

NORTHERN ILLINOIS UNIVERSITY

Interest Rate Swaps: Are Current Disclosures Adequate?

A Thesis Submitted to the

University Honors Program

In Partial Fulfillment of the

Requirements of the Baccalaureate Degree

With University Honors

Department of Accountancy

by

Jason E. Logman

DeKalb, Illinois

December 6, 1996

Student Name: Jason E. Logman

Approved By: Curtis L. Norton *Curtis Norton*

Department of: Accountancy

Date: December 6, 1996

**Honors Thesis Abstract
Thesis Submission Form**

AUTHOR: Jason E. Logman

THESIS TITLE: Interest Rate Swaps: Are Current Disclosures Adequate?

ADVISOR: Dr. Curtis L. Norton ADVISOR'S DEPT: Accountancy

DISCIPLINE: Accountancy YEAR: 1996

PAGE LENGTH: 35 BIBLIOGRAPHY: Yes ILLUSTRATED: No

PUBLISHED (YES OR NO): No LIST PUBLICATION: None

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ABSTRACT (100-200 WORDS):

Interest rate swaps are becoming increasingly popular in financial markets today, both for speculative and hedging purposes. Because of this increase in use, it was necessary for the Financial Accounting Standards Board and the Securities and Exchange Commission to begin regulating the disclosure of these financial derivatives. Although several pronouncements from both of the previously mentioned governing bodies have been released in the past few years, the minimum requirements do not fully present a company's financial position in regard to their use of interest rate swaps. Since the majority of publicly held companies are meeting only the minimum requirements, many third party users are not given full disclosure. The purpose of this paper is to describe the current accounting standards set forth by the FASB and the SEC, to provide sample disclosures from several annual reports, and finally to recommend improvements that will enhance third party user's knowledge of a company's interest rate swap position.

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INTRODUCTION

In today's highly competitive global economy, companies are attempting to mold their capital and debt structure into what they feel would be optimal for their line of business. One way that many companies are attempting to achieve this goal is through the use of interest rate swaps. The use of this type of derivative financial instrument has grown exponentially over the past few years, and continues to grow today.

Because this instrument is relatively new and its use has been growing rapidly, the Financial Accounting Standards Board (FASB) has had to issue pronouncements mandating the appropriate accounting treatment and disclosure requirements for interest rate swaps. The Securities and Exchange Commission (SEC) has also attempted to regulate the disclosure for publicly held companies. Many companies are complying with these current regulations with the minimum level of disclosures even though there is a significant amount of money contracted through interest rate swaps. The disclosure of these types of transactions serve as valuable information for interested third party users of the financial statements. This paper will provide a background on interest rate swaps, will detail the current requirements, will focus on the inadequacy of these current regulations, and will discuss where and how companies should be reporting their use of interest rate swaps.

BACKGROUND OF INTEREST RATE SWAPS

Definition

The overall of concept of interest rate swaps is fairly simple. An interest rate swap is defined as "a contract between two parties to exchange interest payments on a specified principal amount (referred to as notional principal) for a specified period (Brooks, Donald, and Herz

best interest to have their cash outflows be dependent on these same rates (Rue, Tosh, Francis 44). By converting either the cash inflows or debt into similar cash flow patterns the company's management will obtain a greater degree of control over the financial position of the company.

For example, if a credit card company is holding receivables that charge interest at an average rate of prime plus 8.9%, their cash flow income is dependent on the prime rate. Suppose this credit card company also holds a debt obligation with a fixed rate of 11.2%. If interest rates should fall, the amount of income that will be received could fall below the amount of interest being paid. In this case, it would be wise for the company to enter into a swap which changes the fixed rate debt into a variable rate. This swap would greatly assist in stabilizing the cash flows of the company.

Interest rate swaps are also often used as a hedge for a specific asset, liability, or transaction. The purpose of the swap is for its value to react inversely to any changes in the fair market value of the underlying item. This offsets any fluctuations in the value of the hedged asset, liability, or transaction. The previous credit card company example illustrates this point in that the inflows for the receivables are hedged by the swap transaction on the debt. Also, many companies will use swaps to hedge the value of a single item, such as a valuable asset that is sensitive to market fluctuations.

Types

The four basic types of interest rate swaps are matched, hedged, unmatched, and offsetting. If a swap transaction's payments are closely correlated with those of an interest bearing asset or liability, the swap would be considered matched. If the intent of the company entering into the swap is to reduce their risk associated with a specific transaction or

transactions, then they have entered into a hedged swap.

An unmatched swap is one that is not related to any asset, liability, or transaction. These swaps can be speculative, or could be used to reduce the companies overall exposure to interest rate risk. The final type of interest rate swap is the offsetting swap. This type deals with the third parties involved in the swap transaction. When two companies contact an intermediary instead of directly contracting the swap with each other and a swap is arranged, the intermediary holds the offsetting swap (Rue, Tosh, Francis 47).

Risks

Although interest rate swaps are entered into primarily to reduce the risk of market fluctuation, when a company utilizes swaps for any purpose they will take on other risk factors. The two main elements of risk involved with swaps are credit and market risk. Most companies set certain criteria regarding the acceptable level of risk that can be taken on for swap transactions. If a swap is found to be too risky for a company then the swap is rejected, and the company has the choice of finding another swap partner or simply retaining their current form of interest payments.

Credit risk. The likelihood that the opposite party in a swap transaction will default on their interest payments is the definition of credit risk. The credit risk applies only to the "net amount of payment outstanding, since ownership of the underlying financial instrument does not transfer (Smith 12)." Because of this risk, companies must scrutinize their potential swap partners carefully by checking for any forms of financial instability. Only if a company is clearly able to perform under the proposed contract should a swap be entered into. Many companies today have extremely rigid credit risk policies, and will only swap with major entities

that possess very low default risk.

Market risk. The most prominent risk involved with interest rate swap transactions is market risk, which can be defined as the possibility of fluctuations in interest rates over the time period of a swap. Although not all swaps have the outright intention of being speculative in nature, all swaps contain an element of speculation in them. For example, ABC Company is considering entering into a swap in order to synchronize their fixed rate interest payments with their variable rate revenue receipts. Although the intentions of ABC are not related to making a profit off of the movement on the interest rates, they still must speculate that the interest rate will not rise dramatically because that would cause them to pay more interest than they do currently.

The amount of market risk depends on both size of the swap agreement and the volatility of the interest rates. The way most companies try to reduce their exposure to market risk is by entering only into "plain vanilla" swaps, which contain the simplest form of rate exchanges without including any penalty clauses for future fluctuations in the interest rates. This does not eliminate market risk, but may reduce it to an acceptable level.

ACCOUNTING AND DISCLOSURE REQUIREMENTS

The FASB did not release pronouncements that could be reasonably applied to the accounting and disclosure of interest rate swaps until 1990 when the FASB issued SFAS No. 105. Since then, several pronouncements regarding these issues have been released by the FASB, and the SEC has also come into the picture with their own separate disclosure requirements. The following is an overview of the accounting and disclosure of these standards.

FASB Statements of Financial Accounting Standards

SFAS No. 105 *"Disclosure of Information about Financial Instruments with Off-Balance-Sheet Risk and Financial Instruments with Concentrations of Credit Risk."* This Statement covers all financial instruments that possess credit and market risk that are not adequately disclosed on the balance sheet, and was put into effect for financial statements issued for fiscal years ending after June 15, 1990. The definition given of a financial instrument parallels the definition of an interest rate swap in that it requires an exchange between parties of cash or another financial instrument that could be potentially unfavorable to one of the parties. The FASB felt that although there were some instruments being reported on the balance sheet, there was often a "risk of accounting loss" that was not made apparent to interested third party users.

Statement 105 requires companies with applicable instruments to disclose either in the body of their financial statements or the footnotes certain characteristics of the instruments, segregated by class. The first aspect that must be disclosed is the "face or contract amount" of the contract. When dealing with interest rate swaps this would include disclosing the notional principle of the swap. The second area that needs to be addressed deals with the nature and terms of the contract. Required within this is the disclosure of:

- ◊ The credit and market risk of the instruments.
- ◊ The cash requirements of the instruments.
- ◊ The related accounting policy in compliance with APB opinion No. 23.

If the instrument being disclosed contains an aspect of credit risk, the company is then required to report information regarding the possible losses that would occur if the other party would completely default on the contract, or if the collateral that was given in exchange for the contract would become worthless. Also required is a detailed description of the terms of the collateral. This includes information regarding the company's collateral requirements, ability to access the collateral, as well as what items they currently possess. Companies are encouraged to report more information about their collateral if they feel it will better the user's understanding of the credit risk involved.

Another topic addressed by this statement deals with group concentrations of credit risk. An example of this would be a company that contracted into several interest rate swaps with \$80 million in notional principle to change their average variable rate debt of prime plus 5.4% into a average fixed rate of 10%. If the prime rate falls much below 4.6%, this company would suffer a large accounting loss in that they would be paying a rate much higher than was originally necessary. The FASB requires the same disclosure requirements as that of isolated instruments possessing credit risk except for additional information regarding the shared activity, region, or economic characteristic that identifies the concentration (FASB 1250).

This was an excellent beginning for the FASB in that companies were required to inform interested third parties of possible losses from off-balance sheet transactions. However, more work needed to be done to achieve standardized reporting for all entities.

SFAS No. 107 *"Disclosures about Fair Value of Financial Instruments."* The FASB realized this need and released Statement No. 107 regarding the valuation of financial instruments located both on and off the balance sheet. This statement became effective for

financial statements issued for fiscal years ending after December 15, 1992 for entities with less than \$150 million in total assets, and for entities with total assets less than \$150 million it began with fiscal years ending after December 15, 1995. The term "financial instrument" carries the same meaning as was defined in SFAS 105, which again encompasses interest rate swaps. Statement 107, however, is a little harder to apply than 105 in this area.

The requirements of this new statement are fairly simple: All financial instruments are to be reported at their fair market value. This seems like a fairly straightforward and easily applied statement, but there can be considerable difficulty in determining what is considered the instrument's fair market value. The fair market value is to be based on one of the following methods of valuation:

- The amount at which the instrument could be exchanged in a current transaction between willing parties.
- The product of the quoted market price per instrument multiplied by the number of instruments held by the company.
- Financial instruments that do possess a market value and are similar in nature.
- Valuation techniques such as discounting future cash flows by an appropriate interest rate, option pricing models, or matrix pricing models.

Since interest rate swaps are highly customized contracts there is normally no applicable market where they could be traded or a market price could be determined. One way that many firms use to value their swaps is discounting of the future payments to be made at some applicable interest rate such as the current market rate. This method is somewhat effective in that it comes up with a number that is reasonable, but if the interest rates change the value of the instrument could be far from what is derived.

The FASB realized that there would be some financial instruments, such as interest rate swaps, that would be difficult to value accurately. The statement goes on to explain that other information must be disclosed if "it is not practicable for an entity to estimate the fair value of a financial instrument or a class of financial instruments." Practicable is later defined as the ability to define the value of an instrument without incurring excessive costs. Obviously the term "excessive" will vary greatly from company to company and from year to year. If it is deemed to be not practicable the company is required to disclose as much information as possible regarding the fair value of the instrument. Items included in this would be carrying amounts, effective interest rates, and maturity dates. It is also required that the company disclose why it was not practicable for them to determine the instrument's fair market value (FASB 1395).

SFAS No. 119 *"Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments."* This next step in the evolution of the financial reporting of derivatives was put into effect for financial statements issued for fiscal years ending after December 15, 1994 for companies with excess of \$150 million in total assets, and at the same date in 1995 for companies with assets totaling less than \$150 million.

This Statement was the result of complaints and suggestions received by the FASB regarding the current disclosure standards for derivative financial instruments. These suggestions addressed issues such as voluntary disclosure, requests for the FASB to enhance current disclosure requirements, and also requests for clarification regarding the fair market valuation already required by previous Statements. Another contributing factor to the release of SFAS 119 was the fact that companies were using derivatives in the ordinary course of business, but many investors and creditors still did not understand what these instruments were, or the risk

involved in using them. Because of all these factors the FASB realized it was time to act.

The scope of this statement is similar to that of SFAS 107, which is referenced regarding definition of a financial instrument. "Futures, forward, swap, and option contract[s] or other financial instrument[s] with similar characteristics" are specifically mentioned as being within the range of this Statement. Items specifically not included in the scope would include all on-balance sheet receivables and payables as well as the optional features embedded in them.

The first disclosure issue addressed in this Statement deals with derivative financial instruments not covered under the scope of SFAS 105. The reason these instruments did not qualify under that Statement was because they do not possess any "off-balance sheet risk of accounting loss." SFAS 119 requires that the disclosure relating to these instruments contain the same information as the ones that do possess this off-balance sheet risk. Included in this disclosure is the face or contract amount of the instrument, and the nature and terms of the financial agreement (credit and market risk, cash requirements, and related accounting policies). As previously stated, these are identical to the requirements of SFAS 105.

One of the major changes made by this Statement was the required disclosure of the purpose for holding the derivative financial instrument. Companies must distinguish between financial instruments held for trading purposes and those that are held for purposes other than trading. This allows users of the financial statements to more fully comprehend the company's intentions regarding their use of derivatives.

Derivatives held for trading purposes could include dealing or other trading activities that are traded at fair market value and have gains and losses reported in earnings. An entity holding derivatives for trading purposes must disclose two main issues: (1) The average fair value of the

instruments for the reporting period, presented with the related end-of-period fair value, with separation of assets and liabilities, and (2) The net gains or losses from trading activities during the reporting period broken down by "class, business activity, risk, or other category that is consistent with the management of those activities."

Disclosures relating to financial instruments being used for purposes other than trading are significantly more detailed. If it has been determined that the derivatives are not being held for trading purposes, the entity must disclose:

- ◊ The objectives the company has for holding the instruments, the context needed to understand those objectives, and the company's strategy for achieving these objectives (such as classes of derivatives being used).
- ◊ A description of how each class of derivative is reported in the financial statements including the policies for recognizing (or reasons for not recognizing) and measuring the instruments held and a description of how gains and losses are reported on the income statement.
- ◊ Instruments being used as hedges of anticipated transactions must include:
 - 1.) a description of the transaction including the time period they will occur
 - 2.) a description of the classes of derivatives used
 - 3.) amounts of hedging gains and losses deferred
 - 4.) a description of other events that result in the recognition in earnings of gains or losses deferred by hedge accounting.

These disclosure requirements greatly expanded the amount of information companies had to provide in the financial statements regarding derivatives. Users were now being made aware of important aspects of the companies derivative policies and the way they have accounted for them. The FASB felt that these requirements were adequate, but they also added a section onto Statement No. 119 entitled "Encouraged Disclosure about All Derivative Financial Instruments Held or Issued." In this section the FASB makes certain statements regarding what

they feel would be appropriate, although not necessary, to disclose in the financial statements.

The main idea of the encouraged disclosures is a quantitative representation regarding the interest rate, foreign exchange, commodity price, or other market risks of these instruments that could effect the way in which the company manages their instruments. A quantitative disclosure is thought of as being "more useful, and less likely to be perceived to be out of context or otherwise misunderstood." The Statement goes on to show several ways entities could choose to report this quantitative information in their financial statements or accompanying notes. Examples would include: more details about current positions and activity during the period, a gap analysis of interest rate repricing or maturity dates, or the duration of the financial instruments.

This is the final official step the FASB has taken with regard to the disclosure of derivative financial instruments. They have made great strides in forcing companies to convey important information regarding their use of derivatives, but some feel that the current requirements are still not sufficient.

Securities and Exchange Commission Proposed Item 305

Grant Thornton LLP, a mid-sized accounting firm, published their New Developments Summary regarding the SEC's proposed release of Item 305 on February 14, 1996. This proposed amendment to Regulations S-X and S-K pertains to expanding the requirements of derivative disclosure for publicly traded companies. The SEC has increased the amount of disclosure needed regarding quantitative as well as qualitative aspects of financial instruments. The majority of this proposal deals with the requirements of reporting derivative information outside of the financial statements. Requiring the reporting outside of the financial statements

could cause a problem with the accuracy and reliability of the information that is provided, and is an issue that will be addressed later in this paper.

Disclosures regarding accounting policies. The first area covered by this pronouncement deals specifically with the inadequacies of SFAS 119. The SEC points out that, although the FASB requires the reporting of accounting policies regarding derivative financial instruments, it does not provide the specific information those disclosures should include. This is the one aspect of the proposal that would affect the financial statements of publicly held companies. Some of the specific reporting requirements to be disclosed in the accounting policies note would be:

- ◊ The method used to account for derivatives (fair value, deferrals, and accruals) and the types of derivatives accounted for under each method.
- ◊ Accounting policies regarding the termination of derivatives designated as hedges.
- ◊ Accounting policies dealing with the hedged item maturing or being sold, extinguished, terminated, or if the item is no longer likely to occur.
- ◊ Where the derivatives and their related gains and losses are reported in the balance sheet, income statement and cash flow statement.

These disclosures would be necessary for all publicly traded companies that make a material use of derivative financial instruments. All disclosures would have to segregate derivatives used for trading purposes from those being used for purposes other than trading (Grant Thornton 2). This section of the proposal is a helpful one in that it gives a more definite guideline for companies to follow.

Quantitative disclosures of market risk. The second section deals with expanding the disclosures about market risk, and is the beginning of the outside-the-balance-sheet reporting

section. The scope of this section identifies three types of transactions that would be covered by this proposal: 1.) derivative financial instruments such as futures, forwards, swaps, and options; 2.) other financial instruments as defined by SFAS 107; and 3.) derivative commodity instruments if they will be settled in cash or with another financial instrument rather than delivery of the actual commodity. If there is material amount of market risk or potential future earnings loss involved with any of the above mentioned transactions this proposal will apply.

As discussed in the description of SFAS 119, quantitative disclosures relating to the market risk of derivatives is encouraged, but not required by the FASB. The SEC's proposal gives companies three alternatives as to how they can report a quantitative aspect of their market risk. These methods are the tabular presentation, value at risk, and sensitivity analysis. Again, all disclosures must be separated between those derivatives being held for trading purposes and those used for purposes other than trading.

If a company should choose the *Tabular Presentation* method, they would have to include the terms of the instruments and other information related to the instruments such as fair value, expected principal or transactions cash flows, weighted average effective rates or prices, and other relevant market risk-related information. The proposal calls for a summary by risk exposure category, such as interest rate risk or foreign exchange rate risk. These categories would then have to be subdivided into applicable subsections such as types of currency.

Within these risk exposure categories derivatives would have to be grouped based on their common characteristics. These would include fixed or variable rate assets or liabilities, long and short forwards or futures, written and purchased put or call options, and receive-fixed and receive-variable interest rate swaps. The table presented must disclose expected cash flows

for the next five years and an aggregate sum for the years following.

The second alternative given is the *Value at Risk* method. This deals with the "potential loss in fair values, earnings, or cash flows that instruments sensitive to market risk might experience in adverse price or rate movements that have a specified probability of occurrence over a specific time period." These disclosures must be separated by type of price and rate risk exposure.

If a company should choose to use this method of reporting market risk, they would have to disclose at least one of the following items regarding their value at risk for the current reporting period:

- The average or range of value-at-risk amounts.
- Average or range of actual changes in fair values, earnings, or cash flows of market risk sensitive instruments in the current period.
- The percentage of actual changes in fair values, earnings, or cash flows from market risk sensitive instruments that exceeded the reported value-at-risk amounts during the period.

In order for these disclosures to have meaning to third party users, the entity must also disclose information regarding how they define a loss, a general description of the modeling technique used, and the different types of instruments contained in the model.

The third and final option available would be a *Sensitivity Analysis*. This alternative entails the presentation of several hypothetical changes in market risk factors and the resulting hypothetical losses the company could suffer if these factors would occur. Examples of these factors could include interest rates, currency exchange rates, commodity prices, or any other possible factors that promote market risk. In my opinion, this method is the simplest to

understand and the most effective communicator of a company's position regarding the market risk of their financial instruments.

As with the value at risk method, several disclosures regarding the formation of the analysis are necessary. Again, these disclosures would include how a loss is defined, a general description of the modeling technique, and the categories of instruments covered.

Qualitative disclosures of market risk. The SEC has taken an approach similar to its quantitative reporting proposals in that it simply takes the requirements found in SFAS 119 and gives them a little more specificity and detail. Item number 305 adds to the current standard of reporting specific disclosure of primary market risk exposures and how these exposures are being managed. Separate disclosures would be necessary based on the reasons for holding the instrument (trading, other than trading, or hedging).

Overall, this proposal brings up many interesting points and theories on the disclosure of financial instruments. All of these ideas significantly improve the requirements of the FASB in that third party users are made aware of much more detail regarding a companies use and risks involving derivative financial instruments. However, there is one major flaw in the proposed SEC rule amendment, the fact that these disclosures are to be made outside the financial statements.

Because of this off-financial statement format of presentation, disclosures will not be audited by an independent accounting firm. This could cause problems regarding errors in the computation and validation of the data, as well as enhance opportunities for intentional and fraudulent reporting.

CURRENT DISCLOSURE

In my analysis of the current disclosures I will be citing parts of a statistical analysis compiled by Brian Bushee, a Ph.D. candidate at the University of Michigan, to illustrate the current state of annual report disclosures regarding interest rate swaps. I have also selected several annual reports from companies in different industries which will show the excellent, minimum, and below minimum disclosures that are currently being provided.

STATISTICAL SAMPLING ANALYSIS

The statistics I will be citing were compiled by Brian Bushee for Coopers and Lybrand LLP and the University of Michigan. They are found in his paper entitled "Derivative Disclosures Under SFAS No. 119: A survey and Analysis of 1994 Disclosures by End Users of Derivatives." The sample included 78 publicly held company's annual reports from a variety of different industries.

Although his information does not specifically address the issue of interest rate swaps, they are included in the scope of the survey. Also, interest rate swaps are among the most common derivative financial instruments used, therefore this survey will adequately reflect the companies disclosures regarding swap transactions.

Beginning with the very basic disclosure requirements, it was found that 100% of the reports surveyed disclosed their objectives for holding their derivative financial instruments. Of these companies, 97.4% also included their strategies for meeting these objectives, including the class of derivative being used. This result was expected due to the simple nature of the requirement and because it is rather non volatile information.

Another aspect of derivative disclosures that Bushee researched was the information

reported quantitatively by companies regarding derivative activity. Included in this analysis was the disclosure of the following: notional values, maturity dates, fair values, and related gains and losses. Because this survey was conducted in great detail, it is not possible to cite the results of all these categories. However, I will briefly summarize the findings pertaining to these quantitative disclosures.

Of the 78 companies surveyed, all included a discussion of the notional values of their derivatives, and all but one divided their derivative positions into separate categories. The reporting of maturity dates was somewhat less than what would be expected, with nearly 10% of the companies not mentioning anything regarding their applicable maturity dates. The most surprising statistic relates to the disclosure of the end-of-period fair value for these instruments. With two FASB statements including this requirement in their title it would be expected that all companies would be sure to comply. However, 12.8% of the companies surveyed still did not disclose information of fair value amounts.

The disclosure of gains and losses was lacking in many regards for the companies included in this survey. Losses can be divided into three basic categories, deferred, unrealized, and realized. Deferral of gains or losses takes place when a derivative is used for hedging a transaction. An unrealized gain or loss can be incurred at the end of a fiscal period if a derivative is outstanding and the market value differs from the book value of the instrument. If a gain or loss is realized then the derivative has been terminated and a final gain/loss number is determinable. Many times these numbers tend to be quite small in relation to the size of the instrument, but in the case of large fluctuations in the market interest rate these numbers can become rather large.

The survey showed that only 43.6% of the companies disclosed information on the deferral of gains and losses, and only 23.1% of companies mentioned unrealized gains and losses. Although these numbers are usually small, some reference should be given to assure third parties that information is not being omitted. The reporting of realized gains was even lower at 15.4%. It is highly unlikely that the companies that are not reporting these gains or losses are not incurring them, because it is extremely rare that a derivative terminates exactly at book value.

Perhaps the most pertinent information is found in regard to disclosures concerning the market risks of derivatives. This is the area in which the FASB merely recommends disclosures. The recommendation of the FASB does not seem to carry too much weight with publicly held companies. The results of the survey show that only 48.9% of companies disclose any information regarding the market risks of their derivatives, with over half of these companies stating only that the market risks involved are immaterial. Of the 78 companies surveyed, 5 discussed hypothetical effects of changes in market rates, and only 3 showed a quantitative disclosure of this information. This is possibly the most important and relevant information for third party users to obtain, and in most cases they are not receiving it.

The overall conclusion drawn from this survey is that, while the majority of companies are following the requirements set forth by the FASB, many are still not disclosing the proper information. This survey also shows that most companies are not conveying to the end users of their annual reports the levels of market risk involved with their derivative activities. This represents a serious weakness in the reporting process that needs to be addressed.

ANNUAL REPORT ANALYSIS

The criteria that I will be using to rate these disclosures are based on three major aspects:

1.) The adequacy of the reporting in regard to current requirements, 2.) The inclusion of supplementary information and/or tables to enhance understandability, and 3.) The overall readability of the presentation (i.e. is it easily comprehensible to a reasonably informed user).

Companies with Excellent Disclosure

The first annual reports that I will be referencing will be those of companies which provide information above and beyond what is required by the FASB and the SEC. These companies are on the leading edge of derivative disclosure, and are setting the pace for other companies to follow.

PepsiCo, Inc

One of the best derivative disclosures can be found in the notes to the financial statements for PepsiCo, Inc. for the fiscal year 1995 (See Appendix). Under the heading of Derivative Financial Instruments, all aspects of the FASB regulations have been clearly met in an easily comprehensible manner.

The first paragraph states that PepsiCo strictly prohibits the use of derivatives for trading purposes, and also informs users that controls have been implemented to monitor and control their use. The following is an excerpt from PepsiCo's annual report pertaining to their objectives for holding their interest rate swaps as well as their plans to achieve these objectives:

PepsiCo enters into interest rate and foreign currency swaps to effectively change the interest rate and currency of specific debt issuances. These swaps are generally entered into concurrently with the issuance of the debt they are intended to modify. The notional amount, interest payment dates and maturity dates of the swaps match the principal, interest payment dates

and maturity dates of the related debt. Accordingly, any market impact (risk or opportunity) associated with these swaps is fully offset by the opposite market impact on the related debt.

This paragraph clearly states the objectives that PepsiCo has set for their interest rate swap activities. They have also addressed their method for accomplishing these objectives in the form of matching all relevant dates and notional amounts at the time of issuance. The final statement regarding market risk could be considered overly optimistic in that swaps rarely can perform as a complete and total hedge of a transaction. Most likely there will be some gain or loss recognized as interest rates fluctuate.

The issue of credit risk is also addressed in the footnotes in a brief, but effective manner. PepsiCo has assessed their credit risk at a minimum because they deal only with "strong creditworthy counterparties," and the majority of their swaps are short in duration. This explanation, although not long and detailed, is extremely effective in representing their requirements for interest rate swap partners, and in helping third party users assess the credit risk of the swap transactions.

What truly sets PepsiCo apart from many corporations in terms of their interest rate swap disclosures is their use of tabular formats to convey the current status of their outstanding swap agreements. I have included one of these tables in the appendix to this thesis. The format used presents an easily understandable, concise representation of different aspects of their swaps. The table included in the appendix is the most interesting and informative one classifying the swaps into three categories: receive fixed-pay variable, receive variable-pay variable, and receive variable-pay fixed. Underneath each category is the notional amount of the applicable swaps, the weighted average receive rate, and the weighted average fixed rate. This form of disclosure

is extremely helpful in assessing the current gains or losses occurring from swap transactions.

Other tables used in PepsiCo's annual report present the breakdown of their debt into short and long term variable and fixed rate debt, and also a table disclosing the fair value of their financial instruments. One aspect lacking in their reporting is that maturity dates of the swaps were never discussed. In the objectives paragraph it is mentioned that their swaps are of relatively short duration, but this does not inform users of their specific maturity dates.

Air Products and Chemicals, Inc.

Another company that has excellent reporting practices regarding their activities in derivatives, specifically interest rate swaps, is Air Products and Chemicals, Inc. The data being used in this analysis is found in their annual report for the fiscal year 1994, and also in the AICPA's 1995 edition of Accounting Trends & Techniques, which is an annual survey of accounting practices and stockholders' reports.

As with the PepsiCo disclosure, a discussion of their objectives for holding interest rate contracts and the methods which they are using to achieve these objectives is discussed at the beginning of the related footnote. However, Air Products and Chemicals goes into a much more detailed discussion of several specific swap transactions including the notional amount of each, the type of swap being used, and the maturity dates of the transactions. The issue of credit risk is also addressed by stating that their counterparties in these swap agreements are strictly major financial institutions, which leads management to believe that "the risk of incurring losses related to credit risk is remote and any losses would be immaterial."

A table is also used in this disclosure similar to the one used by PepsiCo.. The interest rate swaps are again grouped into categories such as fixed to variable and variable to fixed, with

notional amounts and weighted average receive/pay rates for each category. Unrealized gains and losses are also shown by category, with a final column showing the net unrealized gain or loss. A range for maturity of these swap transactions is also given in order for third parties to realize when these unrealized gains or losses will be recognized.

In order to effectively disclose the market risk related to their swap transactions, Air Products and Chemicals has used a sensitivity analysis to show how future fluctuations in the market interest rates could effect their financial position. An excerpt from this disclosure is shown below:

Based on the composition of the company's debt portfolio, including interest rate hedge agreements, as of 30 September 1994, a 100 basis point increase in market interest rates would result in an additional \$5.4 million in interest incurred per year. A 100 basis point decline would lower interest incurred by \$5.4 million per year.

There is also a sensitivity analysis regarding the fair value of long-term debt and the fair value of interest rate swap agreements which can be found in the appendix to this thesis.

This is an extraordinary disclosure in that no companies at this point are required to disclose possible gains and losses on interest rate agreements in any form of reporting, much less in the footnotes to the financial statements. Although this is not a detailed sensitivity analysis, an interested third party can easily identify and quantify the potential market risks involved with the swap transactions. I will be referencing this disclosure in a later section of this thesis regarding my recommendations for reporting requirements.

Companies Providing Minimum Required Disclosure

The next grouping of companies are reporting the minimum amount of information required by the FASB and the SEC regarding their interest rate contracts. This is the category

which most companies tend to fall into. This practice, although not in violation of any requirements or standards, is not overly informative to third party users.

General Motors Corporation

A company as large as General Motors has a great deal of exposure to interest rate fluctuations because of the magnitude of financing that is used. Because of this exposure, it is necessary for GM to control their total vulnerability by entering into interest rate swap contracts. According to their annual report, they had swapped notional amounts accumulating to approximately \$15,942 million as of the end of their 1995 fiscal year. With such a large amount of interest payments being exchanged there should be a detailed disclosure of the nature of these contracts found in the financial statements. However, although the information provided does not fall short of any mandated guidelines, it does not lead to an adequate understanding of their financial position with regard to these transactions.

Information such as General Motors' objectives for holding the swaps and the methods which they are using to achieve these objectives are discussed early on in the footnote, as well as information regarding the accounting treatment for applicable unrealized gains and losses that have occurred. These disclosures satisfy the FASB requirements pertaining to these issues, but the quantitative disclosure regarding the unamortized loss is given merely as a single sum number. No reference is given as to what category of swap is causing the loss, or as to when these contracts mature, which will in turn cause these losses to be realized. This is one example of how the current requirements fall short of portraying an accurate picture of the financial position of these contracts.

The main issue that is disregarded in General Motors' annual report is a discussion about the market risk of the interest rate contracts that they have entered. When swapping such an enormous amounts of interest payments, a drastic swing in the interest rates in the wrong direction could significantly affect the company in a negative way. Even smaller movements can be amplified depending on the type of swap contract that is being used. At no point in the footnote disclosure is there any mention of market risks pertaining to interest rate contracts. Third party users need to be informed of this information to adequately assess the risks involved with these derivative financial instruments. This is a major deficiency in the reporting requirements set by the FASB, and one which is addressed in the current proposed SEC regulations.

Coca-Cola Company and Subsidiaries

The disclosures related to interest rate swaps for Coca-Cola are very similar in nature to those of General Motors. The information disclosed meets the minimum required standards, and no further disclosures were made to aid in the understanding of the swap transactions. Objectives for holding the instruments and methods for achieving them as well as a discussion regarding credit risk is included and well presented.

Again, a table was used to show notional principal amounts, carrying values, and fair values of the derivatives, but no mention of the current unrealized gains or losses was made. Coca-Cola does make clear the range of maturity dates for all interest rate contracts, which is an improvement over many companies.

The main issue of concern regarding this disclosure is again the lack of reporting on market risk. Over \$1,000 million in notional principal is subject to interest rate contracts at the

end of Coca-Cola's 1995 fiscal year, but no mention of the possible effects fluctuations in the interest rate market might have are made. In my opinion that is a significant deficiency in the reporting requirements.

Companies Providing Below Minimum Disclosure

Although the majority of companies fall into one of the first two categories, there are some that do not even report the minimum information required. Several key points have been omitted by some companies regarding their disclosures of interest rate contracts.

The Boeing Company and Subsidiaries

The Boeing Company annual report for the fiscal year 1995 is an example of the failure to meet the minimum required disclosures. Boeing is an enormous corporation dealing mostly with the manufacturing of aircrafts, and took in over \$30 billion dollars in revenues this past year. As with any large company, there is tremendous exposure to interest rate fluctuations. Boeing states that interest rate swaps are used to minimize this disclosure, but the information given regarding these swap transactions falls short of what is required by both the FASB and the SEC.

In the first paragraph of the footnote the reasons for holding the interest rate contracts and the methods used to account for these transactions was adequately disclosed . In this paragraph, the following statements appear:

The interest rate swaps are accounted for as integral components of the associated receivable and debt, with interest accrued and recognized based upon the effective rates. Due to the component nature of these interest rate swaps, there are no associated gains or losses.

This statement is in accordance with the Financial Accounting Standard Board's SFAS

119 in that these swaps are apparently being used as hedges in relation to Boeing's receivables and debt. However, it appears that since these gains and losses are not reported separately from their underlying transactions, Boeing feels that it is not necessary to report any additional information regarding these swaps. At no point in the footnotes are the fair values, maturity dates, or notional amounts of these contracts addressed in text or tabular format. This clearly falls short of the previously stated requirements of the FASB.

Another area of derivative disclosure which Boeing fails to address is in regard the fair value of their future financing commitments. It is stated in their annual report that the estimation of the fair market value of these instruments is not practicable. SFAS 119 states that where the fair value of an instrument is not estimable, more information regarding the instrument must be disclosed such as: carrying amounts, effective interest rates, and maturity dates. Also, a discussion of why these fair values are not practicable to calculate is also mandated. Again, Boeing has failed to meet the established disclosure requirements.

RECOMMENDATIONS

Now that I have discussed the applicable pronouncements by the Financial Accounting Standards Board and the Securities and Exchange Commission regarding derivative financial instruments, and have also given example of disclosures companies are using relating to this area, I will give my recommendations as to what steps should be taken to improve disclosures in the field of interest rate swaps. I have segregated my recommendations into two categories: known values and hypothetical analysis.

Known Values

The category I refer to as known values encompasses information such as notional

principal amounts, average effective interest rates paid and received, fair market values, and maturity dates. All of these disclosures are required by the various SFAS's, and the majority of publicly held companies currently disclose this information. My recommendation is not to add more information to this disclosure, but to mandate a prescribed format for presentation that would make the understanding of a companies' swap position evident to interested third parties.

The format which I would recommend is the one currently used by Air Products and Chemicals Inc., which can be found in the appendix to this thesis. The main principle of this reporting form is that the interest rate swaps are divided into categories based on their method of payment such as: pay fixed - receive variable, pay variable - receive fixed, and pay variable - receive variable. By segregating the swaps into these categories it is easier to determine the firms financial position, than it is when only one set numbers is given. This disclosure should not be difficult for the companies to compute, and the benefit that is realized when the information is disclosed in this way far outweighs these extra preparation expenses.

Hypothetical Analysis

My most urgent recommendation related to interest rate swap disclosure deals with a quantitative disclosure of market risk, which is the largest risk involved with swap transactions. As discussed earlier, SFAS No. 119 includes a section regarding suggested disclosures on derivative financial instruments. Within this section is a sensitivity analysis, which would show the ensuing gains or losses a company would incur with fluctuations in the market interest rate. This issue is also addressed in the SEC proposal, which requires the use of at least one method of quantitative market risk disclosure. I am in complete agreement with the SEC proposal in regard to the type and amount of disclosure regarding this issue as was discussed earlier in this thesis.

However, my one objection relates to the disclosure's location.

The SEC proposes that the information required to be reported can be disclosed outside of the financial statements. This poses a major problem in that this information will not be subject to an audit by an independent accounting firm. Since this information is not audited, there can be a high risk for errors and irregularities in the amounts reported.

It is my recommendation that the requirements proposed by the SEC be adopted by the FASB and, furthermore, required to be disclosed in the footnotes to the financial statements along with the rest of the current derivative disclosures. Again, it is imperative that interested third party users of the financial statements be able to assess the risks that the company has taken on in order to better understand the potential losses due to market rate fluctuation.

One complaint that many companies have made regarding the detailed disclosure of derivatives is that their investment strategies and trade secrets will be out in the open for other companies to use. However, these disclosures are no different than disclosing information regarding operations on the balance sheet and income statements. It is necessary for investors to be able to assess the complete financial position of a potential investment, and therefore they are entitled to all pertinent information.

If these recommendations were to be adopted into the Statements of Financial Accounting Standards, derivative disclosure would be vastly improved and be much more understandable. This would allow even the less informed users of financial statements to be able to determine the risks involved in a company's interest rate swap position.

Because the use of derivative financial instruments, specifically interest rate swaps, is growing at such an astronomical rate, it is imperative that we improve the regulation of their

disclosure to insure that investors and creditors are adequately informed with regard to the risks involved in a companies interest rate swap position..

APPENDIX

Appendix A: Excerpt from PepsiCo.'s 1995 annual report

Appendix B: Sensitivity analysis from Air Products and Chemical's 1995 annual report

Appendix C: Example of recommended tabular presentation from Air Products and Chemical's 1995 Annual report.

APPENDIX A

Tabular Presentation of Interest Rate Swap Position From PepsiCo.'s 1995 Annual Report (Numbers in Millions Except for Percentages)

	1995	1994
Receive fixed-pay variable		
Notional amount.	\$2,657	\$1,557
Weighted average receive rate.	6.8%	5.9%
Weighted average pay rate.	5.7%	6.1%
Receive variable-pay variable		
Notional amount.	\$577	\$1,009
Weighted average receive rate.	5.7%	4.9%
Weighted average pay rate.	5.8%	6.0%
Receive variable-pay fixed		
Notional amount.	\$215	\$215
Weighted average receive rate.	5.8%	6.6%
Weighted average pay rate.	8.2%	8.2%

APPENDIX B

Sensitivity Analysis From Air Products and Chemical's 1995 Annual Report Notes to the Financial Statements

6. Interest Rate Hedge Agreements

The fair value of long-term debt and interest rate hedge agreements is affected by fluctuations in market interest rates. A 100 basis point increase in market interest rates would result in a \$38.3 million decline (favorable) in the fair value of long-term debt while the fair value of interest rate hedge agreements would decline \$15.7 million (unfavorable). A 100 basis point decline in market interest rates would result in a \$42.7 million increase (unfavorable) in the fair value of long-term debt while the fair value of interest rate hedge agreements would increase \$14.4 million (favorable). Based on the composition of the company's debt portfolio, including interest rate hedge agreements, as of 30 September 1994, a 100 basis point increase in market interest rates would result in an additional \$5.4 million in interest incurred per year. A 100 basis point decline would lower interest incurred by \$5.4 million per year.

APPENDIX C

Recommended Tabular Format
 From Air Products and Chemical's Annual Report
 Notes to the Financial Statements

(in millions)	Notional Amount	Maturities	Weighted Average Rate		Unrealized		Net Unrealized Gain(Loss)
			Receive	Pay	Gross Gain	Gross (Loss)	
03 September 1994							
Fixed to Variable	\$363.2	1995-2003	7.1%	6.2%	\$1.3	\$(22.2)	\$(20.9)
Variable to Fixed	15.0	1997	5.9%	7.1%	0.2		0.2
Variable to Variable	70.0	1996-2001	2.8%	4.8%		(4.9)	(4.9)
Interest Rate/Currency	118.3	1995-1996	5.6%	6.6%		(13.9)	(13.9)
	\$566.5				\$1.5	\$(41.0)	\$(39.5)

WORKS CITED

- AICPA. Accounting Trends and Techniques, 49th Edition, 1995.
- Bushee, Brian. "Derivative Disclosures Under SFAS 119." Coopers & Lybrand and the University of Michigan. Ann Arbor, MI. September 22, 1995.
- Coopers & Lybrand. Guide to Financial Instruments, Third Edition. Coopers & Lybrand, 1994.
- FASB - Original Pronouncements 1995/96 Edition. John Wiley & Sons, Inc., New York, 1995.
- Grant Thornton LLP. New Developments Summary. "SEC Proposes Expanded Derivatives Disclosures." Chicago, IL. February 14, 1996.
- Herz, Robert H.; Frederick J. Elmy; and Brian J. Bushee. "Derivatives: Were 1994 Disclosures Adequate?" The Journal of Corporate Accounting and Finance, Winter 1995-96, pp. 21-34.
- Mahoney, Jeffrey P. and Yoshinori Kawamura. Review of 1994 Disclosures about Derivative Financial instruments and Fair Value of Financial Instruments. Financial Accounting Series. FASB, Norwalk, CT. December 1995.
- Molvar, Roger H. D., and James F. Green. "The Question of Derivatives," Journal of Accountancy, March 1995, pp. 55-61.
- Palmer, Richard J. and Thomas V. Schwarz. "Improving the FASB's Requirements for Off-Balance-Sheet market Risk Disclosures." Journal of Accountancy, Auditing, and Finance. November, 1995, pp. 68-76.
- Patton, Thomas K. "Using Swaps and Options to Manage Interest Rate Risk," Corporate Cashflow. August 1995, pp. 16-21.
- Rue, Michael; David Tosh; and Ronald Francis. "Accounting for Interest rate Swaps," Management Accounting, July 1988, pp. 43-49.
- Smith, Pamela, Ph.D. "Hedging with Derivatives: Risks and Controls." Northern Illinois University. DeKalb, IL. July 31, 1995.