

FEDERAL RESERVE SYSTEM
[Docket No. R-1095]
Federal Reserve Bank Services;
Private Sector Adjustment Factor

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Notice.

SUMMARY: The Board has approved modifications to the method for calculating the private sector adjustment factor (PSAF), which imputes the costs that would have been incurred and profits that would have been earned had the Federal Reserve Banks' priced services been provided by a private firm. The Board considered several alternatives for calculating components of the PSAF and is modifying the current method for imputing debt and equity, enhancing the method for determining the target rate of return on equity, and continuing to use the fifty largest bank holding companies' financial data as a proxy for Federal Reserve priced-services activities. In a change from the proposal and current practice, the peer group will be selected based on total deposits rather than the size of asset balances. The revised method will be used to determine the PSAF and fees for Federal Reserve priced services beginning with the 2002 price setting.

FOR FURTHER INFORMATION CONTACT: Gregory L. Evans, Manager (202/452-3945) or Brenda L. Richards, Sr. Financial Analyst (202/452-2753), Division of Reserve Bank Operations and Payment Systems. For users of Telecommunication Device for the Deaf (TDD) only, please call 202/263-4869. Copies of a research paper describing the theoretical basis and detailed application of each of the models ("The Federal Reserve Banks' Imputed Cost of Equity Capital") may be obtained from the Board through the Freedom of Information Office (202/452-3684) or at the Board's web site at <http://www.federalreserve.gov/boarddocs/press/boardacts/2000/200012212/researchpaper.pdf>.

SUPPLEMENTARY INFORMATION:

I. Background

As required by the Monetary Control Act of 1980, fees for Federal Reserve priced services provided to depository institutions are set at a rate to recover all direct and indirect costs of providing the services actually incurred and imputed costs. Imputed costs include financing costs, return on equity (also referred to as profit), taxes, and certain other expenses that would be incurred if a private business firm provided the services. The imputed costs and imputed profit are collectively referred to as the private-sector adjustment factor (PSAF). In a comparable fashion, revenue is imputed and netted with actual related direct costs through the net income on clearing balances (NICB) calculation.

Calculating the PSAF involves projecting the level of priced-services assets and determining the financing mix used to fund them and the rates used to impute financing costs. In the current method, the financing rates, the combination of financing types, and an income tax rate are based on data developed from the "bank holding company (BHC) model," a model that contains consolidated financial data for the nation's fifty largest (based on asset balances) BHCs.

Imputed taxes are captured using a pre-tax return on equity (ROE). The current methodology assumes that the Reserve Banks invest all clearing balances net of imputed reserve requirements in three-month Treasury bills. The net earnings or expense attributable to the imputed Treasury-bill investments and actual earnings credits granted to clearing balance holders based on the federal funds rate are considered income or expense for priced-services activities. The net income or expense is referred to as net income on clearing balances (NICB).

To evaluate the effect of changes that may have occurred in Reserve Bank priced service activities, accounting standards, finance theory, regulatory practices, and banking activity, the Board periodically reviews the methods for calculating the PSAF and the NICB. To ensure that the method remains current and consistent with sound business management, the Board requested comments on a proposal to modify certain elements of the calculations (65 FR 82360, December 28, 2000). Specifically, the Board requested comment on the following changes to the PSAF:

- **Imputed debt and equity:** The Board proposed initially designating \$4 billion of clearing balances as core deposits for potential use as a financing source for priced-services assets, thereby reducing the funds available for imputing investment income. The Board also proposed imputing equity at the minimum requirements for a well-capitalized institution as defined by the FDIC for purposes of assessing insurance premiums.
- **Target return on equity (ROE):** The Board proposed enhancing the method for determining the target rate of return on equity by combining the rate resulting from the current BHC model, one example of the comparable accounting earnings model (CAE), with rates derived from a discounted cash flow (DCF) model and a capital asset pricing model (CAPM). The Board proposed a risk-free rate and using specific data for determining the average risk premium for the market and the beta in the CAPM. For the DCF, the Board proposed using commercially available consensus forecasts to measure future dividends and long-term growth rates. The Board also proposed equal weights within the CAE model, weights based on market capitalization for the DCF and CAPM models, and a combined ROE measure based on equal weighting of the results of the three models.
- **Peer group:** The Board proposed continuing the current practice of selecting the largest fifty BHCs based on asset balance size as the Reserve Bank peer group.

II. Priced Services Balance Sheet

Table 1 represents the elements of the priced-services balance sheet and how they will be derived. All actual assets and liabilities presented on the priced-services balance sheet are based on projected average daily balances.

III. Summary and Analysis of Comments

The Board received ten responses to its request for comment, including responses from two Reserve Banks. Overall, eight commenters supported and two commenters opposed the Board's proposal. Those supporting the proposal represented credit unions, smaller depository institutions, and Reserve Banks. The Association of Bank Couriers and Fiserv, Inc. opposed the proposal. The Board received no comments from large banks or bank holding companies.

Those supporting the proposal believe that the proposed changes to the PSAF methodology are appropriate and will provide a better basis on which to impute the expenses and income used in setting Federal Reserve fees. Those in opposition object to using clearing balances to finance priced services assets, the imputed equity level, certain aspects of the economic models, and the basis for selection of a peer group.

A. *Imputed Debt and Equity*

Currently short-term debt, long-term debt, and equity are imputed to the extent necessary to finance short-term and long-term assets without consideration of the Reserve Banks' clearing balance liability.¹ The cost for debt financing is determined using the short- and long-term debt rates from the BHC model. The apportionment of long-term asset financing between long-term debt and equity is based on the debt-to-equity ratio derived from the BHC model. The Board believes that these practices unnecessarily impute larger amounts of certain assets and liabilities and equity along with their related income and expenses to priced services. Considering the growth in the size of clearing balances since the inception of the NICB and the stable nature of the majority of the balances, the Board believes that rather than incur additional debt costs, a private business firm would use a portion of these balances to finance its capital needs.

In its request for comment, the Board proposed that initially \$4 billion of clearing balances be designated as "core" and that these core balances be made available to finance long-term assets. The use of core clearing balances will effectively eliminate debt and reduce imputed investments in Treasury securities. The Board requested comment on whether this was a reasonable use of these balances, and asked that commenters who opposed initially establishing the \$4 billion as core balances to suggest an alternative portion of the balances and a method for deriving the acceptable balance. In addition, the Board proposed basing the Reserve Bank priced-services equity balance on that required by the FDIC to be considered a well-capitalized institution.

One commenter challenged the Federal Reserve's statutory authority to integrate the PSAF and NICB calculations. Two commenters, including the commenter who challenged the Board's statutory authority, objected to the proposed use of core clearing balances to fund long-term assets. Another commenter stated that the \$4 billion was too conservative and offered an alternative method for its calculation. Two commenters supported the Board's proposal to evaluate the balance of the core deposits annually, and one expressed support for the proposal provided that clearing balance requirements were not adjusted to facilitate the use of this core balance.

The basis for the objection of two commenters to the use of core clearing balances was essentially that clearing balances are short-term liabilities and should be used to finance only short-term assets. One comment stated that the Federal Reserve controls these balances based on the rate it offers to compensate depositors. Another offered that banking organizations attribute extended maturities to a portion of their core deposits, but the deposits are considered to finance longer-term financial assets, not prepaid pension assets and long-term fixed assets such as buildings, check sorters, and leasehold improvements. The commenter stated that these assets

¹ Depository institutions may hold both reserve and clearing balances with the Federal Reserve Banks. Reserve balances are held pursuant to regulatory requirements and are separate from the Reserve Banks' priced-services activities. Clearing balances, based on contractual agreements with Reserve Banks, are held to settle transactions arising from use of Federal Reserve priced services. In some cases, depository institutions hold clearing balances in excess of contractual agreements.

are typically financed with equity capital and long-term debt. This commenter also expressed concern with the proposal's creation of a negative working capital position (current assets minus current liabilities) for the priced-services balance sheet. Support for this concern was based on an analysis of six non-bank publicly held payments processors and their positive working capital positions.

One commenter objected to the Board's proposal to impute only the equity sufficient to meet the FDIC requirements to be considered a well-capitalized institution. The objection is based on the contention that this level of equity would not be acceptable and that bank holding company management maintains capital well above regulatory minimums. The commenter believes that the equity of the Federal Reserve priced services balance sheet should be closer to or should match that of commercial banks, which they estimate as close to 8 percent.

The Board has concluded that initially classifying \$4 billion as core clearing balances to fund long-term priced services assets is a practical approach that treats these balances in a way private-sector providers would treat them. In addition, the Board has concluded that imputing equity based on FDIC requirements to be considered a well-capitalized institution provides adequate protection against uncertainties and is a prudent use of this financing source.

The Board considered the stability of clearing balances and the current level of priced-services assets. The balances have not dropped below \$4 billion since 1992. In addition, the structure of the current priced-services balance sheet requires that only an insubstantial part of the balances be used to finance longer-term assets leaving the majority of these balances for investment in financial assets. A portion of all assets will be financed with equity. In considering how private business firms would use these balances, the Board believes that cash would be considered a fungible resource, but only after considering the interest rate risk presented by financing long-term assets at short-term rates. To address this risk and avoid inappropriate volatility in earnings, the Board will review the interest rate risk of long-term priced-services asset financing each year. The Board will evaluate the level of interest rate risk by reviewing the ratio of rate-sensitive assets to rate-sensitive liabilities and the effect on cost recovery of an increase or decrease in interest rates of up to 200 basis points. To control interest rate risk within acceptable levels, long-term debt will be imputed when the risk is estimated to exceed a change in cost recovery of more than two percentage points.

Although the amount of initial core balances may appear very conservative to some commenters, this level is more than sufficient to finance the current level of assets. The Board expects to review clearing balance trends periodically and the core amount will be adjusted if necessary. Consistent with current practice, the size of contracted clearing balances established by the Federal Reserve and depository institutions will be based on the level necessary for clearing and paying for services and will not be changed in order to increase the size of core balances in order to finance long-term assets.

The level of clearing balances maintained by depository institutions with the Reserve Banks increases or decreases based on the funds needed to process transactions. The compensation provided to depositors, earnings credits available to apply to future services, is based on these contracted balances and the federal funds rate. Although the rate is targeted by the Federal Reserve without consideration of the cost of earnings credits, it is set by the marketplace demand for short-term funds.

The Board's proposal for financing long-term assets with core clearing balances does, as a commenter indicated, create a negative working capital position. The commenter believes if the priced-services activities were a private-sector company, regulators would not look favorably

on this position. A working capital comparison is not typically used in analyzing the financial condition of a depository institution. The liquidity of a depository institution is commonly reviewed using other measures that quantify the amount of cash or liquid assets and other funding sources (e.g., borrowings) available to meet expected cash demands at given time frames. Regulators define an entity's liquid assets as "those assets which are readily available as cash or which can be converted into cash on an 'arm's-length' basis without considerable loss."² The Board believes that the priced-services assets on the balance sheet, specifically the three-month Treasury securities, are sufficient to meet the liquidity needs of priced services.

When it requested comment, the Board noted the necessary integration of the PSAF and NICB calculations. The imputed income or expense resulting from the NICB calculation has historically been and will continue to be a part of determining priced-services revenue. Integration is necessary to reflect the reduction of clearing balances available for investment and the resulting reduction of the imputed income. The MCA states that fees must incorporate "an allocation of imputed costs" and that "pricing principles shall give due regard to competitive factors." To consider the PSAF along with the cost of earnings credits included in the NICB without including the revenue from imputed investments would result in non-competitive pricing.

In evaluating the need for equity financing, one must consider the risk inherent in the assets being financed. Ignoring risk and imputing equity equal to the average equity of commercial banks, as proposed by one commenter, would be contrary to sound business decision-making. Equity dollars, typically the most expensive of financing sources, are actively managed by financial institutions. Regulators require a minimum level of capital to protect against insolvency or failure by offsetting or absorbing potential losses in the value of bank loans and investments, to protect against temporary losses of liquidity, and to ensure public confidence in the bank's ability to respond to shifts in economic conditions. Imputing equity to meet regulatory requirements for a well-capitalized institution results in a proposed capital to risk-weighted assets ratio of 27.7 percent for the priced-services balance sheet. The capital to risk-weighted ratios for the sample fifty BHCs are significantly lower, with none being greater than 15 percent. This ratio, combined with the liquidity of the imputed Treasury investments, is sufficient to protect against potential losses arising from changes in economic conditions or shifts in the value of investments. In general, the Board believes that a higher leverage ratio for BHCs reflects the increased risk experienced by these entities because of the financing activity in which they engage and that targeting an equity-to-asset ratio somewhat lower than the peer group average is appropriate for Federal Reserve priced services.

B. Imputed Return on Equity

Currently, the target return on equity is calculated based on the ROE results from the BHC model as an average of the ratios of the BHCs' net income and average book value of equity. This model can be duplicated and is readily accepted in industry practice. Its shortcomings, however, are that it uses historical data from the two to seven years before the target year to predict future earnings and it is based on book rather than market values.

The Board proposed that the PSAF target ROE be calculated using a combination of the current CAE model and two additional economic models, a capital asset pricing model and a discounted cash flow model. The Board requested comment on the economic models, their

² BHC Supervision Manual, December 1992, Section 4010.2.

elements, the proposed methods for weighting and averaging them, and whether they are theoretically sound and should be used to calculate the PSAF.

The response from commenters was mixed regarding the theory, use, and components of each of the models. Although most commenters supported the use of the three models, the proposed weightings within the models, and the averaging of their outcomes, one commenter believes that the CAE should be weighted by organization size and another believes that it should be weighted by service revenue. One commenter criticized the CAE model because it could be distorted by credit losses unrelated to BHC processing activities. This same commenter believes that the thirty-year Treasury bond rate rather than three-month Treasury-bill rate should be used for the risk free rate in the CAPM. One commenter believes that the DCF should receive greater weight in the computation, while another believes that it is inappropriate to use the DCF in the calculation due to a perception that it ignores capital appreciation. Although there was support for the use of the CAE and CAPM models in the calculation, two commenters objected to using BHCs as the comparable group.

The Board has concluded that the three models will be used to calculate its priced-services target ROE and the calculation will be based on the proposed method. The models have a solid foundation in economic and finance theory and are regularly used in industry practice. This approach to calculating the target ROE is based on an understanding that each of the three models uses different information and has different strengths and weaknesses. Together the three models provide a measure that is more reliable, consistent, and forward-looking than using the CAE model alone. In addition, the proposed method brings in factors that affect competitors' return on equity that had not been previously considered with the CAE model, such as the results of changes in market conditions and risk.

The Board considered several methods for weighting within the models. The Board believes that the best and most common method is to weight based on market capitalization in the DCF and CAPM models and to maintain the current method of equal weighting for the CAE model. Weights based on organization size do not provide a more appropriate ROE than that provided with the equally weighted CAE. Weights based on service revenue could distort the resulting ROE because service revenue includes income from many activities that Reserve Banks do not provide and because depository institutions differ in the degree to which they use fees or balances to obtain compensation. For example, in comparable entities, payment for services can be assessed based on holding compensating balances rather than explicit fees. These varied approaches to assessing service revenue could affect the comparability of this information and could result in an inconsistent ROE measure over time.

The financial results used in the CAE model are obtained from publicly-available financial statements based on objective criteria. Availability and credibility of the financial data are important considerations in determining the structure of and peer group included in the model. If the data-gathering process included subjectively identifying and adjusting the financial results of each BHC in the model for activities that are not exactly comparable to priced services, the credibility of the calculation could be diminished. After careful consideration of the comments, the Board believes that the BHC results as presented in audited financial statements provide a reasonable proxy for Federal Reserve priced services activities.

It is standard academic practice to use short-term Treasury rates, such as the three-month Treasury bill rate, in the implementation of the CAPM model. Any short-term rate chosen must be adjusted based on the time horizon of the analysis. A one-year rate is appropriate for the PSAF calculation because the implicit horizon of analysis is one year. Whether this one-year

rate is based on the average of monthly, three-month, or one-year Treasury bill rates is insignificant because the market for Treasury securities is typically efficient enough to remove major pricing anomalies between securities of different maturities. This efficiency results in little difference between yields in the short term. Adopting a longer-term risk-free rate, such as the thirty-year Treasury rate, however, could not be supported given the one-year time horizon.

The contention that the DCF does not consider capital appreciation has been refuted in economic literature. The DCF does consider capital appreciation in its assumption that dividends will grow over time. The present value of a finite stream of dividends plus the present value of a future price of the stock is mathematically equal to the present value of an infinite stream of dividends.³ The Board will include the DCF model in the PSAF calculation as proposed and weight it equally with the two other models.

C. *Peer Group*

The Board proposed maintaining the currently used BHC sample of the largest fifty, based on the size of asset balances, but asked whether this sample size continues to be a reasonable data peer group for Reserve Bank priced-services activities. In addition, the Board requested commenters' views on whether BHC data could be adjusted to resemble more closely the Reserve Bank priced-services activities.

Two commenters objected to the use of BHCs as the peer group and suggested using data processing and check processing organizations as the peer group. Two other commenters suggested that fewer BHCs would provide an adequate sample for the model and one suggested that a subgroup from the top fifty BHCs based on the relative importance of certain income accounts to total net income would provide a better proxy. One commenter suggested selecting the peer group based on service revenue.

The Board acknowledges that BHCs are an imperfect proxy for Federal Reserve priced services. The Board considered several alternatives and concluded that the services provided by data processing and check processing companies are not sufficiently analogous to priced-services activities of the Reserve Banks largely because they do not provide settlement services or hold correspondent or clearing balances. Although, in some cases it may be a small part of their overall business, BHCs do provide similar payment services, including settlement, and hold correspondent balances. Like BHCs, data processing and check processing companies also derive substantial income from lines of business in which Reserve Banks do not engage. In addition, obtaining the information for these processing companies necessary to compile the data needed in the three economic models would be difficult for the Board and for the public.⁴ Use of non-audited financial information provided by these entities in the models could diminish the credibility of the results and create omissions or inconsistencies. In addition, there are significantly fewer data processors and check processors than BHCs, which would make it difficult to mitigate the effects of extreme financial performance of a few companies in the peer group.

³ Sergei P. Dobrovolsky, The Economics of Corporation Finance, (New York: McGraw Hill Book Company, 1971), 81.

⁴ One commenter believes that verifiable financial information for these entities could be obtained through industry associations. This would require the Federal Reserve to rely on data that has not been audited and to provide such financial information to the public. Further, consensus forecasts, used in the DCF model, are not available for entities that are not publicly held.

Although reducing the sample size could reduce time and effort required for data gathering, the risk that the performance of a few BHCs could skew the model's results increases. Selecting the peer group based on service revenue would not create a better sample because, as noted, service revenue includes income from many activities that Reserve Banks do not provide. Further, in comparable entities, payment for services can be received based on holding compensating balances rather than assessing an explicit fee. These varied approaches to assessing service revenue could affect the comparability of this information.

After careful consideration of these and other alternatives, the Board concluded that the fifty largest BHCs provide a reasonable peer group for priced services. In a change from the proposal and current practice, the peer group will be selected based on total deposits rather than asset balance size. A peer group based on total deposits maintains the focus on the largest banking entities and avoids the distortion that could result from including financial holding companies on the basis of their other financial service activities and assets necessary to provide these services. Because of the changes in BHC structure made with the Gramm-Leach-Bliley Act of 1999, BHCs may engage more extensively in non-banking service activities than in the past.⁵

IV. Effects of New PSAF Methodology

The combination of the current equally-weighted CAE and the market-weighted DCF and CAPM models produces the following pre-tax ROE (pre-tax profit as a percent of imputed equity) based on the BHC performance data used for the 2001 PSAF:

Pre-tax Return on Equity

CAE	DCF	CAPM	Combined
23.8%	22.1%	23.3%	23.1%

From year to year, the combined model for calculating ROE can yield a target ROE that is higher or lower than the current method. On the average during the period from 1983 to 2001, the combined model yielded a pre-tax ROE that is 230 basis points higher than the current method.

Using core clearing balances as a source of financing for actual priced-services assets reduces imputed short- and long-term debt and imputed investments in marketable securities. As a result, the income and expenses associated with these imputed elements are reduced as well. Establishing equity at the level required by FDIC requirements for a well-capitalized institution results in setting equity equal to five percent of total assets, which is a slight reduction from the level planned in 2001 under the current methodology (5.3 percent). Applying the new PSAF methodology to the 2001 priced-services balance sheet reduces PSAF costs \$53.3 million or 26 percent and reduces net income on clearing balances \$33.8 million or 90 percent. This results in a net reduction of costs to priced services of \$19.5 million or slightly more than 2 percent of total actual and imputed costs, including the target ROE of \$138.2

⁵ Selecting the BHC sample based on total deposits rather than assets results in the change of two BHCs in the ranking. As these entities become more involved in providing non-banking services, the Board anticipates that the sample comparability will become more divergent.

million.⁶ Table 2 illustrates the effects of the changes on the various elements of the PSAF and NICB calculations.

V. Competitive Impact Analysis

All operational and legal changes considered by the Board that have a substantial effect on payment system participants are subject to the competitive impact analysis described in the March 1990 policy statement “The Federal Reserve in the Payments System.”⁷ Under this policy, the Board assesses whether the change would have a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services because of differing legal powers or constraints or because of a dominant market position of the Federal Reserve deriving from such legal differences. If the fees or fee structures create such an effect, the Board must further evaluate the changes to assess whether their benefits – such as contributions to payment system efficiency, payment system integrity, or other Board objectives – can be retained while reducing the hindrances to competition.

Because the PSAF includes costs (with an adjustment for NICB net revenues or expenses) that must be recovered through fees for priced services, changes made to the method may have an effect on fees. This proposal is intended to refine the PSAF to resemble more closely the costs and profits of other service providers as required by the MCA. Consequently, the fees adopted by the Reserve Banks should be based on the costs and profit targets that are more comparable with those of other providers. Accordingly, the Board believes this proposal will not have a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services.

IV. Conclusion

The Board has adopted the following modifications to the method for calculating the private sector adjustment factor (PSAF):

- An initial core amount of \$4 billion of clearing balances will be available to finance priced-services assets. In the current environment, this eliminates the need to impute long-term debt. An interest risk sensitivity analysis will be performed each year and the Board will impute long-term debt if the results of the analysis indicate that an increase or decrease in interest rates of up to 200 basis points results in a reduction in cost recovery of more than two percentage points. In addition, the Board will annually review clearing balance trends and the core amount will be adjusted, if necessary.
- Equity will be imputed to meet the FDIC definition of a well-capitalized institution in its classification for assessing insurance premiums. Currently, this is five percent of total assets.
- The target return on equity will be determined using the results of three economic models.

⁶ Under this proposal, priced-services revenue would be \$944.7 million and expenses would be \$951.5 million, resulting in a budgeted cost recovery of 99.3 percent as compared to 98 percent under the 2001 prices.

⁷ FRRS 7-145.2.

- The results of the current CAE model will be combined with the results of the capital asset pricing model and the discounted cash flows model.
 - A short-term Treasury-bill rate will be used as the risk-free rate and historical stock market data with a rolling ten-year period will be used in implementing the CAPM model.
 - Commercially available consensus forecasts will be used to determine the expected future dividends and long-term growth rates in the DCF model.
 - Within the CAPM and DCF models, the ROE will use weights based on market capitalization and within the CAE model, the ROE calculation will be based on equal weights. The results of the three models will then be averaged to derive the PSAF ROE.
- A peer group of the fifty largest bank holding companies based on total deposits will be used in each of the models.
 - The revised method will be used to determine the 2002 PSAF and fees for Federal Reserve priced services.

**Table 1
Priced-Services Balance Sheet
(Projected Average Daily Balance)**

Assets	Type	Description	Method for Computing
Required reserves	Imputed	Intended to simulate commercial bank reserve requirements.	10 percent of total clearing balances.
U.S. Treasury securities	Imputed	Represents the portion of clearing balances not required for reserves or to finance other actual or imputed priced-service assets.	Total liabilities plus equity less other assets.
Short-term assets	Actual	Accounts receivable, prepaid expenses, and materials and supplies reported on the Federal Reserve Banks' balance sheets that are attributed to priced services.	
Cash items in process of collection	Actual	Transactions credited to the accounts of depository institutions, but not yet collected by the Federal Reserve Banks that are attributed to priced services.	
Pension assets	Actual	Prepaid pension costs reported on the Federal Reserve Banks' balance sheets that are attributed to priced services.	
Long-term assets	Actual	Premises, furniture and equipment, leases, and leasehold improvements reported on the Federal Reserve Banks' and Board of Governors balance sheets that are attributed to priced services.	

Table 1
Priced-Services Balance Sheet (continued)

Liabilities & Equity	Type	Description	Method for Computing
Core clearing balances	Actual	The portion of clearing balances considered stable and available to finance long-term priced-service assets.	Total clearing balances required for financing long-term assets. Maximum core amount initially set at the lesser of \$4 billion, which is the estimated amount of actual contracted clearing balances that have historically been stable, or the maximum amount available based on an analysis of interest rate risk sensitivity.
Non-core clearing balances	Actual	Deposits of financial institutions maintained at Federal Reserve Banks for clearing transactions. Available to finance short-term priced service assets.	Equal to total clearing balances less clearing balances used for financing long-term assets.
Short-term payables	Actual	The portion of sundry items payable, earnings credits due depository institutions, and accrued expenses unpaid reported on the Federal Reserve Banks' balance sheets that is attributed to priced services.	
Deferred credits	Actual	The value of checks deposited with the Federal Reserve Banks, but not yet credited to the accounts of the Reserve Banks' depositors.	
Postemployment/ Postretirement liability	Actual	The portion of post-retirement benefits due reported on the Federal Reserve Banks' balance sheets that is attributed to priced services.	
Long-term debt	Imputed	An amount imputed when equity and core clearing balances are not sufficient to finance long-term priced-services assets.	Equal to the larger of zero or long-term and pension assets less postemployment/ postretirement liability, core clearing balances, and equity.
Equity	Imputed	The minimum level of equity necessary to meet FDIC requirements for a well-capitalized institution.	The greater of five percent of total assets or 10 percent of risk-weighted assets.

Table 2
2001 Effects of PSAF Methodology Changes
(\$ millions)

Balance Sheet			
	Current	New	Change
Required Reserves	\$742.4	\$742.4	\$0.0
U.S. Treasury Securities	6,681.9	6,117.8	(564.1)
Short Term Assets	104.3	104.3	0.0
CIPC	3,606.7	3,606.7	0.0
Pension Assets	718.5	718.5	0.0
Long Term Assets	676.9	676.9	0.0
Total Assets	\$12,530.7	\$11,966.6	(\$564.1)
Clearing Balances	\$7,424.3	\$7,424.3	\$0.0
Short-Term Payables	85.4	85.4	0.0
Short-Term Liabilities	18.9	0.0	(18.9)
Deferred Credits	3,606.7	3,606.7	0.0
Postemployment/retirement Liability	251.9	251.9	0.0
Long-Term Liabilities	479.1	0.0	(479.1)
Equity	664.4	598.3	(66.1)
Total Liabilities & Equity	\$12,530.7	\$11,966.6	(\$564.1)
Capital to Risk-Weighted Assets	30.8%	27.7%	
Capital to Total Assets	5.3%	5.0%	
PSAF			
	Current	New	Change
Target Pre-Tax ROE	24.0%	23.1%	-0.9%
Cost of			
Equity	\$159.5	\$138.2	(\$21.3)
Long-term Debt	31.1	0.0	(31.1)
Short-term Debt	0.9	0.0	(0.9)
FDIC Insurance	0.0	0.0	0.0
Sales Taxes	10.5	10.5	0.0
BOG Oversight	4.9	4.9	0.0
Total PSAF	\$206.9	\$153.6	(\$53.3)
NICB			
	Current	New	Change
Return on Investment	\$399.6	\$365.8	(\$33.8)
Cost of Earning Credits	(361.9)	(361.9)	0.0
NICB	\$37.7	\$3.9	(\$33.8)
Net Effect of New Methodology			
	Current	New	Change
PSAF	\$206.9	\$153.6	(\$53.3)
NICB	37.7	3.9	(33.8)
Net Cost	\$169.2	\$149.7	(\$19.5)

Details may not add to totals due to rounding.

By order of the Board of Governors of the Federal Reserve System, October 9, 2001.

(signed) Jennifer J. Johnson

Jennifer J. Johnson,
Secretary of the Board.