

**Sufficiency of Accounting Disclosure
For Derivatives in The Commercial Banking
"A Theoretical and Empirical Study"**

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دكتور/ علي جابر صالح
كلية التجارة - جامعة طنطا

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Abstract

Derivatives in the commercial banks continues to grow dramatically. Although derivatives serve an essential role in the economy, they present certain risks. Previous accounting research interested in examining the role of analyst rather than that of the fund manager in derivatives disclosure (Arnold and Moizer, 1984). This research investigated the information channels that the fund managers relied on in his decision making regarding derivatives. In order to address this issue, this research explored: firstly, what are risks of derivatives and described how they are managed within the commercial banking. Secondly, it identified the role of accounting disclosure and other sources of disclosure in reducing the potential risks of derivatives. To collect an empirical evidence, a semi-structure interview and a survey have been conducted in the settings of financial reporting and financial analysis. The results indicated differences have been existed in the perceptions of the respondents to the importance of the derivatives. Also, In this context, a dissimilarity has been found between respondents in that both are focused on other informal sources of information than compulsory accounting disclosure.

1- Introduction

1/1 Research Problem

The use of derivative contracts have grown rapidly during the 1990s. Derivatives are contingencies or off-balance-sheet instruments such as an interest rate, a foreign currency exchange rate, an equity price, or a commodity price. They are a powerful tool for companies and banks in managing their exposure to risks that result from market value (and cash flow) changes with that of an underlying variable. The increasing importance of derivatives to financial institutions including banks and other companies, has paid the attention to understand them better. the derivatives, investors are at risk of loss from changes in prices of derivatives. Public awareness of these financial instruments has also grown, as result of highly published losses by some large international banks that had entered into derivative contracts. The risks associated with derivatives are no different from the risks that banks have always had to recognize and control. Nonetheless, derivatives can be highly complex in their establishment, and their pricing can not be transparent, making their risks difficult to understand, measure, and manage. One approach to improve the understanding of derivatives is adopting more comprehensive accounting practices and disclosure requirements. In particular, this approach is helpful in characterizing more accurately the effects of these instruments on banks' financial performance and in explaining those effects through financial reporting. The benefits of this approach are not limited to derivatives, however. They should also lead to better understanding of how banks manage risks arising from non-derivative financial contracts as well as from other sources. The goals are to facilitate the assessment of banks' derivatives activities by readers of financial statements, and thereby to help improve the allocation of capital by financial markets. Many groups have been involved in bringing about changes in derivatives accounting and reporting: authorities that set accounting standards, regulators and bank supervisors, and industry associations. These groups have set various regulatory requirements and have made numerous recommendations. As a result, the nature of the information publicly disclosed by banks has been evolving in several ways, including the amount and type of information disclosed and the way information is presented.

1/2 Research Objective

The objective of this research is to assess the degree of congruence between financial directors, fund managers, and financial analysts on the disclosure for derivatives by commercial banks.

1/3 Research Structure

The remainder of this research is organized as follows. Section 1 presents results of prior studies and indicates certain limitations in prior research. Section 2 describes the nature of derivative activities and risks in commercial banking. Section 3 explains the disclosure requirements for derivatives activities. Section 4 describes the research methodology and presents the results analysis and conclusions.

Ian C. L. and Roger W. M. (2006a)

They surveyed 120 financial institutions (73 banks and broker-dealers, 39 insurance companies and reinsurers and eight financial guarantors) located around the world, focusing primarily on the credit default swap (CDS) and the synthetic collateralized debt obligation (CDO) markets. With the exception of one big broker-dealer, all the major institutions participated in 2005's survey. The survey provided further disclosure and transparency to what is, at present, a very opaque market.

Ian C. L. and Roger W. M. (2006b)

The second part of the global credit derivatives survey looked at the motivation for credit default swaps, credit events and disputes, financial reporting and disclosure and also gave sector reviews of global banking, insurance and financial guarantors. Within the banking sector, a number of institutions continued to struggle in aggregating credit default swap (CDS) information across different business units. For example, a number of firms were unable to provide attendant market values for their derivatives positions. An additional factor impinging on the quality of responses from banks was the rapid growth in volumes and the attendant problems in confirming trades and monitoring trade assignments. Within the financial guarantee sector, the quality of responses continued to be good. By contrast the responses from insurance and reinsurance companies were mixed, though some provided even more detail than last year with respect to collateralized debt obligations (CDO) holdings.

Kingsley F., David R. G., and Aaron Ng (Jul 2005)

This study provided an empirical examination of derivative instruments used by institutional investors. Their analysis provided a unique insight into the role of derivative securities within portfolios, and the potential benefits from their use. They contributed to the literature using a database that comprises the periodic portfolio holdings and daily trades of active equity managers. The consequence of derivative use is analyzed using a number of performance and risk measures. Overall, they found the use of derivatives have a negligible impact on fund returns. This finding is attributed to low levels of derivative exposure relative to total fund size. They also evaluated how derivatives are used by considering the trading strategies executed by investment managers. The option trading patterns of active institutional investors are shown to be consistent with the execution of momentum trading strategies. The study also documented that active investment managers prefer not to use options markets and engage in informed trading.

Bernadette A. M., Stulz R., and Rohan W. (Jul 2005)

This paper examined the use of credit derivatives by US bank holding companies from 1999 to 2003 with assets in excess of one billion dollars. Using the Federal Reserve Bank of Chicago Bank Holding Database, they find that in 2003 only 19 large banks out of 345 use credit derivatives. Though few banks use credit derivatives, the assets of these banks represent on average two thirds of the assets of bank holding companies with assets in excess of \$1 billion. Few banks are net buyers of credit protection and disclose using credit derivatives to hedge loans. Banks are

more likely to be net protection buyers if they engage in asset securitization, originate foreign loans, and have lower capital ratios. The likelihood of a bank being a net protection buyer is positively related to the percentage of commercial and industrial loans in a bank's loan portfolio and negatively or not related to other types of bank loans. The use of credit derivatives by banks is limited because adverse selection and moral hazard problems make the market for credit derivatives illiquid for the typical credit exposures of banks.

Arping S. (2004)

This paper shows how the credit derivatives market can help banks to bring more discipline into the core lending business. Their analysis draws upon the observation that credit protection improves lenders' exit options. This makes it harder for borrowers to free ride on lenders' incentive to bail them out, which sharpens borrower managerial incentives *ex ante*. Yet, while credit protection facilitates the resolution of agency conflicts between banks and their borrowers, it can also introduce new conflicts of interest between bank-borrower coalitions and protection sellers, which limits the magnitude of the incentive value-added. They argued that lenders can mitigate these new distortions by taking temporary credit protection that expires before project maturity. By identifying a complementarity between banks' risk transfer initiatives and their monitoring function, their approach yielded unique insights into the real effects of credit derivatives.

Bharath S.T., Sunder J., and Sunder S.V. (2004)

They examined if the conjectured superior information processing ability of banks is reflected in their ability to understand the accounting quality of the borrower and set appropriate contract terms at the time of granting loans. They measured accounting quality using the magnitude of abnormal operating accruals, i.e.: the difference between a firm's earnings and its cash flows, controlled for industry and normal level of activity. They find strong evidence that banks respond to the lower accounting quality (higher abnormal operating accruals) of borrowers by charging a higher loan spread (32 to 41 basis points) and imposing stricter non-price contract terms (maturity of the loans 6% shorter and 10% greater likelihood of requiring collateral). The results remain robust after controlling for a variety of proxies for loan default risk and the simultaneous nature of setting various contract terms. Preliminary analysis also suggests that their results are consistent with the notion of limited information as a source of risk. Overall, their study provided direct evidence in support of the ability of sophisticated investors, commercial banks in their study, to incorporate accounting quality information in contracting.

Ira G. K. (2004)

By the end of 2002, public companies in the United States were required to comply with a new set of accounting rules related to corporate use of derivative instruments. Financial Accounting Statement (FAS) No. 133 has subsequently become widely recognized as the most complex set of accounting rules yet to be promulgated. And just as those who prepare financial statements had to learn how to accommodate to the new requirements, analysts also must understand this standard in order to interpret derivative results appropriately. Despite the added transparency of FAS No. 133, a

lack of familiarity with it can easily lead analysts to erroneous conclusions.

Pausch T., and Schweimayer G. (2004)

They indicated the tremendous growth of markets for credit derivatives since the mid 1990's has raised questions regarding the role of these instruments in the banking industry which is heavily exposed to credit risk. However, while recent literature mainly focused on pricing and optimal decisions regarding volumes of credit derivatives the present paper centers the strategic role of these instruments in the competition between banking firms. They used a duopolistic version of the industrial organization approach to banking to find out that credit derivatives may influence banking competition. For this result to hold observability of the volume of credit derivatives held by banks is not necessary.

Aggarwal R.A.J., and Simkins B.J. (2004)

They declared derivatives have been blamed in recent years for many financial disasters and there is evidence that disclosure influences hedging activity and corporate value. Nevertheless, standards for the mandatory disclosure of derivatives usage have been very controversial. They examined the nature and determinants of voluntary disclosures of currency derivatives usage by large industrial firms under SFAS 107 and has implications for the new derivatives disclosures under SFAS 133. They documented that, consistent with higher disclosure levels being associated with lower cost of capital and higher shareholder value, firms with higher quality voluntary disclosures have higher market/book value ratios. However, consistent with agency, political, and disclosure cost arguments, industry leaders and firms with higher executive compensation in the form of stock options are more likely to have poor voluntary disclosure. In addition, they did not find any evidence indicating firms with more exposure to currency risk or firms with higher levels of currency derivatives usage provide increased disclosure of derivatives activity.

Wayne G., and Kothari SP (2002)

For 234 large non-financial corporations using derivatives, they reported the magnitude of their risk exposure hedged by financial derivatives. If interest rates, currency exchange rates, and commodity prices change simultaneously by three standard deviations, the median derivatives portfolio, at most, generates \$15 million in cash and \$31 million in value. These amounts are modest relative to firm size, and operating and investing cash flows, and other benchmarks. Corporate derivatives use appears to be a small piece of non-financial overall risk profile. They suggested a need to rethink past empirical research documenting the importance of derivative use.

Batten J., and Hogan W. (2002)

They indicated credit derivatives are a rapidly growing class of financial instruments that allow lenders to shift part of the risk associated with owning debt instruments to third party. The authors discussed the characteristics and uses of four types of credit derivatives as well as the circumstances triggering their termination or payment. They also presented theoretical models and empirical results related to credit spreads and issues pertaining to the development of the market for credit derivatives.

The author discussed that FAS 133 provides new guidance for the accounting of derivative transactions. Entities that have always followed mark-to-market accounting procedures will be little affected, but for others this is not the case. The new rules may affect the choice of trading vehicle, giving a preference to the most simplistic forms of swaps. Other changes in risk management can be expected to result from the new rules.

Importance of the research

Extensive prior work has been directed towards a better understanding of derivatives. It is observed from reviewing the literature that the previous studies discussed standards for the mandatory disclosure of derivatives. Some studies indicated the nature and determinants of voluntary disclosures of derivatives. Other studies provided an evidence in support of the ability of sophisticated investors, commercial banks to incorporate accounting quality information in contracting. This research investigates the information channels that the fund managers relied on in his decision making regarding derivatives. In order to address this issue, this research explores: firstly, what are risks of derivatives and describes how they are managed within the commercial banking. Secondly, it identifies the role of accounting disclosure and other sources of disclosure in reducing the potential risks of derivatives.

2- Nature of The Derivatives' Activities and Risks in Commercial Banking

2/1 Nature of The Derivatives' Activities

Derivatives are financial instruments or contracts with values that are linked to, or derived from, the performance of underlying financial instruments, interest rates, currency exchange rates, or indexes. In a simplified sense, a derivative links its holder to the risks and rewards of owning an underlying financial instrument without actually owning the financial instrument. Derivatives are important to the financial markets and the world economy because they provide a means for companies and banks to separate and trade various kinds of risks. The ability of participants in the financial markets to adjust specific risk exposures enhances the efficiency of capital flows by allowing companies and banks to conduct business activities without exposing certain risks that would otherwise attend that business.

2/2 Risks Associated with Derivatives

The risks associated with derivative contracts are no different from those associated with other bank financial instruments. (Gerald and Gregory, 1995) The major categories of risk are described here.

Credit risk is the possibility of loss from the failure of a counterparty to fully carry out its contractual obligations. The types of information about credit risk associated with derivatives that institutions might disclose include the following:

- * Gross positive market value - the gross replacement cost of a contract, excluding the effects of any netting arrangements
- * Current credit exposure fair value on a given date of contracts that are favorable to the holder (that is, are assets)
- * Potential credit exposure - a statistical measure of the possible future value of contracts held today if prices or rates move favorably for the holder before the contracts mature

* Credit risk concentrations - indicators of diversification by geographic area or industry group

* Collateral and other credit enhancements that may reduce credit risk

* Counterparty credit quality, nonperforming contracts, and actual credit losses.

Market risk is the possibility that the value of a financial contract (or of a real asset, for that matter) will adversely change before the contract can be liquidated or offset with other positions. The value of these contracts may change because of changes in interest rates (interest rate risk), foreign exchange rates (foreign exchange rate risk), or commodity prices or other indexes.

For some larger institutions, disclosure of information about internal value-at-risk measures and methodology can help financial statement readers understand the institution's exposure to market risk. Using value-at-risk methods involves the assessment of potential losses in portfolio value resulting from adverse movements in market risk factors for a specified statistical confidence level over a defined holding period.

Liquidity risk has two broad types: market liquidity risk and funding risk. Market liquidity risk arises from the possibility that a position cannot be eliminated quickly either by liquidating it or by establishing offsetting positions. Funding risk arises from the possibility that a firm will be unable to meet the cash requirements of its contracts.

Operational risk is the possibility that losses may occur because of inadequate systems and controls, human error, or mismanagement.

Legal risk is the possibility of loss that arises when a contract cannot be enforced because of, for example, poor documentation, insufficient capacity or authority of the counterparty, or uncertain enforceability of the contract in a bankruptcy or insolvency proceeding.

3- Disclosure Requirements For Derivatives Activities

The published annual reports to shareholders and other public financial reports of banks and other companies play an important role in disseminating information to investors, creditors, and other stakeholders in the enterprises. The information they convey about derivatives has improved significantly in the past few years. A survey of the annual reports of the top ten U.S. banks that deal in derivatives showed that their 1994 reports were substantially more "transparent" than their IN@ reports, with more discussion and analysis of, and more quantitative information about, their use of these instruments (Gerald A. E., Jr., and Gregory E. E., 2007).

The survey conducted by Gerald. And Gregory (2007) that reviewed the 1995 annual reports of the top ten banks that dealt in derivatives. Although disclosure requirements did not change during the intervening period, banks nonetheless improved their reporting of derivatives activities in 1995 compared with 1994. In particular, they expanded their discussions of derivatives activities and provided more quantitative information. The vastly greater amount of information presented in the 1995 reports is especially evident when they are compared with the financial statements issued for 1992, in which banks typically disclosed little more than the total value of their trading assets and liabilities, their total trading profits, their overall net credit exposure across all counterparties, and the notional amounts of their derivative contracts. Regulators and industry groups that have advocated fuller disclosure have clearly had significant influence in improving the overall quality of reporting about derivatives activities.

3/1 Review of 1995 annual reports

The institutions whose annual reports were surveyed for this study were the ten U.S. commercial banks having the greatest credit risk exposure from derivatives on December 31, 1995 (taking into account the effects of netting agreements) (Exhibit 1). Nine of the ten banks were also included in the survey of 1994 annual reports. Two of the 1994 banks, Chemical Banking Corporation and Chase Manhattan Corporation, merged in 1996 and published a combined annual report for year-end 1995. Moving into the group for 1995 was State Street Boston Corporation.

1. Ten U.S. commercial banks with the greatest exposure to credit risk from derivatives on December 31, 1995.

	Credit risk exposure*	Total notional amount**
J.P Morgan & Company	33.6	3,403
Chase Manhattan Corporation	28.0	4,728
Citicorp	19.4	2,301
Bankers Trust New York Corp.	12.1	1,742
BankAmerica Corporation	8.3	1,515
First Chicago NBD Corporation	7.3	801
National Bank Corporation	3.3	1,006
Republic New York Corporation	3.0	268
State Street Boston Corporation	.6	58
Bank of New York	.6	56

(Gerald A. E., Jr., and Gregory E. E., 2007)

* Exposure taking into account the effects of legally enforceable bilateral netting agreements.

** Pro forma combination for Chemical Banking Corporation and Chase Manhattan Corporation.

Source. Publicly available regulatory reports filed by bank holding companies with Federal Reserve.

As a result of minor changes in generally accepted accounting principles, the 1994 annual reports contained clearer, more understandable information about the fair value of the financial instruments in the firms' portfolios. Firms were required to disclose the fair value of financial assets and liabilities carried at historical cost separately from the fair value of derivatives used to hedge these instruments. This approach makes it much more obvious whether an instrument was favorable (that is, an asset from which the bank could expect to receive cash) or unfavorable (a liability on which the bank probably would pay cash), given year-end prices or interest rates. The 1995 reports showed little change in how this information was presented.

3/2 Disclosures about Earnings

For 1995, all ten banks disaggregated their trading revenues: Nine reported their results according to line of business or risk exposure with little differentiation between derivative and other instruments, and one reported about derivatives only (Exhibit 2). These numbers compare favorably with the 1994 reports, in which most banks gave only the minimum required information (that is, they reported only about derivatives). As a result, the 1995 reports gave a more complete picture of profits and risks from trading both derivative and non-derivative financial instruments.

Exhibit (2). Number of top ten banks disclosing data on income relating to derivatives in their annual reports, 1993-95

Type of quantitative disclosure	Number of banks disclosing		
	1995	1994	1993
Income from trading activities: Disaggregated of income			
By risk exposure or line of business	2	5	9
By specific instrument e.g. swaps	8	7	1
By derivatives versus non-derivatives	5	6	4
Income related to end-user activities:			
Effect of derivatives on income from operations	4	8	4
Amount of deferred gains or losses	6	5	3
Amortization period for deferred gains or loss	2	5	3
Unrealized gains or loss on derivatives	7	10	10

(Gerald A. E., Jr., and Gregory E. E., 2007)

Under a derivative contract, the borrower writes an option in which he agrees to pay the difference between the strike price and the interest rate index specified in the contract. The premium received offsets a portion of the overall interest expense of the obligation; however, the debtor retains exposure to higher interest rates and forgoes the benefit of lower interest rates on his floating-rate obligation.

3/3 Requirements and Recommendations for Public Disclosure

Disclosure Requirements by FASB

Although authorities that set accounting standards, regulators, and industry groups have long recognized that there are deficiencies in accounting practices for and disclosure of financial instruments in general, the growing use of derivatives has brought these deficiencies into sharp focus. The Financial Accounting Standards Board (FASB), the organization that sets accounting standards, in 1986 created a task force on financial instruments to address these deficiencies. After some study, the FASB decided that the accounting issues surrounding derivatives would be best addressed by first establishing minimum disclosure requirements and then devising consistent accounting methods. The FASB has so far published three statements of accounting standards (SFAS) affecting disclosures about derivatives and other financial instruments. Financial statements that conform to generally accepted accounting principles necessarily follow these standards (Aharony and Dotan, 2004).

SFAS 105, Disclosure of Information about Financial Instruments with Off-Balance-Sheet Risk and Financial Instruments with Concentrations of Credit Risk, became effective with 1990 annual reports. It requires the disclosure of the basic contractual terms of certain derivative contracts and discussion of their market and credit risks. It also requires the disclosure of large concentrations in credit risk and, for certain derivative instruments, the disclosure of the loss the firm could incur if counterparties were to default on their obligations.

SFAS 107, Disclosure about Fair Value of Financial Instruments, requires the disclosure of the fair value of derivatives (as well as that of most traditional banking instruments). The standard first applied to 1992 annual reports; it was amended by

SFAS 119 for the purpose of making fair value disclosures better organized and more understandable to readers of financial statements.

SFAS 119, Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments, became effective for 1994 annual reports. It requires firms to differentiate in their disclosures between derivatives used for trading purposes and those used for risk management or other "end-user" purposes.

* Trading activities. For derivatives used for trading, firms must report the fair value of their derivatives positions (both as of year-end and as an annual average) and must report their profits from the trading of derivatives separately; these trading profits may be reported as a total or may be broken down by, for example, line of business (such as sales of foreign currency) or exposure to market risk (such as interest rate or foreign exchange risk).

* End-user activities. Firms must explain their objectives in using derivatives for hedging or other risk-management purposes and must discuss their strategies for achieving those objectives. They must also indicate where, in their financial statements end-user derivatives are presented and give certain details about derivatives used to hedge anticipated transactions (such as the amount of gains or losses that were deferred). The fair values of end-user derivatives must be disclosed separately from the fair values of items hedged by the derivatives. Encouraged but not required is the disclosure of quantitative information that managers use as a basis for controlling risk exposure.

Proposed Requirements by SEC

Disclosures in the 1995 annual reports were influenced by requirements formally proposed in December 1995 by the Securities and Exchange Commission (SEC), the agency responsible for administering federal securities laws and for regulating accounting and disclosure by publicly traded companies. The SEC has delegated much of its authority for setting accounting standards for publicly traded companies to the Financial Accounting Standards Board, but it also occasionally issues supplemental guidance. The proposed amendments to current requirements focus on

the disclosure of market risk. If adopted, they would become effective for 1996 annual reports.

The SEC proposal requires more detailed disclosure of quantitative and qualitative information about the market risks associated with derivatives. Quantitative information could be disclosed by means of (1) a table showing contract terms and other information, including fair value, expected cash flows, and effective rates and prices; (2) a sensitivity analysis of a hypothetical loss of earnings, fair values, or cash flows resulting from an arbitrary change in current interest rates, foreign exchange rates, or commodity or other prices; or (3) a statement of value at risk expressing the companywide (that is, in trading as well as in other lines of business) loss of fair values, earnings, or cash flows of market-risk-sensitive instruments that might arise from price movements of a given likelihood of occurrence over some time interval, with a separate estimate of value at risk for each type of market risk to which the firm is exposed. Also required would be the disclosure of limitations that might cause the quantitative information about market risk to not fully reflect the overall market risk to the company.

The SEC proposal also requires that companies disclose more detail than currently required by the FASB about their procedures for accounting for derivatives, including information about the accounting methods used, the types of derivatives to which each method was applied, and the criteria for choosing which method to apply.

In the past two years, several industry groups and regulators, either individually or in association with other agencies, have called for additional disclosure of derivatives activities. These groups have generally stressed the advisory nature of their recommendations, in an effort to encourage firms to develop better ways of informing readers of financial statements and of enhancing market discipline. Their recommendations, though nonbinding, appear to have influenced disclosures in the 1994, and 1995 annual reports.

Euro-currency Standing Committee

In 1994, a working group of the Euro-currency Standing Committee of the Group of Ten central banks (ECSC) recommended that firms disclose quantitative information about their market and credit risk exposures and their success at managing those risks, to provide a framework for their qualitative discussions. At a minimum, quantitative information about the market risk of the trading portfolio should be disclosed; also desirable is similar disclosure about the consolidated portfolio that is, about derivatives and financial instruments relating to traditional banking activities as well as to trading). The information should reveal the portfolio's riskiness by indicating the volatility of its market value.

The ECSC also recommended that firms increase the transparency of their disclosures about credit risk. Suggestions include the reporting of current and potential credit exposure and the quantification of the variability of credit exposure over time. Reporting of actual credit losses, arrangements for collateral, and other credit enhancements were suggested to give an indication of the quality of the firm's risk-management practices.

In November 1995, the Basle Supervisors Committee (BSC) and the International Organization of Securities Commissions (IOSCO), international associations of national regulators, made several recommendations for the disclosure of more qualitative and quantitative information about trading and derivatives activities and their effect on credit risk and earnings. The groups agreed on using a common set of data provided by regulated enterprises to assess the use of derivatives by these enterprises. The recommendations were issued in connection with a survey of disclosures in the 1994, annual reports of seventy-nine large international banks and securities firms in the Group of Ten (G-10) countries.

Other Information about Derivatives Available to the Public

Regulators have long required that banking organizations report notional amounts* and fair values of the derivative instruments they hold or have issued. Since 1995, the Federal Reserve and the other federal banking agencies, under the auspices of the Federal Financial Institutions Examination Council (FFIEC), have required that notional amounts and fair values be reported by risk exposure and management objective. Information about trading revenues and the effects of end-user derivatives on accrual-basis income has also been required since 1995, as has the past-due status of derivative contracts and actual credit losses. This information is available to the public. The information required in these regulatory reports appears to have influenced the disclosures made by the larger of the top ten banks in their 1995 annual reports.

*The notional amount is the face amount of a contract to which an interest rate, a price, or a rate of exchange is applied to determine the contractual cash payments or receipts. In general, the notional amount is not exchanged and does not reflect the risk of a transaction.

4- Empirical Study and Results Analysis

4.1 Research Hypotheses

The following research hypotheses are developed:

H1: "There are significant differences in the perceptions of financial directors, financial analysts and fund managers regarding the importance of accounting disclosure and other sources of disclosure for derivatives in the investment decision making."

H0: "There are no significant differences in the perceptions of financial directors, financial analysts and fund managers regarding the importance of accounting disclosure and other sources of disclosure for derivatives in the investment decision making."

4.2 Methodology

The primary research methodology adopted in this study was that of semi-structured interviews. These have the major advantage of allowing interviewees to express opinions on a wide range of predetermined issues, as well as in response to supplementary questions that seek clarity, consistency and full explanation. In addition to interviews, the empirical study was conducted using a questionnaire to clarify and quantify the opinions of the respondents concerning the significant derivative encountering the commercial banks and the role of accounting disclosure and other sources of disclosure in reducing derivatives' risks.* The questionnaire was prepared based on a Lickert scale with five points (Not important to extremely important). The questionnaire was tested on an initial sample of financial directors, financial analysts, and fund managers by conducting a pilot study to check the internal validity. Comments and suggestions were considered in preparing the final questionnaire. The final questionnaire was revised and developed based on the feedback from the pilot study. The questionnaires sent to the respondents who asked to indicate the importance of disclosure sources for derivative by ticking one among five available choices.

*The bank refers to a banking organization, comprising bank holding companies, their banking affiliates, and other subsidiaries that are consolidated for purposes of public financial reporting.

4/3 Sample Selection

Sample selection in this study reflects an interest in commercial banks, and in analysts and in fund managers whose actions are material to derivatives. Specific details of sample selection and fieldwork are presented in Table (1) that shows the response rates from respondents.

4/4 Statistical Techniques

The collected data analyzed using the computerized SPSS program. The non-parametric tests used in this study because the distribution of the research population was unknown and they could deal with the nominal, ordinal, categorical and ranked data. To examine whether there were any significant differences among the different study groups, the non-parametric tests, Kendall test and Wilcoxon test had been carried out. The Kendall test used for unequal group sizes (Hochberg and Tamhane, 1987) on the three pair-wise comparisons of the sample, while the Wilcoxon rank-sum test of significance used for the difference in each pair of sample medians (Gibbons and Chakraborti, 1992).

Table (1): The response rates from respondents

Respondents	Total	Interviews	Questionnaires		
			No. of respondents Approached	No. of respondents In Final Sample	Response Rate (%)
Financial directors	40	40	47	40	85
Financial analysts*	35	35	43	35	81
Fund managers**	15	15	27	15	56
Total	90	90	117	90	77

*Financial analysts in this research are firms of brokerage.

**Fund managers in this research are institutional investors (companies and other banks).

5-The Results and Discussion

The empirical study focuses on three different groups. The first group comprises the financial directors who are the main point of contact with the setting of information. They supply accounting and other information to the other two interest groups, the analysts and the fund managers. The analysts are specialist advisers who take information from banks, and elsewhere, and who then process the information and sell it to fund managers. To explain the role of analysts, firstly, we need to know the nature of analysts' intensives with respect to the service that they supply to fund managers. Secondly, we need to identify the information sources that analysts use. Analysts' economic incentives, together with their perceptions of the information processing service that they provide to fund managers determine the information that analysts seek from financial directors. This process incorporates the relative importance of financial directors as a source of information, and also the relative usefulness of the financial statements when compared with other forms of information.

In turn, the fund managers are responsible for buying, holding and selling derivatives. They rely on advice from the analysts and, in addition, they utilize information from banks and other sources. The empirical questions that asked to analysts are also asked to fund managers. Specifically, it is required to understand the nature of fund managers' investment objectives, and further, the types of information that they find useful. In this context, it is noteworthy that fund managers demand information from both settings of financial analysis and (jointly with analysts) and of financial reporting. The issue is how can fund managers ensure that they receive information of sufficient quantity and quality with which to monitor and control the derivative activities of their investee banks?.

To answer this question, it should be identify the financial directors' actual incentives regarding information disclosure (a principle-agent problem). This requires to understand why and to what extent the derivatives are important to financial directors, and to understand their perceptions toward the risks of derivatives, and finally to consider how financial directors perceive the process by which disclosed information is communicated and processed. These perceptions are central to the way in which financial directors believe that valuation-relevant information can be conveyed to analysts and fund managers.

5/1 Analysis of Financial Directors' Opinions

Most of the financial directors perceived that both analysts and fund managers have a fairly good job of valuing derivatives. Valuations were considered to be good or better by 16 financial directors, and were believed to be reasonably good by a further 14, and the remaining felt that they were poor. These perceptions may be examined further by considering the financial directors' assessment of three underlying factors. Firstly, the analytical ability of both analysts and fund managers; Secondly, the quality and quantity of information made available to them; and thirdly, the time horizon.

Some of the financial directors interviewed did raise some (mostly) minor reservations regarding the users' use of available information. These generally concerned either detailed aspects of accounting information or the integration of non-accounting information into valuations. The financial directors were asked what information they could provide to the users that would improve derivatives valuations. A majority of 27 considered that the information in the published statements is sufficient to do a reasonably good job of valuing the derivatives, subject to inherent uncertainty and to constraints on disclosing competitively sensitive information. In fact, the important issue was generally claimed not to be the information itself but the effort expended in insuring that it is clearly understood and that the key valuation messages are conveyed.

Further evidence that reinforces the financial directors' perception of their role as communicators is that all of the interviewees considered themselves to be very important information sources. This information is communicated in a number of ways, and for each bank the investor relations process is ongoing and has a regular annual cycle. This cycle will encompass at least two (and sometimes four) results announcements, which are typically followed by open meetings with analysts, fund managers and other interest audience. Some weeks after the announcement of the final results for the year, the annual report and accounts are published. Throughout the year, the banks will have a series of one-to-one meetings with major institutional shareholders. The nature of this contact varies significantly between banks. Each bank makes periodic announcements to the stock exchange and to the press, in form of a profit warning or news of an important business development.

An open disclosure policy will be welcomed by investors, will reduce the information risk in valuations, and will therefore reduce the cost of capital. In this context, 70% of the financial directors believed that the announcement of final results is of

significantly greater valuation relevance than the publication of the annual report and accounts, and a further 13% considered it to be somewhat more value-relevant. These views reflect that the results announcements constitute news in the form of accounting information and an update on future prospects, whilst the annual report and accounts does not. In the light of this relative unimportance of the annual report and accounts as a news event, the financial directors were asked what value it does actually have to the reader.

5/2 Analysis of Financial Analysts' Opinions

The primary objective of the analysts was to generate commission income. In essence, this was achieved by encouraging fund managers to trade by means of providing them with an analysis of mispriced derivatives. The analysts were generalists in the Egyptian securities exchange and specialists within the individual sectors. Each of the individual sector specialists followed very similar working practices, particularly with respect to both new information that they received from banks and companies and to the information that they disseminated to fund managers. Regarding information from banks and companies, a very strong focal point in the analysts' interest is the announcement of interim and annual results. The writing reports is an extremely important part of analysts' work. They are an important tool in that they give the analyst exposure to fund managers and provide a basis for communication. These general findings concerning working practices hide a considerable level of detail. In particular, this detail concerns the specific services that analysts aim to provide to fund managers and the types of information that they find useful. The questionnaire responses are generally reported first in this review, followed by the related interview-based findings. Analysts in both the questionnaire and the interview were asked what service they believe that they provide to fund managers. Each of the categories in Table (2) was ranked from 1 to 5 in order of importance.

(Table 2) Analysts' service to fund managers

Type of service Provided by analysts to fund managers	Significance of differences between ranks: Wilcoxon Test Probability	Mean Rank	Median Rank	Modal Rank
Informed analysis of specific banks	0.58	2.75	3	1
Adding Value by skilled interpretations	0.17	2.95	2.5	1
Profitable recommendations	0.73	3.43	3	1
Informed analysis of banking industry	0.02	3.53	3	2
Accurate earnings expectations	0.15	4.41	5	5
Informed analysis on specific events	0.00	4.93	5	6
Frequent market update	0.03	6.79	7	7
Database service available	-	7.23	8	8

Kendall's Coefficient of Concordance: $W = 0.47$; Significance = 0.000.

The first six of these categories all require the analysts to provide fund managers with something more than just published information available to the audience. In contrast, the final two categories characterize analysts as simple channels through which published information flows. It is very clear from all three average ranks given to these final two categories and, in particular, from the highly significant Wilcoxon tests, that analysts see themselves as 'adding value' through the skilled interpretation of information. This category is ranked fifth, and it is differentiated at the 3% level from the fourth-ranked category.

The top four categories are closely ranked. Three of them may, however, be similar: interpreted. These are the informed analysis of specific banks and of banking industry and 'adding value' research. Taken together, the ranks for these categories suggest a belief held by analysts that fund managers want advice that informs decision making rather than specific recommendations or expectations. At first sight, this implication does not sit easily alongside the high ranking accorded to profitable recommendations. Other closer view, though, I found that the responses for profitable recommendations have unusual distribution. Whilst some analysts made this the

highest ranked category, the second most common ranking was fifth. The implication of service provided by analysts is that most analysts are therefore likely to find industry-specific information useful and to find a bank-specific information more useful. This interpretation is supported by analysis in Table (3) which reports questionnaire responses on a five-point scale concerning the importance of different information sources.

The conclusion from this data is that the bank itself is the most important source of information to the analysts. Each of the top four information sources is bank-specific. In particular, direct contact is the top-ranked category, and it is significantly different from the second-ranked. Low ranking given to reports of other brokers.

Table (3) Sources of Information for Analysts

Sources of information	Significance of differences between ranks: Wilcoxon Test Probability	Mean Rank	Median Value	Modal Value
Direct contact with the bank	0.03	2.86	1	1
Analysts' meeting	0.12	4.01	1	1
Results announcement	0.93	5.18	2	2
Annual report and accounts	0.34	5.28	2	1
Banking industry contacts	0.66	5.97	2	2
Interim report and accounts	0.03	6.32	2	1
Economics of the state	0.54	8.64	3	3
Industry information services	0.97	9.03	3	3
Development strategy	0.34	9.18	3	3
Customers	0.76	10.07	3	3
Security exchange	0.23	10.43	3	3
Other	0.82	11.48	3.5	3
Market news	0.18	11.68	3	3
Technical analysis	0.96	12.63	4	4
Central bank	0.94	12.67	4	3
Newspapers	0.00	12.95	4	4
Reports of other brokers	-	14.63	5	5

Kendall's Coefficient of Concordance: $W = 0.49$; Significance = 0.000.

Finding further into the relative importance of the channels by which bank-specific information is communicated, the four categories in Table (4) were ranked by the analysts who were interviewed.

Personal contact is significantly more important than results announcements and analysts' meeting which, in turn, are more important than the report and accounts.

Finally, the relative importance of the report and accounts and of organised visits and presentations cannot be established with confidence, and both are therefore of approximately equal least importance.

Most of the analysts (24) believed that the level of disclosure of accounting information is not broadly sufficient. 11 analysts perceived that banks differ in the quality of accounting information that they provide. It was generally considered that the differentiation of high from low quality information is first and foremost a matter of the level of disclosure.

Table (4) Analysts: Sources of information direct from the bank

Sources of information	Significance of differences between ranks: Wilcoxon Test Probability	Mean Rank	Median Value	Modal Value
Personal contact	0.08	1.58	1	1
Results announcements and analysts' meetings	0.02	2.09	2	1
Report and accounts	0.37	3.05	3	4
Organized site visits	-	3.31	3	4

Kendall's Coefficient of Concordance: $W = 0.37$; Significance = 0.000.

5/3 Analysis of Fund Mangers' Opinions

Regarding the information on which decision are based, fund managers were asked to rate each of the categories in Table (5) on a five-point scale from 'extremely important' to 'not at all important.' These results may be compared with those of analysts. From data analysis, it is clear that formal meetings with senior bank management are the most important source of information. They are unique in having a median and a modal rating of 'extremely important.' Their mean rank of 2.95 is also lower than that of the annual report and accounts (mean rank of 5.25), and it is differentiated by the Wilcoxon test at an approximately zero percent level of significance. The report and accounts are the second-ranked source of information.

The results indicated that whilst the fund managers are consistent with the analysts in placing direct communication with the bank at the top of the list, they regard the report and accounts very differently. A comparison of table (2) with table (5) suggests that fund managers place less emphasis on the timeliness of accounting information. Equally, they value the report and accounts as a more comprehensive source of accounting information than the results announcement. Further, it is clear that the raw data from banks is more important to fund managers than processed data provided by analysts. Bank and sector research by analysts ranks fourth in table (5), and its importance can not be differentiated statistically from that of the results announcement. These results suggest that the setting of financial reporting is more important to fund managers than the setting of financial analysis, in spite of the fact that the latter is a specialized and costly service. In the context of financial reporting a finding from research with both financial directors and analysts is that the results announcement is more important than the report and accounts.

Table (5) Sources of Information for Fund Managers

Sources of information	Significance of differences between ranks: Wilcoxon Test Probability	Mean Rank	Median Value	Modal Value
Formal meetings with senior management	0.00	2.95	1	1
Annual report and accounts	0.00	5.25	2	2
Interim report and accounts	0.63	7.09	2	2
Analysts (bank/sector)	0.95	7.93	3	3
Results announcement	0.37	8.11	3	3
Other direct contact with the bank	0.96	8.65	3	3
Market news	0.68	8.96	3	3
Investors' results meetings	0.94	9.63	3	3
Newspapers	0.43	9.64	3	3
Banking industry contacts	0.59	9.84	3	3
Industry information services	0.86	10.30	3	3
Economics of the state	0.00	10.68	3	3
Security exchange	0.82	13.85	4	4
Central bank	-	13.97	5	5

Kendall's Coefficient of Concordance: $W = 0.37$; Significance = 0.000.

The usefulness of the report and accounts to the fund manager must be judged by reference to his process of investment decision making. In turn, this can be explained by reference to the highest-ranked information source in table (5) and (6), which (in common with analysts) is direct, personal contact with bank management.

Each fund manager was asked an open-ended question concerning the importance of these meetings. Their responses, though varying in detail, were highly consistent in their overall content. Almost all of them consider the meetings to be very important because they allow fund managers to understand the strategy of the bank and they allow fund managers to assess the management's capacity to achieve the strategy. This assessment will use accounting information in considering the resources of the business and its performance track record. An understanding of the bank's strategy incorporates the strengths and weaknesses associated with it, as well as the extent to which these are impounded in the current derivative price.

The final source of information in table (6), site visits, is of lowest importance because they are time-consuming for fund managers and in contrast to high-level meetings, they typically concern a branch of the bank rather than an overview of the whole.

Table (6) Analysts: Sources of information direct from the bank for Fund Manager

Sources of information	Significance of differences between ranks: Wilcoxon Test Probability	Mean Rank	Median Value	Modal Value
Personal contact	0.00	1.39	1	1
Report and accounts	0.06	2.43	3	3
Results announcements and investors' meetings	0.13	2.85	3	4
Organized site visits	-	3.33	4	4

Kendall's Coefficient of Concordance: $W = 0.41$; Significance = 0.000.

Moving on to the information that fund managers receive from analysts, each of the categories in table (7) was ranked from 1 to 8 in order of importance. The four most highly-ranked categories in table (7) each require the analyst to process published information. In this respect, it is interesting to note the very interesting difference between fund managers and analysts in the importance attributed to profitable recommendations. It is also pertinent that the fund managers perceived the simple database service available to be much more important than did the analysts. Fund

managers appear to find informed analysis more important than raw data, and they rate highly the analysts with whom they have regular contact. However, they also believe that direct and personal contact with bank management is more useful than the input of the analysts. Finally, the information that the analysts provide is available to all of their customers, and it was perceived to be in the published information.

(Table 7) fund managers' service from Analysts

Type of service	Significance of differences between ranks: Wilcoxon Test Probability	Mean Rank	Meian Rank	Modal Rank
Informed analysis of specific banks	0.08	2.22	2	2
Adding Value by skilled interpretations	0.60	2.76	3	3
Informed analysis of banking industry	0.00	2.96	2.5	2
Informed analysis on specific events	0.01	4.24	4	5
Accurate earnings expectations	0.65	5.46	6	5
Database service available	0.26	5.62	6	6
Profitable recommendations	0.17	6.06	7	7
Frequent market update	-	6.68	7	8

Kendall's Coefficient of Concordance: $W = 0.47$; Significance = 0.000.

Conclusions and Recommendations

This research investigated the information channels that the fund managers relied on in making the decision of investing in derivatives. In order to address this issue, this research explored: firstly, what these risks are and described how they are managed within the Egyptian banking industry. Secondly, it identified the role of accounting disclosure and other sources of disclosure in reducing the potential risks of derivatives. To collect an empirical evidence, A survey has been conducted in the contexts of financial reporting and financial analysis. The results partially rejected the null hypothesis. They indicated some differences have been found between respondents in that both are focused on other informal sources of information than compulsory accounting disclosure. For example, a congruence was found between financial directors and analysts in that the results announcement is more important than the report and accounts.

The maintain a strategic informational relationship between financial directors and fund managers, whereby financial directors voluntarily supply the information with which fund managers monitor and control their investments over time. In conflict with both financial directors and fund managers, analysts' incentives are based upon the maximization of commission income. They supply information to the readers, such they do not enable an individual fund manager to improve their investment decisions. Fund managers therefore conduct their own financial analysis as well as seeking private information sources, of which the most important by far are formal meetings with senior bank management. These meetings are a key information of a corporate governance that relies on effective communication behind closed doors. The timeliness of the results announcement makes it a more important source of information for analysts than the report and accounts. Furthermore, the timeliness and directness of personal contact with the company, together with its scope for allowing individual analysts to introduce value-relevant news to the market, makes this the most important of all information sources. In contrast, fund managers value the report and accounts more highly than the results announcement. This is because they have a longer-term focus and use information on a year-on-year basis as a confirmation of performance and a basis for extrapolation, rather than as news. Accounting

information therefore remains relevant to decision-making in spite of other information sources are more important.

Further research is required in this area, for example to assess the degree of congruence between auditors, users, and financial directors regarding the accounting rules that govern the disclosure of loss contingencies in financial statements.

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