year fixed effects for each country-pair match.⁷

We use a one-to-one nearest-neighbor matching without replacement (Heckman et al., 1997), restricting the attention to a falling propensity score in the common support area for both groups (Smith & Todd, 2005).⁸ To avoid matched pairs with significant differences in the propensity score, we use a caliper of 0.5%. Thus, we create two groups of firms with a similar need to raise debt (and re-value their balance sheet) but only one group went through a BCUC, which enables isolating the effect of BCUCs on the issuance of new debt. Table 6 reports the propensity-score estimation results based on a pool of 48,337 observations.⁹ Panel A of Table 6 reports the results of the propensity-score-matching regression (first stage), and panel B reports descriptive statistics of the treatment and control firms with respect to matching variables. Reported statistics suggest that the matching produces a control group of firms that resembles to the treatment group in all important respects. We also verify that each firm in the control group has public debt on its balance sheet, as some firms avoid public markets to raise debt, which may cause a difference in the likelihood of issuing new public debt.

We then pool the treatment and control groups and test whether the likelihood of issuing new public debt differs between the two groups. We start with a univariate comparison of the

⁷We control for time fixed effects at quarter or year level, depending on the equation. Specific time controls are reported in each table.

⁸The common support condition drops observations in which the propensity score is smaller than the minimum and larger than the maximum in the opposite group. This restriction rules out the phenomenon of perfect predictability; i.e., it ensures that firms with the same X values have positive probabilities of being both treated.

⁹We report results only for the debt-to-equity measure of leverage. Results are qualitatively similar when we use debt-to-assets.

proportion of firms that issued new bonds in the four fiscal quarters immediately following the BCUCC. Table 7 panel A reports results. In the quarter immediately following the BCUCC, 14.4% of the firms in the treatment group issued new public debt compared with 4.2% of those

Table 6. Propensity-score matching for fair-value parent firms

Panel A: Logit Regression to Identify Matched Firms

First stage estimated separately for each Country_Industry pair:

$$FV_BCUCC_{i,t} = \beta_0 + \beta_1 ASSET_TANGIB_{i,t-1} + \beta_2 LEVERAGE_pre_{i,t-1} + \beta_3 CASH_HOLDINGS_{i,t-1} + \beta_4 BOND_RATING_{i,t-1} + \beta_{5-12} CONTROLS + TIME_FE_t + \varepsilon_{i,t}$$

Variables	<i>Pred.</i>	FV_BCUCC Full Sample
<i>ASSET_TANGIB</i>	+	0.184** (2.31)
<i>LEVERAGE_pre</i>	?	0.685*** (2.95)
<i>CASH_HOLDINGS</i>	-	-0.104* (-1.92)
<i>BOND_RATING</i>	-	-0.097 (-1.18)
<i>SIZE</i>	?	0.174*** (5.89)
<i>ROA</i>	?	-0.028 (-1.68)
<i>MTB</i>	?	-0.008 (-1.27)
<i>RESEARCH</i>	?	-0.018 (-1.08)
<i>CAPEX_CH</i>	?	0.018** (2.15)
<i>EBITDA_CH</i>	?	-0.004 (-1.45)
<i>SMOOTH</i>	-	-0.084** (-1.96)
<i>FIRM_AGE</i>	-	-0.043 (-1.24)
<i>Time FE</i>		Yes
<i># of Observations</i>		48,337
<i>Pseudo R-squared</i>		0.318

Panel B: Validity of PSM Matching – Descriptive Statistics of Treatment and Matched Firms

	Treatment (<i>n</i> = 337)			Matched (<i>n</i> = 337)			Differences Sign Level = *	
	Obs.	Mean	Median	Obs.	Mean	Median	t-test	Wilcoxon
<i>ASSET_TANGIB</i>	337	47.29	48.02	337	48.07	49.02	-0.780	-1.000
<i>LEVERAGE_pre</i>	337	0.685	0.567	337	0.672	0.532	0.013	0.035
<i>CASH_HOLDINGS</i>	337	0.118	0.042	337	0.122	0.044	-0.004	-0.002
<i>BOND_RATING</i>	337	2.889	3.000	337	2.998	3.000	-0.109	0.000
<i>SIZE</i>	337	8.495	8.175	337	8.516	7.886	-0.021	0.289
<i>ROA</i>	337	0.122	0.093	337	0.132	0.112	-0.010	-0.019
<i>MTB</i>	337	2.851	1.823	337	2.268	1.898	0.583	-0.075
<i>RESEARCH</i>	337	0.058	0.062	337	0.065	0.049	-0.007	1.571
<i>CAPEX_CH</i>	337	0.122	0.089	337	0.079	0.072	0.043*	0.017
<i>EBITDA_CH</i>	337	0.014	0.010	337	0.013	0.011	0.001	-0.001

(Continued)

Table 6. Continued.

	Treatment (<i>n</i> = 337)			Matched (<i>n</i> = 337)			Differences Sign Level = *	
	Obs.	Mean	Median	Obs.	Mean	Median	t-test	Wilcoxon
	<i>SMOOTH</i>	337	0.385	0.259	337	0.357	0.275	0.028
<i>FIRM_AGE</i>	337	32.72	28.36	337	32.20	28.15	0.520	0.210

Notes: **Table 6 Panel A** reports the results of a logit regression to identify a matching firm to each parent firm that revalue target assets to fair market value following a BCUCC. Z-statistics are reported in parentheses. *P*-values are based on two-tailed significance levels. Quarter *t* is the BCUCC quarter, for treated firms, and control variables are measured, where applicable, in the period before the BCUCC. The regression is run by double-clustering standard errors by year and industry. For a definition of variables, see Appendix A. **Table 6 Panel B** reports descriptive statistics of the treatment group (fair-value BCUCC firms) and the control group produced by PSM. *FV_BCUCC* an indicator variable equal to 1 if the parent firm used the acquisition method to record the BCUCC, zero otherwise. All continuous variables are winsorized at 1%. For a definition of variables, see Appendix A. ***, **, and * denote significance at the 1%, 5%, or 10% levels, respectively.

in the control group. The difference persists for three additional quarters in which the cumulative proportion of treatment firms issuing new public debt is 24.6% compared with 11.7% of the control firms. All differences are statistically significant at the 1% level, suggesting that parent firms that were involved in BCUCCs and chose to re-value their targets’ assets to their fair value are more likely than similar firms to issue new bonds following the transaction.

Next, we use a regression analysis to test whether controlling for additional factors can change the inference drawn from the univariate analysis. To that end, we estimate the following logistic regression:

$$\begin{aligned}
 ISSUE_{i,t+1,t+4} = & \beta_0 + b_1FV_BCUCC_{i,t} + \beta_2BOND_RATING_{i,t-1} + \beta_3BOND_YIELD_{i,t-1} \\
 & + \beta_4YEAR_MAT_{i,t-1} + \beta_5ASSET_TANGIB_{i,t-1} \\
 & + \beta_6FINANCIAL_DEVELOPMENT_{i,t-1} + \beta_7LEVERAGE_pre_{i,t-1} \\
 & + \beta_8CASH_HOLDINGS_{i,t-1} + \beta_{9-16}CONTROLS \\
 & + COUNTRY_FE_k + INDUSTRY_FE_j + TIME_FE_t + \varepsilon_{i,t}
 \end{aligned} \tag{4}$$

where *ISSUE* is an indicator variable equal to 1 if the firm issues new debt in the four quarters post BCUCC and zero otherwise. *FV_BCUCC* is an indicator variable equal to 1 for parent firms that used the acquisition method to record the BCUCC and zero for matched firms that did not go through a BCUCC. All other variables in the regression are defined as in model 1. We include in the regression all variables included in model 1 with the necessary changes. Because the decision to issue bonds is likely affected by the characteristics of the issuer, we control for the parent firm’s past bond rating (*BOND_RATING*); cost of borrowing (*BOND_YIELD*) and for the years to maturity of the bond (*YEAR_MAT*). Finally, we also include time, industry, and country fixed effects.¹⁰

Results are reported in Table 7 Panel B. Column 1 reports results for a new bond issuance in the first quarter following the BCUCC, and columns 2, 3, and 4 report results for the first two, three, and four quarters following that of the BCUCC. Consistent with univariate results, parent firms of business groups that were involved in a BCUCC and chose to re-value the targets’ assets are more likely to issue new public debt afterward. The coefficient on *FV_BCUCC* is positive

¹⁰We control for time fixed effects at quarter or year level, depending on the equation. Specific time controls are reported in each table.

and significant at the 1% level across all regressions. Economically, the effect of a BCUCC that was followed by a re-valuation is not trivial. The marginal effect of the BCUCC that followed by a re-valuation on the likelihood of issuing new public debt is 20.3% at the first quarter following the BCUCC and 15.2% in the four quarters following the BCUCC.

Table 7. The likelihood of post-BCUCC new public debt issuance

Panel A: Univariate Analysis						
Variables	Obs.	Mean Treatment	Obs.	Mean Control	DIFF	T-test
<i>ISSUE_Q1</i>	337	0.144	337	0.042	0.102***	3.31
<i>ISSUE_Q2</i>	337	0.178	337	0.063	0.115***	3.19
<i>ISSUE_Q3</i>	337	0.210	337	0.093	0.117***	3.12
<i>ISSUE_Q4</i>	337	0.246	337	0.117	0.129***	3.19

Panel B: Regression Analysis						
$ISSUE_{i,t+1,t+4} = \beta_0 + \beta_1 FV_BCUCC_{i,t} + \beta_2 BOND_RATING_{i,t-1} + \beta_3 BOND_YIELD_{i,t-1}$ $+ \beta_4 YEAR_MAT_{i,t} + \beta_5 ASSET_TANGIB_{i,t-1} + \beta_6 FINANCIAL_DEVELOPMENT_{i,t-1}$ $+ \beta_7 LEVERAGE_pre_{i,t-1} + \beta_8 CASH_HOLDINGS_{i,t-1} + \beta_{9-16} CONTROLS$ $+ COUNTRY_FE_k + INDUSTRY_FE_j + TIME_FE_t + \varepsilon_{i,t}$						
Variables	Prediction	Column 1 ISSUE_Q1	Column 2 ISSUE_Q2	Column 3 ISSUE_Q3	Column 4 ISSUE_Q4	
<i>FV_BCUCC</i>	+	1.655*** (3.44)	1.345*** (3.27)	1.129*** (3.34)	1.121*** (3.28)	
<i>BOND_RATING</i>	-	-0.227** (-2.07)	-0.209** (-1.99)	-0.120** (-2.05)	-0.088** (-2.02)	
<i>BOND_YIELD</i>	?	0.056 (1.11)	0.087 (1.31)	0.066 (1.27)	0.055 (1.13)	
<i>YEAR_MAT</i>	?	-0.045** (-2.21)	-0.057** (-2.07)	-0.065** (-2.56)	-0.054** (-2.11)	
<i>ASSET_TANGIB</i>	+	0.078** (2.00)	0.096** (2.20)	0.072** (2.23)	0.056** (2.02)	
<i>FINANCIAL_DEVELOPMENT</i>	-	0.032** (1.97)	0.016** (2.17)	0.022** (2.01)	0.023** (2.00)	
<i>LEVERAGE_pre</i>	?	0.145* (1.90)	0.180* (1.92)	0.109* (1.89)	0.077* (1.88)	
<i>CASH_HOLDINGS</i>	-	-0.093* (-1.88)	-0.095* (-1.88)	-0.099 (-1.76)	-0.080* (-1.88)	
<i>SIZE</i>	?	0.130 (1.60)	0.152 (1.63)	0.160 (1.64)	0.140* (1.68)	
<i>ROA</i>	?	0.140* (1.79)	0.152* (1.79)	0.155** (2.04)	0.139** (2.00)	
<i>MTB</i>	?	-0.005 (-0.97)	-0.017 (-1.07)	-0.014 (-1.13)	-0.021 (-1.03)	
<i>RESEARCH</i>	?	0.550 (1.23)	0.500 (1.55)	0.376 (1.29)	0.365 (1.53)	
<i>CAPEX_CH</i>	?	0.065 (1.53)	0.056 (1.45)	0.034 (1.34)	0.036 (1.56)	
<i>EBITDA_CH</i>	?	0.092 (0.35)	0.099 (0.59)	0.092 (0.62)	0.150 (0.88)	
<i>SMOOTH</i>	?	-0.002* (-1.89)	-0.011** (-2.01)	-0.009** (-1.96)	-0.010** (-1.99)	
<i>FIRM_AGE</i>	?	-0.033 (-1.41)	-0.036 (-1.29)	-0.040 (-1.25)	-0.030 (-1.26)	

(Continued)

Table 7. Continued.

Panel B: Regression Analysis

$$\begin{aligned}
 \text{ISSUE}_{i,t+1,t+4} = & \beta_0 + \beta_1 \text{FV_BCUCC}_{i,t} + \beta_2 \text{BOND_RATING}_{i,t-1} + \beta_3 \text{BOND_YIELD}_{i,t-1} \\
 & + \beta_4 \text{YEAR_MAT}_{i,t} + \beta_5 \text{ASSET_TANGIB}_{i,t-1} + \beta_6 \text{FINANCIAL_DEVELOPMENT}_{i,t-1} \\
 & + \beta_7 \text{LEVERAGE_pre}_{i,t-1} + \beta_8 \text{CASH_HOLDINGS}_{i,t-1} + \beta_{9-16} \text{CONTROLS} \\
 & + \text{COUNTRY_FE}_k + \text{INDUSTRY_FE}_j + \text{TIME_FE}_t + \varepsilon_{i,t}
 \end{aligned}$$

Variables	Prediction	Column 1 ISSUE_Q1	Column 2 ISSUE_Q2	Column 3 ISSUE_Q3	Column 4 ISSUE_Q4
<i>Country, Industry and Time fixed effects</i>		Yes	Yes	Yes	Yes
<i># Observations</i>		674	674	674	674
<i>Pseudo R-squared</i>		0.287	0.278	0.314	0.334

Notes: **Table 7 Panel A** reports differences in the frequency of new debt issues between the group of parent firms that revalue target assets to fair market value following a BCUCC and the group of matched firms generated by the propensity-score matching. *ISSUE_Q1* is an indicator variable that takes the value of 1 if the firm issues new public debt during the first quarter after that of the firm *i* – quarter *t* observation and 0 otherwise; *ISSUE_Q2* is an indicator variable that takes the value of 1 if the firm issues new public debt during the second quarter after that of the firm *i* – quarter *t* observation and 0 otherwise; *ISSUE_Q3* is an indicator variable that takes the value of 1 if the firm issues new public debt during the third quarter after that of the firm *i* – quarter *t* observation, and 0 otherwise; *ISSUE_Q4* is an indicator variable that takes the value of 1 if the firm issues new public debt during the fourth quarter after that of the firm *i* – quarter *t* observation and 0 otherwise. *DIFF* is the average effect of treatment on the treated estimated after matching using the nearest neighbor-matching method. **Table 7 Panel B** reports the results of logistic regression analyses testing the likelihood of post-BCUCC new public debt issuance. Column 1 reports results for issuances that happened during the first three months after that of the firm *i* – quarter *t* observation. Column 2 reports results for issuances that happened during the first six months after that of the firm *i* – quarter *t* observation. Column 3 reports results for issuances that happened during the first nine months after that of the firm *i* – quarter *t* observation. Column 4 reports results for issuance that took place during the first twelve months after that of the firm *i* – quarter *t* observation. *Z*-statistics are reported in parentheses. *P*-values are based on two-tailed significance levels. The regression is run by double-clustering standard errors by year and industry. Quarter *t* is the BCUCC quarter, for treated firms, and control variables are measured, where applicable, in the period before the BCUCC. All continuous variables are winsorized at 1%. For a definition of variables, see Appendix A. For a definition of variables, see Appendix A. ***, **, and * denote significance at the 1%, 5%, or 10% levels, respectively.

4.4. The Cost of the New Debt Issued

This section reports results of testing the second part of hypothesis 2. Hypothesis 2B complements the previous analyses and provides evidence about whether the greater flexibility with recording assets at fair value is in part responsible to the finding of Florou and Kosi (2015) that cost of debt declined in countries that adopted IFRS. To test H2B, we identify a sample of firms that are similar in bond and firm characteristics as well as the timing of issuance, but that were not involved in a BCUCC, and so did not have the opportunity to massively re-evaluate their assets. We follow the same matching procedure as in section 4.3, with the only difference being the use of one-to-four matching to enlarge the sample size.¹¹

We use the following first-stage model on a *Country_Industry* pair basis:

$$\begin{aligned}
 \text{FV_BCUCC_ISSUE}_{i,t} = & \beta_0 + \beta_1 \text{BOND_RATING}_{i,t-1} + \beta_2 \text{BOND_YIELD}_{i,t-1} \\
 & + \beta_3 \text{ASSET_TANGIB}_{i,t-1} + \beta_4 \text{LEVERAGE_pre}_{i,t-1} \\
 & + \beta_5 \text{CASH_HOLDINGS}_{i,t-1} \\
 & + \beta_{6-16} \text{CONTROLS} + \text{TIME_FE}_t + \varepsilon_{i,t}
 \end{aligned} \tag{5}$$

¹¹We replicate our analysis on a one-to-one matching as per Equation (3), and results are qualitatively unchanged.

where FV_BCUCC_ISSUE is an indicator variable equal to 1 if the parent firm used the acquisition method to record the BCUCC and issued a new public debt subsequently and zero otherwise. All other variables in the regression are defined as in model 1. We include in the regression all variables included in model 1 with the necessary changes.

Table 8 reports the results based on a pool of 3946 bond issuances. Panel A reports the results of the matching regression, and panel B reports descriptive statistics of the treatment and control firms with respect to the matching variables. Reported statistics suggest that the matching produces a group of control firms that resembles the treatment group in all the important respects.

After pooling the 79 fair value BCUCC-bond-issuing parents¹² with the matched firms, we start with a univariate comparison between the two groups. Table 9 Panel A reports results. The comparisons yield a difference of 55 basis points, and an average yield to maturity of 4.63% for the BCUCC firms versus 5.18% for the matched sample that is significant at the 5% level (t -stat: 2.58). This effect, of around 11% of the cost of borrowing, is significantly larger from the one documented by Aleszczyk et al. (2020), who investigate the benefits of fair value revaluations following an acquisition of an outside firm. When acquiring an outside firm the acquirer has no choice of an accounting method and thus the motivation to increase transparency does not play a role in the accounting for the acquisition.

Next, we use a regression analysis to corroborate the evidence from the univariate analysis. To that end, we estimate the following logistic regression:

$$\begin{aligned}
 BOND_YIELD_{i,t} = & \beta_0 + \beta_1 FV_BCUCC_ISSUE_{i,t} + \beta_2 BOND_RATING_{i,t-1} \\
 & + \beta_3 YEAR_MAT_{i,t-1} + \beta_4 ASSET_TANGIB_{i,t-1} \\
 & + \beta_5 FINANCIAL_DEVELOPMENT_{i,t-1} \\
 & + \beta_6 LEVERAGE_pre_{i,t-1} \\
 & + \beta_7 CASH_HOLDINGS_{i,t-1} + \beta_{8-15} CONTROLS + COUNTRY_FE_k \\
 & + INDUSTRY_FE_j + TIME_FE_t + \varepsilon_{i,t}
 \end{aligned} \tag{6}$$

where $BOND_YIELD$ is the yield to maturity at the time of bond issuance, based on the coupon and any discount or premium to par value at the time of sale. FV_BCUCC_ISSUE is an indicator variable equal to 1 if a parent used the acquisition method to record the BCUCC and issued new public debt subsequently and zero otherwise. All other variables in the regression are defined as in model 1. We include in the regression all variables included in model 1 with the necessary changes. Given that the bond term is an important factor in the bond yield, we also include in this regression a control variable for the years to maturity.

Results are reported in Table 9 Panel B. Evidence from the regression analyses is consistent with that of the univariate analysis, suggesting that parents of business groups that choose the acquisition method to record a BCUCC enjoy an improvement in financial report transparency, which lowers the cost of subsequent public debt issuance, relative to peers of comparable firms that issued bonds at the same time but did not have a chance to increase transparency through assets' re-valuation at a large scale.

4.5. Sensitivity Analyses

Even though we use year and country fixed effects in our analysis as well as *country_industry* pair matching in the propensity-score matching, we cannot rule out that our results might be –

¹²There were 81 FV BCUCC firms issuing bonds. But for two issues, we could not find the bond yield for the issue, so we dropped them from this analysis.

Table 8. Propensity score-matching procedure for fair value BCUCC issuers

Panel A: Logit Regression to Identify Matched Firms

First stage estimated separately for each *Country_Industry* pair:

$$FV_BCUCC_ISSUE_{i,t} = \beta_0 + \beta_1 BOND_RATING_{i,t-1} + \beta_2 BOND_YIELD_{i,t-1} + \beta_3 ASSET_TANGIB_{i,t-1} + \beta_4 LEVERAGE_pre_{i,t-1} + \beta_5 CASH_HOLDINGS_{i,t-1} + \beta_{6-14} CONTROLS + TIME_FE_t + \varepsilon_{i,t}$$

Variables	Prediction	FV_BCUCC_ISSUE
<i>BOND_RATING</i>	?	- 0.466** (- 2.54)
<i>BOND_YIELD</i>	?	- 0.210** (- 3.01)
<i>ASSET_TANGIB</i>	+	0.185** (2.46)
<i>LEVERAGE_pre</i>	?	0.060 (1.60)
<i>CASH_HOLDINGS</i>	-	- 0.086** (- 2.01)
<i>SIZE</i>	?	0.174*** (6.88)
<i>YEAR_MAT</i>	?	0.001** (2.10)
<i>ROA</i>	?	- 0.006 (- 1.48)
<i>MTB</i>	?	- 0.015 (- 1.11)
<i>RESEARCH</i>	?	0.266*** (2.88)
<i>CAPEX_CH</i>	?	0.266*** (2.88)
<i>EBITDA_CH</i>	?	- 1.464 (- 1.66)
<i>SMOOTH</i>	?	0.002* (1.89)
<i>FIRM_AGE</i>	?	- 0.033 (- 1.41)
Time FE		YES
# of Observations		3946
Pseudo R-squared		0.235

Panel B: Validity of PSM Matching – Descriptive Statistics of Treatment and One-to-Four Match

Variables	Treatment (n = 79)			Matched (n = 316)			Differences and sign levels (*)	
	Obs.	Mean	Median	Obs.	Mean	Median	MeanDiff	MedianDiff
<i>BOND_RATING</i>	79	2.889	3.000	316	2.998	3.000	- 0.109	0.000
<i>BOND_YIELD</i>	79	0.052	0.043	316	0.051	- 0.041	0.001	0.084
<i>ASSET_TANGIB</i>	79	47.29	48.02	316	48.07	49.02	- 0.78	- 1.000
<i>LEVERAGE_pre</i>	79	0.681	0.576	316	0.69	0.613	- 0.009	- 0.037
<i>CASH_HOLDINGS</i>	79	0.118	0.042	316	0.122	0.044	- 0.004	- 0.002
<i>SIZE</i>	79	8.848	8.344	316	8.984	8.467	- 0.136	- 0.123
<i>ROA</i>	79	0.004	0.001	316	0.003	0.002	0.001	- 0.001
<i>MTB</i>	79	2.251	1.800	316	2.150	1.780	0.101	0.020
<i>RESEARCH</i>	79	0.017	0.016	316	0.017	0.015	0.000	0.001
<i>CAPEX_CH</i>	79	0.015	0.012	316	0.014	0.013	0.001	- 0.001
<i>EBITDA_CH</i>	79	0.015	0.012	316	0.014	0.013	0.001	- 0.001

(Continued)

Table 8. Continued.

Panel B: Validity of PSM Matching – Descriptive Statistics of Treatment and One-to-Four Match

Variables	Treatment (<i>n</i> = 79)			Matched (<i>n</i> = 316)			<i>Differences and sign levels (*)</i>	
	Obs.	Mean	Median	Obs.	Mean	Median	<i>MeanDiff</i>	<i>MedianDiff</i>
<i>SMOOTH</i>	79	0.325	0.239	316	0.307	0.229	0.018	0.010
<i>FIRM_AGE</i>	79	3.451	3.112	316	3.324	2.963	0.127	0.149

Notes: **Table 8 Panel A** reports the results of a logit regression to identify four control firms to each parent firm that revalue target assets to fair market value following a BCUCC, and issue new bond. Z-statistics are reported in parentheses. P-values are based on two-tailed significance levels. Regression is run by double-clustering standard errors by year and industry_country. **Table 8 Panel B** reports descriptive statistics of the treatment group (FV_BCUCC firms that issued a new public debt subsequently) and the control group generated by the PSM procedure. For a definition of variables, see Appendix A. ***, **, and * denote significance at the 1%, 5%, or 10% levels, respectively.

at least partially – driven by the Financial Crisis for the early years of our sample. The crisis had an impact on firms’ financing. Therefore, we replicate entirely our tests dropping years from 2005 to 2009 to exclude from our sample the period with most severe crisis effects in our sample countries. Results (untabulated) of all analyses are insensitive to dropping the years from 2005 to 2009 from the sample.

We conduct several additional analyses and sensitivity tests to validate our findings and alleviate concerns that our results are driven by other factors. First, we replace the country-level measure for the cost/benefit of transparent financial reports (country financial development) with a firm-level measure – analysts’ coverage. Our conjecture is that analysts that help interpret financial reports reduce the benefits of explicitly recording assets at their fair value on financial reports and thus the likelihood of selecting a FV_BCUCC. Consistent with this prediction, we find (untabulated) that the likelihood a parent chooses the acquisition method to record a BCUCC declines with parent analysts’ coverage. Second, we run sensitivities (untabulated) on different specifications for control variables (e.g., size, R&D, EBITDA, etc.) and use levels instead of changes where applicable and find that results are intact. Finally, we conduct a placebo (falsification) test to examine whether parent firms that do BCUCCs but choose not to revalue target assets to their fair market value (HC_BCUCC) exhibit an increase in public debt issuance similar to the one observed in FV_BCUCC firms. In an untabulated analysis, we observe no difference between the HC_BCUCC and matched firms that did not go through a BCUCC, suggesting that the increase in debt issuance is not likely an outcome of the decision to conduct a BCUCC per se, but to the improved transparency that resulted from the choice to use the acquisition method to record the BCUCC.

5. Conclusion

This study focuses on a unique form of firm re-organization – a business combination under common control – that, under IFRS, allows parent firms to re-value their assets to fair values on a large scale. Our results suggest that these fair value revaluations increase the transparency of financial reports, which leads firms to issue new public debt at a reduced cost. Our study highlights that flexibility toward fair value in IFRS contributes to its ability to improve transparency in adopting countries. The results of this study may also have implications for U.S. regulators, who allow non-U.S.-based multinationals to report using IFRS. Large multinationals typically have multiple subsidiaries and thus are more likely to conduct BCUCCs.

Table 9. Post-FV_BCUCC cost of debt

Panel A: Univariate tests for the difference in Bond Yields New Issues						
Variables	Obs.	FV_BCUCC (a)	Obs.	Other Issuers (b)	DIFF (a – b)	T-test
<i>BOND_YIELD</i>	79	0.0463	316	0.0518	– 0.0055	– 2.58**
Panel B: Regression Analysis – FV BCUCCs and New Issues Bond Yields						
$BOND_YIELD_{i,t} = \beta_0 + \beta_1 FV_BCUCC_ISSUE_{i,t} + \beta_2 BOND_RATING_{i,t-1} + \beta_3 YEAR_MAT_{i,t} + \beta_4 ASSET_TANGIB_{i,t-1} + \beta_5 FINANCIAL_DEVELOPMENT_{i,t-1} + \beta_6 LEVERAGE_pre_{i,t-1} + \beta_7 CASH_HOLDINGS_{i,t-1} + \beta_{8-15} CONTROLS + COUNTRY_FE_k + INDUSTRY_FE_j + TIME_FE_t + \varepsilon_{i,t}$						
Variables	<i>BOND_YIELD</i>					
<i>FV_BCUCC_ISSUE</i>	–	– 0.0058*** (– 3.07)				
<i>BOND_RATING</i>	?	– 0.001** (– 2.25)				
<i>YEAR_MAT</i>	?	– 0.002** (– 2.12)				
<i>ASSET_TANGIB</i>	+	0.076 (1.49)				
<i>FINANCIAL_DEVELOPMENT</i>	–	– 0.005 (– 1.56)				
<i>LEVERAGE_pre</i>	?	0.013** (1.94)				
<i>CASH_HOLDINGS</i>	–	– 0.003** (– 1.97)				
<i>SIZE</i>	?	0.002*** (3.01)				
<i>ROA</i>	?	– 0.001 (– 1.14)				
<i>MTB</i>	?	– 0.014* (– 1.81)				
<i>RESEARCH</i>	?	0.003** (2.15)				
<i>CAPEX_CH</i>	?	0.002** (2.65)				
<i>EBITDA_CH</i>	?	– 0.002 (– 1.55)				
<i>SMOOTH</i>	?	0.001* (1.90)				
<i>FIRM_AGE</i>	?	– 0.001 (– 1.23)				
Country, Industry and Time fixed effects						Yes
# of Observations						395
R-squared						0.399

Notes: **Table 9 Panel A** reports the *t*-tests for the difference in bond yield between parent firms that revalue target assets to fair market value following a BCUCC and those that are not engaged in any BCUCC. **Table 9 Panel B** reports the results of regression analysis for the treatment and control sample. *T*-statistics are reported in parentheses. *P*-values are based on two-tailed significance levels. The dependent variable is *BOND_YIELD*, whereas the variable of interest is *FV_BCUCC_ISSUE*, which is an indicator variable equal to 1 if the parent firm used the acquisition method to record the BCUCC, and issued a new public debt subsequently, zero otherwise. Quarter *t* is the BCUCC quarter, for treated firms, and control variables are measured, where applicable, in the period before the BCUCC. All continuous variables are winsorized at 1%. For a definition of variables, see Appendix A. ***, **, and * denote significance at the 1%, 5%, or 10% levels, respectively.

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Appendix A. Data sources and variable definitions

Variable	Definition
<i>Firm-specific variables</i>	
<i>ASSETS_pre</i>	Is the Book value of Total Assets in the quarter before the BCUCC.
<i>ASSETS_post</i>	Is the Book value of Total Assets in the quarter after the BCUCC.
<i>ASSET_TANGIB</i>	Asset tangibility before the BCUCC defined as $0.715 \times \text{receivables} + 0.547 \times \text{inventories} + 0.535 \times \text{fixed capital}$, deflated by book value of total assets net of cash. See, Lei et al. (2018)
<i>CAPEX_CH</i>	Average change in cash capital expenditure, scaled by the average total assets in quarters $(t - 1)$ to $(t + 1)$.
<i>CASH</i>	The ratio of cash to the total consideration paid for the BCUCC.
<i>CASH_HOLDINGS</i>	The ratio of cash and cash equivalents to total assets at $t - 1$.
<i>EBITDA_CH</i>	The difference in EBITDA change measured as EBITDA in $t + 1$ minus EBITDA in $t - 1$ scaled by total assets in $t - 1$. Formula: $[(EBITDA_{t+1} - EBITDA_{t-1}) / \text{Assets}_{t-1}]$.
<i>FV_BCUCC</i>	An indicator variable equal to 1 if the parent firm used the acquisition method to record the BCUCC, 0 otherwise.
<i>FV_BCUCC_ISSUE</i>	An indicator variable equal to 1 if the parent firm used the acquisition method to record the BCUCC and issued a new public debt subsequently, 0 otherwise
<i>FV_PROPENSITY</i>	An indicator variable that takes the value of 1 if the parent firm records at fair value at least one of the following groups of assets: PPE, investment property, or intangibles and 0 otherwise
<i>FIRM_AGE</i>	It is the natural logarithm of the number of years since the Parent appears in Compustat Global
<i>ISSUE</i>	An indicator variable that takes the value of 1 if the firm issues new public debt and the level of debt increases following the BCUCC in one of four quarter following the BCUCC, and 0 otherwise.
<i>LEVERAGE_pre</i>	Debt in current liabilities + long-term debt, divided by book value of equity (D/E) computed in quarter $t - 1$. (Quarter t is the BCUCC quarter, for treated firms.)
<i>LEVERAGE_post</i>	Debt in current liabilities + long-term debt, divided by book value of equity (D/E) computed in quarter $t + 1$. (Quarter t is the BCUCC quarter, for treated firms.)
<i>MINORITY</i>	An indicator variable that takes the value of 1 if either the target or the acquirer of BCUCC has non-controlling interests (i.e., minority shareholders) and 0 otherwise.
<i>MTB</i>	The ratio of market value of equity to the book value of equity of the parent firm at the end of the quarter $t - 1$.
<i>REL_SIZE</i>	The ratio of total assets of the acquirer over total assets of the target firm at the fiscal year-end before the acquisition announcement.
<i>RESEARCH</i>	Research expense scaled by the sales in quarter $t - 1$.
<i>ROA</i>	Return on assets, measured as earnings before extraordinary items at quarter t divided by total assets at quarter $t - 1$.
<i>SIZE</i>	The natural logarithm of total assets at quarter $t - 1$.
<i>SMOOTH</i>	Dummy variable coded 1 if firm i has earnings smoothing index higher than the average index of earnings smoothing in country j (firm's country of domicile) and 0 otherwise. See Quagli and Avallone (2010)

(Continued)

Table A1. Continued.

Variable	Definition
Country/industry-level variables	
<i>ACC_TRAD</i>	Is an indicator variable that captures the accounting tradition as the ‘distance’ between local GAAP and IAS/IFRS. The difference in accounting principles (<i>ACC_TRAD</i>) is measured by the average score across the two proxies: <i>absence</i> and <i>divergence</i> as defined in Ding et al. (2007). <i>ACC_TRAD</i> ranges from 0 to 111 with higher value corresponding to higher divergence. We dichotomize the raw data by coding 1 (0) observation with low (high) difference according to the median value of the <i>ACC_TRAD</i> score.
<i>FINANCIAL_DEVELOPMENT</i>	Is a binary classification into developed and emerging markets as given in MSCI/Barra database in 2000. See, Leuz (2010).
<i>LIQUID_IND_T</i>	The liquidity index for the target is calculated as the value of all corporate control transactions for \$1 million or more reported by SDC for each year and two-digit SIC code divided by the total book value of assets of all Compustat Global firms in the same two-digit SIC code and year. See, Moeller et al. (2004)
Bond specific variables	
<i>BOND_RATING</i>	Is the average bond rating of existing bond at the end of the quarter before the issuance quarter, clustered in six categories, where 6 is the highest rating cluster.
<i>BOND_YIELD</i>	The yield to maturity – based on the coupon and any discount or premium to par value calculated only on fixed rate issues.
<i>YEAR_MAT</i>	Is the firms’ existing bonds’ remaining average years to maturity.