Oil Price Controls: A Counterproductive Effort

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The U. S. oil industry has been subjected to varying degrees of price controls since August 1971 when general price controls were levied on the entire U. S. economy. As controls were “phased-out” in other industries, more stringent price regulations were imposed on the oil industry in response to the October 1973 oil embargo and the subsequent quadrupling of world oil prices.

The oil price control program is directed at cushioning the domestic impact of sharply higher external oil prices. In this respect, the controls effort can be regarded as successful since the effective domestic price for petroleum remains, in fact, below world market prices. Economic analysis, however, indicates that the controls will (1) become ineffective, over time, with respect to the above stated intention and (2) will enhance the ability of external suppliers to manipulate prices.

In support of these conclusions, this article includes a discussion of the mechanics of the controls program as it currently exists. Using economic theory as a foundation, the eventual effects of controls on domestic production, imports, and the domestic price of oil are derived. In this regard, two of the more popular questions regarding decontrol are analyzed — will decontrol result in (1) higher domestic petroleum prices and (2) increased domestic production and reduced imports?

BACKGROUND

As indicated in Table I, U. S. oil refiners currently process about 12.9 million barrels per day (MBD). Of this total approximately 4.7 MBD, or 36 percent, are produced abroad.

The United States did not always rely to such an extent on external oil supplies. In the mid-1960s oil imports represented only 20 percent of total U. S. consumption. In fact, as late as 1971 import quotas on petroleum products existed in order to prevent “cheap” foreign oil from placing domestic oil producers at a “competitive disadvantage”.

Beginning in 1966, the rate of increase in domestic petroleum production began to decline, and in 1972 domestic petroleum production in the United States actually decreased from its 1971 level. Several factors, including price controls and environmental and safety regulations, were responsible for increased U. S. reliance on foreign sources of supply.

OIL PRICE CONTROLS

Through a series of steps, the Federal Energy Administration (FEA) has decreed that “old” oil—that is, oil produced from domestic wells not exceeding the 1972 rate of output from these wells—can sell for no more than $5.25 per barrel. As of March 1975, imported oil sold for $13.28 and “new” domestic oil—that is, oil produced from both new wells and from old wells in excess of 1972 output—sold for $11.47 per barrel (Table II).

In March 1975 (latest available data) total crude oil used by domestic refiners consisted of approximately 41 percent “old” domestic oil, 27 percent “new” domestic oil, and 32 percent imports. The effective domestic price paid by domestic refiners for a barrel of oil is simply the weighted sum of the three prices:

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(0.41) \times 5.25 + (0.27) \times 11.47 + (0.32) \times 13.28 = 9.49
\]

As indicated in Table II, petroleum price data are available through July 1975, but the proportions of “new” and “old” domestic production are only available through March. For the sake of data consistency, the analysis in this paper is based on the prices and relative proportions that prevailed in March 1975.
### Controls: The Mechanics

As gauged by this effective (weighted) domestic price equation for oil, the controls program has been successful; the average input price of oil available to domestic refiners is, in fact, lower than the world market price. Achievement of this lower average price, however, has resulted in at least two adverse developments:

1. Domestic producers are discouraged from producing “old” oil, insofar as the implicit rate of return of keeping oil in the ground exceeds that of investing the proceeds from the current sale of oil at $5.25 per barrel. For example, suppose domestic oil producers expect the price of “old” oil to eventually (say, in 39 months, as in recent proposals) rise to the price of uncontrolled oil. If it is assumed that the price of uncontrolled oil at that time will be about $12.00 per barrel, then by keeping oil in the ground until expiration of controls a producer can realize an annual rate of return of about 29 percent—a return which greatly exceeds current market yields. Under these conditions profit-maximizing domestic oil producers would reject the option of producing now in favor of “holding back” until price controls are completely lifted.

2. Since some refiners have access to greater amounts of $5.25 oil than other refiners, another wave of bureaucratic rules and regulations was deemed necessary to prevent some firms from having a government-mandated competitive advantage over other firms. The nature and extent of these regulations are discussed below.

### Entitlements

With the implementation of domestic oil price controls, the FEA recognized that some refiners depended heavily, in the short-run, on relatively high cost foreign crude, while other refiners had access to comparatively large quantities of the cheaper domestic “old” oil. In an attempt to equalize input costs to all refiners, the FEA adopted the “Old Crude Oil Entitlement Program”. This program is designed to allocate “old” oil proportionately among all refiners such that apparent cost differentials are reduced; that is, equalization of the average cost per barrel is promoted.

Each month the FEA calculates a national average ratio of “old” crude to total crude usage. On the

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1. Total Crude Oil Input to Domestic Refiners is the sum of total domestic and imported crude oil.
2. The quantities of “old” and “new” crude oil were derived from published data on total domestic production and the percentage breakdown between “old” and “new.”
3. This assumes that changes in taxes and depletion allowances are not expected.
basis of this ratio, all refiners are issued entitlements to enable them to purchase “old” crude in the same proportion as the national average.4 For example, if total crude usage in the nation in any particular month consists of 41 percent “old” crude, then each refiner is “entitled” to purchase at least 41 percent of his input mix at the controlled price of $5.25 per barrel, no matter where the oil actually comes from.

In principle, the refiner with access to less than the national average of “old” crude oil can present his entitlements to another refiner, who has more than the national average of “old” crude, in exchange for crude at a price of $5.25 per barrel. In practice, however, the physical exchange of oil rarely takes place. Rather, the entitlements are bought and sold among refiners, with the price determined on the basis of the difference between the controlled and uncontrolled price of a barrel of oil.5 For example, in March the average price per barrel of “new” domestic and imported crude was $12.56. Therefore, the FEA established an entitlement price of $7.31 for that month. This is the price at which petroleum refiners exchanged entitlements in March.

Refiners with access to less than the national average of “old” crude can sell entitlements to those refiners with more “old” crude than the national average. The sale of entitlements represents a source of revenue to the refiner with less than the national average of “old” crude. The refiner who, for example, relies mainly on imported oil can use his entitlements revenue to reduce the effective cost of his crude oil input.6 With “old” oil representing about 41 percent of the national input mix and the price of an entitlement at $7.31, the effective cost per barrel of imports to the refiner is reduced by $3.00 (0.41 × $7.31). That is, imports are subsidized to the tune of $3.00 per barrel. For every barrel of oil imported, the importer is entitled to purchase 0.41 barrel at the controlled price of $5.25 and is forced to pay the market price for only 0.59 barrel.

On the other hand, a refiner who uses more than the national average of “old” crude is required to purchase entitlements in order to enable him to process “old” oil in excess of the national average. A refiner who is able to meet his desired production schedule using only “old” crude is required to purchase entitlements for 59 percent of his input. In this case the effective cost per barrel to this refiner is increased by $4.31 (0.59 × $7.31). That is, “old” domestic oil is taxed to the tune of $4.31 per barrel.

The analysis with imported oil is also applicable to “new” domestic oil.
In essence, the price control and entitlements effort is an income redistribution program within the oil industry. Domestic “old” oil is taxed and the proceeds are used to subsidize the purchase of imported oil. This subsidy/tax program, through its effect on the relative prices of imported and domestically produced oil, has had a perverse impact on the national goal of self-reliance. Domestic production is discouraged by the imposition of price controls and therefore has continued to decline. This, in turn, has increased our reliance on external suppliers.

**AN EVALUATION OF SOME DECONTROL ARGUMENTS**

**Will Decontrol Lead to Higher Petroleum Prices?**

Regardless of whether petroleum prices are controlled or decontrolled, the price of crude oil to domestic refiners is going to increase. However, the price increases associated with either alternative have completely different implications for domestic production and imports.

The continued maintenance of the oil price controls program will not prevent domestic oil prices from rising. This would occur even without price increases for any of the three sources of supply (“old”, “new”, imports) to domestic refiners. As production of “old” domestic oil declines and imports increase as a result of the controls program, the proportion of the higher-priced oil (domestic “new” and imports) increases, thereby raising the effective domestic price of petroleum.

The response to the lifting of domestic price controls will be an immediate rise in the price of petroleum. As long as the United States imports any oil at all, the price of crude to domestic refiners will be dictated by the foreign oil cartel. Accompanying the price rise, however, will be an increase in the quantity of oil produced domestically. Although the increase would probably not be of a magnitude to allow achievement of self-sufficiency in the short run, it does imply a cutback in imports.

Such a situation would create difficulties for foreign suppliers, particularly the Organization of Petroleum Exporting Countries (OPEC), who have already been forced to cut back production in order to maintain existing prices. With reduced U.S. purchases of imported oil as a result of decontrol, additional downward pressure on external oil prices would result. In order to maintain prices, OPEC would have to voluntarily accept a further cut in production and income — and at a time when their domestic development programs are in high gear.

**Is the Market Solution Viable?**

The free market, or decontrol, solution is rejected by various groups of society. Proponents of continued price controls on “old” oil suggest that although the market price of petroleum products has already doubled, the reduction in the quantity of petroleum products consumed has been insignificant. In fact, they argue that whatever reductions have been observed can be attributed to the reduction in business activity, not the increase in prices. In addition, they maintain that the current high prices have not elicited increased petroleum production. Curiously, these arguments lead to the conclusion that in order to achieve both less reliance on imports and greater domestic production, price increases substantially in excess of those already observed would be necessary.

Opponents of continued price controls, on the other hand, argue that economic agents are not indifferent to the prices they pay and do indeed respond to changes in relative prices. They point out, however,
that it is necessary to distinguish between a short-run and a long-run response of both quantity supplied and quantity demanded. With respect to the quantity demanded, the opponents of price controls point out that the short-run response to a hike in prices can indeed be very weak. This has to do with the fact that the nation’s capital stock is energy intensive and costs of rapid adjustment to less energy intensive means of production are substantial. The energy requirement per unit of output that has been built into production processes has been based on “cheap” oil, and as a result of today’s prices, much of the existing capital stock has become inefficient.

Reductions in the quantity of oil demanded depend on the substitution of relatively less energy intensive means of production. An example would be the replacement of an automobile that averages 15 miles to a gallon of gasoline with one that gets 30 miles per gallon. The fuel costs per passenger mile as a measure of the product produced by an automobile would then be reduced. While this substitution process is proceeding quite rapidly in the area of automobiles, the conversion cost to many industries is very high in the short run and therefore would be expected to take place only over time. Although this adjustment does take time, it must not be forgotten that the economic incentives to make it are great and there is no reason to believe that the adjustment will not eventually be made. The quantity demanded is indeed responsive to price if sufficient time is given for the affected economic agents to respond.

Opponents of continued price controls also point out that the response of the quantity of oil supplied to a change in price has not been substantial because a great deal of uncertainty surrounds the return on new investment projects. For example, exploration for new oil wells, more intensive utilization of existing oil wells, as well as research into new methods of production (such as the liquification of coal and offshore drilling) all require extensive capital investments. Even though today’s high market prices for oil might justify such investment expenditures, uncertainty with respect to the future price of oil greatly lessens the incentive to undertake such investments.\footnote{There is the additional problem of uncertainty about future tax programs which could reduce sharply the rate of return on these investments, even if the current price of oil prevails.} This argument implies that domestic producers expect world market prices to decline from their present highs and that “cheap” imports could once again be substituted for domestic production.

Former Secretary of the Treasury George P. Schultz recognized this dilemma of uncertainty. He suggested that if self-reliance is indeed a national goal, uncertainty which faces domestic producers should be eliminated. To this end Schultz proposed a variable tariff on imports designed to maintain today’s high external price. In the event that the foreign oil cartel would disintegrate and world market prices decline, the proceeds from the tariff could be distributed to consumers via the tax system.

In general, then, those opposed to decontrol are not convinced that market forces will produce greater self-sufficiency and lower petroleum product prices. Those in favor of the removal of petroleum price controls, however, contend that government restrictions only hinder domestic oil production and provide incentives to import, thereby supporting the collusive actions of OPEC. Both of these effects tend to enhance the unity of OPEC members, whose continued strength would result in higher petroleum prices for U.S. consumers. An additional objection is that reliance on controls to provide solutions to economic problems in many cases only aggravates and intensifies the initial problem.

CONCLUSION

The analysis presented in this article points out that the currently existing oil price controls program has been successful in achieving its intended purpose — cushioning domestic prices of petroleum products from the higher world oil prices. But the analysis also suggests that the controls program is in conflict with its stated purpose over the long run. In particular, controls provide both disincentives to produce oil domestically and incentives to import oil. As imported oil becomes an increasing proportion of total domestic consumption, the effective domestic price of oil will increase also. The greater U.S. reliance on foreign sources of supply, in turn, enhances the unity of the foreign oil cartel such that the United States becomes increasingly vulnerable to external pricing and producing decisions. A situation has been fostered which would perpetuate rising world oil prices in the future.

There is an alternative to this rather ominous scenario. Even though petroleum prices would increase as a result of decontrol, incentives for both increased domestic production and reduced imports are provided. Increased domestic production and reduced imports, in turn, would tend to strain the unity of the oil cartel, and hence, be conducive to lower world market prices for petroleum in the future.
Bank Failures since the fall of last year have caused a great deal of concern regarding both the soundness of banks and the effectiveness of current regulatory practices in this country. The largest bank failure in U.S. history occurred last year with the collapse of the Franklin National Bank of New York (total assets of $3.6 billion). One of the immediate causes for the failure of Franklin National was large loan losses in foreign exchange transactions. However, Franklin National also had difficulty generating earnings ratios as high as banks of comparable size which were accepting the same risks. Fourteen other banks have failed or were forced into mergers since last fall, the largest being Security National Bank of Long Island (total assets of $1.8 billion), which had large losses in real estate loans. Information on those failures and forced mergers is presented in Table I.

The recent experience with bank failures differs from what has occurred during most of the period since the early 1940s, when the few banks that did fail were primarily small banks. Deposits of banks that failed during those years generally comprised less than one-hundredth of one percent of total deposits (see Table II). The share of total deposits in banks that failed has tended to be higher since the mid-1960s, rising to roughly one quarter of one percent in 1974. This changing pattern since the mid-1960s reflects failures of larger banks.

A primary objective of bank regulation in this country is prevention of bank failures. In addition, relaxation of some banking regulations has been recognized as another desirable policy goal. In recent years some regulations have been relaxed to give banks greater freedom to respond to changing market conditions. As regulations are relaxed, however, banks have a tendency to assume greater risks and, hence, increase their vulnerability to failure. The goal of maintaining a low rate of bank failure, in turn, is placed in jeopardy.

These two policy goals for banking can be made more compatible by altering the program for Federal deposit insurance such that the premiums on deposit insurance are based upon the risks banks assume. As background to this proposed change, the causes of widespread bank failures are discussed, with reference to the experience of the 1930s, and the regulatory response to dealing with the vulnerability of the banking system to such failures is described. In addition, some actual and proposed changes in bank regulations are presented.

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**EVOLVING PUBLIC POLICY AFFECTING BANK FAILURE**

**What Is a Bank Failure?**

Banks are officially declared failures, by the state or Federal agencies that charter them, when the net worth of a bank becomes zero or negative, or when a
situation threatens to make the net worth of a bank zero or negative. Such situations have one of the following three outcomes:

1. The chartering agency closes a bank permanently. Depositors receive payment from the Federal Deposit Insurance Corporation (FDIC) for up to $40,000 per deposit account. Customers with deposits over $40,000 lose the uninsured portions of their accounts, unless there is some residual value when the FDIC disposes of the bank's assets.

2. The chartering agency closes a bank, but its deposit liabilities and assets are assumed by another bank. In some cases, the FDIC either purchases assets of a failing bank which are of questionable value or insures the bank that is assuming the deposit liabilities from losses on the assets it acquires. No customers incur losses on their deposit accounts in this case. The banking organization which assumes deposit liabilities often begins offering banking services at the offices of the bank that failed.

3. Without officially declaring a bank to have failed, regulatory authorities arrange an emergency merger between a bank having financial difficulties and another bank. The merged bank assumes all of the deposit liabilities of the bank having financial difficulties.

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### Table I

<table>
<thead>
<tr>
<th>Name and Location of Bank</th>
<th>Disposition of Bank</th>
<th>Total Deposits (millions of dollars)</th>
<th>Total Assets (millions of dollars)</th>
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</table>
| **American Bank and Trust**  
Orangeburg, South Carolina | Deposit liabilities assumed by Southern Bank and Trust, Greenville, South Carolina, on September 20, 1974. | $127.2 (June 1974) | $145.3 (June 1974) |
| **Tri-City Bank**  
| **Cromwell State Savings Banks**  
Cromwell, Iowa | Deposit liabilities assumed by Iowa State Savings Bank, Creston, Iowa in October 1974. | $3.3 (June 1974) | $3.6 (June 1974) |
| **Franklin National Bank**  
New York City, New York | Deposit liabilities assumed by European-American Bank and Trust Company, New York City, New York, on October 8, 1974. | $1,577.7 (June 1974) | $3,590.6 (June 1974) |
| **Swope Parkway National Bank**  
Kansas City, Missouri | FDIC appointed receiver of bank. Insured deposit liabilities assumed by Deposit Insurance National Bank of Kansas City under Section II of the FD Act, January 3, 1975. | $9.2 (June 1974) | $9.7 (June 1974) |
| **Security National Bank**  
Long Island, New York | Merged with Chemical Bank in January 1975 because of pressure from supervisory authorities. | $1,432.0 (June 1974) | $1,771.3 (June 1974) |
| **Northern Ohio Bank**  
Cleveland, Ohio | Deposit liabilities assumed by National City Bank, Cleveland, Ohio, on February 18, 1975. | $85.6 (June 1974) | $104.4 (June 1974) |
| **Franklin Bank**  
Houston, Texas | Closed by supervisory authorities on March 24, 1975. | $24.0 (June 1974) | $29.8 (June 1974) |
| **Chicopee Bank & Trust Co.**  
Chicopee, Massachusetts | Closed May 9, 1975. Deposit liabilities assumed by the Holyoke National Bank. | $11.7 (June 1974) | $13.1 (June 1974) |
| **Algoma Bank**  
Algoma, Wisconsin | Closed May 30, 1975. Deposit liabilities to be assumed by the First State Bank of Algoma, a new bank which will be affiliated with the First National Bank of Sturgeon Bay. | $6.1 (June 1974) | $7.0 (June 1974) |
| **Bank of Picayune**  
Picayune, Mississippi | Closed on June 19, 1975 due to embezzlement by an officer. Deposit liabilities assumed by Hancock Bank, Gulfport, Mississippi. | $14.9 (June 1974) | $17.3 (June 1974) |
| **Bank of Chidester**  
Chidester, Arkansas | Closed July 1, 1975. Deposit liabilities assumed by Merchants and Planters Bank, Camden, Arkansas. | $2.0 (December 1974) | $2.2 (December 1974) |
| **State Bank of Clearing**  
| **Astro Bank**  
Houston, Texas | Closed October 16, 1975. Deposit liabilities assumed by Commonwealth Bank of Houston, a new bank. | $6.9 (December 1974) | $7.9 (December 1974) |
| **American City National Bank and Trust Company**  
Milwaukee, Wisconsin | Closed October 21, 1975. Deposit liabilities assumed by Marine National Exchange Bank of Milwaukee. | $146.6 (December 1974) | $188.2 (December 1974) |
Widespread Bank Failures

The most recent period of widespread bank failures in U.S. history was from 1929 to 1933 when the number of banks in operation declined by over one-third.5 The sequence of events that led to this general collapse of the banking system illustrates the process by which widespread bank failures can be generated.


Although the stock market crash came in October 1929, the large rise in the rate of bank failures did not occur until October 1930.6 The failure of several banks in the fall of 1930 created fear that other banks were unsound.7 Depositors began demanding conversion of their deposit balances to currency on a large scale.

Even a conservatively managed bank has limited ability to convert deposits to currency for a large fraction of its depositors. A bank generally cannot use its required reserves for such payments of currency since bank regulatory authorities regard these reserves as essential for a bank's continued operation. One source of currency for making payments to depositors is from selling assets. When many banks simultaneously experience large currency withdrawals, attempts of banks to obtain currency by selling securities will tend to drive down the prices of securities. If these runs continue long enough and the market values of securities fall far enough, even the most conservatively managed banks will tend to become insolvent as they suffer losses in liquidating their assets.

This process of several bank failures inducing fear of more failures, bank runs, declines in the value of bank assets, and then additional bank failures, occurred in three phases in the early 1930s. The last phase of this process came in the first three months of 1933.8

6As one indication that the public retained its confidence in commercial banks until the fall of 1930, the ratio of bank deposits to currency rose during the period August 1929 to October 1930.

7Ibid, pp. 308-309.

8Ibid, pp. 308-332. Widespread bank failures were not inevitable in the early 1930s when fear of insolvency of banks spread among bank customers. In the banking crisis of 1907 and in earlier banking crises, banks mutually agreed not to convert deposit balances to currency for their customers. During such periods, the public continued to use bank deposits as money, and banks continued to offer most services, but for a while deposits could not be converted into currency. See Friedman and Schwartz, A Monetary History, pp. 156-68. One of the reasons for establishing the Federal Reserve System was to make such restrictions of conversion from deposits to currency unnecessary since the Federal Reserve was to provide sufficient currency to banks whenever there was a threat of large deposit withdrawals. The existence of the Federal Reserve as lender of last resort may have been a major reason why commercial banks did not mutually agree to restrict payments of currency in the early 1930s. However, the Federal Reserve failed to function in its role as lender of last resort during that period. There were some expansionary policy actions by the Federal Reserve immediately after the stock market crash in 1929 and again in 1932, but these actions were not sufficient to offset the forces tending to reduce the money stock and bank credit. See Friedman and Schwartz, A Monetary History, pp. 305-6, pp. 322-4.
One important point to be emphasized from the process that generates widespread bank failures is that when the public loses confidence in the banking industry, forces which cause an individual bank to fail are, in general, independent of its prior investment policies. Both a bank that has invested in risky assets and one that has assumed little risk are vulnerable to failure in such an environment. Therefore, policies designed to deal effectively with widespread bank failures must involve more than simply requiring banks to acquire less risky assets.

**Bank Regulatory Response to Widespread Failures**

The following discussion describes features of the bank regulatory policies which have been developed since the early 1930s that deal with the vulnerability of the banking system to widespread failures. Individual features of the regulatory policies are evaluated in other studies; such an evaluation is not the purpose of this paper. Presentation of bank regulatory policies as an interrelated system designed to prevent bank failures facilitates the analysis below of how proposals for financial reform would influence bank behavior and vulnerability to failure.

The most significant innovation in bank regulation during the 1930s was Federal deposit insurance, of-
Federal deposit insurance reduces the incentives for bank runs when some events occur which, in the period before deposit insurance, would have made depositors fearful about the safety of their deposits.

Although deposit insurance has been effective in preventing bank runs, prevention of individual failures is also a national policy objective. One important reason for attempting to keep bank failures at a low rate is to keep the payouts from the deposit insurance fund low, thus promoting public confidence in the ability of the deposit insurance fund to meet its obligations. The risks that banks assume must be constrained in some way in order to have a low rate of bank failure. The Federal deposit insurance program is not designed to constrain the incentives for banks to assume risks since the premium rate for deposit insurance does not vary among banks but is a given percentage of insured deposits. Since Federal deposit insurance provides a large degree of safety from bank runs, it may tend to induce banks to hold portfolios of assets with higher risks than if the banking system was less safe from bank runs.

The risks that banks assume are constrained by direct government regulation of bank behavior. A limit is imposed on the maximum loan that each bank can make to one customer which, by regulation, is a fraction of the bank's capital. This regulation may cause banks to diversify their risks to a greater extent than they otherwise would. Banks are restricted from buying corporate stock, and there are some restrictions on the real estate loans that banks can make. Regulators examine banks to determine the quality of their assets and to enforce compliance with all regulations. As part of the examination process, examiners rate the quality of bank management, and occasionally exert pressure to change management. Regulators put pressure on banks to keep their capital-to-asset ratios above minimum levels. All of these forms of regulation tend to impose the judgment of regulators on banks, reducing the ability of banks to respond to changing market conditions in investing their assets.

In addition, regulation of bank liabilities involves ceilings on interest rates that banks may pay on time deposits and prohibition of interest on demand deposits. An intent of these regulations is to increase bank profits, to remove the incentives for banks to acquire high risk assets, and to decrease the volatility of deposits. One important influence of this regulation is that levels of interest ceilings in relation to market rates influence the ability of banks to attract time deposits.

10The penalties that bank regulators have for enforcing their capital adequacy standards include removal of bank officers and directors, cancellation of deposit insurance, and closing banks. These penalties are quite drastic and are seldom imposed. There is some evidence that bank regulators have little effect on the capital ratios of banks. See Sam Peltzman, "Capital Investment in Commercial Banking and Its Relationship to Portfolio Regulation," Journal of Political Economy (January/February 1970), pp. 1-26; Lucille S. Mayne, "Supervisory Influence on Bank Capital," Journal of Finance (June 1972), pp. 637-51.

11George Benston tested the hypothesis that banks which paid higher interest rates on deposits made more risky loans. The results of empirical tests led him to reject that hypothesis. See George J. Benston, “Interest Payments on Demand Deposits and Bank Investment Behavior,” Journal of Political Economy (October 1964), pp. 431-49.
Effects of Bank Regulation on Failures

The bank regulatory scheme developed in the 1930s contributed to a reduction in the rate of bank failure to relatively low levels by the early 1940s. No more than 9 banks failed in any one year from 1943 through 1974, compared with approximately 500 failures per year in the 1920s (see accompanying chart). There has been no tendency for bank failures to cause loss of confidence in banks in general and to induce additional failures. The sort of failures that have occurred since the early 1940s have often created public benefits since failure is one process of removing inefficient or dishonest bankers.

Recent Developments in Bank Regulation, Behavior, and Implications for Failures

Since the early 1940s, bank failures have been caused primarily by embezzlement, fraud, bad management, and assumption of high risks. This section focuses on the risk aspect of bank failures. Several developments in recent years have reduced regulatory constraints on banks without changing incentives for banks to accept risks, and many banks have responded by accepting higher risks. The following discussion includes only a few of the important changes in regulation and bank behavior which have been taking place.

Liability Management — During the 1960s, important changes took place in the sources of bank funds. Some banks began attracting a large share of their deposit liabilities by issuing certificates of deposit, and the volume of transactions in Federal funds was greatly expanded, as shown in the accompanying chart. Banks were given greater freedom to attract funds by issuing large CDs in 1970 when interest ceilings were removed on short-term time deposits of $100,000 or more and in 1973 when interest ceilings were removed on large time deposits of all maturities. Another source of funds that banks began to use during the late 1960s was that of bank related commercial paper, which is sold by subsidiaries of banks or bank holding companies (see chart).

Banks which attract large shares of their funds from sources that are not fully insured are vulnerable to losing such funds quickly if investors discover that those banks are having financial difficulties. Therefore, many banks have become more vulnerable to liquidity crises due to their practices of attracting large shares of their funds for investment by issuing large CDs and by borrowing in the Federal funds market.

Changes in Regulations Affecting Bank Assets and Capital — Important changes have also been made in the regulation of assets that banks may acquire and in the capital structure of banks. Many of these changes have been initiated by the Comptroller of the Currency, and similar regulations have been adopted by the other bank regulatory agencies. Several such changes discussed in the 1963 Annual Report of the Comptroller are listed below.

1. Lending limits, the largest loan banks can make to any one customer, were increased for many banks.
2. National banks were given greater freedom in making real estate loans.
3. The types of general obligation bonds of state and local governments that national banks could underwrite were expanded.
4. National banks were allowed to count long-term debt which is subordinated to deposit liabilities as part of their capital. In cases of bank liquidation, holders of subordinated debt receive payment only if all depositors receive full payment. Previously, bank regulators considered only equity capital to be bank capital.

The first three changes listed above influence the riskiness of assets that banks may acquire. Regulations concerning debt as bank capital also have several important implications for the risk exposure of banks. Suppose that for some reason a bank has a large reduction in the value of its assets. The feasibility of the bank accumulating enough capital out of retained earnings to again be considered a viable or-

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12 Federal Deposit Insurance Corporation, Annual Report, 1934, pp. 93-94.
14 The CDs issued by most banks are insured by the FDIC up to $40,000 per depositor. Federal funds borrowings are not insured by the FDIC.
15 The Federal Reserve and the FDIC recently proposed changes in regulations which would specify the role of debt as capital for banks regulated by those agencies.
ganization by regulators could depend upon how much debt the bank has in its capital structure. Interest payments on debt capital and its ultimate retirement are obligations that the bank must meet in order to remain solvent, whereas dividend payments can be postponed, and there is no obligation to retire equity capital. Another implication of regulators considering long-term debt to be bank capital is that banks can increase their lending limits by issuing such debt, since lending limits are based upon the total capital accounts of banks.

Acquisitions of Nonbanking Firms by BHCs — Another recent development which has implications for the risks of bank failures is the acquisition of nonbanking firms by bank holding companies (BHCs). Since 1970 the Federal Reserve Board has had the responsibility of determining the activities in which BHCs may engage. Table III lists the currently approved activities. The expansion of BHCs into nonbanking industries creates possibilities for financial difficulties of nonbanking subsidiaries to adversely affect bank subsidiaries. Many customers of a subsidiary bank may withdraw their deposits if a nonbank subsidiary of the BHC experiences financial difficulties. One reason for depositors of a subsidiary bank to start a run on the bank is they may assume  

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16In 1956 the Federal Reserve Board received legislative authority to regulate the acquisitions of firms that own controlling interest in two or more banks. These holding companies were not allowed to engage in activities other than banking. Holding companies owning only one bank were free to make whatever acquisitions of nonbanking firms they wanted before 1970. The BHC Act of 1970 gives the Federal Reserve Board authority to regulate the acquisition of all BHCs with the possibility of BHCs acquiring firms in industries other than banking which the Board rules to be closely related to banking. BHCs must get prior approval from the Board for each such acquisition.
Other Causes of Recent Bank Failures — It is difficult to determine the role of the above changes in regulations and bank behavior in the recent bank failures because there have been several other forces at work. The recent recession began in the fall of 1973, and it is during recession periods that large loan losses make some banks insolvent. Historical evidence in the accompanying chart indicates a tendency for bank failures to rise when the rate of economic activity declines. In addition, the risks of speculation in foreign exchange have been greater since 1971 when the world monetary system was switched from fixed to floating exchange rates. The failure of Franklin National provides an example of the influence that foreign exchange speculation can have on bank earnings and capital.

Some Recent Proposals for Further Relaxation of Constraints on Bank Behavior

Proposals for financial reform which have received much attention in the past few years may indicate the future course of bank regulation. Proposals for financial reform by the Hunt Commission call for relaxation of several banking regulations which affect various types of activities in which banks may engage and the types of assets they may acquire. The Financial Institutions Act of 1975 proposes similar relaxation of regulations on real estate loans and community development projects.

Neither group of proposals for financial reform would alter the way in which deposit insurance premiums are calculated. Therefore, these proposals, like several changes in regulation in recent years, would move the banking system in the direction of fewer constraints without reducing the incentives of banks to accept high risks; the degree to which such proposals would affect bank safety is uncertain.

RECONCILING BANK SAFETY WITH RELAXATION OF REGULATIONS

Bank regulation has changed in recent years to give banks greater freedom in attracting funds and selecting assets, and proposals currently under consideration indicate that there may be fewer regulatory constraints on banks in the future. However, if a low rate of bank failure and a solvent deposit insurance fund also continue to be important objectives of public policy, new forms of bank regulation must be implemented to restrain the risks that some banks would be induced to assume.

Table III

<table>
<thead>
<tr>
<th>Nonbanking Activities in Which Bank Holding Companies May Engage¹</th>
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<tbody>
<tr>
<td>Mortgage Banking</td>
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<tr>
<td>Finance Company</td>
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<tr>
<td>Credit Card Company</td>
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<tr>
<td>Factoring Company</td>
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<tr>
<td>Industrial Bank</td>
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<tr>
<td>Morris Plan Bank</td>
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<tr>
<td>Industrial Loan Company</td>
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<tr>
<td>Loan Servicing</td>
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<tr>
<td>Trust Company</td>
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<tr>
<td>Investment or Financial Adviser</td>
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<tr>
<td>Leasing Real or Personal Property</td>
</tr>
<tr>
<td>Making Equity and Debt Investments in Corporations or Projects</td>
</tr>
<tr>
<td>Designed Primarily to Promote Community Welfare</td>
</tr>
<tr>
<td>Bookkeeping or Data Processing Services</td>
</tr>
<tr>
<td>Insurance Agent or Broker</td>
</tr>
<tr>
<td>Underwriter of Credit Insurance</td>
</tr>
<tr>
<td>Courier Services</td>
</tr>
<tr>
<td>Management Consulting Advice to Banks not Affiliated with the Bank Holding Company</td>
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</tbody>
</table>

¹Taken from Sec. 225.4(a) of Federal Reserve Regulation Y.


¹³See The Report of the President's Commission on Financial Structure and Regulation (Washington, D.C.: United States Government Printing Office, 1971), pp. 41-43. The Hunt Commission proposed, among other things, that (1) commercial banks and their subsidiaries be permitted to engage in a variety of nonbanking activities of the type approved for BHCs by the Federal Reserve Board; (2) special statutory and regulatory restrictions on real estate loans be abolished; (3) commercial banks be permitted to invest in any assets up to 3 percent of total assets or 30 percent of capital, surplus, and undivided profits, whichever is less; (4) authority to underwrite revenue bonds be expanded; (5) commercial banks be permitted to make equity investments in community rehabilitation and development corporations in amounts up to 5 percent of capital, surplus, and undivided profits.
These objectives could be achieved through a program of charging banks deposit insurance premiums based upon the risks they assume. Regulation of bank behavior could be eliminated. Individual banks would be free to choose the degrees of risk they prefer. Most banks would probably not accept high risks if deposit insurance premiums were set high enough to compensate the deposit insurance fund for the risks involved. Whatever would be the choices of banks in accepting risks, the most important consideration is that public confidence in the capacity of the deposit insurance fund to meet its obligations prevents bank runs, and under this plan the solvency of the insurance fund would be protected by charging banks premiums that are high enough to cover their risks of failure.

The Hunt Commission Report presents the common arguments against variable deposit insurance premiums in the following quote:

The Commission rejected the variable rate proposal. It recognizes that differences in risk of failure exist and that its recommendation for liberalizing the regulations relating to the asset, liability and capital structures of financial institutions would probably increase these differences. The problem is a practical one. The Commission does not see how differences in risks can be evaluated with sufficient precision to be adequately reflected in insurance assessments. Further, the Commission believes that assessments might be used, albeit unintentionally, to penalize innovative institutions. New and different functions might be regarded as high risk functions. Finally, knowledge that some institutions were paying higher assessments than others could weaken public confidence in those institutions, which would defeat the purpose insurance was designed to achieve.

Sam Peltzman has answers for these arguments. The evaluation of assets by bank examiners could be used as the basis for setting deposit insurance premiums. As to the argument that innovative institutions would be penalized with higher insurance premiums, Peltzman maintains that such penalties would be only temporary until the insurance agency would adjust the premiums to actual experience. Peltzman also argues that with information on deposit insurance premiums becoming public knowledge, banks would have strong incentives to cater to the degree of risk aversion desired by their depositors.

**SUMMARY**

An appropriate objective of public policy regarding bank regulation is prevention of widespread bank failures. The money stock and bank credit have declined during past periods of widespread bank failures, disrupting economic activity. In the past, large numbers of banks have failed when some events, such as the failure of several banks or one large bank, made depositors fearful about the soundness of all banks, inducing them to demand currency for their deposits. That response tended to make even more people fearful about the soundness of their banks, creating runs on banks.

In this country the most recent experience with widespread bank failures was in the period 1930-33. Current regulatory policies were largely developed in the 1930s in response to that experience. A central feature of these policies is Federal deposit insurance, which has greatly reduced the risks of bank runs. The deposit insurance premiums of banks are calculated as a given percentage of insured deposits. The risks that insured banks assume are controlled by direct regulation of bank behavior.

In recent years there has been some relaxation of bank regulation, giving banks greater freedom to compete in attracting deposits and investing their assets. However, there have been no changes in regulatory policies which would induce banks to restrain the risks they assume. If it is in the public interest to relax direct regulation of the risks that banks may assume and yet keep the bank failure rate low and the deposit insurance fund solvent, one appropriate change in policy would be to begin charging each bank a deposit insurance premium based upon the risks that it assumes. Such a policy would give banks greater freedom to respond to market forces in investing their assets while reducing their incentives to assume high risks. The premiums would be set high enough to compensate the insurance fund for the risks of failure that banks assume.