

## BANK LOAN COVENANT MEASURES AND MIS-MEASURES

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### ABSTRACT

Bank loan covenants are restrictions that require stated levels of performance by borrowers, and are often measured by standard financial ratios. The research on loan covenants has assumed that these measures are useful, providing information to lenders as to the viability of borrowers. This article uses a sample of current ratios to suggest that such balance sheet ratios may have limited predictive value of impending defaults, and proposes that total receipts-to-cash flow, a ratio comprised of data from both significant financial statements, provides superior forecasts of such outcomes. The research is based on U.S. experience during the recent credit crisis.

**JEL Codes:** G21, M41

### I. INTRODUCTION

Bank loan covenants are restrictions that require a certain level of performance by borrowers, including limitations on new debt beyond current borrowings, changes in business strategies or senior management, and various financial compliance requirements, often as measured by standard ratios in such categories as liquidity, leverage, activity and profitability. The research on bank loan covenants has uniformly assumed that the standard measures are appropriate, providing information to the lender as to the viability of the borrower.

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Loan covenants are usually applied to lines of credit, which are borrowing facilities for a stated amount of unsecured credit for a specified time period, usually one year. Lines of credit may be committed, where a fee has been paid to guarantee the borrower's access to the funds. The cost of a committed lines is about 1/3<sup>rd</sup> of one percent (33 basis points), and typical pricing of the used portion of the line is about 1½ to 2 percentage points above Federal funds or LIBOR.<sup>1</sup> The line may also be uncommitted, when no fee has been paid. Banks generally make best efforts to provide funds for uncommitted lines although may be unable to do so during times of significant economic distress.

These lines are used as short-term sources of liquidity, often when seasonal cash disbursements exceed cash collections. In addition, lines of credit support the issuance of commercial paper, which are notes issued by creditworthy companies without any collateral backing. Covenants often apply to other types of loans, such as revolving credit agreements, which have longer durations.<sup>2</sup>

In recent years, various researchers have analyzed databases of specific credit agreements in the attempt to resolve such questions as whether covenants cause defaults (Davydenko, 2009); whether bank lines of credit are a liquidity substitute for cash (Sufi, 2009); and whether banks use unreasonable covenants to renegotiate loan terms and/or reduce their risk exposure (Smith, 1993). More theoretical research has examined whether bondholders derive implicit protection by this form of bank monitoring (Chen et. al., 1995); whether tightly written loan covenants result from private information accessible only to banks and other lenders (Demirroglu and James, 2008); and whether loan covenants affect the rights of creditors (Hill, 2002) or impact corporate governance (Whitehead, 2009).

However, the literature lacks a critical examination of the efficacy of traditional covenants, and the American banking regulators have remained silent on the issue of whether specific measures are relevant or necessary, or if they should be mandatory in credit agreements. In the economic prosperity of the past, such a posture may have been acceptable; in the present economic situation, a fresh examination appears to be appropriate. This article focuses on the current ratio (current assets divided by current liabilities), a measure that is used in a significant percentage of loan agreements,<sup>3</sup> and on other balance sheet measures. Suggestions are made on improving the covenants that are used in future lending agreements.

## **11. ACCESS TO CREDIT IN THE PRESENT RECESSION**

The current liquidity crisis has severely restricted lending as the banking industry struggles to meet minimum capital requirements. As the situation gradually begins to improve, there is every expectation that lending will resume and that the customary requirements will be reinstated. In the interim, managers have adjusted to extremely difficult financial stresses.

Leading bankruptcies are quite visual to the average person, from Linens 'n Things (small home appliances), Circuit City (electronics), Fortunoff (jewelry and home

furnishings), Bennigan's (restaurants) and Chrysler (automobiles), particularly as long as the commercial real estate these companies formerly occupied remains empty. Surviving businesses have readjusted their finances in the effort to remain viable through such actions as eliminating employees, negotiating with vendors and landlords, and a variety of other actions (Sagner, 2009).

Lenders will inevitably make adjustments in their dealings with corporate borrowers, requiring higher levels of documentation, appraisals of collateral required to support loans, more frequent meetings and other communications with borrowers, and greater disclosure of the basis for pro forma statement forecasts. Despite any such modifications, it is inevitable that the analytical techniques previously used to evaluate creditworthiness will continue to be utilized, and the mistakes that these procedures permit will recur.

A widely used procedure in preparing reports for credit committee review involves the evaluation of company financials through ratio analysis. Ratio analysis examines two components of income statements and balance sheets compared to industry results or to selected peer companies. Once a loan is approved, these same ratios are included as loan covenant thresholds that must be met by borrowers. Failure to meet such thresholds places the borrower in technical violation, and the lender may call the loan in fear of a possible future default.

### **III. PROBLEMS IN THE USE OF BALANCE SHEET RATIOS**

Despite their general acceptance in the financial community, balance sheet ratios have various problems in application, including fiscal year, accrual accounting, window dressing, aggregated data and off-balance sheet obligations.

- **Fiscal Year.**<sup>4</sup> Balance sheets are published on an "as of" date, and do not represent a year's financial results (in contrast to the income statement). There is no direct way to interpret the results from a balance sheet in terms of events during the fiscal year, and any ratio constructed from the balance may not truly represent the borrower's actual situation.
- **Accrual Accounting.** Nearly all companies use accrual accounting, which attempts to match revenues and the expenses that were incurred to generate that activity.<sup>5</sup> This involves the use of conventions like depreciation that artificially assign a portion of the cost of a fixed asset against sales, possibly over- or understating the true cost of the asset and any resulting profits.
- **Window Dressing.** Because of the fiscal year problem, companies may be tempted to present results consistent with investor, banker and analyst expectations. Unfortunately, there have been numerous instances of short-term adjustments to critical balance sheet accounts that are reversed the following business day. Various frauds have been sustained by such practices, and the Sarbanes-Oxley Act of 2002 was enacted to induce greater honesty and transparency in the presentation of financial results by U.S. public companies (Stlowry and Breton, 2004, and Fraser, 2002).

- **Aggregated Data.** As previously noted, balance sheet ratios used in loan covenants include the current and quick ratios and such others as debt-to-cash flow and the financial leverage ratio of debt-to-total assets (sometimes measured as debt-to-equity). Various accounts are used in constructing these ratios, the principal ones of which are listed below.
  - Current ratio
    - Current assets, including cash, accounts receivable and inventory
    - Current liabilities, including accounts payable, notes payable and accruals
  - Leverage
    - Debt, including bonds payable and loans payable
    - Owners equity, including common stock and retained earnings
    - Total assets, including current assets (see above) and fixed assets

These ratios involve aggregated data that may misrepresent the actual position of the borrower.

- **Off-Balance Sheet Obligations.** Companies may legitimately be obligated for debts that are not recorded on the balance sheet, including leases, contingent liabilities, unused lines of credit, and special purpose entities (SPEs) that are not owned but are guaranteed by the firm. This latter category became a key element in the failure of Enron, when investments that were losing money were moved off of the balance sheet and into SPEs; for a discussion of this situation (Schwarcz, 2006). Off-balance obligations can significantly alter the profitability and net worth of the borrower.

#### **IV. WHAT ARE THE IMPORTANT LOAN COVENANTS?**

Largely because of the lack of federal oversight, there is no standard set of bank lending covenants. A managing director at Standard & Poor's (Miller, 2008) notes that the five most commonly used financial covenants are as follows:

1. Coverage: minimum levels of cash flow or earnings relative to specific expenses or charges
2. Leverage: a maximum debt level relative to cash flow or equity
3. Tangible net worth: a minimum tangible net worth<sup>6</sup>
4. Capital expenditures: a maximum amount that may be spent on capital expenditures
5. Liquidity: a minimum current ratio and/or quick (acid test) ratio

Using a sample of 238 bank loans, Pagila and Mullineaux (2006) determined that there are several categories of covenants, which have been reorganized for Table 1.

**Table 1 - Types of Loan Covenants (in order of frequency of occurrence in loan agreements)**

Preserving collateral, primarily maintaining the value of collateral, purchasing insurance and restricting borrower liens
Reporting and disclosure, primarily providing financial statements
Operating activity, including maintaining the business, paying liabilities, compliance with laws, other business restrictions
Restricting new financing, including debt and/or equity
Managing and controlling, primarily restrictions on important changes in ownership and/or senior management
Investing activity, primarily limiting capital expenditures
Selling assets
Limiting cash payouts
Cash flow covenants, primarily the coverage of debt obligations
Financial leverage, primarily the relationship of debt to equity
Liquidity

Note: These are aggregated categories, with minor categories deleted.

Source: John K. Paglia and Donald J. Mullineaux, "An Empirical Exploration of Financial Covenants in Large Bank Loans," *Banks and Bank Systems*, Vol. 1 (2006), pages 103-122; available at [www.businessperspectives.org/journals\\_free/bbs/BBS\\_2006\\_02\\_Paglia.pdf](http://www.businessperspectives.org/journals_free/bbs/BBS_2006_02_Paglia.pdf).

Banks have obviously attempted to safeguard principal and assure the repayment of loans, but there does not appear to be a standard approach to the use of financial data. Rather, the most commonly used restrictions apply to qualitative measures, including operations, reporting, management and ownership, the preservation of collateral, and the protection of assets.

## V. BALANCE SHEET RATIOS IN LOAN COVENANTS

Until recently, the practice of loan decisions and agreements was known to bankers and borrowers, but no systematic study of the terms of such arrangements had been conducted. Recently, there have been useful reviews of loans, some using samples of thousands of loans selected from Loan Pricing Corporation data.<sup>7</sup> The data include loan maturity, amount, type and various other characteristics, including covenants.

The frequency of the appearance of the current ratio and other balance sheet ratios varies depending on the specific study approach and database that was investigated, although financial companies were uniformly excluded from the researchers' samples. For the results from three studies, see Table 2; the weighted average of current ratio occurrences is 10.1%, which probably reflects the actual experience of bankers and borrowers at this time. However, balance sheet accounts appear in many lending agreements, with the actual frequency dependent on the analytical procedures used by the investigator. This is as significant as the appearance of the current ratio, given the various problems in obtaining accurate information from this financial statement measure.

**Table 2 - Comparative Studies on the Use of the Current Ratio and Other Financial Covenants in Lending Agreements (in chronological order of the study)**

	Paglia and Mullineaux	Sufi	Davydenko
Total Sample Size, Sample Period & Source	238 1992 - 1994 TearSheets (LPC)	19,523 1996 - 2003 Dealscan (LPC)	1,003 1996 - 2004 Dealscan (LPC)
Researcher's Final Sample Size	238	1,916	1,003
Frequency of Current Ratio Covenant	23.1%	8.4%	10.4%
Frequency of Balance Sheet Covenants	Liquidity: 31.1% Equity: 69.7% Debt/leverage: 74.4%	19.2%	29.4%*
Frequency of Financial Covenants	96.2%	48.7%	67.7%*

\*Interpreted from the research as this was not discussed directly by the author

Note: These studies use data from the Loan Pricing Corporation (denoted as LPC in the table), developed largely from SEC filings in forms 13-D, 14-D, 13-E, 10-K, 10-K, 8-K and S-series (registration statements). Sources: Amir Sufi, "Bank Lines of Credit in Corporate Finance: An Empirical Analysis," *Review of Financial Studies*, Vol. 22 (2009), pages 1057-1088; available at <http://ssrn.com/abstract=723361>; Sergei A. Davydenko, "When Do Firms Default? A Study of the Default Boundary," a paper presented at the 2009 American Finance Association meeting; available at <http://ssrn.com/abstract=672343>, pages 5, 7, 46 (Table IX); Paglia and Mullineaux, see Table 1.

Sufi (2009) reports that 70.6% of all loans include balance sheet covenants, and Paglia (2006) asserts that the statistic is 96.2%; see Table 3 for detailed ratio information. The appearance of the current ratio and other balance sheet covenants have not prevented failures, and Davydenko (2009) reports that defaults on such agreements range from 51.7% to 100% depending on the specific ratio; see Table 4. Obviously, balance sheet ratios are widely used and yet are hopelessly unable to predict the ability of a company to avoid default.

**Table 3 - Occurrence of Bank Sheet Covenants**

	Paglia	Sufi
Liquidity	31.1%	8.4%
Equity	69.7%	23.2%
Debt or leverage	74.4%	14.2%
Debt to cash flow	Not reported	28.2%
Total	96.2%	70.6%

Note: Columns do not add due to variations in the reporting detail provided by the authors  
Source: See Table 1.

Table 4 – Default Experience of Various Financial Covenants (occurrence of defaults when specific loan covenants are present)

Debt-to-net worth	100.0%
Times interest earned	96.6%
Debt-to-cash flow	85.2%
Net worth	75.0%
Current ratio	66.7%
Leverage (total debt-to-total assets)	51.7%

Source: Davydenko, page 46 (Table IX); for the complete citation, see Table 2.

It is distressing to report that none of the studies found a measure of cash flow in the covenants except for debt-to-cash flow, which is a substitute for times interest earned (sometimes known as interest coverage).<sup>8</sup> In fact, accounting profits are used much more frequently in these agreements than actual cash, and, as previously noted, any accrual accounting system makes the manipulation of reported profits much easier than reported cash balances.

## VI. PROBLEMS IN USING THE CURRENT RATIO

According to Dichev and Skinner (2002), the current ratio is the most common of all financial covenants requirements in loan agreements. The Demiroglu and James (2008) study found 956 loans and 506 borrowers using current ratio covenants, or about 13.2% of the loans and 27.9% of the borrowers that were included in their sample.<sup>9</sup> Generally, larger borrowers do not have current ratio requirements as frequently as do medium and smaller sized companies, most likely because of the perception that risk is greater with the latter segment of borrowers.

Despite the prevalence of balance sheet covenants and access to data through the LPC databases, little insightful analysis has been attempted on the usefulness of the current ratio and other balance sheet ratios on predicting business performance and loan repayment. While the present research does not attempt to analyze loan repayment predictors, it does look longitudinally at a sample of U.S. industries during the recent difficult and, in some ways, unprecedented economic collapse and beginning recovery.

The research presents an evaluation of the current ratio, suggesting that not only is there minimal information content in such data, but that companies with competent management not only adjust to deteriorating economic conditions but also manage their liquidity positions to reflect market realities. Finally, an alternative measure is suggested for lenders consideration as a substitute for the current ratio and perhaps other balance sheet ratios when writing financial covenants in loan agreements.

There has been little change in the performance of the traditional measurement of liquidity -- the current ratio -- in the past few years, despite the credit and economic

crisis that has been previously referred to in this article. As indicated in Table 5, this ratio actually *increased* by 2% based on a sample of 18.5% of all industries.<sup>10</sup> This stability reflects both the management of working capital by businesses to changing conditions and their acknowledgement of the requirement to comply with loan covenants regarding liquidity.

**Table 5 - Changes in Liquidity Ratios in U.S. Industry Groups (2006 - 2009)<sup>a</sup>**

Industry Groups	NAICS Series <sup>b</sup>	Representative Industry in Data Sample (with NAICS Code)	Change in Current Ratio	Change in Total Receipts to Cashflow
Agriculture	11	Agricultural Production (111005)	0.17	-0.23
Mining	21	Oil & Gas Extraction (211110)	-0.25	-0.40
Construction	23	Heavy & Civil Engineering Construction (237105)	0.08	-0.29
Manufacturing	31-33	Wood Products (321115)	0.01	-0.41
Wholesaling	42	Grocery & Related Products (4244000)	0.00	-0.29
Retailing	44-45	General Merchandise (452115)	-0.03	-0.15
Transportation & Warehousing	48-49	Rail (482110)	0.13	-0.20
Information	51	Software (511210)	-0.02	-0.38
Other	62 & 72	Hospitals, Nursing & Residential Care (622005)	0.11	-0.12
Unweighted Change <sup>c</sup>			0.02	-0.30
Ratios for Industries in Sample Years			2006	2009
Current Ratio			1.2	1.2
Total Receipts to Cashflow			9.8	6.8

<sup>a</sup> The period representing the top of the economic cycle to the present time.

<sup>b</sup> For a complete listing of all North American Industry Classification System (NAICS) codes, see [www.naics.com](http://www.naics.com).

<sup>c</sup> Calculated based on the individual changes in 25 industries.

Source: Based on calculations by the author from a sample of Current Ratios (#30) and ratios of Total Receipts to Total Cash Flow (#42) for 25 industries (of a total of about 135 industries); Leo Troy, *Almanac of Business and Industrial Ratios* (CCH, 2006 & 2009).

Table 1: Companies with and without Net Income. Excluded from the sample were public utilities (as revenues are regulated by public service commissions), financial companies and professional service organizations. Contact the author for details by industry.

## VII. TOTAL RECEIPTS TO CASH FLOW: AN ALTERNATIVE TO THE CURRENT RATIO

It is inherently more accurate and useful to measure liquidity using at least one account derived from the income statement, which covers the activities of an entire

fiscal year rather than the status as of a single date. In this context, Table 5 reports on total receipts to cash flow (TR/CF) as well as the current ratio; data is derived from Troy (2009).<sup>11</sup> Although TR/CF is not a ratio that is generally not considered as a standard financial measure, it does reflect industry experience with actual liquidity (rather than the aggregation of current asset and current liability accounts) as measured against revenue.

The TR/CF ratio indicates the effectiveness with which a firm uses cash to manage its revenues as compared to its industry; that is, the less cash required for each dollar of sales, the more efficient is the company. At a time when U.S. economic conditions deteriorated significantly, the total receipts to cash flow (TR/CF) ratio declined from 9.8 to 6.8 times or 30% while, as noted above, the current ratio did not significantly change.

Adjusting for growth in the GDP during that period (measured at 4.75%), the revenues of American industry increased at a time when the TR/CF ratio was declining. As the result, the total amount of cash on U.S. balance sheets rose from 10.2% to 15.4%, a significant increase in only three years. This reflects the adjustment of businesses to the difficulty in securing short-term loans, primarily through bank lines of credit, as well as cash hoarding to satisfy transactional and precautionary needs. The 5.2% increase in cash corresponds to the 5.6% reported by Davydenko (2009) as the proportion of bank credit lines to total assets in his sample derived from data collected during more normal economic times.<sup>12</sup> The roughly one-half percentage less cash determined in this article results from lessened business activity and tighter management controls.

## VIII. THE FINANCIAL RESULTS OF CIRCUIT CITY

Certain leading bankruptcies were mentioned earlier in this article. For purposes of developing an example, we use the financials from one of these -- Circuit City -- for the fiscal years 2005 through 2008.<sup>13</sup> It is noteworthy that the company had arranged a line of credit totaling \$1.3 billion, secured by its inventory and accounts receivable, and that this facility was in effect as recently as the reporting of its annual report for 2008.

Table 6 presents current ratio and TR/CF data for the most recent Circuit City accounting periods. The current ratio shows little deterioration either over time or against industry results. Similarly, the debt-to-assets and various non-standard balance sheet ratios calculated for the company, as compared with the industry result taken from *Troy's Almanac* do not show significant problems through 2007. Prior to 2008, lenders can discern significant problems only by examining the TR/CF. Furthermore, the variation within the current ratio during the period was trivial compared to the TR/CF variation. Table 7 includes the coefficient of variation (CV) for the two ratios; the CV of the TR/CF is 13.74 times the CV of the current ratio!

**Table 6 - Circuit City: Significant Financial Data for FY2005 - 2008 (ratios in capital letters are the primary focus of this article)**

	2005	2006	2007	2008	Industry Ratio <sup>a</sup>
CURRENT RATIO	2.09x	1.75x	1.68x	1.52x	1.40x
TOTAL RECEIPTS/CASH FLOW	47.32x	-69.05x	-126.48x	-26.60x	10.30x
Total Debt/Total Assets <sup>b</sup>	44.91%	51.96%	55.30%	59.87%	54.70%
Total Liabilities/Net Worth	0.82x	1.08x	1.24x	1.49x	1.20x
Current Assets/Working Capital	1.89x	2.34x	2.47x	2.93x	3.50x
Current Liabilities/Working Capital	0.89x	1.34x	1.47x	1.93x	2.50x
Inventory/Working Capital	1.03x	1.40x	1.40x	1.89x	1.80x
Net Income (after Taxes) <sup>c</sup>	\$60,569	\$147,449	(\$10,182)	(\$321,353)	

<sup>a</sup>Median for NAICS industry 443115 as reported in Troy's Almanac, 2009 (CCH).

<sup>b</sup>Defined as total debt divided by total assets

<sup>c</sup>In thousands of dollars, for continuing operations, with certain years restated to reflect discontinued business activities

x = ratio stated as "times"

Source: Derived from Circuit City balance sheet data in issues of the *Mergent Industrial Manual*, 2008, page 742; 2007, page 753; 2006, pages 841-842; 2005, page 1079.

**Table 7 - Statistics derived from Circuit City Financial Ratios**

Current Ratio	
Mean	1.76
Standard Deviation	0.24
Coefficient of Variation	13.6%
TR/CF	
Mean	-43.70
Standard Deviation	43.06
Coefficient of Variation	-0.99%
Multiple of Coefficients of Variation for TR/CF vs. Current Ratio	
	13.74 times

Source: Table 6

## IX. CONCLUSIONS

There are several conclusions that were developed from the analysis in this article.

- Balance sheet ratios used as financial covenants in loan agreements have little predictive or control value when applied to loan defaults.

- Any financial covenant should include an income statement-to-cash measure. Our analysis uses total receipts-to-cash flow, although it is certainly possible that others may be useful.
- The principal federal regulator of commercial banks (now the Comptroller of the Currency) should consider mandatory financial covenants in loan agreements.
- U.S. industry has generally responded quite well to the present credit crisis by taking the necessary actions to build cash reserves to replace credit facilities obtained from lenders during normal economic times. The holding of cash for U.S. industry in normal economic times appears to be about 10%, although this varies widely by specific industries. In stressful periods, the withdrawal of lender credit has forced companies to increase their cash holdings to about 15%.
- A specific loan default situation -- Circuit City -- analyzed using this methodology confirmed these general findings.

It appears that loan covenants are used largely because of custom and without adequate consideration for efficacy and appropriateness. Given recent global credit problems, it may be useful to thoughtfully reexamine established banking practice.

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NOTES:

\*The author formerly was a Vice President with the First National Bank of Chicago (now J.P. Morgan Chase).

<sup>1</sup> A basis point (bp) is one hundredth of a percentage point. Federal funds and LIBOR are benchmark rates widely used to price variable rate loans. Statistics are from Davydenko (2009), p. 5. For details on the calculation of returns from lines of credit, see Sagner (2002), at pp. 85-88.

<sup>2</sup> As with other bank lending, banks are becoming more restrictive in their revolving lending agreements, shortening durations and charging higher fees; see Ng (2009).

<sup>3</sup> In a limited number of credit agreements, the quick (or acid-test) ratio may be used in addition to or instead of the current ratio as a measure of liquidity. The quick ratio is defined as current assets minus inventories divided by current liabilities.

<sup>4</sup> A fiscal year is a period used for publishing a company's annual financial statements as required by regulation in many countries. The choice of the actual fiscal year-end closing is at the discretion of management. The general practice is to choose a time when any seasonality effect is minimized. As an example, retailing firms often close their fiscal years after Christmas and January sales have ended.

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<sup>5</sup> Small businesses and governments use cash accounting, which counts sales as cash received and expenses as cash expended. For further clarification, see any standard accounting text.

<sup>6</sup> Tangible net worth is defined as net worth (owners' equity) less such intangible assets as goodwill, which involves excess value paid in an acquisition; and intellectual property; including patents, copyrights and trademarks.

<sup>7</sup> Reuters Loan Pricing Corporation ([www.loanpricing.com](http://www.loanpricing.com)) provides credit market information and analysis for bankers, borrowers, and investors. Products include online data, news, and analytics; loan pricing services; and interactive databases.

<sup>8</sup> Times interest earned is often defined as earnings before interest and taxes (EBIT) divided by interest expense. The form of the numerator accounts for the deductibility of interest before the calculation of taxable income.

<sup>9</sup> The sample included 7,237 loans from 1,813 borrowers; Demiroglu and James (2008), at p. 89.

<sup>10</sup> In a period of deteriorating economic conditions, it would be logical to assume that the current ratio would decrease, not increase.

<sup>11</sup> For the purposes of this analysis, total receipts are considered primarily as revenues, but include in addition the following: interest, rents, royalties, net capital gains and dividends. Cash flow is the difference between cash receipts and disbursements. Leo Troy, *Almanac of Business and Industrial Ratios* (2009). For practical purposes, the calculation of cash flow can be developed by comparing the change in two successive years of balance sheet reporting of cash and short-term investments.

<sup>12</sup> Reporting on used credit lines, at p. 9; another 9.8% of total assets were unused (not drawn by the borrower).

<sup>13</sup> Circuit City filed for bankruptcy protection in early November 2008, and announced its intention to liquidate in January 2009 following a weak Christmas selling season. Many retailing operations conclude their reporting periods one or two months after the Christmas season. Following that pattern, Circuit City's previous fiscal years ended on the last day of February.

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