Non-Recurring Items in Debt Contracts[*]

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Abstract: We study the determinants of whether the definition of EBITA used to calculate covenant compliance excludes or includes the effects of non-recurring items, using a large sample of debt contracts that include Debt-to-EBITDA covenants. We find that special items are more likely to be excluded when borrowers have recorded negative special items in the period prior to contract initiation. Special items tend to be excluded when future goodwill impairments are more likely to occur, especially after the adoption of SFAS 142. Since goodwill impairments represent unverifiable estimates of future values these impairments do not necessarily reflect conservative accounting. Also, we find contracts tend to exclude special items in firms that are less conservative and in firms that are more financially constrained. Finally, controlling for endogeneity, we find that the interest rates in loans in which special items are excluded are, on average, lower.

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1. Introduction

The idea that it is in the best interest of owners and managers to minimize agency costs by establishing efficient debt contracts is discussed in the seminal work of Jensen and Meckling (1976). Smith and Warner (1979) build on this idea by examining the efficient use of debt covenants to control the bondholder-stockholder conflict. Watts and Zimmerman (1979) extend this research by considering how accounting numbers can be used in debt covenants to resolve these agency conflicts. The use of accounting-based debt covenants has been documented in numerous studies and extensive research has demonstrated that the use of accounting numbers in existing contracts subsequently affects the incentives and behavior of parties (for reviews see Fields, Lys, and Vincent, 2001, and Armstrong, Guay, and Weber 2010).[1] Less research has been devoted to the design of contracts and the ex-ante factors that influence efficient contracting.[2]

Watts (2003) discusses how the asymmetric payoff to debt holders versus equity holders affects the desirable characteristics of accounting numbers for efficient debt contracting. Specifically, he states that debt holders are concerned with the lower ends of the outcome distribution because they want assurance that these amounts will be as great as the contracted amount. Of course, debt holders do not receive any additional compensation if the outcome exceeds the contracted amount. He argues that the measures used in efficient debt covenants, which are designed to capture the value of net assets in an orderly liquidation, underlie the importance of accounting conservatism in debt contracting. He further argues that efficient debt contracts will include measures that rely on verifiable lower bound values rather than on unverifiable future value estimates. Goodwill is the prime example of an unverifiable measure of

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[1] For example, Beatty and Weber (2003) find that borrowers' voluntary accounting changes are more likely to be income increasing when the changes affect compliance with covenant calculations.

[2] Recent examples of empirical research examining this issue include Beatty, Weber, and Yu (2008), Frankel, Seethamraju, and Zach (2008), and Ball, Bushman, and Vasvari (2008).

future value discussed by Watts (2003). Furthermore, he discusses why the lack of verifiability of goodwill impairments renders them useless for contracting purposes despite the fact that they might otherwise appear conservative.

Callen, Segal, and Hope (2010) argue and show that "special items are one of the tools through which accounting conservatism is facilitated." Specifically, they show a non-linear response to special items, with a higher association between negative special items and expected current and future cash flows than for positive special items. Although they argue that this finding suggests that special items reflect conservative accounting, which could possess important contracting value, they acknowledge that special items are not homogeneous, their nature has evolved over time, and that managers may exercise discretion over what is reported as a special item. For these reasons, they suggest that it might be advantageous to separate special items into the component parts.[3] The characteristics of goodwill impairments provided by Watts (2003) are consistent with the notion that the level of conservatism of special items may vary with the characteristics of the underlying accounts. The degree with which non-recurring items are expected to provide direct information about future performance could vary across items, through time, or across firms.

In this study, we examine the contracting role of non-recurring items through their use in a large sample of private loan agreements. Based on the Jensen and Meckling (1976) efficient contracting framework, we infer contracting value by observing how these items are treated in the design of debt covenants. In part, our motivation stems from calls for more research to further our understanding of the design of both debt contracts and debt covenants. For example, Armstrong, Guay, and Weber (2010) encourage researchers "to investigate the financial

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[3] In this paper we use the terms "special items" or "non-recurring items" interchangeably and each collectively refers to both extraordinary items and special items.

reporting attributes that debt holders value by examining modifications to GAAP that are made in the calculations of compliance with covenants." Preliminary evidence in Li (2010) suggests that the treatment of special items in debt contracts, specifically their exclusions from computations of income-based measures, varies. However, we do not yet have a thorough understanding of the factors leading to these exclusions. In addition, we are motivated by recent evidence that is inconsistent with the arguments about the limited role goodwill plays in debt contracting. In particular, Frankel, Seethamraju, and Zach (2008) show that the probability of excluding goodwill for the purpose of computing net worth covenants is decreasing in the size of goodwill. This evidence raises questions about the contracting value of goodwill impairments, which we attempt to address in this paper.

We collect our sample of 11,173 private credit agreements from SEC filings between 2000 and 2010. The SEC requires public companies to include copies of all material contracts in their filings. Credit agreements typically appear as exhibits in 10-K, 10-Q, or 8-K filings. Our sample is constructed in a similar way to the sample in Nini, Smith, and Sufi (2009). Relative to their study, we extend the sample period to 2010, as well as avoid the requirements that the debt contract be covered by DealScan. Our focus on the explicit treatment of non-recurring items in the calculation of accounting based covenants requires us to examine covenants with an income-statement based component in either the numerator or the denominator. During our sample period the most prevalent covenant of this type is the debt-to-EBITDA covenant.[4] Consistent with Demerjian (2011), slightly more than half of the credit agreements that we collected have a debt-to-EBITDA covenant. For those with this type of covenant roughly one third exclude non-

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[4] The covenant is also referred to as the debt-to-cash-flow covenants and in debt contracts it is most often referred to as the leverage ratio.

recurring items from the calculation of covenant compliance while the other two thirds do not exclude non-recurring items.

Our analysis of how the exclusion of non-recurring items from covenant calculation varies across items, through time, and across firms reveals that debt contracts are more likely to exclude special items for firms that reported negative special items in the period prior to entering the debt contract. By itself, this evidence is inconsistent with the idea that efficient contracts are based on more conservative accounting numbers, as the addition of negative special items increases the income measure in the covenant's ratio. However, when we examine the types of accounts that give rise to these special items we find that firms with a greater proportion of goodwill to total assets are more likely to exclude non-recurring items including goodwill impairments. We further find that the association between goodwill and exclusion of non-recurring items is greater after the adoption of SFAS 142, which increases the likelihood of goodwill impairments. In addition, after SFAS 142's adoption firms with a single segment, which likely have less discretion over recording goodwill impairments, are also more likely to exclude non-recurring items from covenant calculations. Further evidence consistent with the value of conservative accounting in efficient contracting is provided by our findings that more conservative firms are less likely to exclude non-recurring items and that financially constrained firms are more likely to exclude them. Finally, we control for the joint determination of both the exclusion provision and interest rates, and find that interest rates are lower for contracts in which non-recurring items are excluded.

Our paper contributes to the literature on ex-ante factors that influence the design of efficient debt contracts by examining how the properties of special items, which are an important mechanism through which accounting conservatism is facilitated, are incorporated into debt

covenant compliance calculations. In addition, we examine how the effects of these special items vary cross-sectionally based on firm characteristics, and over time as a result of changes in accounting standards. Our research extends the literature on the importance of accounting conservatism in debt contracting by considering the specific accounts that are incorporated in debt contracts.

Section 2 of the paper provides background for and motivates our hypotheses. We describe our data collection procedures in section 3. We outline our research design in section 4. Our results are included in section 5. Section 6 concludes the paper.

2. Hypotheses Development

2.1 Background

Non-recurring items. Because our interest in this paper lies in the contracting value of non-recurring (special) items, we begin by providing a brief overview of the literature that directly examines them. Existing research on special items focuses on their implications for equity values and future earnings. In general, special and non-recurring items are expected to be largely transitory components of earnings, and their separate presentation in the income statement allows users to easily identify them. The underlying logic for this treatment is that if financial statement users are interested in predicting future firm performance, then if these items are not separated investors will find it more difficult to generate reliable forecasts of future performance. Recent studies, however, suggest that special items could be persistent and informative of firms' future performance. First, Elliott and Hanna (1996) report that the frequency of special items, especially the negative ones, has increased substantially since the mid 1970's into the 1990's. Bradshaw and Sloan (2002) confirm this pattern. Further, Riedl and Srinivasan (2007) suggest that the increase in both the frequency and magnitude of reported special items continued throughout the period 1993 through 2002. Second, Frankel and

Roychowdhury (2008) hypothesize and find that negative special items are less closely tied to contemporaneous returns in less conservative firms compared to conservative firms. Further, in less conservative firms, special items are more persistent and are likely to recur in future periods. This suggests that the effects of a negative economic shock in less conservative firms are spread over multiple periods. Another example is Kolev, Marquardt, and McVay (2008) who find that the quality of special items has decreased in the post-Regulation G period. They argue that managers adapted to the new disclosure environment by shifting more recurring expenses into special items. These findings complement the evidence from other research indicating that managers manage earnings by opportunistically shifting expenses from core expenses to special items (McVay 2006; Fan et al. 2010).

Fairfield, Kitching, and Tang (2009) investigate the appropriateness of excluding special items from profit margin forecasts over both short and long forecast horizons. They find that negative special items are associated with lower future profit margins for high profitability firms. They argue that some firms rely on the repeated use of special items to maintain their core profit margin. This is consistent with McVay (2006) who finds that firms manage earnings by classifying core expenses as income-decreasing special items.

In addition, recent research suggests that individual non-recurring items inherently and qualitatively differ from each other. Gu and Chen (2004) find that the non-recurring items that analysts include in street earnings are more persistent than those that the analysts exclude. They also find that valuation multiples of included items are higher than those of excluded items. This evidence suggests that some special items could be useful in debt contracts, while others likely are not.

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Contracting value of accounting numbers. Our study also pertains to the part of the literature that examines the contracting value of accounting numbers. Accounting information plays an important role in reducing the agency costs that arise in the debt contracting process (Smith and Warner 1979; Watts and Zimmerman 1979; Watts and Zimmerman 1986). Extensive prior research examines the impact of existing contracts on firms' accounting choices. A few recent studies take an ex-ante approach in examining the influence of accounting information attributes on the design of debt contracts. For example, Ball, Bushman, and Vasvari (2008) find that performance-pricing provisions are more likely to be based on accounting information when the debt contracting value of the accounting information is high. Similarly, Christensen and Nikolaev (2011) predict and find that performance covenants, serving as tripwires, are chosen when accounting information is descriptive of credit quality. Recent research also provides evidence on the effect of accounting standards on the design of debt covenants. Frankel, Seethamraju, and Zach (2008) find that the use of tangible net-worth covenants has increased after the promulgation of SFAS 142, which they attribute to the reduction of the contracting efficiency of goodwill after SFAS 142. In a similar vein, Demerjian (2011) argues that the shifting of accounting standards towards a "balance sheet approach" has resulted in a balance sheet that is less useful for debt contracting, which explains the decline in the use of balance sheet-based covenants in private debt contracts.

Despite the preliminary evidence from these recent studies, our understanding of the contracting value of accounting information and the design of debt covenants is still limited. Armstrong, Guay, and Weber (2010) encourage researchers to investigate the financial reporting attributes that debt holders value by examining the modifications to GAAP that are made in the calculation of compliance with covenants. Beatty, Weber, and Yu (2008) examine conservative

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modifications (e.g. income escalators) in debt covenants. They find that firms that provide more conservative financial reports are more likely to have conservative modifications, which suggest that conservative modifications alone are unlikely to fulfill the lender's demands for conservative financial reporting. Li (2010) provides preliminary evidence on the modifications to GAAP definitions of net income in debt contracts. He finds that about one fifth of contracts exclude extraordinary, unusual, or non-recurring items when defining net income. He also hypothesizes and finds evidence that the probability of defining net income differently from GAAP decreases with contracting usefulness of transitory earnings. While Beatty, Weber, and Yu (2008) and Li (2010) have taken some preliminary steps in investigating why firms make modifications to GAAP in debt contracts, we do not have a solid understanding of the contracting value of certain accounting numbers, in particular, the usefulness of special items in the context of debt covenant modifications.

2.2   Hypotheses

Christensen and Nikolaev (2011) argue that the main function of performance covenants, such as debt-to-EBITDA, is to serve as an early warning signal to the lender that the credit worthiness of the borrower is deteriorating. Defining the components of the debt-to-EBITDA ratio is crucial to its informativeness and contractibility. Efficient contracting suggests that the lender and borrower will choose these components to reduce agency costs by maximizing the ratio's informativeness about the borrower's credit quality.

We focus on whether the definition of the denominator (cash flows or EBITDA) of this ratio excludes or does not exclude non-recurring items, given that this flow measure's usefulness can vary across different components as well as across firms and over time. The decision to exclude non-recurring items should reflect the contracting value of these items so that the

outcome is more informative about the borrower's credit worthiness. For example, if a goodwill impairment reflects an unverifiable estimate of future value, then excluding this impairment from covenant calculations might provide a better measure of credit worthiness.

In line with the above arguments, our hypotheses seek to exploit cross-sectional and time-series variation in the properties of non-recurring items, and how they affect the design of debt covenants. Conditional on containing a debt-to-EBITDA covenant, we analyze the likelihood of excluding non-recurring items from the income measure used in the covenant, and how this likelihood relates to economic determinants of the properties of special items. Generally, the more (less) informative the non-recurring item is, the less (more) likely it is to be excluded from the computation.

Magnitude of special items. Firms may have different types of special items in any particular reporting period. These different types could include asset writedowns, restructuring charges, gains or losses from asset sales, and more. Special items can also be income decreasing, income increasing or both. We expect that the magnitude of special items will be important in the decision to exclude them from debt covenant calculations and will be positively associated with the exclusion decision if on average, non-recurring items are not informative about future firm performance, or negatively associated if special items are useful in contracting. From this discussion, we derive our first hypotheses:

> *H1: The aggregate magnitude of non-recurring items in the period prior to contract initiation is related to the likelihood of their exclusion from the computation of EBITDA.*

Sign of special items. Special items can be either negative or positive. Callen, Segal, and Hope (2010) demonstrate a non-linear relation between special items and expected future cash flows, with a stronger association for negative special items than for positive special items.

H2: The sign of special items in the period prior to contract initiation is related to the likelihood of their exclusion from the computation of EBITDA.

Our first two hypotheses pertain to aggregate special items. Consistent with the arguments made by Callen, Segal, and Hope (2010), it may also be important to examine the component parts. One such component that has attracted attention in the literature examining the contracting value of accounting in debt contracts is goodwill (Leftwich 1983;Frankel, Seethamraju, and Zach 2008).

Goodwill. Watts (2003) argues that goodwill requires unverifiable estimates of expected future value and therefore is not useful in debt contracting. Consistent with this lack of verifiability, Ramanna and Watts (2011) and Holthausen and Watts (2001) argue that goodwill is prone to managerial discretion, both at inception and at the time of its subsequent impairment. If that is correct, then goodwill impairments, which naturally are likely to arise for firms with goodwill balances, will not be informative to lenders when assessing the credit worthiness of the borrowers. In this case, creditors will demand the exclusion of the effects of goodwill impairments when computing EBITDA. This leads to our third hypothesis:

H3: Special items are more likely to be excluded in firms with more goodwill on their balance sheets.

SFAS 142. Watts (2003) argues that SFAS 142 diminished the contracting role of goodwill by dramatically increasing the likelihood of unverifiable goodwill impairments. Some evidence in Frankel, Seethamraju, and Zach (2008) is consistent with this notion, as the use of tangible net worth covenants after 2002 has increased. If the contracting role of goodwill has indeed decreased, then we expect that the exclusions of special items (including goodwill) to increase after 2002, especially for firms that have large magnitudes of goodwill on their balance sheets.

H4: The exclusion of special items is likely to increase in goodwill firms after the promulgation of SFAS 142

Our first four hypotheses are related to the characteristics of special items and how they might change through time. The importance of the exclusion of non-recurring items from debt contracting may also depend on the general reporting environment and characteristics of the borrowers.

Conservative Firms. Firms with conservative financial reporting incorporate negative news into their financial statements more quickly than they do positive news (Watts 2003) . Callen, Segal, and Hope (2010) document that conservative financial reporting manifests itself, at least in part, in the reporting of special items. However, they argue that the extent to which special items are conservative may vary cross-sectionally. Frankel and Roychowdhury (2008) report that special items resulting from negative economic events are more likely to persist in non-conservative firms than in conservative ones. The reason is that non-conservative firms only partially recognize the effects of a negative event in the current year. The remaining effects are reported in future periods. On the other hand, the effects of the same negative economic event are reflected fully in the current period in firms that conservatively apply GAAP. As a result, special items of conservative firms are not persistent. Consistent with this idea, Ahmed and Duellman (2011) document that conservative firms are less likely to incur special items, such as restructuring charges and asset sales, in future periods. From a lender's perspective, special items reflect more economic news in conservative firms. Therefore, lenders are more likely to exclude special items from covenant computations in non-conservative firms. This is summarized in our fifth hypotheses:

H5: Special items are more likely to be excluded in non-conservative firms.

Financial Constraints. Lee (2010) examines the interaction between accounting constraints and financial constraints. He finds that firms with more conservative accounting are more likely to be financially constrained, although he does not claim to provide evidence of a causal link. One possible explanation for this association is that more financially constrained firms are more likely to incur special items that are related to restructurings and asset sales (e.g. Asquith, Gertner, and Scharfstein (1994). To the extent that these special items are less likely to recur in the future for firms able to obtain debt financing, we expect they are more likely to be excluded in debt covenants. Thus, special items are more likely to be excluded for firms that are more financially constrained. This discussion leads to the formulation of our sixth hypothesis:

> *H6: Special items are more likely to be excluded in firms that are more financially constrained.*

Core margins. Core margins refer to profit margins after excluding the effects of special items on net income. Fairfield, Kitching, and Tang (2009) show that negative special items are associated with low future profitability only in firms with high core profitability, but not in firms with low core profitability. Therefore, we expect negative special items to be more useful for contracting in high core profitability firms. This leads to our seventh hypothesis.

> *H7: Negative special items are less likely to be excluded in firms with high core profitability.*

In addition to our hypotheses concerning the determinants of the decision to exclude special items from covenant calculations, we also consider the possible effect of this decision on the interest rate spread charged on the loan. If the agency costs of debt are decreased by the exclusion of special items from covenant calculations then we would expect a lower rate of interest to be required on the loan.

> *H8: The interest rate spread charged on the loan is expected to be lower for contracts that exclude non-recurring items than for those that do not.*

3. Data

We collect a novel and comprehensive set of 11,173 private credit agreements directly from SEC filings between 2000 and 2010. The SEC requires public companies to include copies of all material contracts in their filings. Credit agreements typically appear as exhibits in 10-K, 10-Q, or 8-K filings. We follow the search algorithm in Nini, Smith, and Sufi (2009) with some modifications, which we will discuss below. As a result we end up with a more comprehensive set of debt contracts. We describe our detailed data collection procedures below.

First, we search all the exhibits of 10-K, 10-Q, and 8-K filings in the SEC Edgar system for the following 12 terms, in *capital* letters: "credit agreement", "loan agreement", "credit facility", "loan and security agreement", "loan & security agreement", "revolving credit", "financing and security agreement", "financing & security agreement", "credit and guarantee agreement", "credit & guarantee agreement", "credit and security agreement" or "credit & security agreement". The last two terms are our modification to the 10 terms used in Nini, Smith, and Sufi (2009), because we found that these two terms result in legitimate credit agreements.

After this initial screen, we use a Perl script to verify that the agreements we identified are in fact credit agreements. Otherwise, we discard them from the sample. To do so, we follow Nini, Smith, and Sufi (2009) by requiring the documents to contain "table of contents" within 60 lines after the initial search terms, but unlike them, we allow "table of contents" to either be capitalized or not. This is because we noticed that many legitimate credit agreements actually have "table of contents" that is not capitalized. In addition, this Perl script extracts the date of the credit agreements.

To ensure the quality of our data and a proper match to DealScan observations, we manually check all the credit agreements with agreement dates missing or with agreement dates

and filing dates that differ by more than 90 days. In such cases, we correct the agreement dates by manually inspecting of each contract. In addition to correcting the dates, this step also allows us to eliminate credit agreements which were filed twice. Next, we match our credit agreements with DealScan observations by Gvkey and contract date using the DealScan-Compustat linking table which is made available by Michael Roberts.[5] We manually examine observations when multiple contracts were matched to single or multiple DealScan deals on the same date. This step ensures that the matches between debt contracts and deals in Dealscan is correct. It also eliminates some duplicate contracts.

Finally, we use a separate Perl script to search within all credit agreements (i.e. agreements with and without matches to DealScan) whether they contain the debt-to-EBITDA covenant, and to identify the definition of the flow variable used in the covenant (e.g. EBITDA, cash flow). To ascertain whether the covenant contains a non-recurring exclusion, we search for the term "non-recurring" within the definition of the flow variable (i.e. EBITDA).[6] We will define our dependent variable, later on, based on the result of this "non-recurring" search. By searching for our variables of interest in credit agreements that do not have DealScan matches, we broaden our sample relative to prior studies that were restricted by DealScan coverage.

The appendix provides examples of two contracts. In the first example of Alexander & Baldwin Inc., we see that the contract contains a debt-to-EBITDA ratio. However, from the definition of EBITDA, it is clear that special items are not excluded from the definition, in that the only items that are added back (or subtracted) from net income are interest, depreciation and

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[5] For details on the construction of the linking file, see Chava and Roberts (2008) .
[6] We investigated alternative terms that might be used in contracts to exclude non-recurring or special items. We found that less than 1% of our contracts used the term "special items." We also considered the term "unusual" which was more commonly included in the contracts than non-recurring, but found that when "unusual" was used separately, without being accompanied by the term "non-recurring," it was not being used in the context of exclusions from covenant calculations.

amortization. In the second example of Pall Corp., the debt-to-EBITDA ratio also exists. The definition of EBITDA is far more elaborate and we can see that non-recurring charges are added back to income, and non-recurring gains are subtracted from it.

Table 1 provides a glimpse on the sample of contracts we collected. Panel A reports the frequency of contracts by year as well as by the source filing in which the contract appeared. In total, we have gathered 11,173 contracts between the years 2000 and 2010. These contracts correspond to 13,908 loan facilities in our sample.

The distribution of contracts by year is fairly stable at around 10% until 2008. It is clear that the number of debt contracts decreased substantially after 2008, possibly because of the financial crisis and the drying of the credit markets. The number of contracts in 2010 is low because our sample period actually ends in June 2010. As for the source filings, about 48% of the contracts appear as attachments to 8-K filings, 32% are attached to 10-Q filings and 20% are exhibits in 10-K filings.

In Panel B, we provide a different perspective on our sample, depending on whether the contracts appear in the DealScan database. We determine that based on the merge we execute using the linking file provided by Michael Roberts (see footnote 5). Two things are worth noting. First, about 60% of our contracts are also available in DealScan, although this number is higher in the years before 2008 (about 66%). Second, the proportion of contracts available in DealScan is fairly stable at about 70% in the first five years, and then gradually drops to less than 50% in 2010. This is probably due to the completeness of the linking file that is always under development.

4. **Research Design and Variable Measurement**

To test our hypotheses, we estimate the following model for all sample firms with a debt-to-EBITDA covenant in their debt contract:

$$EXCLUDE = \alpha_0 + \alpha_1 NSI + \alpha_2 PSI + \alpha_3 FAS142 + \alpha_4 GW + \alpha_5 ONESEG + \alpha_6 CSCORE + \alpha_7 FC + \alpha_8 CORE + \alpha_9 NORATE + \alpha_{10} RATING + \alpha_{11} MATURITY + \alpha_{12} LOANSIZE + \alpha_{13} NO\_DS + \alpha_{14} IND\_GR + \varepsilon_t$$

The dependent variable (*EXCLUDE*) is an indicator variable equal to one if the denominator in the debt-to-EBITDA ratio excludes the effects of non-recurring items. The independent variables used to test our hypotheses are: (1) *NSI* is the amount of net negative special items scaled by assets; (2) *PSI* is the amount of net positive special items scaled by assets; (3) *FAS142* is a dichotomous variable set equal to one for observations from 2003 or later (3) *GW* is total goodwill scaled by assets; (4) *ONESEG* is an indicator variable equal to one if the firm has a single segment; (5) *CSCORE* is the conservatism score developed in Khan and Watts (2009) (6) *FC* is a financial constraint measure as developed in Hadlock and Pierce (2010) and (7) *CORE* is core earnings scaled by revenues where core earnings are measures as net operating income minus special items (see Fairfield, Kitching, and Tang 2009).

In addition, we use the following control variables: *NORATE* is an indicator variable equal to one if the firm does not have a credit rating in COMPUSTAT; *RATING* is the credit rating available from COMPUSTAT, where a lower value number corresponds to a higher credit rating; *MATURITY* is the length of the loan period, in months ; *LOANSIZE* is the log of the amount of the loan; *NO_DS*, is an indicator variable set equal to one for loans that are not included in the dealscan database ; and *IND_GR*, is the growth in industrial production in the year prior to loan inception.

5. Results

5.1 Summary Statistics

We first present some summary statistics for our variables of interest. Table 2 reports means and standard deviations of all variables, separately for firms whose contracts exclude or

include non-recurring items in covenants' calculations. First, note that about 70% of the observations (3,488) include non-recurring items in the covenant computations, and about 30% (1,523) exclude them.[7] Panel A compares the mean values of special items in the year prior to contract initiation for contracts that exclude versus include non-recurring items. The magnitude of negative special items scaled by assets is more negative for those that exclude than for those that do not (-1.8% vs. -1.3%). However, the magnitude of positive special items scaled by assets is not statistically different between those that exclude and those that do not. Similarly, the proportion of excluders that report a negative special item is higher (62.5%) than non-excluders (47.9%), but this proportion is not different for positive special items.

In the rest of table, we report the proportion of firms that report any one type of special items, such as goodwill impairments, litigation settlements, etc. We find that a significantly greater proportion of excluders report special items of all types, except for gains and losses on asset sales where the difference between excluders and non-excluders is not statistically significant. For example, 10.4% of excluders report an acquisition-related special item compared to 5.5% of non-excluders.

Panel B of Table 2 compares the mean values of borrower characteristics in the year prior to contract initiation separately for contracts that exclude non-recurring items versus those that do not. Borrowers that exclude these items are riskier than those that do not given that they are less likely to have rated debt and have lower credit ratings. The assets of excluding firms contain a larger proportion of goodwill. These firms are more likely to be single segment firms. Those that exclude non-recurring items also have less conservative financial reporting systems based on

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[7] Of the 6,518 debt facilities with the necessary contract data and a debt-to-EBITDA covenant, 1,507 are missing the COMPUSTAT data required in our analyses, with approximately 1,400 observations either missing the market value of equity data or having negative book values of equity, which prohibits calculating the conservatism score. The need for special items data and non-zero revenues explains the remaining observations that are lost.

their Khan and Watts (2009)'s conservatism score and they are more likely to be financially constrained based on their Hadlock and Pierce (2010) financial constraint measure. Debt that excludes non-recurring items also has a longer maturity. While we find differences in the characteristics of excluders and non-excluders, these differences are only univariate. In the next section, we perform a multivariate analysis.

5.2   Empirical model

The results of our multivariate analysis of the determinants of excluding non-recurring items are presented in Table 3. Consistent with the univariate comparisons and with hypothesis 1, we observe a significant association between the decision to exclude non-recurring items and the magnitude of negative special items reported in the year prior to contract initiation. Contracts of borrowers whose income statements contain more negative special items are more likely to exclude them (note that an increase in *NSI* means less negative special items) as evidenced by the negative and significant coefficient on *NSI* (-1.9 with a t-statistic of -3.45). However, we do not observe this association when the reported special items are positive as the coefficient on *PSI* is insignificant. These findings are consistent with H1 and H2 and suggest that negative, but not positive, special items are not useful in contracting. Further, these findings by themselves are inconsistent with a conservative bias in covenant calculations because it seems that lenders are willing to add back, i.e. isolate, income-decreasing items from income.

However, when we consider the nature of potential future special items, we see that borrowers with higher goodwill balances are more likely to exclude non-recurring items including goodwill impairments (coefficient of GW equal to 0.393), consistent with hypothesis 3. Further, consistent with hypothesis 4, this effect is stronger after the adoption of SFAS 142 as reflected in the positive and significant coefficient on the interaction variable *GW*FAS142*. In

addition, we observe that firms with a single reporting segment, for which the discretion in manipulating goodwill is more limited, are more likely to exclude non-recurring items after the promulgation of SFAS 142. This suggests that the possible deterioration in the quality of goodwill after SFAS 142 is so severe that even for firms whose discretion is more limited, goodwill is less useful for contracting purposes. Collectively, our findings are consistent with the ideas put forth by Watts (2003) that goodwill impairments do not provide verifiable information that is useful in debt contracting and that they do not reflect conservative accounting.

Additional evidence consistent with the value of conservative accounting in efficient contracting is provided by our findings that more conservative firms, those with higher CSCORE, are less likely to exclude non-recurring items, as the coefficient on CSCORE is negative (-0.1243) and highly significant (t-statistics of -2.92). This result is consistent with hypothesis 5.

To shed light on hypothesis 6 and examine the association of financial constraints with the usefulness of non-recurring items, we first examine the coefficient on the financial constraint variable, FC. The coefficient equals 0.026 and is not significant. However, it is important to note that our control variable RATING is also closely related to the underlying construct of financial constraints. The coefficient on RATING is positive and significant. Thus, collectively we conclude that there is some evidence supporting hypothesis 6.

We find no evidence supporting hypothesis 7 regarding the relation between non-recurring item's exclusions and core profitability. The coefficient on CORE is not significant (-0.0098 with a t-statistic of -0.27).

As for the remaining control variables, we find that excluding non-recurring items is far more frequent in larger loans with longer maturities. The maturity result is consistent with the

findings in Li (2010). Finally, it is worth noting that higher frequency of excluding non-recurring items is also apparent in contracts that are not covered in DealScan as the coefficient on *NO_DS* is positive and highly significant.

Overall, the evidence in Table 3 suggests that negative special items are not useful in contracting. While this seems contrary to the expectation that income-decreasing adjustments would be more useful in contracting, we also show that contracts rely more on special items when firms report more conservatively. Of particular interest are our results with respect to goodwill. It seems that contracts tend to exclude special items as the reliability of goodwill declines. That is, the contracting parties will tend to isolate the effect of special items (related to goodwill) after SFAS 142 went into effect and when the magnitude of goodwill is large.

5.3 Interest Rate Analysis

It is argued that the contracting parties jointly determine both the terms of the contracts as well as their price (e.g, Beatty and Weber 2003). Therefore, it is possible that some terms of the contract will be substituted by higher or lower interest rates on the loan. To address this issue, and evaluate whether the loan pricing is related to whether or not non-recurring items are excluded from the computation of income in debt contract we conduct the analysis reported in Table 4.

In our first specification, we estimate an OLS model whose dependent variable is the interest rate spread of the loan. Our focus is on the indicator variable, *EXCLUDE*. Its coefficient in the OLS specification is insignificant. However, in this case, where the terms of the loan are jointly determined, it is important to take account of endogeneity. We do so in two ways, a Heckman procedure and an instrumental variable approach, both of which are reported in columns 2 and 3 of Table 4. Both the Heckman variable and the predicted *EXCLUDE* variable use the model

reported in Table 3 as the first stage model. In both specifications we find that interest rate spread is negatively associated with the exclusion of non-recurring items. This suggests that lenders require a higher rate for including these items in contracts, which suggests that, on average, these items are not useful in contracting. This is consistent with hypothesis 8.

6. Conclusion

We contribute to the literature on ex-ante factors that influence the design of efficient debt contracts by examining how the properties of special items, which are an important mechanism through which accounting conservatism is facilitated, are incorporated into debt covenant compliance calculations. We find that borrowers with a higher incidence and magnitude of negative special items are more likely to exclude these items from the definition of EBITDA in the debt-to-EBITDA covenant calculations. Although this appears inconsistent with the use of conservative accounting in efficient debt contracting, when we examine how the decision to exclude special items from covenant compliance calculations varies with the properties of the special item, over time and cross-sectionally with borrower characteristics, we find support for the exclusion of special items that are not conservative and are not useful in efficient contracting. Specifically, we find that the exclusion of special items increases with the likelihood of goodwill impairments especially after the implementation of SFAS 142. Our research extends the literature on the importance of accounting conservatism in debt contracting by considering the specific accounts that are incorporated in debt contracts.

Appendix - Examples of Debt Contracts

1. Alexander & Baldwin Inc. (December 28, 2006).

   Has leverage ratio but does not exclude special item

   ARTICLE I.
   DEFINITIONS AND ACCOUNTING TERMS
   1.01   Defined Terms.

   "Debt to EBITDA Ratio" means, as at any time of determination thereof, the ratio of (i) all Debt of the Borrower and Subsidiaries on a consolidated basis to (ii) EBITDA for the four consecutive fiscal quarter period then most recently ended.

   "EBITDA" means, for any period, Consolidated Net Income Before Taxes for such period plus, to the extent deducted in the calculation thereof, Consolidated Interest Expense, depreciation and amortization.

   ARTICLE VII.
   NEGATIVE COVENANTS
   7.01   Financial Covenants.
   (b)   Debt to EBITDA Ratio. The Borrower shall not permit the Debt To EBITDA Ratio at any time to exceed 3.75 to 1.0.

2. Pall Corporation (July 29, 2005).

   Has leverage ratio WITH exclusion of special item

   ARTICLE I
   Definitions
   SECTION 1.01. Defined Terms.

   "Consolidated EBITDA" means, for any four consecutive fiscal quarter period, for the Borrower and the Subsidiaries on a consolidated basis, an amount equal to the Consolidated Net Income (Net Loss) of the Borrower and the Subsidiaries for such period, plus the sum, without duplication, for such period of (a) Consolidated Interest Charges, (b) depreciation and amortization expenses or charges, (c) income taxes to any government or governmental instrumentality expensed on the Borrower's or the Subsidiaries' books (whether paid or accrued) and (d) non-cash, non-recurring charges or losses, if any, minus the sum, without duplication, for such period of (a) non-cash non-recurring gains, if any, (b) interest income, determined in accordance with GAAP applied on a consistent basis and (c) income tax credits or refunds from any government or governmental instrumentality recorded on the Borrower's or the Subsidiaries' books. All the foregoing categories shall be calculated with respect to the Borrower and the Subsidiaries on a consolidated basis. At any time Consolidated EBITDA is required to be calculated hereunder, the Borrower shall use the amounts set forth in the financial statement or statements delivered to the Administrative Agent covering the last four consecutive fiscal quarters pursuant to the terms hereof.

   "Consolidated Leverage Ratio" means, as of any date of determination, the ratio of (a) Consolidated Funded Indebtedness to (b) Consolidated EBITDA.

   ARTICLE VI
   Negative Covenants.
   (b) Permit the Consolidated Leverage Ratio at any time to be greater than 3.0 to 1.0.

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Table 1: Sample of Private Credit Agreements Collected From SEC Filings

Panel A: Credit Agreements by Year and Type of Filings

Year	10-K	10-Q	8-K	Total (%)
2000	285	399	156	840 (7.5%)
2001	390	484	219	1,093 (9.8%)
2002	348	512	287	1,147 (10.3%)
2003	334	468	309	1,111 (9.9%)
2004	244	548	573	1,365 (12.2%)
2005	180	281	919	1,380 (12.4%)
2006	165	227	824	1,216 (10.9%)
2007	152	242	780	1,174 (10.5%)
2008	93	213	593	899 (8.0%)
2009	56	65	216	337 (3.0%)
2010	27	118	466	611 (5.5%)
Total (%)	2,274 (20.4%)	3,557 (31.8%)	5,342 (47.8%)	11,173 (100%)

Table 1: Sample of Private Credit Agreements Collected From SEC Filings

Panel B: Credit Agreements by Year and DealScan Coverage

Year	Covered by DS	Not Covered by DS	Total	% Covered
2000	581	259	840	69.2%
2001	754	339	1,093	69.0%
2002	814	333	1,147	71.0%
2003	769	342	1,111	69.2%
2004	920	445	1,365	67.4%
2005	893	487	1,380	64.7%
2006	761	455	1,216	62.6%
2007	700	474	1,174	59.6%
2008	454	445	899	50.5%
2009	156	181	337	46.3%
2010	15	596	611	2.5%
Total	6,817	4,356	11,173	61.0%

Table 2: Univariate Statistics

Panel A: Incidence of Special Items by Exclusion versus Non-exclusion of Non-recurring Items

Item	Non-recurring items excluded from covenant calculation		Non-recurring items not excluded from covenant calculation	
	Mean	Std Dev	Mean	Std Dev
NSI	-0.0181	0.0470	-0.0133***	0.0463
PSI	0.0019	0.0087	0.0017	0.0086
NSI (indicator variable)	0.6251	0.4843	0.4791***	0.4996
PSI (indicator variable)	0.1431	0.3463	0.1525	0.3621
Acquisition Special Item	0.1040	0.3053	0.0551***	0.2283
Gain/Loss on Sale of Asset	0.1622	0.3688	0.1482	0.3553
Goodwill Impairment	0.0844	0.2780	0.0568***	0.2315
Litigation Settlement	0.2243	0.4173	0.1751***	0.3801
Restructuring Costs	0.3636	0.3395	0.2615***	0.2458
Writedowns	0.1995	0.3997	0.1608***	0.3674
Debt Extinguishment	0.2250	0.4177	0.1847***	0.3881
In-Process R&D	0.0844	0.2780	0.0568***	0.2315
Number of Obs.	1,523		3,488	

Note: ***, **, * represent 1%, 5% and 10% significance, respectively.

Variable Definition:
NSI: The amount of net negative special items scaled by assets.
PSI : The amount of net positive special items scaled by assets.
Acquisition Special Item, Gain/Loss on Sale of Asset, Goodwill Impairment, Litigation Settlement, Restructuring Costs, Writedowns, Debt Extinguishment, and In-Process R&D are indicator variables that indicate different types of special items.

Table 2: Univariate Statistics

Panel B: Borrower Characteristics by Exclusion versus Non-exclusion of Non-recurring Items

Item	Non-recurring items excluded from covenant calculation		Non-recurring items not excluded from covenant calculation	
	Mean	Std Dev	Mean	Std Dev
GW	0.1962	0.1750	0.1382**	0.1565
ONESEG	0.3898	0.4879	0.3532***	0.4780
CSCORE (tercile rank)	0.7643	0.7605	1.0083***	0.8087
FC (terceile rank)	0.8825	0.7698	0.9432***	0.9703
CORE (tercile rank)	1.0584	0.8145	0.9412***	0.8102
NORATE	0.4032	0.4937	0.5740***	0.4945
RATING (for rated borrowers)	11.4975	2.4600	11.0559***	2.7812
MATURITY	54.8093	19.7678	47.6661***	20.2342
LOANSIZE	5.2447	1.2457	4.7842***	1.3978
Number of Obs.	1,523		3,488	

Note: ***, **, * represent 1%, 5% and 10% significance, respectively.

Variable Definition:
GW: Total goodwill scaled by assets (COMPUSTATE #204/COMPUSTAT #6).
ONESEG: An indicator variable equals 1 if the firm has a single business segment, and 0 otherwise.
CSCORE: The conservatism score developed in Khan and Watts (2009). Calculated as -0.007*mktbk-0.033*msize+0.003*levmv, where mktbk is (COMPUSTAT#24*COMPUSTAT # 199)/COMPSTAT#60; msize is log(COMPUSTAT#24*COMPUSTAT#199); and levmv is (COMPUSTAT #9 + COMPUSTAT #34)/ (COMPUSTAT #199 * COMPUSTAT#24).
FC: The financial constraint measure adeveloped in Hadlock and Pierce (2010). Calculated as -.737*size+.043*size*size-.043*age; where size is the log of total assets (COMPUSTAT #6) and age is the number of years the firm has been listed on COMPUSTAT.
CORE: Core earnings scaled by revenues where core earnings are measures as net operating income minus special items (see Fairfiled et al. 2009).

NORATE:　An indicator variable equals 1 if the firm does not have a credit rating in COMPUSTAT (COMPUSTAT # 280), and 0 otherwise.

RATING:　The credit rating available from COMPUSTAT (COMPUSTAT # 280), where a lower value number corresponds to a better credit rating.

MATURITY: The length of the loan period, in months.

LOANSIZE: The log of the amount of the loan.

Table 3: Coefficients and (clustered) t-statistics from Binary Choice Model Estimation of Exclusion on Non-recurring Items from Covenant Calculation

	Coefficient	t-statistic
Intercept	3.888*	1.91
NSI	-1.894***	-3.45
PSI	0.5645	0.18
FAS142	-0.1018	-1.03
GW	0.3933*	1.41
FAS142*GW	0.8169***	2.49
ONESEG	-0.0273	-0.24
FAS142*ONESEG	0.2185**	1.72
CSCORE	-0.1243***	-2.92
FC	0.0262	0.70
CORE	-0.0098	-0.27
NORATE	0.1989	1.08
RATING	0.0395***	2.68
MATURITY	0.0071***	4.96
LOANSIZE	0.0685***	2.82
NO_DS	0.5933***	4.18
IND_GR	-5.4702***	-3.45
Number of Obs.	5,011	

Note: ***, **, * represent 1%, 5% and 10% significance, respectively.

Variable Definition:
NSI: The amount of net negative special items scaled by assets (COMPUSTAT #17/ COMPUSTAT #6 when COMPUSTAT 17<0).
PSI :   The amount of net positive special items scaled by assets (COMPUSTAT #17/ COMPUSTAT #6 when COMPUSTAT 17>0).
FAS142:   A dichotomous variable equals 1 for observations from 2003 or later, and 0 otherwise.

GW: Total goodwill scaled by assets (COMPUSTATE #204/COMPUSTAT #6).

ONESEG: An indicator variable equals 1 if the firm has a single business segment, and 0 otherwise.

CSCORE: The conservatism score developed in Khan and Watts (2009). Calculated as -0.007*mktbk-0.033*msize+0.003*levmv, where mktbk is (COMPUSTAT#24*COMPUSTAT # 199)/COMPSTAT#60; msize is log(COMPUSTAT#24*COMPUSTAT#199); and levmv is (COMPUSTAT #9 + COMPUSTAT #34)/ (COMPUSTAT #199 * COMPUSTAT#24).

FC: The financial constraint measure adeveloped in Hadlock and Pierce (2010). Calculated as -.737*size+.043*size*size-.043*age; where size is the log of total assets (COMPUSTAT #6) and age is the number of years the firm has been listed on COMPUSTAT.

CORE: Core earnings scaled by revenues where core earnings are measures as net operating income (COMPUSTAT #18) minus special items (COMPUSTAT # 17) (see Fairfiled et al. 2009).

NORATE: An indicator variable equals 1 if the firm does not have a credit rating in COMPUSTAT (COMPUSTAT # 280) , and 0 otherwise.

RATING: The credit rating available from COMPUSTAT (COMPUSTAT # 280), where a lower value number corresponds to a better credit rating.

MATURITY: The length of the loan period, in months.

LOANSIZE: The log of the amount of the loan.

NO_DS: An indicator variable equals 1 for loans that are not included in the DealScan database, and 0 otherwise.

IND_GR: The growth in industrial production in the year prior to loan inception.

Table 4: Coefficients and (clustered t-statistics) from Regression of Interest Rate Spread on Exclusion of Non-recurring Items from Covenant Calculation

	OLS	Heckman	IV
Intercept	197.596***	179.783***	179.459***
	(8.62)	(7.64)	(7.55)
EXCLUDE	5.856	-81.196***	
	(1.25)	(-2.80)	
HECKMAN		53.540***	
		(17.36)	
EXCLUDE (Predicted)			-81.859***
			(-3.00)
NORATE	95.725***	100.206***	100.767***
	(6.32)	(6.49)	(6.48)
RATING	8.546***	9.473***	9.533***
	(6.32)	(6.67)	(6.66)
SIZE	-10.496***	-9.804***	-9.689***
	(-4.25)	(-3.96)	(-3.91)
LEVERAGE	101.414***	96.963***	95.834***
	(8.35)	(8.03)	(7.86)
NSI	-385.501***	-409.834***	-409.096***
	(-5.73)	(-6.11)	(-6.10)
PSI	-179.178	-253.012	-258.307
	(-0.82)	(-1.13)	(-1.16)
CORE	-16.790***	-15.238***	-15.150***
	(-6.22)	(-5.57)	(-5.50)
COLLATERAL	73.777***	83.219***	83.354***
	(17.09)	(15.70)	(15.64)
REVOLVER	-50.304***	-51.146***	-51.324***
	(-16.31)	(-16.64)	(-16.69)
MATURITY	-0.040	0.1572*	0.1544
	(-0.36)	(1.30)	(1.27)
LOANSIZE	-11.952***	-8.342***	-8.386***
	(-5.57)	(-3.68)	(-3.67)
NWC	-7.931*	-9.502**	-10.224**
	(-1.88)	(-2.26)	(-2.43)
TNWC	-17.233***	-21.669***	-21.936***
	(-3.39)	(-3.99)	(-4.25)
R-squared	42.56	42.89	42.78

Note: ***, **, * represent 1%, 5% and 10% significance, respectively.

<u>Variable Definition:</u>

EXCLUDE: An indicator variable equals 1 if special items are excluded from debt-to-EBITDA covenant, and 0 otherwise.

NORATE: An indicator variable equals 1 if the firm does not have a credit rating in COMPUSTAT (COMPUSTAT # 280) , and 0 otherwise.

RATING: The credit rating available from COMPUSTAT (COMPUSTAT # 280), where a lower value number corresponds to a better credit rating.

SIZE: Log of total assets (COMPUSTAT # 6).

LEVERAGE: Total debt (COMPUSTAT #9 + COMPUSTAT #34) divided by total assets. (COMPUSTAT #6).

NSI: The amount of net negative special items scaled by assets (COMPUSTAT #17/ COMPUSTAT #6 when COMPUSTAT 17<0).

PSI : The amount of net positive special items scaled by assets (COMPUSTAT #17/ COMPUSTAT #6 when COMPUSTAT 17>0).

CORE: Core earnings scaled by revenues where core earnings are measures as net operating income (COMPUSTAT #18) minus special items (COMPUSTAT # 17) (see Fairfiled et al. 2009).

COLLATERAL: An indicator variable equals 1 if the loan requires collateral, and 0 otherwise.

REVOLVER: An indicator variable equals 1 if the loan is a revolver, and 0 otherwise.

MATURITY: The length of the loan period, in months.

LOANSIZE: The log of the amount of the loan.

NWC: An indicator variable equals 1 if the loan has net worth covenant, and 0 otherwise.

TNWC: An indicator variable equals 1 if the loan has tangible net worth covenant, and 0 otherwise.