# Bank Accounting and Market Valuation in Japan : An Overview of Accounting Issues of Financial Instruments

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This paper considers a framework for introducing market valuation to Japanese bank accounting, focusing on practical issues to be solved.

Reflecting the growing concern over the present historical cost accounting, it is argued that market valuation should be introduced to bank accounting for disclosure purpose in Japan. Particularly, there are strong arguments for market valuation of certain types of financial instruments.

Specific considerations include: the overview of present accounting in Japan, the distinctive features of Japanese bank accounting, the accounting framework of partial market valuation, the "fair value" concept in measuring financial instruments, and its application to valuation of individual financial instruments.

Key Words: Accounting; Financial Instruments; Market Valuation; Market Value Accounting.

# I. Introduction

In recent years, growing attention has been paid in Japan as to whether financial instruments should be valued at market. This reflects significant differences emerging between the book and market value of a company's financial assets as well as an increasing number of companies committing themselves to off-balance sheet transactions which are not usually recorded on the book while they remain unsettled. Based on the current historical cost accounting, Japanese companies do not report any changes in book value of financial instruments in their financial statements until the changes are "realized". But many companies, especially banks, internally manage the risk-return profile of their portfolios on a market value basis. Hence, it is argued that the book value of current financial statements does not sufficiently show a company's actual financial condition for disclosure purposes.

Some argue that accounting standards in Japan should be changed to adopt the market valuation of financial instruments in financial statements so that users of financial statements could understand the financial condition of a company more accurately and timely. But there remain concerns against the introduction of market valuation in that it

may not be consistent with Japanese current accounting standards which are structured on the historical cost principle. It is also stressed that market valuation might impair the credibility and reliability of financial statements by allowing arbitrary valuation. Thus, consensus has not yet been established regarding the introduction of market valuation to general accounting standards in Japan.

However, market valuation might be preferable, at least in the field of marketable financial instruments, to measure the performance of financial transactions more correctly and to disclose the financial condition of a company more accurately and timely. It would also help improve the efficiency of financial markets in Japan.

In this paper, a framework for introducing market valuation to bank accounting is considered to solve practical issues that are regarded as obstacles. Bank accounting is discussed since banks are major players in financial derivative market as well as money and capital market, and hold large amounts of financial assets with unrealized gains and losses. The partial introduction of market valuation to bank accounting in Japan is practically stressed for disclosure purpose; i.e. it could be applied only to financial instruments held for trading purposes and marketable securities for investment or other long-term holding purposes. With the partial market valuation, unrealized gains and losses stemming from financial instruments held for trading are included in profits on the income statement. Unrealized gains and losses from investment and other long-term holding securities are not included in profits on the income statement but reported in stockholders' equity on the balance sheet.

Section II explains the distinctive features of Japanese business accounting. After discussing bank accounting standards in Japan and issues to be resolved in Section III, a framework of partial market valuation for the bank accounting is considered in Section IV. Finally, concluding remarks are given.

# II. An Overview of Business Accounting in Japan

Business accounting in Japan is governed by three major laws as shown in Chart below: the Commercial Code, the Securities and Exchange Law and the Income Tax Law, and the competent authorities that can issue accounting standards are designated by these laws<sup>1</sup>. All three different accounting standards prescribed by these laws are applicable to Japanese companies whose shares are publicly traded.

Commercial Code accounting is designed mainly for the calculation of profits available for dividends; Income Tax Law accounting aims to levy tax justly and fairly in accordance with taxpayers' ability to pay; and Securities and Exchange Law accounting requires that companies which issue securities worth 500 million yen or more disclose necessary information so that shareholders and debtholders to grasp their financial

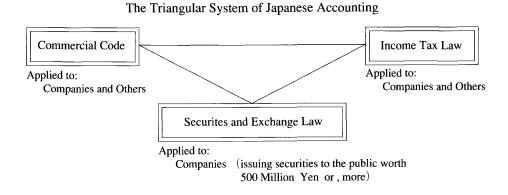
<sup>&</sup>lt;sup>1</sup>For detailed information on Japanese accounting, see Arai and Shiratori (1992)

conditions and make investment decisions properly.

Although each accounting field differs in terms of purpose and practice, they are rather closely connected and interact with each other, assigning to Commercial Code accounting pivotal status. Income reported on financial statements is compiled in accordance with computation rules of the Commercial Code<sup>2</sup>, and under the Income Tax Law taxable income is computed by adjusting taxable and non-taxable items based on the reported income.

In financial statements prepared under the Securities and Exchange Law, all of the items on the balance sheet and income statement are calculated by computation rules of the Commercial Code. Net income reported in the income statement based on Securities and Exchange Law accounting thus coincides with corresponding the one under Commercial Code accounting. Furthermore, the Securities and Exchange Law requires the release of financial information not covered by financial statements, such as the breakdown of profits and losses and tangible assets.

Since the three accounting fields are closely connected to each other, business accounting in Japan is usually termed as the "triangular system." It is generally oriented to satisfy government-imposed requirements such as computing income tax, and thus tends to be highly conservative. Under the present system, it is not possible for Securities and Exchange Law accounting to require public companies to adopt the market valuation of assets because the Commercial Code's computation rules and the Income Tax Law accounting are too conservative to accept marking assets to market, even though it deemed desirable in view of providing useful information to investors.



<sup>&</sup>lt;sup>2</sup>Computation rules of the Commercial Code stipulate a principle of valuation of all balance sheet items and recognition of profits and losses. The computation rules are applied to annual securities reports prepared by all listed companies under the Securities and Exchange Law and also to tax payments under the Income Tax Law.

# III. Bank Accounting Standards in Japan and Issues to be Solved

As public companies, the accounting of Japanese banks is also subject to the triangular system. But, with respect to the authority determining reporting form and method for banks' financial statements, the enforcement provisions under the Banking Law take precedence over accounting statement rules based on the Commercial Code. Furthermore, Bank Accounting Standards are prescribed in an administrative circular of the Ministry of Finance (Circular No. 901 of the Banking Bureau of the Ministry of Finance dated April 1, 1982)<sup>3</sup>.

Bank accounting in Japan is thus established from a regulatory perspective, including measurement and disclosure standards. In most cases, it is structured to be consistent with general accounting standards for public companies. Nevertheless, bank accounting standards in Japan differ from general standards in some respects such as asset valuation, which gives rise to their distinctive features.

The main features of bank accounting standards, in comparison with those for non-financial companies, are as follows:

- a) banks are required to make adequate charge-offs to maintain sound asset quality;
- b) to charge off bad loans, banks are merely required to receive approval from an inspector of the Banking Bureau of the Ministry of Finance rather than the tax authority;
- the lower of cost or market is applied, as the valuation standard, to all listed securities in the trading account and to shares and convertible bonds in the investment account.

Moreover, common reporting form and method of disclosure are uniformly applied to all banks unlike the U.S. where specific items to be disclosed and their reporting method are entrusted to the decision of each individual bank.

In fact, market valuation, in the Revised Foreign Exchange Accounting Standard, was separately introduced in 1990 to accounting concerning foreign exchange-related transactions for spot, futures and options, while public companies other than banks were unaffected. Still, it should be noted that the Revised Foreign Exchange Accounting Standard was introduced for the conversion of foreign currency, rather than for market valuation in Japan.

Along with the progress of financial liberalization and globalization in recent years, the business scope of Japanese banks has been diversified to include trading in Japanese government bonds (JGBs) and transactions in financial derivatives such as swaps, for-

<sup>&</sup>lt;sup>3</sup>For detailed information on bank accounting in Japan, see Kuroda, Kotani, and Ogawa (1994).

wards and futures, and options. These activities have grown dramatically in volume, and adverse effects arising from conservative accounting standards being applied to them have now materialized.

For example, since Japanese banks are required to value public bonds (including JGBs) on their books at the lower of cost or market, they are forced to retain unrealized gains as latent, which might deter them from entering arbitrage transactions that are not settled at the end of the accounting period. Contrary to this type of bias towards income recognition, the situation might give rise to manipulations. Banks can realize gains at the end of the accounting term by selling valued positions of financial futures and retaining unrealized losses by holding the same amount of futures.

Furthermore, it has become more difficult for depositors and stockholders of banks to properly grasp and compare the financial conditions of each bank. Under current disclosure arrangements in Japan, financial conditions are disclosed in accordance with conservative financial statements; that is, all balance sheet items are valued at either historical cost or the lower of cost or market, and transaction volume and unrealized gains or losses related to financial derivatives are not disclosed.

To cope with these issues, which may adversely affect the portfolio decision making of both banks and investors, the *de facto* introduction of market valuation is required, at least partially for marketable assets such as trading and investment portfolios including financial derivatives. As pointed out above, the Revised Foreign Exchange Accounting Standard, which adopts market value accounting method separately, has already been introduced to bank accounting.

This means that bank accounting standards in Japan can be changed more flexibly to adapt to changes in financial markets. Accordingly, it is practically desirable to partially introduce market valuation to marketable assets in bank accounting standards, separate from those applied to other industries.

# IV. Introduction of Market Valuation to Bank Accounting

Taking the above into consideration, we can say that in Japan market valuation is required for bank accounting as a countermeasure to resolve the problems arising from the application of historical cost accounting. In the following, a specific framework for introducing market valuation to banks (separating them from other industries) will be outlined.

The issues to be examined here are:

- a) whether market value accounting is applied to unconsolidated or consolidated financial statements;
- b) what financial assets should be valued at market;
- c) whether unrealized gains or losses should be included in current earnings in the

income statement;

d) how the fair value of assets is measured for market valuation.

We will discuss each.

# A. Market Value Accounting and Financial Statements

In Japan, both Commercial Code and Income Tax Law accounting are stipulated on an unconsolidated basis. On the other hand, Securities and Exchange Law accounting requires public companies to release consolidated financial statements as well as unconsolidated ones, so that investors can analyze corporate business performance and financial conditions more accurately. Though consolidated financial statements are not so frequently used as unconsolidated ones in Japan, they are more suitable for market valuation and not influenced by either the Commercial Code or Income Tax Law.

It might be preferable to introduce market valuation to bank accounting both on an unconsolidated basis and also on a consolidated basis. However, under the current triangular accounting system, it would be more practical to firstly value financial assets of banks at market on a consolidated basis, and then discuss the application of market valuation on an unconsolidated basis.

# B. Partial Market Valuation for Marketable Financial Assets

To minimize the bias against bank's portfolio investment behavior or accounting manipulation arising from historical cost or the lower of cost or market accounting, for the time being financial assets with high marketability will be allowed to be valued at market, while other financial and real assets which are less marketable and held for long-term investment purposes are valued at historical cost.

By categorizing financial assets on bank's books, the application of market valuation is considered according to type and investment purpose. One possible solution is:

- a) all financial assets held for trading purposes, including derivatives, should be valued at market and unrealized gains and losses included in reported income;
- all financial assets held for long-term investment purposes should also be valued at market, and unrealized gains and losses are not included in reported income but reported in stockholders' equity;
- c) financial assets other than a) and b), or for which it is difficult to find a relevant market price, are valued at historical cost;
- d) finally, financial assets held for hedging are treated by the hedge accounting method which allows hedge components to be recognized in the same period.

Financial instruments held for trading purpose are expected to be traded within the short term. It is therefore necessary to reflect their market value in current income so as

to measure trading performance for any given accounting period. Contrary to this, unrealized gains or losses on instruments held for long term should not be reflected in current income, because banks, holders of such instruments, do not intend to realize short-term gains or losses. But they can be realized in the long term, and hence should only be reflected on the balance sheet for disclosure purposes. On the other hand, financial instruments held to maturity should not be valued at market because they will not be realized until the maturity date. Neither should financial instruments whose market valuation is difficult, because they are not reliable enough.

Hedge accounting is not yet applied because of costs of its implementation and anxiety about its abuse. But, hedge accounting would be accepted if incremental costs were justified by the benefits and accounting discipline were kept in its application.

# 1. The Importance of the "Fair Value" Concept

In applying market valuation, fair value must be measured properly for each instrument, and it is usually defined as the amount for which "an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction" (Exposure Draft 48 issued by IAS). When a financial instrument is actively traded, the quoted market price provides the best evidence of fair value. For some instruments such as foreign exchange and over-the-counter transactions, multiple prices might be quoted. In these cases, as long as they differ in acceptable range, each price employed by a bank could be recognized as fair value.

When market transactions are not so voluminous or quoted market prices are unavailable, fair value may often be estimated by referring to the current market value of similar instruments, discounted cash-flow analysis, or use of the option pricing model. To maintain the reliability and comparability of prices calculated by banks, their objectivity must be examined by external auditors.

Current market value disclosure standards in Japan adopt a formal approach that discloses only exchange price, quoted price, and some estimated prices as objective market values without effecting any special surveys as to market condition and what function several different market values have in the market. Banks are obliged to estimate market value based on the theoretical price of over-the-counter currency options or forwards under the Revised Foreign Exchange Accounting Standard, but, as a rule, estimated prices are not usually recognized as reliable. For example, the discounted present value of swaps is not used even for disclosure purposes. But even exchange prices can be less reliable than estimated prices, because the reliability of value depends not only on the nature of the market but more on the main factors:

- a) transaction volume
- b) holding purpose
- c) market conditions surrounding price

Thus, it is desirable to introduce the fair value concept into Japanese accounting standards to assess the reliability of "market value".

#### 2. Market Valuation of Securities and Derivatives

In the following sections we examine the possibility of market valuation and the problems concerning individual financial instruments.

# a. Securities

# (1) Short-term financial instruments

It is not misleading that short-term financial instruments such as notes, commercial papers (CPs), treasury bills (TBs)<sup>4</sup>, financing bills (FBs)<sup>5</sup>, are disclosed at acquisition cost when their remaining term is short, since the difference between book and market value is minor. However, if either cost or market valuation is used according to the remaining term (the distinction between one year and more), TBs and FBs are excluded in Japan. These instruments are included in trading accounts and traded actively. Their price fluctuation is large, therefore they should be measured on a market value basis and unrealized gains or losses reflected in current income.

Short-term instruments, such as call loans and negotiable certificates of deposit, can be valued at acquisition cost, for the difference between book and market value is also minor, but long-term instruments such as long-term CDs should be valued at market.

# (2) Unlisted publicly-issued bonds

Market valuation should also be applied to unlisted issued bonds in the same way as to listed ones. Bonds are traded more actively over-the-counter than on stock exchanges. There are more bonds for which the determination of market value is not sufficient, such as local government bonds, government-guaranteed bonds, bank debentures, and corporate bonds (even though not all prices on stock exchanges<sup>6</sup> are fair value). Accordingly, it is necessary to improve the determination of market value through the enlargement of over-the-counter quotation issues based on the dealer's price (offered price by a broker's broker<sup>7</sup> in Japan) or the estimated price from over-the-counter quotations.

<sup>&</sup>lt;sup>4</sup>TBs are Japanese government discount bonds with maturity of three and six months. They are issued in order to refund government debts.

<sup>&</sup>lt;sup>5</sup>FBs are Japanese government discount bills with maturity of about sixty days. They are issued to cover temporary shortages of government funds.

<sup>&</sup>lt;sup>6</sup>Stock exchanges are corporations formed by their member securities firms for market-making for stocks, bonds and derivatives. There are eight such exchanges in Japan-Tokyo, Osaka, Nagoya, Kyoto, Hiroshima, Fukuoka, Niigata and Sapporo.

<sup>&</sup>lt;sup>7</sup>In Japan, the Japan Bond Trading Company, "Nihon-sogo-shoken", is a broker's broker. It was founded in 1973 for the purpose of facilitating transactions among securities dealers: banks and securities firms. It holds a variety of bonds, including government bonds, corporate bonds, U.S. government bonds, Euro-dollar warrant bonds, etc.

The current disclosure standard ("Circular Concerning the Disclosure of Market Value of Marketable Securities, Futures, and Option Transactions") requires only public issues out of all unlisted bonds to be valued at market. Their market value, except for issues whose prices are quoted by the Japanese Securities Business Association, should be determined based on quoted prices of issues with similar coupon and maturity date. However, the estimation method is not limited only to this, estimation by individual holders may be accepted unless rejected by external auditors.

# (3) Private placement bonds

# (a) Local government bonds, government agency bonds, corporate bonds

Some private placement bonds<sup>8</sup> are substantially similar to loans. For example, private placement local government bonds are negotiation transaction type instruments between issuers and financial institutions. However, some private placement bonds issued by local governments should be valued at market since they are traded over the counter in a similar manner to publicly-issued bonds.

As for government agency bonds, a private placement bond without government guarantee is similar to a local government bond.

Accordingly, some kinds of private placement bonds should be valued at market so long as they are traded in the market or their market value can be estimated from other issues traded in the market.

# (b) Structured notes

Structured notes<sup>9</sup>, whose cash flow is arranged by utilizing derivative instruments for specific investors, are issued through private placement at present. They are not traded in the market and are difficult to be valued at market. However, in many cases, structured bonds are a combination of options, swaps, etc. Their economic value is easily recognized by dividing them into underlying transactions and estimating their substantial value.

#### b. Securities investment trusts

Securities investment trusts<sup>10</sup> are basically a set of instruments comprising individual

<sup>&</sup>lt;sup>8</sup>Private placement bonds, "shibo-sai", are issued for small number of investors only through direct negotiation. Less marketable private placement bonds are held to maturity by underwriting banks.

<sup>&</sup>lt;sup>9</sup>Structured notes, "shikumi-sai", are financial instruments by which cash-flows of underlying assets are rearranged to meet investors' needs.

<sup>&</sup>lt;sup>10</sup>Securities investment trusts are a type of money trusts but the funds are invested in certain types of securities. According to the Securities Investment Trust Law, these are "trusts, of which the purpose is to employ the trusted property in investment in securities in accordance with the instructions of the trusters and the beneficiary rights of which are divided among a number of unspecified persons". Though securities investment trusts in the U.S.A. and the U.K. are mostly corporate trusts with a special company, those in Japan are contractual trusts composed of trusters, trustees and beneficiaries.

securities. Both types (unit type (with trust term, without additional establishment) or open type (without trust term, with additional establishment)) can be canceled or bought at any time by paying market value and commissions. Therefore, investment trust beneficiary securities can be valued at market through aggregation of the market valuation of the individual securities. The market values of investment trusts are announced publicly (open type: daily, unit type: weekly), so enterprises can use the prices for valuation. Cancellation in a closed term is essentially prohibited. Still, cancellation is possible through payment of cancellation commissions: investment trusts with a term should be valued at market value minus cancellation commissions.

#### c. Derivatives

Off-balance-sheet transactions have recently rapidly developed, including derivative instruments. Among these transactions, what kind of information should be disclosed on financial statements? At the least, unrealized gains or losses on off-balance-sheet transactions for trading purposes, should be disclosed on the income statement.

Currently in Japan, although commitments are growing rapidly, trading instruments related to currency interest rates still comprise a large portion of off-balance-sheet transactions: therefore we should consider them first. Commitments can be regarded as interest rate options if they are committed by using fixed interest rates, but, at present, they are seldom the object of trading, and should be excluded from the examination of market valuation, and only the probability of occurrence should be disclosed. In the following sections, we consider the evaluation of derivative instruments only.

#### (1) Futures

For futures, market valuation should be extended to include interest rate, stock and bond futures. Since futures are listed, market values are easy to obtain (market valuation has already been introduced in the U.S.). However, there is room for discussion concerning commodity-linked futures.

If the settlement of the instruments should not be commodities but cash, the transaction is the transfer of cash, which should be valued at market as well as the futures of financial instruments.

On the other hand, what about cases where preparers of financial statements can settle the transaction by either commodity or cash? According to E48, market valuation should also be adopted and the accounting treatment not affected by the subjective judgement of the option executor.

# (2) Options

Putting listed options aside, it is doubtful whether objective market value of overthe-counter options can be obtained. As over-the-counter currency options are already measured on a market value basis by bank accounting in Japan, we must examine whether or not such valuation may be applied to bond and interest rate options. Our view is that it is appropriate to introduce market valuation to these options even though there remains room for arbitrary selection of models.

Market valuation of over-the-counter bond options in Japan is somewhat complicated. In order to measure over-the-counter options on a strictly market value basis, it is necessary to recognize base volatilities, which are difficult to calculate for all issues daily; each bank calculates base volatility by selecting issues for which transaction volume is relatively large. Accordingly, it is difficult to determine the base volatility uniformly. In addition, option pricing models are also not the same among banks. Thus, there is no single market value.

However, we should allow each individual bank to select its own method of calculating market value as long as accepted by external auditors, because the market valuation of over-the- counter bond options is originally complicated but which does not necessarily mean it is unreliable. Forcing banks to adopt a uniform standard for calculating market value may have bad effects on actual market transactions.

If there must be a minimum standard, "the Reference Bank System" might be a clue. As nearly seventy per cent of over- the-counter bond options can be covered by utilizing the sixteen volatilities mentioned, a common base price could be set by a similar method to the Reference Bank System which is adopted in calculating the market value of seventy percent of currency option transactions.

# (3) Swaps

A swap is a kind of over-the-counter transaction, therefore market valuation has not yet been introduced, but market value is easily obtained compared to options.

For swaps, the methods to calculate spot rate, which is the basis of market valuation, is slightly different among banks; the first difference is whether or not interest rate futures are jointly used with short-term interest rates, and the second difference is whether or not the spot rate should be smooth. But such differences are not difficult obstacle problems for objective valuation.

In addition, in many cases, the swap is set for the purpose of offsetting the position, so the ratio of the unrealized gains with high volatility to all trading profit is not always high.

# C. Loans, Deposits and Market Valuation

Market valuation might not be easy to apply to financial assets other than securities,

<sup>&</sup>lt;sup>11</sup>Japanese banks value foreign exchange-related transactions for spot, futures and options at market, including over-the-counter transactions, based on the Revised Foreign Exchange Accounting Standard. In order to avoid arbitrary valuation by banks, the reference bank system, which announces monthly principal data, such as spreads between spot and forward exchange rates, volatility of currency options, is adopted in Japan.

foreign exchange and derivatives, since their market prices are not readily available and excessive effort and cost is required to find proper value. Typical examples are loans and discounts, deposits and debentures, and unlisted securities. For those instruments, it may be appropriate to value them at historical cost. In the following, we will briefly explain why we reached such a conclusion.

With regard to loans and discounts, some loans may be actively traded in the market. Taking this feature, some proponents stress that loans be valued at market to disclose banks' financial conditions more properly.

However, asset quality is closely related to the screening and monitoring activities conducted by the credit-granting bank, which discriminate vis-a-vis other types of assets on the books. Moreover, in Japan a market for the sale of loans is not well developed and borrowers are generally given a prepayment option that can be exercised at any time free of charge. It is thus difficult to correctly value the market price of business loans one by one.

Under the conventional bank accounting standard, impaired loan amounts are deducted either directly or indirectly according to their impairment from the book value of loans. This type of value adjustment is disclosed as a change in the allowance for loan losses and could be regarded as a kind of market valuation.

Furthermore, it may be appropriate to value bank debt, such as deposits and debentures, at historical cost. A market price could theoretically be calculated by adding present and future discounted cash-flows obtained by applying the current market interest rate as the discount factor. But the face value of deposits could be generally accepted as their market value, since banks are required to pay according to this value in the market when depositors ask to withdraw deposits. And taking that loans are valued at cost, we conclude that deposits and debentures are also measured at historical cost so as to maintain consistency of valuation between assets and liabilities.

#### D. Bank's Financial Statements Under Partial Market Valuation

By introducing partial market valuation as stated above, bank consolidated financial statements could be modified as shown in Table 1 to disclose business performance more accurately. That is, the balance sheet could be changed to mark financial assets to market such as trading account securities, money held in trust, securities, and foreign exchange, and unrealized gains and losses of those assets held for trading purposes should be included in reporting income. On the other hand, the unrealized gains and losses of marketable securities held for long-term investment purposes are not included in current income but retained in stockholders' equity. This reflects the idea that the amount of unrealized gains and losses should be disclosed with taxable income unchanged.

And the unrealized gains and losses of financial derivatives such as futures and options should be included in reporting income and also added to other assets or liabilities on the balance sheet under the titles of gains/losses of futures, option pre-

Table 1

Disclosure Forms for the Financial Statements on a Consolidated Basis
(Japanese annual report basis)

# A. Balance Sheet

Assets		Liabilities	
Cash and due from banks	$\times \times \times$	Deposits	$\times \times \times$
Call loans	$\times \times \times$	Negotiable certificates of deposit	
Bills bought	$\times \times \times$	Bonds	
Monetary claims bought	$\times \times \times$	Call money	$\times \times \times$
Trading account securities*	$\times \times \times$	Bills sold	
Money held in trust*	$\times \times \times$	Borrowed money	$\times \times \times$
Securities*	$\times \times \times$	Foreign exchange*	$\times \times \times$
Loans	$\times \times \times$	Convertible bonds	$\times \times \times$
Foreign exchange*	$\times \times \times$	Other liabilities	
Other assets		Losses on futures*	$\times \times \times$
Gains on futures*	$\times \times \times$	Premium*	
Premium*	$\times \times \times$	Other off-balance*	$\times \times \times$
Other off-balance*	$\times \times \times$	transaction losses*	
transaction gains*		Deferred tax liability	$\times \times \times$
Deferred tax assets	$\times \times \times$	Reserve for possible loan losses	
Premises and equipment	$\times \times \times$	Reserve for retirement allowances	
Customer's liabilities for	$\times \times \times$	Reserve under special law	$\times \times \times$
acceptances and guarantees		Acceptances and guarantees	×××
		Stockholder's equity	
		Common stock	$\times \times \times$
		Capital surplus	$\times \times \times$
		Legal reserve	$\times \times \times$
		Other earned surplus	$\times \times \times$
		[ Net income (loss)	
		Unrealized gains (losses) from market valuation of financial instruments not included in Net income (loss)	×××
		Equivalent amount of deferred tax	$\times \times \times$

Notes: Details of unrealized gains (losses) from market valuation of financial instruments not included in Net income (loss)  $\begin{bmatrix} \text{Unrealized gains} & \times \times \times \\ \text{Unrealized losses} & \times \times \times \end{bmatrix}$ 

<sup>\*</sup> Subject to market valuation

# B. Statement of Income

Ordinary Income		
Fund Operating Income	$\times \times \times$	
Service Charges	$\times \times \times$	
Other Operating Income		
Profit on Foreign Exchange Tranding*	$\times \times \times$	
Profit on Trading Securities*	$\times \times \times$	
Other Operating Income*	$\times \times \times$	
Other Ordinary Income	$\times \times \times$	$\times \times \times$
Ordinary Expenses		
Fund Operating Expenses	$\times \times \times$	
Service Charges	$\times \times \times$	
Other Operating Expenses		
Loss on Foreign Exchange Trading*	$\times \times \times$	
Loss on Trading Securities*	$\times \times \times$	
Other Operating Expenses*	$\times \times \times$	
Other Ordinary Expenses	$\times \times \times$	$\frac{\times \times \times}{\times \times \times}$
Ordinary Profit (loss)		$\times \times \times$
Extraordinary Profits		$\times \times \times$
Extraordinary Losses		$\times \times \times$
Net Income (loss) before taxes		$\times \times \times$
Corporate and Inhabitant Tax		$\times \times \times$
Equivalent Amount of deferred Tax		$\times \times \times$
Net Income (loss) for the current year		$\times \times \times$
Notes:		
1. Details of unrealized gains and losses from market valuation in Net Income (loss)		
Unrealized gains from market valuation of foreign exchange	$\times \times \times$	
Unrealized gains from market valuation of trading securities	×××	
Unrealized gains from market valuation of derivative instruments	$\times \times \times$	×××
Unrealized losses from market valuation of foreign exchange	×××	
Unrealized losses from market valuation of trading securities	×××	
Unrealized losses from market valuation of derivative instruments	$\times \times \times$	×××
2. Deferred gains and losses of hedging transaction		., ., .,
Gains of financial instruments held for hedging purpose		×××
Losses of financial instruments held for hedging purpose		×××

<sup>\*</sup> Unrealized gains or losses are included in profit or loss on sale of the corresponding financial instrument. For example, unrealized gains on trading securities are included in the profit on the sale of trading securities.

# Table 2 An example of Partial Market Valuation

# A. Model Transaction

In period t, government bond A for trading purposes and government bond B held for long-term investment are acquired, at 100 year cach. Market values were 120 year for A, and 130 year for B at the end of period t.

The effective tax rate is assumed at 50%.

1.	Temporary	difference

(1) Unrealized gains on financial instruments held for trading purposes	20
(2) Unrealized gains on financial instruments held for long-term purposes	30
2. Deferred tax liability	
$(20 + 30) \times 50\%$	25
3. Income statement	
Income before tax	20
Corporate income tax	0
Equivalent amount of deferred tax $20 \times 50\%$	<10>
Current income	10

# B. Change in Balance Sheet

# At acquisition date

Government bond A	100	Capital	200
Government bond B	100	1	

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# At the end of period t

Government bond A	120	Deferred tax liability	25
Government bond B	130	Capital	200
		Current income	10
		Unrealized gains not included in current income	30
		Equivalent amount of deferred tax	<15>

miums, and other off-balance sheet transaction gains/losses. Bank foreign exchange holdings, including off-balance sheet transactions, are currently valued at market, and no major changes in the financial statement are thus necessary.

With regard to the statement, unrealized gains and losses other than those for securities held for long-term purposes are included under other operating income/expenses. And unrealized gains and losses arising from long-term securities investment are not reported on the income statement.

To clarify our discussion, an example is available in Table 2. We assume that bank X acquired one unit of government bond A at a price of 100 for trading purposes and one unit of government bond B at a price of 100 for investment purposes at period t, and that at the end of period t bond prices changed to 120 for bond A and 130 for B. The effective tax rate is set at 50%.

In this example, government bond A is valued to 120 at the end of period t and its unrealized gain net of tax, 10. The tax liability of 10 is recorded as deferred tax liability on the balance sheet. Government bond B held for long-term purposes is marked to 130 in the balance sheet, and the unrealized gain on it is recorded in stockholders' equity. In the income statement, only an unrealized gain of 20 is recorded as income, and current profit increases by 10 after deducting corporate income tax with a tax rate of 50%.

# IV. Concluding Remarks

In this paper we examine the possibility of introducing market valuation to Japanese bank accounting standards. Although it may not be the best solution, partial market valuation could be introduced for the time being in accordance with Securities and Exchange Law accounting to disclose the financial conditions of a bank more appropriately as well as to evade obstacles arising from the triangular system in Japan. More elaboration will be needed to implement our consideration such as the measurement issue of fair value and the treatment of hedge accounting.

It is usually said that accounting standards are stipulated so properly that the business performance and financial conditions of a company are measured and disclosed through the financial statements in a comparative way. But such information is insufficient for investors to assess the risk-return profile of a company, and might have an adverse effect on a company's fund-raising activities. To cope with all this, a company is now required to voluntarily release more information not contained in the financial statements such as the uncovered risk exposure of financial derivatives and risk management performance.

Banks are not exempt from these principles and must take some steps in advance of other industries so as to maintain their role as an important financial intermediary. More disclosure of financial condition made by banks will contribute to the sound and balanced growth of money and capital markets in Japan through the reduction or elimination of

distortions arising from the current historical cost standard.

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