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WHAT IS THE VALUE-ADDED FOR
LARGE U.S. BANKS IN
OFFERING MUTUAL FUNDS?

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ABSTRACT

This paper argues that an implicit deposit-insurance credit enhancement is extended to any nondeposit savings vehicle offered by a very large bank. This unpriced credit enhancement helps to explain the preference revealed by very large U.S. banks for gearing up to offer mutual funds instead of developing index-linked deposit products. It also explains why large banks have been more eager than small banks to offer mutual funds and why bank mutual funds could be priced to grow at a time when bank deposits were being priced to shrink.

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WHAT IS THE VALUE-ADDED FOR LARGE U.S. BANKS IN OFFERING MUTUAL FUNDS?

During the early 1990s, large U.S. banks rushed pell mell into mutual funds. In principle, banks could have booked these same funds as indexed deposits that combined an equivalent promised return with explicit federal deposit insurance. This paper seeks to summarize differences in the use of mutual fund products by banks of different sizes and to relate these differences to the extent to which savvy customers might reasonably perceive their bank's mutual-fund offerings to be implicitly backed by the FDIC.

Most public-policy discussions of bank incursions into mutual funds focus on regulatory turf and disclosure issues (Baris, 1994). Turf questions turn on whether and how securities regulators such as the Securities and Exchange Commission and the National Association of Securities Dealers might share with bank regulators jurisdiction over bank-offered securities products. Debates about bank disclosure responsibilities focus on assuring that bank personnel make their customers understand that mutual-fund investments placed through the bank are risky and not explicitly covered by federal deposit insurance.

For large banks, this paper portrays these turf and deposit-insurance concerns as misfocused. It emphasizes the reasonableness of a well-informed customer's conjecturing that implicit FDIC insurance coverage extends to any savings vehicle a large bank may offer. Although rational expectations of the value of implicit coverage should grow with bank size, bank mutual-fund obligations are not currently priced explicitly or implicitly by the FDIC. Recognizing that mutual funds are implicitly guaranteed serves to explain four otherwise puzzling questions. First, how --in an era during which banks proved unwilling to offer competitive returns on their deposits-- were banks willing and able to offer competitive returns on mutual funds? Second, why are large banks more eager to offer and manage mutual funds than small banks? Third, how can it be allocationally efficient for so many large banks to restaff and reorganize themselves to pursue a new line of business, when they could have adapted the pricing of deposit products to offer a range of index-based returns that could compete directly with mutual funds? Fourth, why have bank mutual funds grown rapidly when their average performance relative to nonbank funds has not been especially impressive?

The answer to all four questions lies in the pattern of benefits and costs that banks

of different size derive from implicit FDIC credit enhancements. Although the FDIC Improvement Act of 1991 (FDICIA) mandates early intervention by regulators to forestall and resolve incipient bank insolvencies, practical considerations and supervisory discretion leave room for delay (FDIC, 1994). FDICIA restricts authorities' ability to allow banks to operate in an acknowledged state of insolvency, but regulators can relieve pressure on themselves by allowing banks to use accounting leeway to delay insolvency recognition. Opportunities to dispense "accounting relief" to troubled institutions create reputational, bureaucratic, and political conflicts of interest that can delay the recognition and resolution of incipient bank insolvencies.

Impact of TBTF Policies on Bank Mutual Funds

Because the depth of the incentive conflict grows with a troubled bank's size, supervisory predilections for giving large banks time to work their way out of difficulty have been loosely characterized as a too-big-to-fail policy (TBTF). Because it makes unforeseen liquidation unlikely, TBTF extends blessings of implicit deposit insurance to the nondeposit obligations of any very large bank. For large-bank mutual funds, this informal credit enhancement raises the total return customers perceive above the explicit return offered on equivalent nonbank products.

The issue arises most sharply in large-bank offerings of money-market mutual funds (MMFs). If it weren't for deposit-insurance premiums, an equivalent contingent return could be offered on a class of deposits whose proceeds were earmarked for placement in the same narrow investments that the bank's MMF promised to make. Federal regulators have been slow to acknowledge that TBTF enhances these deposit-like instruments, so that capital requirements and explicit FDIC premiums should rationally extend to cover these products.

Unlike other mutual funds, returns on MMFs are accounted in the same way that deposits are: so as to hold the value of each customer share at one dollar. This practice implicitly bounds the return on a bank's MMF at zero. But to keep from "breaking" its par-value "buck" price without drawing on sponsor capital, a MMF must in all reporting periods avoid net losses on its investments. This is easier said than done when MMF managers make use of commercial paper and financial derivatives. During the middle third of 1994, at least seven banking firms --including Bank of America, Barnett, Fleet, and Wilmington Trust (Del.)-- chose to make multimillion dollar contributions to their MMFs to prevent them from "breaking the buck." Other bank holding companies may have made contributions that they did not immediately disclose.

In October 1994 testimony, Fed Chairman Alan Greenspan told the House Banking Committee that the Fed is reviewing the seven cases where bank holding companies acknowledged infusing capital into their mutual funds. He said that “none of the specific transactions we reviewed was unsafe or unsound” and that the amounts of capital infused were “very nominal” compared to the equity of the holding companies.

But the Chairman’s focus on actual transactions neglects the ex ante credit enhancement that approving such transactions imparts to bank mutual-fund sales and the implicit obligations that not challenging potential future bailouts pass through to the Bank Insurance Fund (BIF). These concerns are underscored in the defense offered in June 1994 by Federal Reserve Governor John LaWare for not challenging Bank America Corp.’s \$50.5 million contribution to its Pacific Horizon Prime MMF. LaWare characterized breaking the buck as an option whose exercise might well ruin the bank. He maintained that a bank’s proprietary MMFs have “the integrity of the whole corporation to defend because a serious problem with an affiliate could affect the confidence of the bank” (Prakash, 1994b). Readers will remember that similar justifications were offered when sponsoring banks bailed out their insolvent real-estate investment trusts (REITs) in the 1970s.

Let us suppose that breaking the buck is indeed the fatal practice that LaWare presumes. Then, from the perspective of the BIF, a bank MMF is an imperfectly hedged index CD that offers opportunities for regulatory arbitrage to banks that have TBTF status. Although neither formally insured nor assessed an explicit premium or capital requirement by federal regulators, implicit coverage is conveyed to the principal invested in these instruments whenever and to the extent that customers perceive the issuing bank to be too big for authorities to close or discipline promptly.

Profile of Bank Activity in Mutual Funds

When bank participation is disaggregated by bank size, Table 1 shows that only relatively large banks have truly stampeded into mutual funds. During the first quarter of 1994, only 1,835 banks offered mutual funds. (Another 426 offered annuities only.) A Federal Reserve Survey found that, even at the 55 largest banks, less than 10% of net income had come from selling retail investments (Prakash, 1994a). Moreover, just as deposit contracts do, the money-market mutual-fund products in which bank sales have been concentrated emphasize safety of principal. In mid-1993, bank sales of “long-term” (i.e., equity and fixed-income mutual funds) amounted to less than half of their sales of money-market funds (Clark, 1993). Formal differences between standard deposit contracts

and money-fund shares turn on a depositor's formal right to redeem deposit funds at par as opposed to a mutual fund's daily marking-to-market of principal and yield.

Table 2 clarifies that most small and midsize banks that do offer funds act essentially as brokers redirecting customer funds to an unaffiliated, third-party provider for a commission. Spokespersons for small bankers allege that they are being dragged kicking and screaming into these products by a need to service longstanding customer relationships (DuBay, 1993).

The average mutual-fund customer is reputed to be late-fiftyish in age and relatively wealthy. As the baby-boom generation begins to save in earnest for its retirement, large banks can benefit from winning permission to offer 100 percent of the portfolio and insurance services these customers are apt to demand. At least some large banks suppose that offering mutual funds reinforces pressure for expanded securities, insurance, and annuity powers that bank lobbying activity is exerting on federal regulators and the U.S. Congress. Without waiting for federal initiatives to authorize new activities, large banks can build a more generic image for themselves by establishing a family of proprietary funds. In a proprietary fund, the bank or one of its affiliates acts as investment advisor and administrator of the funds. The outsourcing of mutual-fund functions to third-party servicers can be limited to minimum legal requirements for contracting out the "fig-leaf" distribution function of establishing the funds and registering them with the Securities and Exchange Commission (Baris, 1994, p. 44). Much as 19th Century settlers pushed aggressively across the treaty frontiers of Indian Territory, large-bank incursions into securities-industry territory establish a "squatter's right" for them to be acknowledged de facto as "universal banks." However, an incremental ounce of pressure funded out of mutual-fund profits and exerted through bank Political Action Committees is probably worth several pounds of squatter's rights.

Ostensible Basis for Mutual-Fund Plunge Is Confused

Superficially, the headlong rush of large banks into mutual-fund business calls to mind a stampeding herd of cattle. The financial press takes the profit impetus behind this movement for granted and cites three industry worries as acting to limit its speed: (1) winning regulatory rulings and court decisions that push aside longstanding legislative obstacles (Fein, 1993), (2) meeting marketing, staffing and organizational challenges, and (3) minimizing the risks of customer lawsuits and other forms of backlash in the event of fund losses. What outside commentators have not examined is why it would not be more

profitable for a bank to attack the challenges and risks of developing securities-type products synthetically rather than directly.

Establishing a deposit instrument that replicates the payoffs of a mutual fund would constitute an “indirect” financial-engineering approach to resolving these concerns. The principal justification offered by industry spokespersons for the rush into mutual fund products is that it serves to counterbalance a supposed exogenous shrinkage in deposits. But price theory teaches us to conceive of shrinkage in the quantity of deposits demanded as an endogenous response to inadequacies in the returns being offered on deposits relative to other savings vehicles.

For 1990-1993, Table 3 shows the movement of funds into stock and bond mutual funds and estimates of how much of these flows came from bank CDs. During this interval, deposit interest rates fell unusually far below comparable yields on marketable securities. For example, between April 1991 and April 1994, rates on 6-month consumer CDs fell 3 percentage points while yields on 6-month T-Bills fell only 1.73 percentage points. During the first 8 months of 1994 alone, the spread of T-Bill yields over consumer CD rates widened from 57 basis points to 140 basis points. During this interval, banks did little to grow their deposits. Why then did they seek to grow their mutual fund sales?

Although mutual funds are by no means perfect substitutes for deposits, ways exist to rework implicit and explicit contractual returns on deposits to make this slumping savings product more attractive to bank customers. Increased substitutability would be particularly easy to establish relative to money-market mutual funds. Interpreted in light of the axiom of revealed preference, large U.S. banks are assuring us that it is better to undertake the start-up expense of plunging into an activity in which banks do not hold established expertise --managing and marketing a series of customer-owned securities portfolios-- than to experiment with repricing the existing line of deposit products to enable deposit instruments to compete more effectively with mutual funds.

This revealed-preference perspective suggests that bankers that seek to grow their mutual-fund business while shrinking their deposits are either dull or devious. In plunging into mutual-fund products, either bankers are showing a lack of imagination and expertise by not recognizing how effectively index CDs could substitute for mutual funds or they are being exceedingly sharp in exploiting reductions in net regulatory burdens that this narrow line of products can generate.

Many academics to whom I have posed this issue favor the bumbling-bankers alternative. To their minds, it is instinctive for a banker to copy a competitor’s successful

product rather than to pioneer a deposit alternative. In turning a blind eye to student cheating, U.S. high schools and universities may have partly predetermined this choice. Educators have taught several generations of potentially bumbling managers the strategic value of routinely copying the work of anyone who has established a prior record of competence. This lesson cumulatively denigrates the exercise of initiative and creativity and reinforces a financial traveller's natural proclivity to stick to the well-blazed trail.

However, the larger a bank becomes, the less persuasive this copy-cat explanation becomes. At least at giant banks, financial engineering is reinventing traditional products every day. Hence, at the nation's largest banks mutual fund products must be serving additional goals.

Long-run organizational benefits might come from: reorganizing a bank's collective trust business into a more lightly regulated and more easily monitored delivery vehicle; enhancing its capacity for shaping tax-advantaged products (see Dickson and Shoven, 1994); and broadening a bank's scope *per se*. But such benefits seem too small and too uncertain to support a stampede of the size and character observed. It is much harder to dismiss the alternative hypothesis that these products incorporate back-door benefits from federal deposit insurance. In an era when FDIC deposit-insurance premiums ranged from 23 to 31 basis points, the benefits of gaming the deposit insurer approximated the 25 basis-point fee that many nonbank money-market mutual fund management firms earn.

What is not truly a third alternative is also consistent with facts. Let us assume that, due to tacit collusion, mutual-fund outsourcers in the securities industry set a floor on their management fee. Let us assume further that the per-dollar cost to banking firms of managing a fund portfolio in-house falls on average with bank size. This combination of circumstances would explain both the disinterest of small banks in offering mutual funds and the growth in bank offerings and in-house production with bank size. But, this argument is incomplete. Even if economies of scale exist and mutual-fund outsourcers don't price their services competitively, we still need to establish why large banks chose to compete by means of mutual funds rather than index-linked deposit instruments.

Recognizing Index-Linked CDs As Synthetic Mutual Funds

It is intriguing to note that, in Australia where no formal deposit insurance exists and large banks face no legal obstacles to organizing a mutual fund, major banks have yet to sponsor a mutual fund. Index-linked certificates of deposit (CDs) are the vehicle by which at least one large Australian bank is offering securities products to retail customers.

Several large U.S. banks and thrifts have also launched stock-indexed CDs. Issuers include: Chase (in spring 1987), Bankers Trust, NationsBank, Citi, Shawmut, Bank South, Great Western, and Glendale Federal. Although these programs have generally shown disappointing performance and encountered lackluster customer response, most have been priced conservatively and structured fairly narrowly. The representative equity-linked CD has been an FDIC-insured, 5-year instrument with a substantial minimum denomination. What we may call the benchmark CD incorporates a zero coupon and a roughly 100 percent claim to the percentage price appreciation an underlying equity index accumulates above its value at the outset of the contract. As is true of any deposit contract, early withdrawal rights and penalties establish a schedule of prematurity strike prices. But the one-sided participation feature in this CD lets us interpret the bank as writing a synthetic American call option on the spread that develops between the imbedded index and the index's initial value. The return on this synthetic option is zero unless the spread is positive.

Most bank stock-index CDs appear to have been priced to be competitive with retail bank CDs rather than with nonbank mutual funds. The rates offered transform a bank's poorly performing offering rate for retail CDs into a synthetic call on the one-sided performance of the stock market. In an era when retail CD interest rates have lagged returns on Treasury securities, equivalent returns offered on stock-index CDs promise to trail market-driven mutual-fund returns as well.

Compared to buying a true mutual fund or holding the indexed portfolio, an index CD has advantages and disadvantages for customers. The advantages are explicit federal deposit insurance and special convenience for any customer who wants to integrate this account into a full panoply of single-statement banking business. The disadvantages are: (1) shopping difficulties created by the need to compare early withdrawal fees and to understand how to allow for the bank's implicit expense in hedging (or equivalently bearing the risk of) the CD against the explicit charges levied in mutual-fund and securities investments; (2) high minimum denominations that limit the amount that a customer may transfer into and out of CDs at any time; (3) the absence of an interim flow of dividends; and (4) a final maturity date that might generate adverse tax consequences.

To value an equity CD from the bank's point of view, it is convenient to assume that each bank sets its schedule of early withdrawal penalties to hedge the costs it faces in having to honor the customers' timing option. This assumption implies that the bank can complete its hedge by buying both the indexed portfolio and a put option that on the CD

maturity date would permit the bank to unload the indexed portfolio for its purchase price. Only in exceptional circumstances would the value of the bank's put option on a stock-index portfolio be apt to approach the value of the portfolio's interim dividend and coupon cash flow.

The market return on an indexed portfolio (I) consists of the percentage rate of dividend and coupon cash flow it generates (R_I) plus the price appreciation (P_I) it experiences, less the transactions costs of establishing and periodically rebalancing the index portfolio. Issuing a zero-coupon CD featuring a 100-percent participation in positive P_I and using the funds to hold an equal amount of I produces a profit rate of R_I minus transactions costs and the cost of the hedge-completing put option.

Forfeiture of the dividend and coupon stream represents the customer's payment for the put option on the index spread. In practice, uncompetitive CD rates can combine with excessive penalties for early withdrawal to make the benchmark CD inferior to an option on a market-driven stock index sold by a reputable brokerage firm. Depending on the volatility of the index chosen and the size of early-withdrawal penalties (EWP), in not passing through any net interim cash flows on the hedge portfolio, the benchmark stock-index CD may often offer deposit-institution customers a "sucker's bet." Indexed retail instruments priced to be equivalent to the return on off-market CDs appear to embody a discount for customer inertia and lack of information.

An Opportunity-Cost Analysis

Let us denote by c_B the present value of the net fees and expenses the bank incurs in issuing each dollar in CDs. Let us limit our analysis to CDs for which an initial investment in I at transactions cost c_H perfectly hedges each dollar of the CD's risk exposure:

$0 \leq c_B, c_H < 1$. In equilibrium, a one-dollar investment in the indexed CD can offer bank customers the same returns as $(1 - c_B - c_H)$ invested in the index itself. Let us assume further that the present value of per-dollar expense net of management fees for the bank of offering an indexed mutual fund is c_{MF} . In the absence of regulatory burdens or benefits, a profit-maximizing bank should choose to offer an indexed CD rather than an indexed mutual fund unless:

$$(1 - c_B - c_H) \leq (1 - c_{MF}).$$

It is instructive to decompose c_{MF} into bank-issuance and hedging components that parallel c_B and c_H . Let us call these components, m_B and m_H , respectively. By the Le Chatelier Principle (Samuelson, 1947), forcing hedging activity to proceed by means of an

indexed mutual fund cannot lower hedging costs below the unconstrained hedging cost c_H , so that $c_H \leq m_H$. This tells us that, absent other net benefits to the organization, profit-maximizing banks that offer mutual funds must believe that $c_B > m_B$.

Bank marketing specialists allege that, both for bank personnel and for customers, the learning curve in understanding risks posed by index CDs is more daunting than it is in mutual funds. This allegation would be more persuasive if bank marketing efforts in mutual funds were not themselves so woeful. Many financial economists have felt an obligation to undo the confusion caused a friend or relative by incentive-driven efforts of bank personnel to steer CD runoffs into “risk-free” participations in mutual funds of various kinds. Table 4 compares gaps found in the disclosures made to mystery testers in five major markets in 1993 and 1994.

It is hard to see how marketing costs could differ enough between the two products to overcome the search costs that must be incurred to hire and equip the staff needed to build the customer base for bank-mutual fund products to a minimum efficient size. Experience suggests that c_{MF} is front-loaded with talent-search expense and other large start-up costs, early fee waivers, and pressure on bankers to top up returns if and when principal is invaded. Factoring in these front-loaded costs helps us to understand that mutual-fund bankers who are not bumbling into this product line cannot just be responding to differential marketing costs of explaining index CDs to less-sophisticated customers but must also be taking into account implicit and explicit deposit-insurance premiums on index-linked CDs.

If implicit deposit-insurance is a major factor in large-bank offerings of mutual funds, institutions that are not too big to fail ought to be prepared to price index CDs more aggressively than very large banks. In August 1994, Charter One Financial (a \$5.8 billion-asset Cleveland, Ohio thrift) began to offer a less conservatively priced line of “Wall Street CDs.” Returns on these CDs are indexed to the S&P 500, and guarantee a substantial minimum return if held to maturity. The initial offer is for at least 4 percent annually over three years or 5 percent over five years (Plasencia, 1994). Assuming the S&P index offers a dividend yield of 4% and an expected annual price appreciation of 4%, the value of this contract turns on the value of the imbedded put option that hedges against weakness in the stock market. Figure One emphasizes that, for customers, this CD’s improvement over the zero-coupon benchmark CD lies in the higher cost to the bank of acquiring the put options it needs to guarantee the CD’s minimum return. It would be interesting to see how profitably one might replicate the Charter One’s side of this contract synthetically in the

derivatives market.

Any index-linked CD may be replicated synthetically by a bond and a call option on the indexed portfolio. In turn, the value of the option component increases with the expected appreciation and volatility associated with the indexed portfolio and on the participation percentage. The calculation of the participation percentage is complicated by early withdrawal penalties and index-averaging procedures¹ that define a strike price away from the market. Allowing for hedging costs, an index CD may be priced to offer any combination of minimum percentage return (g) and participation percentage (p_p) whose risk-adjusted returns would be the same as the risk-adjusted return (R_H) on the hedge investment H . For this “protective put,” risk-adjusted equilibrium requires that across all redemption periods:

$$(1 - c_B - c_H) R_H = g + \text{Max} (0, p_p P_I - g) - \text{EWP}.$$

Other things equal, as c_B and c_H rise, g and/or p_p must fall.

The purpose of the previous paragraph is to show that the price of an index CD to the bank is a function of guaranteed coupon yield, percentage index-participation rate, withdrawal terms, and the financial index selected. In principle, dynamic hedging of nonlinear payoffs is a risky business that warrants a reasonable risk premium. It is not economic to rebalance continuously and index volatility is itself volatile. Transactions costs and the level and variability of stock-index volatility help to explain why banks are not pricing their stock-index CDs more aggressively.

But volatility and transactions costs are dramatically lower for portfolios of standard short-term instruments. Short maturities curtail the sensitivity of asset values to interest-rate changes. Liquid dealer markets keep trading costs low. Finally, opportunities exist in futures and swap markets to hedge residual risks with great precision. Hence, hedging costs cannot easily explain why few large banks offer money-market-index CDs. Nor can marketing complications or organizational image-building that is well-served by establishing a mutual-fund capability. To explain banks’ rush into the money-market mutual-fund (MMF) business requires one to appeal to net regulatory benefits.

Summary

¹ In an Asian option, the payoff is defined in terms of the average value of the underlying asset during a designated time period rather than in terms of its final value. According to Hull (1993, pp. 421-422), average price options are less expensive than regular options. They also tend to be European (i.e., limited to specific exercise dates). Although averaging introduces the complication of path dependency into the hedging problem, it also reduces volatility.

This paper argues that, as in so many other industry decisions, the choice between offering index CDs and mutual funds is driven by weaknesses in the pricing and administration of federal deposit insurance.

To customers, the families of mutual funds offered by Fidelity or Vanguard can substitute for important parts of a banking relationship. Advances in information and communications technology enabled these creative securities firms to develop bank-like products that provide diversification and transactions services to households while funding corporate and other deficit-unit assets. To compete with these products, bankers do not need to slavishly stretch their product line to offer the same securities product. They could develop instead a family of securities-like deposit instruments that minorly extend their existing line and build more straightforwardly on pre-existing managerial strengths.

Quasi-experimental tests of the theory offered here may develop spontaneously from changes in the level of FDIC insurance premiums or in the inclusiveness of the funding vehicles against which a bank's premium is assessed. Before the year is out, the FDIC is scheduled to slash its baseline premium to 4 basis points. A sharply lower premium would convey a greatly reduced regulatory burden on deposits. The lower burden would provide an incentive to replace MMF offerings with variable-rate CDs and to start phasing out the most unwieldy of a bank's bond and stock funds. The incentive to introduce indexed deposit products would be all the greater if (as the agency has discussed) premium assessments were to levied not against deposits but against a measure of each bank's total funding on and off the balance sheet.

Well-conceived indexed deposit instruments could allow a customer to select a customized blend of a guaranteed minimum return and a residual play on the upside of market returns. As we have seen, banks could back up their minimum guarantees by combining portfolio investments with derivatives hedges. Should indexed products succeed, the losers will be firms that now provide fund administration and reporting services, systems, and software. At the same time, new opportunities will unfold for firms that can help banks develop, price, market, and manage efficient new deposit contracts.

FIGURE ONE
DIFFERENCE IN STRIKE PRICE FOR THE PUT OPTIONS IMBEDDED
IN THE BENCHMARK AND CHARTER ONE STOCK INDEX CDs

BENCHMARK CD

The Bank's put option hedge must be exercisable at maturity for the index portfolio's market value (V_0) at the CD's issuance date.

CHARTER ONE CD

The institution needs to invest in two put options on the indexed portfolio and to blend and compound these puts appropriately:

1. To guarantee a minimum return of 4% over three years, the bank must buy a put that is exercisable at $V_0(1.04)^3$ in three years.
2. To guarantee the alternative minimum of 5% over 5 years, the bank must also buy a put option that is exercisable in 5 years at $V_0(1.05)^5$ to the extent that the first option is not exercised at the end of year three.

TABLE 1
MOVEMENT OF BANKS INTO MUTUAL FUNDS
 (1994 1Q, by asset size)

Bank Asset Size	Number of Banks Selling Funds	Proportion of Total in Asset Size Group	Gross Sales
Less than \$100 million	733	9.6%	\$235 million
\$100 million - \$300 million	587	27.6%	\$578 million
\$300 million - \$1 billion	270	43.5%	\$2.3 billion
\$1 billion - \$15 billion	213	64.0%	\$24.0 billion
Over \$15 billion	32	100.0%	\$81.8 billion

Source: St. Louis Fed, as calculated by from call reports of 10,750 U.S. commercial banks and reported in the American Banker of August 25, 1994.

TABLE 2
STAFFING VERSUS OUTSOURCING THE MUTUAL-FUND FUNCTION
 The larger the bank, the more likely it is to use a bank-owned brokerage subsidiary than a third-party firm.

Bank Asset Size	In-house Subsidiary	Third-party brokerage firms
\$50 million - \$100 million	21.2%	77.9%
\$100 million - \$250 million	30.6%	67.8%
\$250 million - \$500 million	42.9%	57.1%
\$500 million - \$1 billion	47.2%	52.3%
\$1-10 billion	60.7%	37.7%

Source: American Brokerage Consultants Inc., as reported in the American Banker of November 9, 1992.

TABLE 3
ESTIMATED FLOW OF FUNDS INTO MUTUAL FUNDS OF ALL KINDS

	<u>Stock & Bond Mutual Funds</u>	<u>From Bank CDs</u>
1990:	+ \$51 Bil.	\$10.5 Bil. (21%)
1991:	+ \$119 Bil.	\$57.5 Bil. (48%)
1992:	+ \$197 Bil.	\$123 Bil. (62%)
1993:	+ \$278 Bil.	\$75 Bil. (27%)

Source: Securities Industry Association as reported in the American Banker of February 22, 1994. Both in June 1993 and June 1994, the bank-managed share of mutual-fund assets rounded to 11 percent.

TABLE 4
**FREQUENCY WITH WHICH BANK SALES REPRESENTATIVES
DISCLOSED NEGATIVE MUTUAL-FUND FEATURES IN FIVE-CITY
SHOPPING SURVEYS CONDUCTED IN 1993 AND 1994**

<u>Mutual-Fund Feature</u>	<u>1994</u>	<u>1993</u>
Not FDIC insured	89%	62%
Risk of losing money	74%	51%
Rates of return are not guaranteed	74%	47%
Fluctuation in share value or principal	55%	41%
Past performance does not guarantee future results	53%	42%
Investment funds are not guaranteed by the bank	35%	30%

Source: Paul Lubin, Barry Leeds & Associates, New York.

Note: This survey sent shoppers to 20 leading bank mutual-fund institutions in New York, Los Angeles, Boston, and Atlanta.

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