

The Case for Interstate Branch Banking

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When asked about the most important developments in banking in the decade of the 1980s, most people are likely to point to the thrift debacle or to losses on loans to less developed countries. But arguably more influential has been a benign development, namely, the rise of interstate banking. In 1980, only Maine allowed bank holding companies from outside the state to acquire Maine banks. By 1990, all but four states allowed out-of-state banks to enter, although in many states there were regional limitations on entry.

Also during the 1980s, most (but not all) states relaxed their restrictions on branch banking, culminating a century-long trend toward liberalization. One hundred years ago, virtually all banking in the United States took place through unit banks, that is, independent banks with no branches. In the first half of the twentieth century, banks began to branch extensively within the cities in which they were headquartered; by the second half of the century, statewide branching networks or holding companies had become the norm in many states. In 1980, twelve states prohibited bank branching while twenty-one allowed statewide branching. By 1990, only two states prohibited branching while the number of states allowing statewide branching had grown to thirty-six.

The parallel rapid growth of interstate bank holding companies and liberalization of state branching laws suggest the next step: interstate branch banking. While the current practice of expanding across state lines by acquiring an existing bank and making it a subsidiary of the acquiring company differs little in practice from branching, it does entail some costs that could be eliminated by allowing the acquirer to turn a bank into a branch. Indeed, most bank holding companies that have been allowed to consolidate their subsidiaries within a state into a branch network have chosen to do so. And if banks are allowed to expand

by setting up de novo branches in other states, then the potential for competition should be enhanced even further.

This article attempts to show that interstate branching, while not in demand in the past, is a logical and feasible step in the evolution of the geographical structure of American banking.¹ As a preliminary, it describes the current regulatory environment with regard to interstate branching, as well as the evolution of attitudes toward and regulation of branch banking. Given this background, the article outlines the arguments for interstate branching and then discusses ways it could be implemented, the likelihood of its adoption, and its possible effects on bank structure in the United States.

THE CURRENT REGULATORY ENVIRONMENT

Unique among American businesses, banks in the United States are regulated by an interrelated set of state and federal laws as to where they can conduct business. A bank may choose to be chartered by the federal government, in which case it is called a national bank and supervised by the Comptroller of the Currency. Alternatively, it may choose a state charter. If it chooses a state charter it is supervised by its state agency, as well as by either the Federal Reserve if the bank opts to be a Federal Reserve System member, or the Federal Deposit Insurance Corporation if it does not choose Fed membership. But whether a bank chooses a federal or a state charter, its geographical expansion is effectively regulated by the states.

At the state level, banks are generally chartered to operate within the state. In addition, most states specifically forbid entry through branching, although some states have the option to approve an out-of-state bank's establishing a branch within their borders under specified conditions. Specifically, Montana, Nevada, New York, Oregon, Rhode Island, Utah,

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¹ The Federal Reserve has recently gone on record as supporting changing current law to allow interstate branching (Greenspan 1990).

and Virginia might permit entry through branching (unpublished survey, Conference of State Banking Supervisors, 1990).²

At the federal level, the McFadden Act of 1927 (as amended in 1933) states that national banks:

may, with the approval of the Comptroller of the Currency, establish and operate new branches . . . at any point within the State in which said association is situated, if such establishment and operation are at the time authorized to State banks by the statute law of the State in question by language specifically granting such authority affirmatively and not merely by implication or recognition, and subject to the restrictions as to location imposed by the law of the State on State banks. (12 U.S.C. Section 36(c))

In general, McFadden gives national banks the right to branch to the same extent that state banks are permitted to branch. But even if a state were to allow interstate branching for state-chartered banks, it is not clear whether national banks could be given interstate branching authority under current law because the law contains the phrase "within the State", which would appear to limit national banks to within state boundaries. Thus McFadden is usually interpreted as prohibiting interstate branching by national banks.³

Whatever the specifics of how banks are restricted from branching across state lines, virtually all interstate bank expansion to date has taken place through bank holding companies. The Douglas Amendment to the Bank Holding Company Act of 1956 forbids interstate acquisitions by bank holding companies unless the acquired bank's home state allows the acquisition. Under current state interstate banking laws and the Douglas Amendment, a bank holding company now expands interstate by acquiring a bank or bank holding company and then operating it as a subsidiary rather than a branch. For example, a bank holding company headquartered in Virginia and engaging in full-service banking in Maryland and the District of Columbia must under current law operate through three separate banking organizations, one for each jurisdiction.

One prominent wrinkle present in most but not all interstate banking laws is a ban on expansion by

² Massachusetts allowed entry through branching in its 1983 regional interstate banking law. In September 1990, the regional law was superseded by a nationwide interstate banking law. The new law does not permit entry through branching.

³ One could also argue that McFadden was intended to give national banks branching parity with state banks. If so, federal regulators might have the discretion to allow national banks to branch across state lines along with their state-chartered brethren (Eckland, Olsen, and Kurucz 1990).

creating a de novo subsidiary. That is, most interstate banking statutes allow entry only by acquiring a bank that has been in existence a specified number of years. It is reasonable to assume such restrictions were necessary to secure the passage of interstate banking laws by making the laws more palatable to potential acquirees. Foreclosing the option of de novo entry removed an alternative to entry by acquisition and thereby raised premiums paid by entrants for banks. While it is likely that most banks look first at acquiring an existing depository institution, blocking de novo entry means that entrants are deprived of an option they might exercise if merger premiums seemed excessive or if no existing bank in an otherwise attractive market were a suitable candidate for takeover.

Thrift institutions already have the legal authority to branch interstate, although the authority has been restricted by regulators. In *Independent Bankers Association of America v. Federal Home Loan Bank Board* (557 F. Supp. 23 (1982)), the District Court ruled that branching by federally chartered thrifts comes under the authority of the Federal Home Loan Bank Board (now the Office of Thrift Supervision), whether intrastate or interstate. The Independent Bankers challenged the Home Loan Bank Board when it adopted a doctrine of allowing interstate branching to acquire a troubled thrift and then allowing branching within the acquired thrift's state. The court made clear that restrictions on interstate thrift branching are administrative rules and not enshrined in the law as is the case with banks. The implication is that the rules could be modified at the discretion of the Office of Thrift Supervision without any change in the law.

There are a few interstate bank branches operating today that had been established before either state or federal laws forbade them. For example, since 1905 the Bank of California has operated branches in Portland, Oregon, and Seattle and Tacoma, Washington. All three were acquired from the British bank that had originally established them. In addition, Midlantic National Bank in New Jersey operates a branch across the Delaware River in Philadelphia. Since both Bank of California and Midlantic are federally chartered, there is no problem with state regulatory authority over the branches. More recently, after the Bank of America acquired a failed Arizona thrift that had operated a branch in Utah, the Utah banking regulators allowed Bank of America to continue to operate the office as a branch.

There have been other examples of interstate branch banking (Federal Reserve Board 1933a, pp.207-9). The First and Second Banks of the United States both had branches during their existence. Wells Fargo and Company operated branches outside California. The branches were closed apparently as the result of business decisions and not of legal or regulatory actions. Finally, in 1874 the Freedman's Savings and Trust Company, chartered by Congress, had branches in all the Southern states and one in New York (Chapman and Westerfield 1942). Still, given the number of banks in the United States, it is striking to see how little interstate branching had occurred even before it was explicitly banned.

THE ORIGINS OF CURRENT LAW

The history of banking in the United States is characterized not simply by the lack of interstate branching, but by the longtime lack of interest in branching within a state as well. That is, while branching has occurred throughout American banking history, it only caught on as a widespread phenomenon in the twentieth century, and then only in fits and starts. In contrast, the history of Canadian banking has included branch banking from the start and there have apparently been no serious efforts to emulate the American system. And while in Canada a small number of commercial banks with extensive branch networks have been able to serve the market, in the United States small independent banks abound even in states with no restrictions on branching.

Before the Civil War, there was branching at both the federal and state levels (Federal Reserve Board 1933a). At the federal level, the First Bank of the United States, which lasted from 1792 to 1811, was headquartered in Philadelphia and maintained offices in eight other cities. The Second Bank of the United States, which lasted from 1816 to 1836 and also operated out of Philadelphia, had as many as twenty-five other offices during its life.

In addition, there were state branch banking systems, although most of the branches that survived into the National Bank era after the Civil War ended up incorporating as independent national banks. Finally, "free banking" arose in the North at the same time as branch banking in other states. Free banking meant that specific legislative chartering of a bank was not required; instead, anyone meeting specified requirements (such as initial capitalization and depositing bonds with the chartering state) would

be issued a charter. Free banks were unit banks; they had no branches, although branch banking was not specifically forbidden.

The last category, free banking, turned out to be significant for the future of branch banking law because the New York free banking law contained provisions specifying that "the usual business of banking . . . shall be transacted at the place where such banking association . . . shall be located . . ." (Federal Reserve Board 1933a). The language was apparently not aimed at branch banking per se, but at the then notorious practice of issuing currency at the bank's main location, usually in a remote area ("wildcat banking"), but only redeeming at a discount in a city location. The provisions were significant because they were later to be incorporated into the National Banking Act and still later to be interpreted as forbidding branching by national banks, even though there is no evidence that doing so was the original intent of the legislation (Fischer and Golembe 1976).

When the National Bank System was established at the end of the Civil War, the new system was comprised entirely by unit banks, even though state-chartered branch banks were specifically allowed to keep their branches if they converted to national charter. As it turned out, the grandfathering authority for branches was not used until the first decade of the twentieth century. The important point is that branching was simply not an important issue, not because of specific opposition to it but because of lack of interest. Apparently unit banks had a comparative advantage over branch banks.

The first stirrings of renewed interest in branch banking came during the late 1890s in the form of proposals to encourage branching by national banks as a means of making banking services available to rural areas that could not support a separately incorporated bank (Comptroller of the Currency 1895). While such proposals did not elicit much interest from the public, bankers were largely opposed so none were enacted. Instead, in the Currency Act of 1900 the required capital for establishing a national bank was reduced from \$50,000 to \$25,000 (or, in 1990 dollars, from \$663,500 to \$331,750) for towns with population of less than 3,000.⁴

⁴ In comparison, in 1990 the minimum initial capital for a national bank was \$50,000 in a town of less than 6,000 inhabitants, \$100,000 for a town of up to 50,000, and \$200,000 for a city of over 50,000 (12 U.S.C. 51). In practice, all regulatory agencies have administratively adopted far higher minimums.

The result was, predictably, an increase in the number of banks in the United States from approximately 13,000 in 1900 to about 25,000 in 1910 (Board of Governors 1959). And of the new banks, about two-thirds were small unit banks with an average capital base of just over \$25,000 (Chapman and Westerfield 1942). The resultant proliferation of independent unit banks made for an anti-branching force that slowed the growth of branch banking for decades.

While the number of unit banks increased, branch banking became more common at the state level. In California, branch banking started as a largely rural phenomenon, especially after branching was officially approved for state banks in 1909 (Federal Reserve Board 1933b). But in the rest of the country, branching became commonplace not in rural areas but within cities, in particular, in New York, Detroit, Philadelphia, Boston, and Cleveland.

As both branching by state banks and the number of unit banks grew, it is not surprising that unit bankers attempted to contain the spread of branch banking. The result was, first, a flurry of laws in the 1920s to ban branch banking, mostly in states where it did not yet exist. As shown in Table I, more states banned branching in 1929 than had done so in 1910. Second, there were moves to keep national banks from branching at all, with the avowed purpose of stemming the spread of branch banking in any form.

National banks in branching states wanted the same branching privileges as their state-chartered brethren. But unit banks were adamant in opposing any extension of branch banking. Further, the money center banks of the day were largely opposed to branch banking, since they stood to profit from correspondent business and were not much interested in retail customers. And apparently absent from the debate was any consideration of interstate branching.

Regulatory policy toward branch banking varied over time. In 1911, the Comptroller requested that the Attorney General issue an opinion regarding branching by national banks. Based on the language originally adopted from the free banking statutes, the Attorney General opined that national banks were not allowed to branch. But by the early 1920s, the Comptroller allowed branching in order to meet competition by state-chartered banks in branching states. Indeed, one Comptroller believed he could allow branching regardless of state laws, but simply followed state laws as a matter of policy, just as did the Federal Home Loan Bank Board in the 1980s.

Table I
STATE BRANCHING LAWS,
SELECTED YEARS

	1910	29	39	61	79	90
Alabama		•	◆	◆	◆	◆
Alaska	-	-	-	■	■	■
Arizona	-	■	■	■	■	■
Arkansas		•	•	•	◆	◆
California	■	■	■	■	■	■
Colorado	•	•	•	•	•	•
Connecticut	•	•	■	■	■	■
Delaware	■	■	■	■	■	■
Florida	■	•	•	•	◆	◆
Georgia	■	◆	◆	◆	◆	◆
Hawaii	-	-	-	■	■	■
Idaho		•	■	■	■	■
Illinois		•	•	•	•	◆
Indiana		•	◆	◆	◆	◆
Iowa		•	•	•	◆	◆
Kansas		•	•	•	•	■
Kentucky				◆	◆	◆
Louisiana	◆	◆	◆	◆	◆	■
Maine	◆	◆	■	■	■	■
Maryland		■	■	■	■	■
Massachusetts	•	◆	◆	◆	◆	■
Michigan			■	◆	◆	■
Minnesota		•	•	•	•	◆
Mississippi	•	◆	◆	◆	◆	■
Missouri	•	•	•	•	•	•
Montana		•	◆	◆	•	◆
Nebraska		•	•	•	•	◆
Nevada	•	•	■	■	■	■
New Hampshire					◆	■
New Jersey		◆	◆	◆	■	■
New Mexico	-	•	•	◆	◆	◆
New York	◆	◆	◆	◆	■	■
North Carolina		■	■	■	■	■
North Dakota			•	•	•	■
Ohio		◆	◆	◆	◆	■
Oklahoma				•	•	■
Oregon	■	•	■	■	■	■
Pennsylvania	•	◆	◆	◆	◆	■
Rhode Island	■	■	■	■	■	■
South Carolina		■	■	■	■	■
South Dakota			■	■	■	■
Tennessee	■	◆	◆	◆	◆	■
Texas	•	•	•	•	•	■
Utah		•	■	■	■	■
Vermont		■	■	■	■	■
Virginia		■	■	◆	■	■
Washington	■	•	■	■	■	■
West Virginia		•	•	•	•	■
Wisconsin	•	•	•	•	◆	◆
Wyoming					•	■

KEY
 • Unit banking (branching prohibited)
 ◆ Branching limited geographically within state
 ■ Statewide branching
 - No branching law
 - Not yet a state

Sources: Chapman and Westerfield 1942; Federal Reserve Bulletin 1933, 1939; Federal Reserve Board 1933a; White 1976; Department of the Treasury 1981; Banking Expansion Reporter, August 6, 1990.

Finally, in 1924 in *First National Bank in St. Louis v. State of Missouri* (263 U.S. 640), the Supreme Court held that a state had the right to enforce its branching restrictions for national banks unless Congress specifically said otherwise. The Court also held that national banks did not have the right to branch.

The matter was put to rest by the McFadden Act of 1927, passed after three years of intense debate. The Act allowed a national bank to branch within its city boundaries if state banks were allowed the same or more liberal privileges. Since most branching at the time was within cities, the Act probably was sufficient for most banks. But in California, the restrictions were binding on national banks so they led to forms of corporate organization and affiliation that served to evade the Act's restrictions (Federal Reserve Board 1933b).

Following the McFadden Act, anti-branching sentiment waned, largely because the extensive bank failures of the late 1920s and early 1930s showed the weakness of unit banking and made branching attractive as a means of making failures less likely. As Table I shows, the consequence was that between 1929 and 1939 the number of states prohibiting branches fell sharply while the number permitting statewide branching doubled.

While the ultimate result of the rash of bank failures was deposit insurance rather than significantly enhanced branching powers (Fischer and Golembe 1976), there arose during this time the first explicit support for interstate branching. Senator Carter Glass of Virginia, an architect of the Federal Reserve Act, proposed in 1932 a bill that would liberalize national bank branching powers. In particular, the bill proposed not simply statewide branching for national banks but "trade area" branching as well. That is, a bank located near a state line with frequent business in the other state would be allowed to branch up to fifty miles into the state. An obvious example of such a trade area is the Washington, D.C., metropolitan area.

The Glass Bill was not enacted. Instead, the Banking Act of 1933 (better known as the Glass-Steagall Act) liberalized the 1927 McFadden provisions to permit national banks to branch to the same extent as was permitted to state banks. Thus national and state banks had approximately the same branching powers, and the law remains in force today.

Since 1933, virtually all the action on branch banking has occurred at the state level, although most changes since the Depression era occurred during

the 1980s. Table I shows how the laws have changed over time for the individual states. In 1939, eighteen states allowed statewide branching while nine allowed only unit banks. By 1979, the number of states allowing statewide branching and the number allowing only unit banking had both grown by three. As of 1990, thirty-six states allowed statewide branching while only two states prohibited branching altogether. But as mentioned earlier, by this time all but four states had enacted laws permitting interstate expansion by holding company acquisitions. Thus the question is no longer whether banks should be allowed to expand interstate, but rather whether they should be allowed to do so by branching.

ADVANTAGES OF INTERSTATE BRANCH BANKING

Safety

From the point of view of the banking system, interstate branching would be beneficial in that it would enhance safety. In general, the historical record supports the assertion that branch banks have a better safety record than unit banks. In particular, during the 1920s and early 1930s the failure rate was inversely related to bank size (Cartinhour 1931; Chapman and Westerfield 1942). Further, during the period 1921-31, the failure rate as a percentage of banks operating at the end of 1931 was 46.5 percent for all banks but only 26.4 percent for banks with branches (Federal Reserve Board 1933a, 1933c). But the comparison understates the difference since the majority of branch banks that failed had only one branch. For banks with over ten branches, the failure rate was only 12.5 percent (Federal Reserve Board 1933a).

There are several related reasons for the better safety record of branch banks, reasons that apply *a fortiori* to interstate branching. First, by its very nature, a system of small unit banks is more prone to insolvencies if funds move out of a troubled unit bank serving an area than would a system of branch banks in which funds simply flowed out of a troubled branch serving the same area (Greenspan 1990). That is, events that for a unit bank would lead to insolvency might simply lead to a loss for a branch serving the same area. Second, runs are more likely in a system of small banks, since small, localized shocks are more likely to be perceived as threatening entire institutions (Calomiris 1990).

The first two reasons for branch banking's greater safety imply the third: geographical diversification. By making it less costly for banks to expand across

state lines, interstate branching would make it possible for them to diversify their loan portfolios to a greater extent than is now possible. Banks would consequently be less subject to swings in regional economies such as agricultural failures or declines in regional industries, so what could mean insolvency for a geographically restricted set of banks might mean only losses for one part of a geographically diversified bank. A fourth reason for greater safety is that a branch bank in essence serves as a mutual loss sharing arrangement under which losses to one part of a bank's operation are diffused across the entire organization. Again, geographically limited losses that for a geographically limited bank might mean insolvency could be more easily absorbed by a larger, geographically dispersed organization.

Finally, interstate branching would make it less costly to gather core deposits, which by definition are a more stable funding source than purchased funds. Despite their stated maturity of zero, core deposits can have effective maturities of several years (Flannery and James 1984). So by making core deposits cheaper relative to purchased funds, interstate branching could help increase the duration of a bank's liability side so the bank would be less vulnerable to interest rate swings than if it relied heavily on purchased funds.

There would be an incidental safety benefit to interstate branching. The Federal Reserve has promulgated the "source of strength" doctrine, which calls upon a bank holding company to support its subsidiary banks in times of adversity. There have been recent cases in which a bank holding company, when looked at as a consolidated entity, was insolvent even though some subsidiary banks were technically solvent on their own (*MCorp v. Board of Governors of the Federal Reserve System*, No. 89-2816, 5th Cir., May 15, 1990). Problems arose because of disagreements as to the legal obligations between a bank holding company and its subsidiary banks, each of which was a distinct legal entity.

If the entities involved had been branches rather than subsidiaries, such problems might not have arisen (unless assets had been moved into nonbank subsidiaries). While in the case of MCorp the reason for the separate subsidiary banks was state law and not the McFadden Act, the case does serve to illustrate the problems that can arise with organizations comprised by separately chartered banks. If in the future an interstate bank holding company were to face insolvency, disputes such as those arising with

MCorp would be far less likely if regulators were dealing with one consolidated bank rather than a web of subsidiary banks.

Consumer Benefits

From the point of view of the consumer, a major advantage of interstate branching over the current system would be convenience. For example, suppose a bank holding company has subsidiary banks in, say, Virginia and Washington, D.C. A customer with an account at the Virginia bank might be allowed to cash a check at an office of the Washington bank, but not to make a deposit. That is, full service banking across state lines simply does not yet exist. In contrast, if the subsidiaries were branches a customer could do at an out-of-state branch everything she could do at a branch in her own state.

In addition, an interstate branch network would be beneficial to travelers needing cash and banking services. While such innovations as travelers' checks and credit cards have developed to lessen the inefficiencies associated with the current banking system, the availability of banking services over a wider area would add to the traveler's options. Finally, by adding to the number of banks able to branch into a market, interstate branching might increase the accessibility of banking services. Just as statewide branching has made banking services more available to consumers than under unit banking, so should interstate branching compared with the current balkanized system (Evanoff 1988).

Efficiency

From the point of view of a bank interested in operating interstate, a major argument for allowing interstate branching is efficiency. Under the current system of allowing interstate expansion only through bank holding company subsidiaries, a bank must incur parallel costs in each state in which it chooses to operate. First, each subsidiary must have a separate board of directors as well as committees associated with each board. Second, each subsidiary must submit separate regulatory reports (for example, call reports) and undergo separate examinations. Third, each subsidiary must submit its own audited financial statement. Fourth, each subsidiary requires its own support and control functions, for example, personnel, budget, audit, and accounting, that for a branch network could be consolidated. Finally, each subsidiary will maintain its own computer systems and applications for such tasks as demand deposit accounting, loans, and reserves. Even if the bank holding company is managed as if it were one bank,

the requirement that each subsidiary report separately prevents the systems from being integrated completely.

Duplication is not the only source of costs in a network of subsidiaries. Each subsidiary will have to satisfy capital requirements, so there are costs associated with the complex treasury exercise of balancing capital between the subsidiaries. Further, costs incurred by the parent company must be allocated among the subsidiaries, even though there may be no economically meaningful way of allocating such costs. That is, certain costs originating in, say, the lead bank for the benefit of the subsidiaries cannot be assigned to the subsidiaries except by some unavoidably arbitrary method. Finally, since each subsidiary is a separately chartered bank, moving assets between entities must take place on an "arm's length" basis, meaning that internal transfers must be treated as if the subs were not united by common ownership. As a result, internal transactions might have tax considerations and other costs that would not arise if the subsidiaries were consolidated.

Despite the costs of maintaining separate subsidiaries, a bank holding company choosing to consolidate will lose at least four benefits of separation. First, boards of directors can be a source of referrals for loans and other business for a bank in a local area, a source that would be lost if subsidiaries were converted to branches. Second, if a bank holding company purchases a bank that had served an area competently and profitably for years, the company might prefer to preserve the "brand name capital" of the acquired bank by letting it operate as a subsidiary under its old identity instead of under the name of the acquirer. Third, unlike their Canadian counterparts, American bankers do not have experience in managing far-flung branch networks, so decentralized management might compensate for this lack. The problem should lessen over time, however, as bank holding companies develop experience in interstate operations and develop the ability to centrally manage more geographically dispersed branch networks.

Finally, a bank holding company might stay decentralized to preserve the benefit of tiered reserve requirements. When calculating the reserves a bank is required to maintain on its transactions accounts, the required ratio of reserve balances to deposits increases as follows: The first \$3.4 million of its transactions accounts is exempt from any requirements; the required ratio is 3 percent for \$3.5 million to \$40.4 million of transactions accounts; and the

ratio is 12 percent for all remaining transactions accounts over \$40.5 million (*Federal Reserve Bulletin*, August 1990). Since the cost of reserves is the foregone interest on the funds, a bank holding company could hold down its required reserves by expanding by means of small subsidiaries rather than branches.

Thus there is a tradeoff between costs and benefits of maintaining separate subsidiaries. As a decentralized bank holding company grows and expands the number of subsidiaries, one would expect the costs of decentralization enumerated above to rise. At the same time, at least one benefit, the lower amount of interest foregone on reserves, becomes less significant to a banking organization as it grows larger. For example, the deposits subject to the lower requirements would be 4 percent of assets for a bank with assets of \$1 billion but only 0.4 percent of assets for a bank with assets of \$10 billion. Thus, other things equal one would expect consolidation to become more likely as an organization increases in size.

Payment Processing

One of the most obvious places for improvements in efficiency lies in the payment system area. For example, consolidating a set of holding companies into a branch network would increase the number of "on-us" checks, that is, checks for which the payer and payee both hold accounts in the same bank. If so, then more clearing could take place internally (Berger and Humphrey 1988). In addition, converting interstate subsidiaries will enable a bank to consolidate the reserve accounts of its subsidiaries into one account. Since banks use reserve accounts to clear payments, there would be lower administrative costs associated with payment processing. Indeed, even under the current system some bank holding companies have chosen to process all their Fedwire payments through one account regardless of which state subsidiary they involve. Such a practice would likely become automatic under interstate branching.

Competition and Credit Availability

From the point of view of both banks and consumers, a major result of interstate branching would be increased competition, especially if banks could branch de novo. Since allowing interstate branching would make it less costly to enter a state, banks would be more likely to enter to take advantage of profitable lending opportunities. This would have at least two effects. First, it would increase the number

of competitors (or potential competitors) in a market. Second, it could make more and cheaper credit available to a market.

With regard to availability of credit, opponents of interstate branching (and for that matter of branching in any form) repeatedly point to the possibility that branch managers are less concerned with the local economy than are owners and managers of the bank, so a branch would simply siphon funds out of an area to be lent elsewhere. But such possibilities already exist for banks as well as branches. For example, a bank not wishing to lend in an area could sell federal funds upstream to a correspondent bank, or could put its funds into investment securities rather than loans.

Further, a branch that ignores profitable lending opportunities will be vulnerable to competition from local institutions. Finally, the argument that branches suck credit out of a region is a two-edged sword: The ability to draw credit out of an area implies the ability to inject credit into an area, so branches may be as likely to bring funds into an area as to take them out. But regardless of whether objections to branching on the basis of credit availability have any validity, such problems, to the extent they exist, can be more directly attacked through the Community Reinvestment Act than through branching statutes.

MODELS OF INTERSTATE BANKING

The United States follows a dual banking system, which means that banks may be chartered either federally or by the states. When developing a plan for interstate branching, one must be cognizant of the interaction of state and federal laws regarding banking structure. The following paragraphs describe three possible means of implementing interstate branching.

National Bank Branching

Interstate branching could be instituted by simply allowing federally chartered banks to establish branches without regard to the laws of the states in which the branches would be located. That is, the national bank system would become a national banking system in the sense of a nationwide system and not simply a federally chartered one. Such a system could be put into place by repealing the McFadden Act and changing the language of current law to grant a national bank the authority to establish branches freely without regard to state laws. The main requirement would be specific Congressional authorization.

The advantage of using the national bank system to bring about interstate branching is that it would be relatively simple. That is, it could be accomplished through federal legislation and would not require consent at the individual state level. Further, the approach would not involve overlapping or conflicting regulatory agencies, since all national banks are supervised by the Office of the Comptroller of the Currency. Such a system is already in place in Canada, where bank chartering and regulation have been federal functions since the British North America Act of 1867.

The disadvantage of the national bank approach to interstate branching is that it would put state-chartered banks at a competitive disadvantage to national banks, at least in those states that do not grant interstate branching privileges to state-chartered banks. Within the Federal Reserve System, there would be an additional problem: All national banks are members of the Federal Reserve System, but state-chartered banks may elect to join or not to join the System. In a system of unlimited interstate branching by national banks, there would be a disparity between the powers of national banks and state member banks. Of course, there would be a simple solution: States could grant interstate branching powers to the banks they charter.

Host-State Regulation

The first alternative concerns itself only with national banks, and in effect overrides any state powers over national bank expansion. An alternative that preserves the authority of the states would be to permit state-chartered banks to branch interstate provided they abide by the regulations of the state into which the bank wishes to expand. Such an alternative would most likely retain state authority over bank structure by allowing national banks to enter a state only if the state consents.

Utah in effect agreed to a scheme of host-state regulation when, as previously mentioned, it permitted a state-chartered bank in Arizona to maintain a Utah office as a branch. The Arizona bank had previously been a thrift, which was taken over by the Resolution Trust Corporation, then purchased by BankAmerica Corp., and then converted to a state-chartered commercial bank (*American Banker*, July 12, 1990). Consistent with thrifts' more liberal interstate branching powers, the thrift had operated a branch in Utah. When BankAmerica converted the thrift to a bank, however, it had to seek permission from Utah to continue to operate the office as a

branch instead of convert it to a subsidiary. Utah assented, and under the agreement Utah will be responsible for examining the branch (*American Banker*, September 4, 1990).

Leggett (1989) has put forward a more comprehensive proposal involving host-state regulation of interstate branching. The proposal would allow bank holding companies with interstate subsidiaries to consolidate their banks as branches. It belongs in the host-state taxonomy because a branch of a state-chartered bank could not exercise any powers in the host state that were not granted to banks chartered in that state, although the proposal also provides that the out-of-state branch could not exercise any powers not granted by its home state. While the state bank's own regulators would examine the entire bank, they would be required to apply the host state's laws and standards for out-of-state branching applications. In order to ensure that such laws and standards are followed, the host-state regulator would have the authority to approve or disapprove applications for entry.

There has been legislation recently introduced in Congress that follows the host-state regulation principle (H.R. 5384 and S. 2922). The bills would (1) repeal the Douglas Amendment to the Bank Holding Company Act; (2) amend the Federal Deposit Insurance Act to specifically authorize out-of-state branches unless a state specifically forbids them; and (3) amend McFadden to allow establishment by national banks of out-of-state branches unless a state specifically forbids it as in (2). The activities allowed the branch would be governed by host-state law.

Since states would have the opportunity to pass laws that block interstate branching, it is not clear how far such a bill would go toward facilitating nationwide branch systems. Still, two points are significant. First, by repealing Douglas the bill would permit nationwide interstate banking by the holding company acquisition route, as well as eliminate all geographical restrictions on interstate entry. That alone is the most extensive nationwide banking initiative to arise at the federal level to date. Second, states would only be able to opt out of permitting interstate *branching*. And since states would be required to specifically pass laws that forbid interstate branching rather than laws that permit it, branching would be allowed if a state simply did nothing.

Home-State Regulation

A third alternative for interstate branch banking is based on an analogy with the European Community's Second Banking Directive, to take effect at the end of 1992 (Golembe 1989,1990). The effect of the Directive will be to create a "single banking license" for a depository institution in any European Community nation to provide banking services. The license is based on two concepts. The first is mutual recognition by each member country that every other country's laws and regulations are equal to its own and that no country will use its laws and regulations to restrict access to its market. The second is home country control, so even if laws and regulations differ between countries, those of the home country will govern the operations of a branch in another country (Key 1989). In certain areas such as consumer protection, however, host-state regulators retain authority.

As applied to the United States, the European Community approach would involve authorizing a bank chartered in one state to branch into any other state. Whatever the host state's laws, the branch would be governed by the laws of the state in which the parent bank is located. Thus within such a framework, a bank located in a state with statewide branching would be able to expand into a limited branching state but still branch throughout the state regardless of what the local banks could do. And to take the analogy further, if a bank located in a state that permits banks to sell life insurance branches into a state that does not, the branch would be able to exercise the more liberal insurance powers even within the restrictive state's boundaries.

There are advantages to both the host-state and home-state regulation alternatives. Given the dual banking tradition of the United States, host-state regulation is likely to be more consistent with current practice. That is, by deferring to host states it is less likely that states would oppose entry from another state than if control over the branch were to lie entirely in the home state. Further, even if host-state regulation were the norm, there would be no reason why host states could not agree to defer in specific cases to home state regulators. In such an environment, host states would have the option rather than the obligation to accept another state's laws and regulations.

Home-state regulation would probably lead the laws and regulations of the various states to become more similar and consistent. Since banks in a restrictive state would be at a disadvantage relative to

branches of banks from liberal states, there would arise pressure in the more restrictive states to loosen the rules. In the European Community, such a tendency toward "regulatory convergence" is fully expected to occur and is consistent with the goal of "harmonization" of rules, regulations, and standards between member countries (Key 1989).

Depending on one's views concerning the dual banking system, regulatory convergence may or may not be an advantage. If one believes that an advantage of the American dual banking system is that it fosters diversity and allows some states to experiment while others are more conservative, then regulatory convergence might be less attractive than it would be to one who considers the tension between state and federal regulation to be an obstacle to progress. More important, while convergence toward liberal branching laws among states would have salutary effects on safety, convergence toward, say, liberal real estate investment laws for banks might not.

INCENTIVES TO PERMIT INTERSTATE BRANCH BANKING

Having presented the case for interstate branching and outlined three ways it could be structured, the next matter for consideration is the likelihood of its adoption. As mentioned previously, many of the benefits of interstate branching will accrue to consumers in the form of convenience, increased competition for deposits, and more efficient payment clearing. But consumers are by their nature a diverse and unorganized group, and the benefits to any individual consumer are not likely to be so large as to excite him to lobby his state legislature to allow interstate bank subsidiaries to convert to branches. And while the experience of Utah in allowing an out-of-state thrift branch to operate in the state as a bank branch suggests that sales of insolvent thrift institutions might require some loosening by states of restraints on entry by branching, it is not clear that such liberalization would be necessary in most states. Thus it is logical to ask: Whence will come the pressure for interstate branching?

As described earlier, interstate branching would be more efficient than maintaining separate subsidiaries. Banks with interstate operations might therefore be expected to support permitting interstate branching. But because it would make it less costly for a bank to move across a state line, interstate branching would likely increase the number of potential competitors in a market. Consequently, other (and probably most)

banks at the state level might have incentives to oppose interstate branching, or at least to refrain from actively supporting it.

Further, competition could be even more intense if *de novo* interstate branching were permitted, since banks that are now deterred on the margin from expansion into another state by the merger premium cost of acquiring a bank might find it less costly to enter a state by establishing a new branch. In the past, interstate banking laws have been crafted in a way that limits competition. In particular, most states restrict *de novo* entry in favor of entry by acquisition, which tends to make merger premiums higher than would be the case were the *de novo* option available. Thus potential acquirees might have reasons to oppose permitting alternatives to entry by acquisition.

The lineup of potential winners and losers from interstate branching brings to mind the long opposition by unit bankers to branching within a state. In particular, it illustrates Anthony Downs's (1957) principle that when a small group has much to gain and a far larger group has about the same amount to lose from a specific measure, the gainers have the incentive to devote more resources to having the measure enacted than would the losers, each of which would stand to lose a small amount as individuals. The same idea was expressed by the Federal Reserve Board (1933a):

That the opposition of the bankers should have been overwhelming, in the absence of any real public interest in favor of branch banking, is not strange. Nor is it strange the bankers, pursuing, as in the main they were, a thriving and profitable business, should have been more moved by the probability that branching would affect them individually than by the possibility that the economic system as a whole would profit from it.

With regard to interstate branching today, the question is whether there exist the same incentives to fight it as there were to fight branching within a state in the first decades of this century.

At first glance, one might be pessimistic regarding the chances for interstate branching because of the relative influence of interstate and in-state banks on the state legislature. That is, in states with both types of banks, both will have influence on the legislature, and reform may in such a state originate in state legislation. But in states with banks that are not likely to expand into other states, legislative pressure might more likely be for protection rather than enhanced entry. Consequently, it might seem improbable that any large-scale initiative for interstate branching could originate at the state level.

Still, it should be recalled that the current crop of interstate banking laws, that is, those that allow bank holding company expansion across state lines, did originate at the state level. While the prevalence of laws that block de novo entry probably reflects the incentives of potential acquirers to protect their interests, banks apparently did not see fit to devote a great deal of resources to blocking interstate banking in toto. Thus the success of efforts to introduce interstate banking suggests that incentives to oppose interstate branching are not as strong today as were the incentives in the 1920s to oppose branching.

Whatever the interplay of interests at the state level, the incentives might well be different at the federal level. While both regional interstate banks and those seeking to limit competition are well-represented, the balance is probably less tilted in favor of protection. In addition, the banking committees of both the House and Senate are by their nature more likely to reflect a national perspective than that of individual state interests, so public interest arguments might get a more sympathetic hearing. Finally, consumer interests (such as they exist) may be better represented at the federal level than in the legislatures of fifty states.

The upshot of incentives at both the state and federal levels seems to be as follows. It is probably more likely that interstate branching would be approved at the federal level than in the legislatures of all fifty states. Further, if Congress follows the H.R. 5384 approach of authorizing interstate branching unless states pass legislation specifically *forbidding* it, the result is likely to be interstate branching in more states than if it were left to the states to pass laws specifically *authorizing* it. The reason is that it is easier for either side to block legislation than to get it passed, since a law can be bottled up or killed in committee without ever getting it up for a vote.

There is some probability that branching laws in the United States could be liberalized in response to the developments in the European Community cited above. Prior to the adoption of the Second Banking Directive, there was some sentiment in the European Community in favor of adopting reciprocity, under which American banks would be allowed to do in the European Community whatever European Community banks could do in America. American banks preferred national treatment, under which American banks could do in Europe whatever European Community banks were allowed to do there (and similarly for EC banks in America). If

reciprocity had been adopted, American banks might have come under severe restrictions relative to their European counterparts. In the end, national treatment prevailed, although there have been repeated urgings that American banking laws be reformed to give European banks the same access to the American market as American banks now have to the European market.⁵

EFFECTS ON BANK STRUCTURE

As of the end of June 1990, there were 12,321 banks operating in the United States. Because of mergers, consolidations, and failures, this number is widely expected to fall even if the current laws on branching remain in effect. Interstate branching may cause the number to fall still more. What is not clear is how much interstate branching will contribute to the fall in the number of banks.

The obvious candidates for consolidation are, of course, the bank subsidiaries of interstate bank holding companies. At the time of this writing there are 160 interstate bank holding companies operating at least 465 bank subsidiaries in different states. If the law is changed to allow interstate subsidiaries to be consolidated into branches, and assuming all interstate bank holding companies decide to consolidate, then the number of separately chartered banks in the United States could fall by at least 305. And assuming that regional restrictions on interstate banking are removed, the number could fall even more by means of end-to-end mergers between banks that had been restricted to separate regional compacts such as those in the Southeast and New England.

At the other end of the spectrum, in June 1990 there were 11,724 small banks, that is, banks with \$500 million of assets or less. The effect of interstate branching on small banks would largely depend on the laws of the various states. In states with restrictive branching laws, it is reasonable to assume that some banks have remained in business because of the laws and would be absorbed by another organization if the laws were liberalized. So if interstate branching were enacted in such a way as to either override state branching laws or to induce states to liberalize their branching restrictions, then the number of small banks would probably fall.

⁵ Such calls for reform routinely cite the McFadden Act as an obstacle to foreign bank expansion. See, for example, "Time to Open Non-EC Markets, Brittan Tells Bankers' Group," *BNA's Banking Report*, February 12, 1990; and "U.S. Urged to End Banking Barriers," *American Banker*, March 26, 1990.

But in states with liberal branching laws, there might be little if any effect on the number of small banks. For example, all states in the Fifth Federal Reserve District allow statewide branching. Table II shows there are substantial numbers of banks with \$500 million of assets or less in each of the Fifth District States. Except perhaps in West Virginia, which did not allow statewide branching until 1988, the number of small banks cannot be attributed to branching restrictions. The survival of small banks in such a legal environment suggests that the vast majority would remain in business even if interstate branching were permitted. To the extent that reductions in the number of small banks occur in states already permitting statewide branching, they are likely to be the result of acquisitions of banks in markets previously divided by state lines.

Another way to consider the probable effect of interstate branching is to take the number of banks per capita for countries with no limitations on branching and project the same ratio on the United States. Canada, for example, has eight major banks, of which six operate nationwide, serving its population of 26.3 million. If the United States had the same ratio of banks to population, it would have about 75 banks, of which about 56 would operate nationwide.

At first blush, 75 banks (much less 56) seems small compared with the current 12,321. But 56 banks competing with each other in markets across the United States does not seem small, especially when one realizes that the vast majority of American banks operate in one market. Only if the 56 banks operated in separate, balkanized markets would there be cause for concern. More important, even if most of the 12,321 were to cease to exist as separate firms, they would not simply vanish into thin air. Most would likely be converted into branches of one of the nationwide banks. Consequently, while there would be fewer banks in each market there would not necessarily be fewer banking facilities.

But Canada might not provide a relevant comparison. First, Canadian banking policy differs from that of the United States in that it has been and remains a strictly federal function despite the provinces' high degree of autonomy in other areas (such as securities regulation). Unlike the United States, there was no conflict between the provinces and the federal government over banking structure. Second, while banking policy in the United States has at times encouraged the spread of small, local banks, Canadian policy seems to have favored larger banks. Specifically, while in the United States in 1900 a

Table II

**Banks with Assets below \$500 Million
Fifth Federal Reserve District**

State	Number of Banks	Banks below \$500 Million
Maryland	108	96
North Carolina	78	68
South Carolina	84	78
Virginia	180	168
West Virginia	162	159
District of Columbia	26	20

Source: Consolidated Reports of Condition and Income, June 1990.

national bank could be chartered with as little as \$25,000 in capital, in Canada the Bank Act of 1871 required a minimum of \$500,000 in capital (Breckenridge 1910).

Finally, a structural outcome similar to the Canadian system is unlikely because small banks in the United States may have advantages over entrants into their markets simply by virtue of being there first. If a larger bank wishes to enter, it has to incur costs to buy its way in either de novo or by acquiring the incumbent. If the incumbent is earning above normal returns, the costs of entry might be worth incurring. But if the incumbent is simply earning a normal return, the entrant would have to have an advantage over the incumbent in order to make the costs of entry worth incurring. The advantage could occur on the supply side in the form of more efficient operations, or on the demand side in the form of enhanced services and credit availability that would make consumers willing to pay more. The point is that the eventual structure of American banking will depend to a large extent on the structure that is in place now and will not inevitably converge to that of Canada.

A more realistic comparison might be with California, which has explicitly allowed branching since 1909. California has 431 banks serving its 29.1 million population. The California banks per capita ratio applied to the entire United States implies about 3,700 banks. Still, such projections are precarious because they do not take into account advantages of incumbent banks in markets. At best, they represent an upper limit to what one might expect to happen. Given the divergence between the number of banks predicted by the ratios for Canada and California, the only prediction one can safely make is that the number of banks in the United States will fall but not by much.

Suppose, however, that the drastic reductions in the number of banks implied by the ratio for California or even for Canada were to come to pass. What would be the implications for consumer welfare? A rough idea of the answer may be inferred from a simulation of the potential for mergers in local banking markets in the United States (Burke 1984). The analysis simulated the maximum extent of concentration and minimum number of firms remaining in a market after the consummation of all possible mergers that did not violate the Department of Justice Merger Guidelines.⁶ No matter how many banks a market started with, the number of banks remaining in the market after all mergers were consummated averaged from four to six, assuming no entry from out-of-market competitors or de novo banks. In some markets, the number could fall as low as three before triggering an antitrust challenge.

The implication of the simulation results is that the number could fall substantially within most local markets before constituting undue concentration under the Department of Justice Merger Guidelines. Thus it could be that the 56 nationwide banks suggested by the analogy with Canada might be more than sufficient to preserve competition. Even if all 56 banks do not overlap in all markets, it is only necessary that some overlap in each market. So long as one accepts the Guidelines as a valid delineation of levels of concentration that might harm consumer welfare, one may infer that there is plenty of room for consolidation before the number of banks falls to levels with which regulators should be concerned.

Having considered the banks likely to be affected by interstate branching powers, the possible results of consolidation, and the implications for competition, one question remains: How likely are bank holding companies to consolidate their subsidiaries? One way to predict the likelihood of consolidation if interstate branching laws are liberalized is to look at the experience of bank holding companies in states that have liberalized their branching laws, since they would provide a situation analogous to the repeal of McFadden. At least one case study of Virginia showed that when state branching restrictions were liberalized, the majority of banks converted their subsidiary banks to branches (Kyrus 1982).

⁶ According to the guidelines, mergers in unconcentrated markets (Herfindahl index below 1000) would not be challenged, those in moderately concentrated markets (Herfindahl index between 1000 and 1800) might be challenged if they raised the Herfindahl by at least 100 points, and those in highly concentrated markets (Herfindahl index above 1800) might be challenged if they raised the index by at least 50 points (*Federal Register*, June 29, 1984).

More generally, Table III is a contingency table showing the frequency of consolidated and decentralized banks by size class in a sample of twelve states that have adopted statewide branching sometime during the last twenty years.⁷ As the analysis of an earlier section implied, the larger the bank holding company, the more likely it is to consolidate its subsidiaries into branches. Indeed, that is exactly what the frequencies in each column of Table III imply. The purpose of the analysis is to test whether the tendency to consolidate is statistically independent of size, since it is mostly larger organizations that operate on an interstate level and might therefore be likely to take advantage of interstate branching authority.

The strength of the association, measured as a χ^2 statistic, just fails the test of statistical significance at the 5 percent level of confidence. Thus while the numbers in the contingency table point to an increasing percentage of consolidation as organization size grows, the relationship is not strong in a statistical sense. As a result, the experience of bank holding companies within states that have liberalized their branching laws does not provide a strong basis for predicting that all interstate bank holding companies will automatically convert their subsidiaries to branches if the law so allows, at least in the short term. Despite the compelling arguments for consolidation of subsidiaries into branches, there are apparently sufficient benefits to decentralization to make the outcome vary widely across companies.

⁷ The states are Florida, Louisiana, Massachusetts, Michigan, New Jersey, New York, Ohio, Oklahoma, Tennessee, Texas, Virginia, and West Virginia. Bank holding companies with combined bank assets of less than \$1 billion are excluded in order to limit the sample to companies with statewide operations instead of operations limited to one local area.

Table III
Consolidation vs. Decentralization
Banks Larger than \$1 Billion in Assets

	\$1-5 Billion	\$5-10 Billion	Over \$10 Billion	Row Total
Branches	25 (46.30%)	13 (59.09%)	25 (71.43%)	63
Subsidiaries	29 (53.70%)	9 (40.91%)	10 (28.57%)	48
Column Total	54	22	35	111

Summary statistics: $\chi^2 = 5.526$ (Critical $\chi^2_{.05, 2 \text{ d.f.}} = 5.99$)
Note: Numbers in parentheses denote column frequencies.

There are some qualifications to the results. First, most of the decentralized bank holding companies are operating in states that have liberalized their branching restrictions in the last five years, for example, Michigan, Ohio, and Texas. Second, at the time of this writing there appears to be a trend toward consolidation that may not yet have finished. For example, five of the bank holding companies in the sample announced or completed consolidations since June 1990. As a result, the numbers may reflect more consolidation over time, especially among the larger organizations. Finally, consolidation seems irreversible, since there are apparently no cases of consolidated banks that elected to spin off branches into subsidiaries. The implication of the qualifications is that at this time the contingency tables might not yet reflect long-run results.

CONCLUDING COMMENTS

The liberalization of geographical restraints on banking and other depository institutions has been a prominent feature of banking in the United States since the failures of the late 1920s and early 1930s. The liberalization has picked up momentum during the 1980s, during which barriers fell to both statewide branching and interstate bank holding company expansion. Given all that has happened, it would seem logical for the next step to be to relax restrictions on branching across state lines.

Despite the arguments in favor of interstate branching, it is not likely that permitting it would

immediately revolutionize the banking structure of the United States. Assuming all interstate bank holding companies were to consolidate, the number of large banks, most of which do not compete directly with each other, would fall. But while interstate branching could lead to some interstate expansion that had not occurred before, it would not likely have much effect on the number of small banks, at least those that have survived the competition in states with liberal branching laws. And given that some bank holding companies have chosen to retain a decentralized structure within their states, it is possible that some interstate organizations could remain decentralized as well.

Still, a long-term benefit of permitting interstate branching is that it could pave the way for the development of a truly nationwide banking system with geographically diversified lending and funding sources. Since interstate branching would enable interstate organizations to operate at lower cost than under the current system, it could facilitate the development of expertise in interstate operations. While nationwide organizations might not develop immediately because of capital constraints and limited knowledge of markets outside of banks' local areas, the ability to expand in a sound manner will increase as bankers become accustomed to operating branch networks over wider areas. In the end, the result could be a mixture of large banks with nationwide branch networks and markets and smaller banks specializing in local markets.

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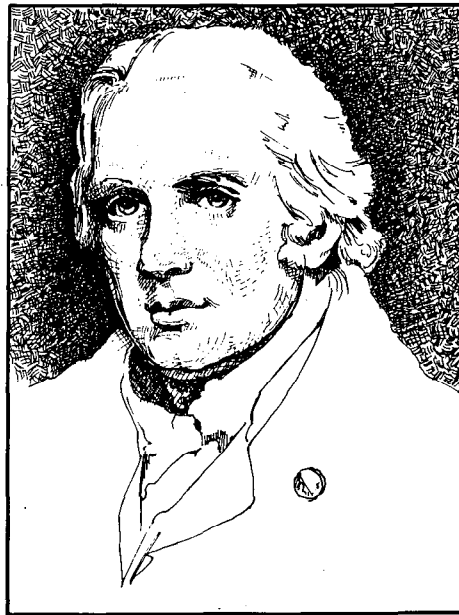
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Ricardo Versus Thornton on the Appropriate Monetary Response to Supply Shocks

Thomas M. Humphrey



David Ricardo (1772-1823)



Henry Thornton (1760-1815)

Introduction: Supply Shocks and Policy Choices

Exogenous supply disturbances such as the recent Iraqi oil shock deliver a double blow to the economy. By rendering material or energy inputs scarcer and dearer, they raise production costs per unit of output. In so doing they discourage production and raise product prices. The resulting rise in the general price level shrinks the buying power of spenders' money balances, thus reducing the aggregate demand for real output. Real activity slackens as prices rise.

Of course the adverse price and output effects of a supply shock would hardly be expected to last forever. For the depressed levels of output and employment would put downward pressure on wage rates. And the resulting fall in wages would tend to countervail the impact of dearer energy and material inputs on production costs, thereby restoring aggregate prices, output, and employment to their pre-shock levels. If wages are downwardly sticky,

however, such adjustment cannot be instantaneous. During the interim the economy feels the effects of the shock.¹

Because supply shocks are painful, they raise the question of the appropriate monetary response. What, if anything, should the central bank do to counter the adverse price and output effects of a shock? Essentially the policymakers' choices are three. They can leave monetary policy unchanged and do nothing to mitigate the shock. Alternatively they can accommodate the shock with expansionary policy in an effort to dampen its depressive output effects. Finally, they can employ contractionary policy to reverse the price rise caused by the shock. Of these alternatives, expansionary policy runs the risk of

¹ For more on the conventional sticky wage analysis of supply shocks and their policy implications see Bruno and Sachs (1985), Dornbusch and Fischer (1984), Feldstein (1990), Fischer (1985), Gordon (1981), Mishkin (1989), Shapiro (1987), and Solow (1980). The present section draws heavily from these sources.

putting further upward pressure on prices. By contrast, contractionary policy risks worsening the recession caused by the shock. A policy of holding the money stock constant of course avoids these risks, albeit at the cost of ameliorating neither of the shock's adverse effects.

Which of the foregoing alternatives will the policymakers select? Their choice will depend to some degree on their belief in the neutrality or non-neutrality of money stock changes on real output and employment. Those believing in money's short- as well as long-run neutrality will opt for contractionary policy. They will reason that if money has no real effects, then expansionary policy is powerless to stimulate real activity whereas contractionary policy can stabilize prices at their pre-shock level at the cost of no additional lost output and employment. Since stable prices reduce business risk and uncertainty, contractionary policy will be judged the best.

Contrariwise, policymakers believing in money's short-run non-neutrality will opt either for expansionary or constant money-stock policies. Expansionary policy will be selected if its beneficial output and employment effects are judged to exceed its inflation costs. Only if those costs are seen to outweigh the benefits will expansionary policy be rejected in favor of constant money-stock policy. Seldom will contractionary policy be chosen by believers in money's non-neutrality. Given that such policy produces additional output losses on top of those already caused by the shock, it will be regarded as too costly to conduct.

That supply shocks may require different monetary responses depending on the neutrality or non-neutrality of money is hardly a new idea. It was thoroughly established in the writings of David Ricardo and Henry Thornton in the first decade of the nineteenth century. Ricardo, a strict believer in money's long- and short-run neutrality with respect to output and employment, argued that supply shocks should be countered with monetary contraction.²

² Ricardo was not always consistent on the neutrality proposition. In certain isolated passages (for example, *Works*, III, 94) he remarked that sudden and sharp contraction can bring painful real effects which only gradual contraction can avoid. His remarks have been interpreted as a rejection of the short-run neutrality proposition [Ahiakpor (1985), Hollander (1979)]. More likely they are mere exceptions or minor qualifications to it [de Vivo (1987), p. 189], O'Brien (1981, p. 371), Peake (1978)]. Generally he adhered to the neutrality proposition and made no distinction between the short run and the long. The proposition's prevalence in the bulk of his monetary writing supports O'Brien's (1975, p. 164) judgment that "Ricardo, focusing as usual on successive periods of long-run equilibrium, denied the damage of deflation and the stimulating effect of rising prices."

Thornton, a believer in money's short-run non-neutrality, opposed monetary contraction and argued instead that the money stock should be held constant in the face of supply shocks. Both parties agreed that money has no long-run (permanent) real effects. On this matter Thornton was every bit as much a strict classical quantity theorist as Ricardo. At issue was the short-run (temporary) non-neutrality of money. The following paragraphs show how this issue influenced the respective policy prescriptions of Ricardo and Thornton just as it undoubtedly continues to influence the Fed's response to oil shocks today.

David Ricardo's Analysis

Textbook allegations to the contrary, economic analysis of supply shocks and the appropriate policy response did not begin with the OPEC price hikes of 1973-74.³ As early as the first decade of the nineteenth century, David Ricardo (1772-1823) and Henry Thornton (1760-1815), the preeminent monetary theorists of the English Classical School, analyzed such shocks in the form of harvest failures. They were particularly concerned with how to deal with external gold drains triggered by the impact of bad harvests on domestic monetary requirements and the balance of payments. At issue was whether such drains should be allowed to contract the money supply and bring prices back to their pre-shock level.

Ricardo argued that they should. Assuming a given initial money stock, his argument was that English harvest failures would, by reducing real output and thus raising general prices, lower money's purchasing power in England relative to its purchasing power abroad. Traders would then find it advantageous to ship monetary gold abroad to where its value was highest. Ricardo maintained that the resulting gold drain should be allowed to contract the English money stock until prices fell to their pre-shock level. In terms of the equation of exchange $P = MV/Q$, with velocity V constant, the shock-induced fall in real output Q requires an equiproportionate reduction in money M to stabilize prices P at their pre-shock level.⁴ As Ricardo put

³ See Barro (1990, p. 114) and Gordon (1981, p. 17) for textbook statements identifying 1973 as the year when supply-shock analysis became important to macroeconomists.

⁴ Ricardo's use of the exchange equation to analyze aggregate price determination is well known. In his notes on Jeremy Bentham's manuscript "Sur Les Prix" he wrote: "May we not . . . put the mass of commodities of all sorts on one side of the line,—and the amount of money multiplied by the rapidity of its circulation on the other. Is not this in all cases the regulator of prices?" (*Works*, III, 311) Here is a precise verbal statement of the equation $P = MV/Q$.

it in the Appendix to the fourth edition of his *The High Price of Bullion, A Proof of the Depreciation of Bank Notes*:

England, in consequence of a bad harvest, would come under the case . . . of a country having been deprived of a part of its commodities, and therefore requiring a diminished amount of circulating medium. The currency which was before equal to her payments would now become superabundant and relatively cheap, in . . . proportion . . . of her diminished production; the exportation of this sum, therefore, would restore the value of her currency to the value of the currencies of other countries (*Works*, III, 106).

In prescribing monetary contraction, Ricardo assumed money's output and employment effects were negligible so that contraction would not amplify the depressive impact of the shock. His policy prescription manifested his belief in the neutrality of money.

That same belief led him to reject expansionary remedies. Such remedies purport to stimulate production thereby counteracting, wholly or partially, the output losses due to the shock. In Ricardo's view, however, monetary accommodation could no more relieve the real effects of a shock than contraction could exacerbate them. "Money," he said, "cannot call forth goods" (*Works*, III, 301). Likewise, when asked to give his opinion on the output stimulus provided by "fictitious capital," a then-current euphemism for monetary expansion, Ricardo replied: "I believe that on this Subject I differ from most other People. I do not think that any Stimulus is given to Production by the Use of fictitious Capital, as it is called," arising from extra issues of money (*Works*, V, 446).

To be effective, such overissue must inflate product prices faster than it does money wages with the resulting fall in real wages and corresponding rise in real profits inducing employers to hire extra labor to expand production. According to Ricardo, however, money wage flexibility prevents this outcome. Indeed, wages adjust virtually as rapidly as prices to monetary change so that lags of wages behind prices are but fleeting phenomena. In his own words:

There is but one way in which an increase of money no matter how it be introduced into the society, can augment riches, viz at the expense of the wages of labour; till the wages of labour have found their level with the increased prices which the commodities will have experienced, there will be so much additional revenue to the manufacturer and farmer; they will obtain an increased price for their commodities, and can whilst wages do not increase employ an additional number of hands, so that the real riches of the country will be somewhat augmented. A productive

labourer will produce something more than before relatively to his consumption, *but this can be only of momentary duration* (*Works*, III, 318-19, emphasis added).

In short, wage-price flexibility renders monetary stimulus powerless to cushion real shocks.

Ricardo Diagrammed

Writing more than sixty years before the invention of supply and demand curves, Ricardo expressed himself in words and numerical examples rather than in geometrical diagrams. Nevertheless it may be useful to illustrate his analysis with the aid of conventional aggregate demand and supply schedules located in price-output space (see Figure 1). Drawn for a given nominal money stock, the aggregate demand schedule slopes downward because of a real balance effect on expenditure: a fall in prices raises real cash balances thereby increasing the quantity of goods demanded. The vertical aggregate supply schedule reflects Ricardo's assumption of the neutrality of money: given perfect wage-price flexibility, the quantity of output supplied is invariant to changes in money and hence prices.

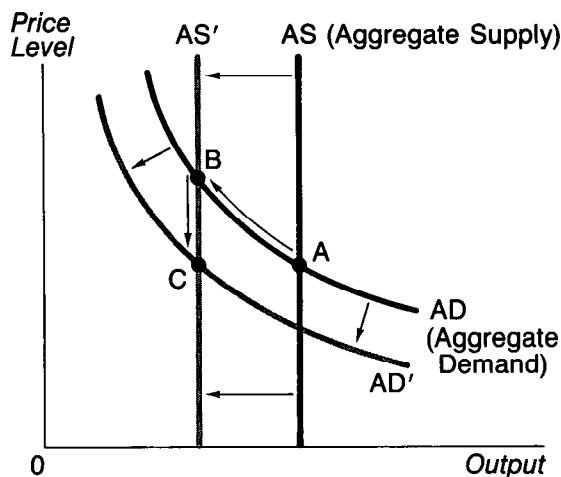
Starting from initial demand-supply equilibrium at point A, a harvest failure shifts the aggregate supply schedule to the left. Equilibrium moves to point B along the initial demand schedule yielding lower output and higher prices. Monetary contraction then shifts the aggregate demand schedule downward. Equilibrium moves to point C where prices are restored to their pre-shock level. Monetary contraction has no effect on output but stabilizes prices at their pre-shock level.

By the same token, monetary expansion and the resulting rightward shift in the demand curve would do nothing to counter the output loss of the shock. It would merely move the price level to a higher point along the shock-displaced supply curve with no corresponding rise in output. Since price stability in the face of the shock can be costlessly attained whereas monetary expansion and inflated prices yield no benefits, contractionary policy is preferred.

Henry Thornton's Analysis

Opposed to Ricardo was Henry Thornton, banker, member of Parliament, philanthropist who before his marriage donated six-sevenths of his considerable income to charity and at least one-fourth thereafter, and author of the classic *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* (1802). Thornton objected to Ricardo's prescription of

Figure 1
RICARDO'S ARGUMENT



Along the aggregate demand curve, rising prices shrink real cash balances and thus the quantity of goods demanded. Perfect wage-price flexibility fixes the aggregate supply curve at the actual (and potential) level of output. Point A denotes initial supply-demand equilibrium. A crop failure shifts the supply curve leftward. Equilibrium moves to point B with lower output and higher prices. Monetary contraction then shifts the demand curve downward. Equilibrium moves to point C where prices are stabilized at their pre-shock level with no additional loss of output. Ricardo's conclusion: Since price stability can be costlessly attained, crop failures should be countered with monetary contraction.

monetary contraction. He argued that at a very minimum the money stock should be held constant in the face of real shocks. He agreed that harvest failures and raw material shortages would, by boosting production costs, act to raise prices. "[B]ad harvests," he wrote, "by raising the price of bread, have in some degree lifted up that of labour, and of all commodities. Our prices may have also been partly augmented by the enhancement of the cost of raw materials brought from other countries" (1802, p. 263).

Besides raising prices, crop failures, Thornton noted, would necessitate extraordinary imports of food paid for by exports of monetary gold. But he did not agree with Ricardo that the gold drain should be allowed to contract the money stock. Believing as he did in the short-run non-neutrality of money, Thornton was convinced that monetary contraction was hardly the proper way to deal with adverse supply shocks. He thought that money wages were sticky

and adjusted sluggishly in response to price falls such that when those falls occurred real wages would rise to inhibit economic activity. For this reason he maintained that monetary contraction risked the danger of disrupting markets and causing further falls in output and employment. As he put it in his *Paper Credit*, monetary contraction and the resulting

diminution in the *price* of manufactures . . . may also, if carried very far, produce a suspension of the labour of those who fabricate them. The masters naturally turn off their hands when they find their article selling exceedingly ill. It is true, that if we could suppose the diminution of bank paper to produce permanently a diminution in the value of all articles whatsoever, and a diminution, as it would then be fair that it should do, in the rate of wages also, the encouragement to future manufactures would be the same, though there would be a loss on the stock in hand. The tendency, however, of a very great and sudden reduction of the accustomed number of bank notes, is to create an *unusual* and *temporary* distress, and a fall of price arising from that distress. But a fall arising from temporary distress, will be attended probably with no correspondent fall in the rate of wages; for the fall of price, and the distress, will be understood to be temporary, and the rate of wages, we know, is not so variable as the price of goods. There is reason, therefore, to fear that the unnatural and extraordinary low price arising from the sort of distress of which we now speak, would occasion much discouragement of the fabrication of manufactures (1802, pp. 118-19).

To avoid this danger, he favored offsetting or sterilizing the gold outflow with compensating note issues by the Bank of England. The additional paper would go to replace the departed gold, thus maintaining constancy in the money stock. He was even willing to risk temporary suspension of the gold standard rather than contract the money supply in the face of supply shocks. To him, inconvertibility and the consequent inability to redeem paper in gold at a fixed price on demand was preferable to monetary contraction. Particularly so when such contraction, by disrupting real activity, would impair the economy's ability to generate export surpluses that would be paid for by specie inflows upon the post-shock return to gold. To put the economy through the wringer of monetary contraction, he said, is to compel

the manufacturer, on account of the unusual scarcity of money . . . to slacken, if not suspend, his operations. To inflict such a pressure on the mercantile world as necessarily causes an intermission of manufacturing labour, is obviously not the way to increase that exportable produce, by the excess of which, above the imported articles, gold is to be brought into the country (1802, p. 118).

Sources of Non-Neutrality

Although Thornton opposed monetary contraction, he did not go to the opposite extreme and

advocate expansionary monetary policy to accommodate supply shocks. To be sure, he admitted that such expansion could stimulate output and employment temporarily, thus dampening the real effects of the shocks. These stimulative effects, he said, came from three sources.

First were sellers' efforts to maintain fixed inventory-to-sales ratios. Their efforts, which ensured that any money-induced rise in sales would be matched by a corresponding rise in production for inventory, were described by Thornton as follows:

It may be said . . . and not untruly, that an increased issue of paper tends to produce a more brisk demand for the existing goods, and a somewhat more prompt consumption of them; that the more prompt consumption supposes a diminution of the ordinary stock, and the application of that part of it, which is consumed, to the purpose of giving life to fresh industry; that the fresh industry thus excited will be the means of gradually creating additional stock, which will serve to replace the stock by which the industry had been supported; and that the new circulating medium will, in this manner, create for itself much new employment (1802, p. 237).

Second was lagged wage adjustment which ensured that a monetary stimulus would temporarily raise prices relative to wages. As pointed out by Jurg Niehans (1990, p. 108), Thornton held that wages were set for extended periods of time whereas prices related to instantaneous transactions. This meant that wages were less volatile than prices and thus less responsive to monetary impulses. Consequently monetary expansion would produce a larger initial rise of prices than wages. The resulting fall in real wages would spur real output and employment.

Third was the shift in real income from wage earners to profit recipients caused by the lag of wages behind prices. Because profit recipients tended to save and invest more than wage earners, this income shift would encourage capital formation thus increasing actual and capacity real output. Here is the origin of the famous *forced saving doctrine* according to which the redistributive effects of inflation divert resources from consumption to investment. Of these forced saving effects, Thornton (1802, p. 239) wrote:

It must be also admitted, that, provided we assume an excessive issue of paper to lift up, as it may for a time, the cost of goods though not the price of labour, some augmentation of stock will be the consequence; for the labourer, according to this supposition, may be forced by his necessity to consume fewer articles, though he may exercise the same industry (1802, p. 239).

Thornton likewise alluded to the possibility of "a similar defalcation of the revenue of the unproductive members of the society," namely fixed-income

recipients. Owing to these forced saving effects he concluded that "It has thus been admitted that paper possesses the faculty of enlarging the quantity of commodities by giving life to some new industry" (p. 239).

Nevertheless, he opposed pursuing these expansionary real effects because of the high inflationary costs of doing so. Indeed he condemned all forced saving and the accompanying price inflation as "attended with a proportionate hardship and injustice" (p. 239). To him, inflation was an unmitigated evil to be avoided at all costs, even if it meant giving up the associated gains in output and employment. These gains, he thought, could never compensate for the uncertainty, injustice, and social discontent generated by inflation. In short, he favored a policy of holding the money stock constant on the grounds that an accommodative policy's inflationary costs would far exceed its output and employment benefits.

Thornton Diagrammed

Thornton's analysis, like Ricardo's, can be depicted with aggregate demand and supply schedules (see Figure 2). Thornton's aggregate supply schedule, however, differs from Ricardo's. As noted above, Ricardo's supply schedule is vertical throughout its range, reflecting his assumption of complete wage-price flexibility such that changes in aggregate demand have no influence on output and employment.

By contrast, Thornton's supply schedule slopes upward to the point of full employment, reflecting his assumption that higher prices operating through wage lags and forced-saving effects induce higher levels of output and employment. In his own words:

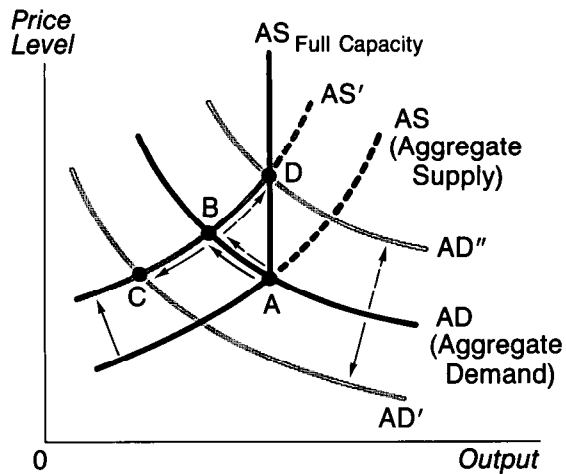
. . . additional industry will be one effect of an extraordinary emission of paper, a rise in the cost of articles will be another.

Probably no small part of that industry which is excited by new paper is produced through the very means of the enhancement of the cost of commodities (1802, p. 237).

In short, money-induced inflation stimulates output along the positively sloping portion of the supply schedule. Provided the economy operates in this range, output gains are possible. Only at the economy's absolute full-capacity level of output are these gains impossible to obtain. There Thornton's supply schedule becomes vertical (perfectly inelastic). At that point:

. . . it is obvious, that the antecedently idle persons to whom we may suppose the new capital to give employ, are limited in number; and that, therefore, if the increased [monetary] issue is indefinite, it will set to work labourers.

Figure 2
THORNTON'S ARGUMENT



Aggregate supply becomes perfectly inelastic at full employment. Point A denotes initial equilibrium. A harvest failure shifts the supply curve to the left. Equilibrium moves to point B with lower output and higher prices. Monetary contraction would shift the demand curve downward with equilibrium moving to point C. There prices would be stabilized at their pre-shock level at the cost of extra output losses. Alternatively, monetary expansion would shift the demand curve upward. Equilibrium would move to point D. There output would be stabilized at its pre-shock level at the cost of a further rise in price. To Thornton, the costs of monetary contraction and expansion rendered both actions unacceptable. His advice: Hold the money stock constant when supply shocks occur. Then rely on wage adjustment and/or self-reversal of the shocks to restore equilibrium to point A.

of whom a part will be drawn from other, and, perhaps, no less useful occupations. It may be inferred from this consideration, that there are some bounds to the benefit which is to be derived from an augmentation of paper; and, also, that a liberal, or, at most, a large increase of it, will have all the advantageous effects of the most extravagant emission (1802, p. 236).

To summarize, for Thornton the classical neutrality-of-money proposition holds only at absolute full employment. Short of that point non-neutrality prevails. Note also that the positively sloped portion of Thornton's supply schedule is drawn for a given price of food and raw materials: rises in these particular prices shift the curve upward and to the left.

Thus starting from initial equilibrium at point A, suppose a harvest failure or other real shock shifts the supply schedule to the left thereby establishing

a new equilibrium at point B with higher general prices and lower real output. Monetary contraction could, by shifting the aggregate demand curve down and to the left, restore prices to their pre-shock level at point C. But output would be depressed below its already low level produced by the shock. Because of this depressive effect, monetary contraction should be avoided.

Alternatively, monetary expansion could, by shifting the demand curve up and to the right, stabilize real output at its pre-shock level. But such output stabilization would involve a costly further price rise to point D. If the price rise generated additional uncertainty, injustice, and social discontent whose costs exceeded the benefits of output stabilization then accommodative policy should not be undertaken.

Since neither monetary contraction nor monetary expansion are desirable alternatives, it follows from Thornton's analysis that the money stock should be held constant in face of the shock. In the long run, equilibrium will in any case return to point A as the shock proves to be temporary and/or wages and prices fully adjust to clear the markets for labor and output. A policy of maintaining a constant money stock allows this self-equilibration process to occur naturally without intervention. It does not exacerbate the temporary price or output effects of the shock. True, it does not ameliorate these effects either. But they will be relatively small and short-lived if the wage-price adjustment mechanism works reasonably smoothly as Thornton thought it would.

Conclusion

The Ricardo-Thornton exchange taught that policymakers can respond to supply shocks either with monetary contraction, with accommodative monetary expansion, or with a constant money-stock policy. These alternatives define the set of feasible policy choices to this very day. Given their relevancy, which alternative should the Fed choose to counter the effects of any future oil shock?

Clearly it should respond with Ricardian monetary contraction if money affects only prices and not real output. Conversely it should respond with monetary expansion if money temporarily stimulates output and the resulting social benefits exceed the costs of higher prices. Lastly it should respond with Thornton's constant money-stock policy if the beneficial output effects of expansion would be exceeded by its inflationary costs.

Since, contrary to Ricardo's belief, money-stock changes always seem to entail temporary real output and employment effects,⁵ the Fed's choice would

⁵ In addition to the sources of non-neutrality identified by Thornton in his *Paper Credit*, such real effects may stem (1) from lags in nominal interest rates behind inflation so that real rates change, (2) from imperfect information and the resulting confusion of monetary shocks for relative price ones calling for real adjustments, and (3) from long-term contracts that prevent the private sector from responding to disturbances as quickly as the policymakers. Of these, Thornton mentions the first in his May 7, 1811 parliamentary speech on the Bullion Report (pp. 335-36).

probably narrow to Thornton's constant money-stock or accommodative policies. Of these, Thornton's policy appears to be the more prudent choice. Especially so as oil shocks may prove to be self-reversing and monetary accommodation today could generate expectations of similar accommodation in all future episodes contrary to the Fed's goal of achieving long-run price stability. These considerations strongly suggest the advisability of Thornton's neutral or constant money-stock response to supply shocks.

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Credit Controls: 1980

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I. INTRODUCTION

Government price control programs in the U.S. began over two hundred years ago. More recently, credit controls, which are a special case of price controls, entered the arsenal of policy instruments. Credit control programs involve regulation of either the price of credit—interest rates—or the quantity of credit extended for various purposes.^a Credit controls can be *selective* or *general*. Selective controls affect the price or quantity of specific types of credit, whereas general controls are designed to affect the aggregate amount of credit used.^b

The most recent implementation of credit controls in the U.S. was in the spring of 1980, under the Carter Administration. Surprisingly, to date there has been no comprehensive study of the 1980 experience. To fill this gap, this article focuses on the (1) 1980 credit control experience, (2) history of the legislation that made those controls possible, and (3) economic and political motivation for using such controls. The 1980 episode warrants close scrutiny because it teaches three lessons. First, credit

controls may not deliver the desired results. Second, they may have unintended and unforeseen adverse effects. Third, political realities may tempt policymakers to impose credit controls again despite unfortunate previous experiences with such policies.

Section II provides a brief review of credit control experience before 1980. Selective credit controls were first imposed in 1941 and were used twice more before 1952. These programs were all similar in that they set minimum downpayments and maximum maturities for credit purchases of various consumer durables. Congress repealed the legislation that permitted the use of such credit controls in 1953 and reinstated the legislative authority in 1969 with the passage of the Credit Control Act that year. Section III examines the legislative history of the 1969 Act, which conferred upon the President the authority to direct the Board of Governors of the Federal Reserve System (hereafter, the Board) to control “any or all extensions of credit.” The sole use of this authority occurred in March 1980, when President Carter invoked the Act. Section IV attempts to reconstruct, using internal Administration memoranda, the political and economic factors motivating Carter’s decision to impose credit controls. The evidence suggests that Carter’s advisers supported the use of selective credit controls focusing on consumer credit for political reasons.

Details of the Board’s 1980 credit control program appear in Section V. Unlike the programs used in the 1941 to 1952 period, the Board’s 1980 program left decisions regarding credit allocation to individual lenders. Section V argues that the program’s scope and intent were not clearly communicated to the public and thus caused considerable confusion. Section VI documents the economy’s response to the program, while Section VII argues that the control program might have made the 1980 recession more pronounced than it otherwise would have been, largely because of its effect on consumers’ buying psychology. Congressional debates over repeal of the Credit Control Act in 1982 and subsequent repeated attempts to reenact the legislation are described in Section VIII. Finally, Section IX concludes by considering the likelihood of credit controls in the future.

NOTE: *Footnotes are indicated by letters. Endnotes are indicated by numbers and are located before the References. In general, endnotes contain only bibliographical information.*

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^a Restrictions on the quantity of credit are a form of price control in that they are usually implemented through changes in the terms of lending that alter the effective interest rate.

^b The term “credit control” is sometimes used synonymously with “credit allocation.” “Credit control” as used in this paper refers only to policies that directly allocate credit, as in the case of selective credit controls. In contrast, “credit allocation” is more general, encompassing selective credit controls, but also referring to any policy that affects interest rates and thus indirectly alters the distribution of credit.

II. THE U.S. EXPERIENCE WITH CREDIT CONTROLS BEFORE 1953

America's experience with price control programs began while the country was in its infancy. The New England colonies used wage and price controls as early as 1630. After winning independence from Great Britain, the Continental Congress and many of the states also experimented repeatedly with wage and price control programs. However, these policies all failed to meet their goal of checking the inflation generated by the printing of paper currencies to finance federal and state expenditures. In response to these failures, Congress passed a resolution on June 4, 1780, recommending that the states repeal all price controls because

it hath been found by experience that limitations upon the prices of commodities are not only ineffectual for the purposes proposed, but likewise productive of very evil consequences to the great detriment of the public service and grievous oppression of individuals.¹

These early attempts at price controls did not involve credit. In fact, America waited almost 150 years for its first taste of credit controls. In October 1917, to assist with the mobilization for World War I, Congress enacted the Trading with the Enemy Act (40 Stat. 415) that, under section 5(b), gave the President the authority to regulate credit during wartime. However, credit controls were not imposed during World War I, although wage and price controls were. President Roosevelt was the first to use the Presidential authority to regulate credit. On August 9, 1941, he issued Executive Order #8843 directing the Board to regulate consumer credit to ease the transition to a wartime economy. Presumably, by restricting consumer credit, overall credit use and consumer spending would be reduced, freeing resources for a military buildup while restraining inflationary pressures. Credit controls were viewed as necessary for fighting inflation because the Federal Reserve System (hereafter, the Fed) was committed to maintaining low interest rates, which made its standard tools unavailable for controlling inflation.

The Board responded to Roosevelt's executive order by issuing Regulation W on September 1, 1941.² Among its provisions, Regulation W set minimum downpayments and maximum maturities on credit purchases for consumer durables and semi-durables. Regulation W (revised effective May 6, 1942) included an expanded list of commodities and covered all types of consumer credit (e.g. single-payment loans, installment loans and sales, and

charge account purchases). Total consumer credit outstanding dropped by 50 percent over the first two years that Regulation W was in use. This reduction may in part have been caused by the unavailability of many consumer durable goods, rather than the credit control program. On August 8, 1947, while the controls were in place, Congress passed legislation (61 Stat. 921) removing as of November 1 the President's authority to impose credit controls unless the U.S. were again at war or a state of national emergency were declared.

On November 17, 1947, President Truman asked Congress for the authority to reinstate consumer credit controls to deal with the postwar inflation. This authority was granted on August 16, 1948 (62 Stat. 921), and controls were imposed again under Regulation W from September 20, 1948 until June 30, 1949, when the authority expired. This was the first and only peacetime use of credit controls before 1980.

Selective credit controls also were imposed during the Korean War. Congress granted the Board emergency authority for temporary controls through section 601 of title VI of the Defense Production Act of September 8, 1950 (89 Stat. 810).³ Under this authority, the Board reestablished Regulation W, instituting minimum downpayment requirements ranging from 10 percent to 33 1/3 percent of the purchase price and a maximum maturity of 18 to 30 months. These restrictions had fairly broad public support; 400 economists signed a letter to Senator Joseph O'Mahoney, dated January 21, 1951, urging the use of selective credit controls on consumer and real estate credit and loans for securities as a "first line of defense against inflation."⁴ On May 7, 1952, the control program was lifted.

While the controls were in place, however, a congressional subcommittee studied the economic effects of the selective credit controls used between 1948 and 1951.⁵ A majority of the subcommittee found that these controls had allocated credit inefficiently. The subcommittee's findings resulted in congressional repeal in 1953 of the President's authority to invoke mandatory controls under the Defense Production Act.⁶ Congress did not grant the President this authority again until 1969.⁷

III. THE CREDIT CONTROL ACT OF 1969: THE BASIS FOR THE 1980 EPISODE

From 1953, when the authority for standby credit controls expired, until 1969, House Representative

Leonor K. Sullivan was a driving force in the movement to reenact credit control legislation. She repeatedly argued that such authority would be needed in wartime. In 1966, with the U.S. mobilizing for the Vietnam War and inflationary pressures building, Sullivan and Representative Henry S. Reuss sponsored H.R. 14025, an amendment to the Defense Production Act that would reinstate the President's standby authority. The House defeated the bill, presumably in part because hearings were not held on the amendment.⁸

Congressional defeat of H.R. 14025 apparently did not weaken Sullivan's resolve to achieve passage of credit control legislation. She raised the issue again in August 1967, during congressional subcommittee hearings on the Consumer Credit Protection Act, and yet again in June 1969, during hearings on the increase in the prime interest rate. Finally, in late 1969, Sullivan and Reuss attached an amendment to H.R. 15091, a bill extending the authority of financial regulatory agencies to set interest rate ceilings on savings accounts, time deposits, and certificates of deposit.⁹ A House report (from the Banking and Currency Committee) set forth the motivation for the amendment:

The majority of the committee . . . believe[s] the present administration is about to achieve at one and the same time continuing inflation and a recession. By its monolithic super-tight-money attack on inflation, it is not only failing to cure inflation, on savings institutions, on small business, and [those] . . . who are now kept from gainful employment by the administration's policies. . . .

. . . [The amendment to] H.R. 15091 would help correct this situation by providing discretionary authority to the President to authorize the Federal Reserve Board to control *extensions of credit, particularly consumer credit and unnecessary bank business lending*. This will enable specific attacks on inflationary areas, and thus make unnecessary the present across-the-board supertight money which threatens unemployment and recession.¹⁰ [emphasis added]

The economic reasoning behind the legislation was the same as that for the earlier Sullivan-Reuss amendments. As explained in a Joint Economic Committee report,

The use of general interest rate increases to fight inflation is not neutral in its effects on the economy. It tends to fall most heavily on small businessmen and on construction and other long-term investment and is not particularly effective in curbing speculative excesses.

When businessmen begin to accumulate excess inventory because of anticipated price rises, or to overinvest in plant and equipment, their profit expectations are so high that only very large interest rate increases will deter them. In these sectors of the economy, interest rate increases may have an inflationary rather than a deflationary effect. On

the other hand, residential construction, which we do not want to discourage, is hit much harder by higher rates.

This committee believes that it would be preferable to concentrate on a prudent and limited *restriction of consumer credit as an alternative to general credit restraint*. Consumer credit, we know, is not dependent on interest costs because consumers think primarily in terms of the periodic payment they are required to make and, within broad limits, are not deterred or encouraged by interest rate changes.¹¹ [emphasis added]

Congress never determined whether the economic rationale for the amendment was sound. Time was not available for committee hearings on the amendment because the House was scheduled to consider the bill less than a week before December 21, 1969, the expiration date of the original authority to set interest rate ceilings. Sullivan argued that the issue of standby credit controls had been the subject of several hearings by the Committee on Banking and Currency, so the House should not postpone judgment on the amendment until further hearings could be arranged. Further support for the bill came from the Fed.¹² Apparently, Sullivan's argument was persuasive. What congressional debate did occur focused on the growth of consumer credit, its inflationary potential and the possible need for credit controls of the type Regulation W imposed.¹³ The House and Senate passed a compromise version of the bill on December 19 without formal hearings, and President Nixon signed the legislation on December 24, 1969, making it Public Law 91-151.^c

The Sullivan-Reuss amendment is Title II of P.L. 91-151 (12 U.S.C. 1901-1909 (1969)), commonly known as the Credit Control Act (CCA). Section 205 of Title II states that

whenever the President determines that such action is necessary or appropriate for the purpose of preventing or controlling inflation generated by the extension of credit in an excessive volume, the President may authorize the Federal Reserve Board to regulate and control *any or all* extensions of credit. [emphasis added]

The CCA granted the President and the Board almost dictatorial power over credit use. As described by the minority view,

^c Conference Report No. 91-769 explains that the Senate's version of the interest rate ceiling legislation (S. 2577) contained a provision to permit the use of voluntary credit control agreements like those used during the Korean War. P.L. 91-151 granted standby credit control authority of the type included in both the House and Senate bills. The conference report states that both types of controls were included in the legislation so that "the President would be afforded the broadest possible spectrum of alternatives in fighting inflation, curbing unnecessary extensions of credit, and channeling credit into housing and other essential purposes." See "Banking—Interest Rate Ceilings—Credit Control: P.L. 91-151," p. 1522.

Title II of the bill . . . would give the Federal Reserve Board power to regulate and control *any or all* extensions of credit including maximum amounts, terms and conditions, and maximum rates of interest which of course would establish a national usury law. The authority could only be activated by the President to the extent and for such period of time as he might determine.

This is far broader credit control authority than has ever before been granted. . . .

If fully invoked, it would be heady power for the Fed—complete credit control over all of our economy, nonbanking as well as banking institutions, whether creatures of State or Federal government, and all individuals. It would establish a complete credit police state.¹⁴ [emphasis as in original]

The Nixon Administration had made clear that it did not want standby authority for consumer credit controls. President Nixon signed the legislation only because he wanted to extend the Board's authority to impose interest rate ceilings. In fact, he described the legislation as "unnecessary and undesirable" and warned that its use would move the country dangerously close to a centrally planned economy.¹⁵

IV.

WHY DID PRESIDENT CARTER INVOKE THE CREDIT CONTROL ACT IN 1980?

Credit controls were discussed as a possible policy tool throughout Jimmy Carter's presidency, although they were not imposed until March 1980. The economic and political factors leading to Carter's imposition of selective credit controls under the CCA date back to January 1977, when he was inaugurated.^d

Carter's First Two Years in Office

Carter's first year in office was the economy's third consecutive year of expansion. The Administration's stimulative programs increased government spending, which contributed to the mildness of a temporary mid-year slowdown. For the year as a whole, real

^d The Jimmy Carter Library does not yet have available the Presidential Handwriting Files that contain material written by Carter, including memoranda written to his advisers regarding policy proposals. The files are not expected to be available until January 1992 at the earliest. Consequently, this article presents material sent from Administration officials and others to Carter or his advisers. Some memos written by Carter's advisers contained space for him to check his approval or disapproval of a proposal; these memos, if returned to and filed by their authors, provide evidence of his position on the proposed action. Sometimes memos sent among Carter's advisers summarize his position. When such memos are not available, his position must be inferred from the historical record of his Administration's economic policies.

GNP rose 4.9 percent, the unemployment rate averaged 7 percent, and real per capita disposable income was up 4.9 percent. Consumer installment credit outstanding, which consists of most short- and intermediate-term credit extended to individuals that is scheduled for repayment on at least two payment dates, grew 19 percent. The major failure in the economy's performance was the 6.4 percent annual inflation rate (December to December).¹⁶

The economic expansion continued at an uneven pace throughout 1978, although the long-run economic outlook dimmed. Inflation became the country's major economic concern, as the annualized inflation rate rose to over 9.4 percent in the second quarter.¹⁷

In May, Carter received a letter from George Meany, president of the AFL-CIO, expressing concern over the inflation problem and urging action:

The AFL-CIO shares the concern that you and [Fed] Chairman Miller have expressed on the need to curb inflation: We are equally concerned about the pursuit of policies which have repeatedly led the country down the path of recession and unemployment. . . .

. . . [W]e urge you to give serious consideration to authorizing the Federal Reserve to implement the Credit Control Act of 1969 If you authorized the use of that authority, the Federal Reserve Board could exercise selective credit regulation measures. Such policies would not entail ever-higher interest rates, with a concentrated impact upon housing which is in short supply, that would bring serious unemployment, along with continued inflation in housing prices and rents.

I believe that selective credit regulation offers a potentially useful alternative to the extremes of either tight money/high interest rates, or wage and price controls, which you have wisely rejected because of their record of failure.¹⁸

Carter responded that, although he shared Meany's concerns, he believed credit controls to be "inefficient, inequitable and costly to administer."¹⁹

Despite Carter's aversion to credit controls, the Administration was said to have conducted an informal review of the Credit Control Act in the early fall of 1978 to appease the AFL-CIO.²⁰ In addition, Carter told the United Steelworkers in mid-September that he would soon announce a new anti-inflation program that might include voluntary wage-price standards.²¹ Shortly after that, Meany's preference for selective credit controls was made public by *The Washington Post*.²² In late October, Carter officially announced his program. It consisted of the voluntary wage and price standards to which he had alluded, along with Federal spending restraint and regulatory reform. Under the voluntary standards,

firms were asked to restrict their price increases to one-half percent less than their average rate of increase over 1976 and 1977.²³

Talk of credit controls continued. *Barron's* reported on November 13, 1978 Townsend-Greenspan & Co.'s opinion on the likelihood of such controls, given that the President could implement the CCA:

"At this stage, it is difficult to envisage any major move towards credit controls, certainly of a rigid type. However, it is not inconceivable to us that some restrictions on loans for mergers and acquisitions, and other, not necessarily definable 'non-productive' purposes, could be initiated."²⁴

A few weeks later, on December 4, *The Wall Street Journal* quoted Alfred Kahn, chairman of the Council on Wage and Price Stability (COWPS), as endorsing credit controls as an anti-inflation device and planning to raise the prospect of controls with Charles Schultze, chairman of the Council of Economic Advisers (CEA), and G. William Miller, Federal Reserve Board Chairman. In response to *The Wall Street Journal's* report, Orin Kramer, Associate Director for Housing and Urban Development, sent a memo to Stuart Eizenstat, Carter's Assistant for Domestic Affairs and Policy, warning that he (Kramer), Robert Carswell of the Treasury and Lyle Gramley of the CEA, were concerned about the effect Kahn's statement would have on the financial markets and thought that it should be retracted:

[W]hether or not controls are a good idea, it is extremely bad policy to talk about them publicly before the Administration had made a firm decision to introduce them. The President has standby authority to permit the Federal Reserve Board to impose a wide range of credit controls. There is fear in the business and financial community that the President will use this power. Kahn's statement, with the implication that the President might consider exercising this authority, will induce some corporations and sophisticated individuals to accelerate their borrowing out of fear that the 'window' will close. This increased borrowing will increase interest rates, increase credit aggregates, and give the Fed's hawks an argument to raise Fed' rates further. If the Fed failed to respond to higher money market rates by tightening up, the Fed would risk signalling 'weakness' to the international bankers, thereby jeopardizing the strength of the dollar.

From Kahn's viewpoint, it would be best if he were to be the one to indicate that *his statements were purely hypothetical, and credit controls are not under active consideration. In any event, this should be the Administration's position—and quickly, before the pressure builds up.* [emphasis as in original]

Kramer also warned that the desirability of credit controls was "highly questionable":

Beyond the obvious credit market distortions created by controls, it is difficult to create a control system which is effective. For example, Kahn suggested the possibility of limiting the amount of time consumers have to pay back

debt to discourage the use of credit and reduce interest rates. The practical problem is that while the Fed can limit the terms on which banks extend credit, would such limitations apply to Sears and Roebuck and every retail merchant in the country? Likewise, it has been privately suggested that the Fed might prohibit financial institutions from extending credit to companies that violate the wage/price guidelines. The difficulty is that the sanction—the denial of credit—could put companies out of business or choke off desirable business investment. In short, the denial of credit to those violating our wage/price guidelines probably constitutes overkill. *Most importantly, if credit controls were effective, and credit demand in some or all sectors of the economy were reduced, the result would be to heighten the chances that our sought after 'soft landing' would become a harder crash. . . .* [P]ast history with such controls has usually produced unintended and undesirable consequences, and the subject should be addressed with extreme caution, if at all.²⁵ [emphasis as in original]

With rumors of credit and mandatory wage-price controls still circulating, 1978 ended. For the year as a whole, real GNP grew 4.5 percent, slightly under the 1977 rate, and the inflation rate was 9 percent, up over 2 percent from 1977. The Board attributed the behavior of economic activity in part to the continuing high inflation. The personal saving rate was extremely low by postwar standards, and consumer spending on durable goods was strong, perhaps because consumers anticipated future price rises. This spending behavior contributed to the ratio of aggregate household indebtedness to disposable personal income reaching a record level; consumer installment credit outstanding grew 19.4 percent. Business investment apparently slowed because of the greater uncertainty associated with rising inflation.²⁶ The Board found long-run economic prospects to be mixed and expected further weakening in consumer sentiment. Consumer spending and real GNP growth would slow accordingly. Inflationary pressures were predicted to remain strong.²⁷

Should the Credit Control Act Be Used or Repealed?: The 1979 Political Debate

Debate over whether credit controls might be imposed continued into 1979. Financial analyst Don Conlan thought there was a 40 percent chance of credit controls being instituted, while *Barron's* editor Robert Bleiberg thought the probability was 60 percent.²⁸ Throughout the first half of the year, the Senate debated bill S. 35, legislation introduced by Senator Jesse Helms of North Carolina that would have repealed the CCA. In addressing the Senate in January, Helms expressed his opinion of the CCA:

I find . . . that there remains on the books in the Federal Code an onerous piece of legislation which purports to be a means of "combating inflation." In fact, it is little more than

a means of providing total Federal control of the financial system of this country. I speak of . . . the Credit Control Act of 1969.²⁹

On March 28 Helms added,

Only repeal of this onerous law can quiet this unrest [in financial markets]. Indeed, failure to repeal the law will accelerate speculation about control implementation. . . .

. . . [An] obvious objection to the Credit Control Act is political. The statute is so loosely drawn and confers such vast powers on the President and—through him—on the Federal Reserve Board that no credit transactions would be outside the purview of this law, once the authority is invoked by the President. The invocation of virtually unlimited power by the President is hardly consistent with the post-Watergate mood of Congress. . . .³⁰

Just two days later, Treasury Secretary W. Michael Blumenthal sent a memo to Carter urging him to invoke the CCA and impose consumer credit controls:

It is the unanimous opinion of your economic advisors that our anti-inflation program needs the strengthening of a somewhat more restrictive monetary policy. Although growth in the money supply has been sluggish for several months, banks have been intensively exploiting other sources of funds to sustain a very rapid rate of expansion in bank credit. In the context of rising inflationary expectations, the overly-ample availability of credit is fueling a business scramble for inventories and adding to pressures on prices of materials.

Your advisors also agree unanimously that action should be taken to limit the most liberal terms on consumer credit. Such action would require you to invoke the Credit Control Act of 1969 and to request that the Federal Reserve Board take steps to put consumer credit controls into effect.

The Federal Reserve has been reluctant to increase restraint on the banking system; their analysis suggests more current and potential weakness in the economy than we perceive. Our concern is that much further delay in exercising restraint will permit and encourage a surge in both business and consumer spending that will add significantly to the already poor prospects for prices in the next few months. . . .

Given the Board's reluctance to take the initiative in restricting credit growth, it will be important that we convey not only our concern, but yours as well. . . .

A useful adjunct to a tightening of monetary policy would be to impose a modest tightening of terms on consumer credit. Since the effects of such controls on consumer spending are uncertain, a heavy-handed action would be inadvisable. Putting limits on the terms of credit can be justified, however, because competitive pressures are pushing lenders to move steadily toward more liberal terms. In the process, some consumers may be overextending their debt positions to an extent that is not desirable. *Our tentative thinking is to limit the maximum maturity on new car loans to 42 months, and to increase the minimum monthly repayment on revolving credit (charge cards) to 10 percent of the outstanding balance attributable to new loans.* [emphasis added]

The Credit Control Act of 1969 *permits* the Federal Reserve Board to impose such controls on your authori-

zation, but you *cannot* order them to do so. The Board will have to be persuaded of the wisdom of this action. [emphasis as in original]

We request your approval for us to meet with Chairman Miller and the other members of the Federal Reserve Board to discuss these matters.

Carter gave his approval for preliminary discussions only.³¹

Apparently, the Administration was still debating use of the CCA in mid-May, when Kahn sent a memo to Carter's key advisers on credit controls as part of an anti-inflation strategy:

It is amazing to me how often these [direct controls on credit, especially consumer credit] continue to be suggested from both the right and the left. I recognize that the case for these on short-term macroeconomic grounds is weak: it is unclear that we need additional consumer credit restraint right now. . . .

I think the case is clearer as part of a longer-term policy of discouraging excessive consumption. There is widespread public acceptance of the notion that consumers are taking an excessively cavalier attitude toward incurring debt, and that the government ought to do something directly to discourage it. Certainly the imposition of direct credit controls would be widely perceived as a serious step to combat inflation.³²

While the White House debated implementing credit controls, the Senate Committee on Banking, Housing, and Urban Affairs held hearings on S. 35, Helms's bill to repeal the CCA, and S. 389, a bill introduced by Senator John Tower, that would require the President to report to Congress when invoking the Act and require a concurrent resolution by Congress before the Fed implements the controls. Alan Greenspan, then president of Townsend-Greenspan & Co., gave testimony typical of those favoring repeal:

Curbing the growth of credit expansion is, in my view, the key to defusing the strong underlying inflationary forces which threaten the stability of our economy. However, rationing credit through statute or regulation is unlikely to be successful and to the extent that it is, would probably allocate credit in an undesirable manner.³³

Witnesses testifying for the Administration and the Board, however, wanted to retain standby authority for credit controls. For example, a letter from CEA chairman Charles Schultze to Senator Proxmire was presented as evidence at the hearing: It read,

[R]epeal of [the CCA] would not be in the national interest.

The authority . . . is very broad and general. At the same time, the language of the Act provides safeguards that would effectively prevent it from being used in inappropriate ways. First, the Act specifically provides that the President's authority is limited to cases in which inflation is generated by an excessive volume of credit. . . .

Although the authority granted in that Act has been in existence for ten years, no Administration has sought to use it, and properly so, in my judgment. The sources of inflation during the past decade have been many and varied. . . . Nevertheless, there has been no time in the past decade when the expansion of credit could not have been controlled appropriately by the more general instruments of monetary policy. . . .

Under almost all conditions, selective credit controls are not a substitute for the general instruments of monetary policy, nor, indeed, can these two types of instruments complement one another effectively. But one can certainly conceive of circumstances in which resort to selective credit controls might be necessary. . . . [W]e might find that strong inflationary pressures were being generated by a substantial relaxation of terms on consumer credit, and that the resulting increase in consumer borrowing was threatening to put many consumers in a precarious financial position, as well as to heat up inflation. . . . A similar need for selective controls might arise if inflation were being generated by a wave of credit-financed scare buying by consumers because of threatening international developments, as was the case immediately following the beginning of the Korean war.³⁴

The Board's stand on the CCA was similar to the Treasury's. Federal Reserve Board governor Nancy Teeters presented the Board's position to the Banking Committee:

Credit controls as an instrument of anti-inflationary policy have most appeal at times when fiscal and monetary policies cannot, for one reason or another, be employed flexibly. During World War II and for a while thereafter, monetary policy was constrained by a pledge to maintain a low interest rate on U.S. Treasury securities. As a result, the Federal Reserve could not effectively control growth in the monetary and credit aggregates since it had to supply as much bank reserves as needed to maintain an unchanged level of interest rates. Regulating nonrate terms of credit extensions seemed to be one of the few ways to discourage borrowing in such an environment. Thus, regulations limiting consumer credit were used on three occasions in this period.

. . . . If credit controls are to be used, it would require circumstances when the need is clear and obvious—a national emergency, such as war, or a clearly perceived imbalance in the distribution of available credit. . . .

Selective credit controls might be effective in holding down a narrow category of spending and might be appropriate if there were shortages of particular goods, such as automobiles and other consumer durable goods during World War II. However, even if such shortages occurred, rationing or excise taxes might be a more effective and equitable means of treating the problem. . . .

. . . [A] large bureaucracy would probably have to be created to administer controls. In the absence of a national consensus as to their necessity, detection of violations would depend almost entirely on the regulators, since both the borrowers and the lenders may have an incentive to circumvent the controls. Regulatory staff also would be needed to decide on exemptions to the controls, as obvious inequities arose. Their cost also would include the paperwork and compliance burden borne by the lenders and the borrowers. These direct costs would likely escalate with the duration of the controls as they were extended to counter the ingenuity of the private sector. . . .

All these factors suggest that under most circumstances policies other than credit controls would have superior results with fewer undesirable side effects. . . .

There may be situations in the future, however, in which mandatory credit controls could be a useful component of national economic policy. One such circumstance could occur if it were necessary to undertake a major and rapid redirection of resource allocation in response to a national emergency, like an outbreak of war. . . .

The Credit Control Act of 1969 is useful to the extent that it provides a means for dealing with such contingencies promptly. . . .

. . . . Thus, if the act is to be retained, the changes suggested by S. 389 would seem unwise. . . .

The Federal Reserve position is basically that it sees no reason to repeal it.³⁵

Neither S. 35 nor S. 389 ever reached the Senate floor, and Carter did not invoke the CCA then, although a May 1979 Gallup poll found most of the public supporting government control programs.³⁶

By October, the economy was well on its way to attaining an annual inflation rate of 13.3 percent (measured by the change in the consumer price index, December to December).³⁷ On October 6, the Board announced several policy actions.³⁸ First, a shift in operating methods was undertaken. The Board in conducting monetary policy would in the future focus less on controlling the federal funds rate and more on controlling bank reserves. Second, it raised the discount rate, the rate at which it lends funds to commercial banks, from 11 percent to 12 percent. Third, the Board imposed upon domestic member banks and branches and agencies of foreign banks a marginal reserve requirement of 8 percent on increases in their managed liabilities above a specified base. The managed liabilities subject to the reserve requirement were time deposits of \$100,000 and over with maturities of less than one year, Eurodollar borrowings, repurchase agreements against U.S. government and federal agency securities, and federal funds borrowings from nonmember institutions. Because such managed liabilities financed approximately 50 percent of the growth in bank credit between June and October, they were viewed as contributing to the inflation problem, even though they attracted credit mainly from other uses. When the reserve requirement was imposed, member banks were estimated to be holding \$240 billion in managed liabilities.^e

^e The Board previously imposed supplemental marginal reserve requirements on managed liabilities in 1973. Its objective was to curb credit growth and moderate inflationary pressures without inducing tight credit conditions. Non-member banks were asked to cooperate with the program by holding special marginal reserves themselves. The supplemental requirements were gradually lifted. See *Federal Reserve Bulletin*, vol. 59, no. 5 (May 1973), pp. 375-376.

The Board's October 6 actions were prompted by the rapid growth rates of money and credit throughout 1979, the rise in inflation and upward revisions in inflationary expectations, and the speculative activity in the markets for gold, silver, and other commodities.³⁹ According to Paul Volcker, Chairman of the Federal Reserve Board, the actions were to signal an "unwillingness to finance an accelerating rate of inflation."⁴⁰

Events in Early 1980 Preceding Carter's Action

Concern over the record inflation rates and the threat of recession made the economy a dominant issue in the 1980 presidential campaign. The year began with Senator Edward Kennedy predicted to be Carter's major opponent for the Democratic nomination. Kennedy, unlike Carter, endorsed the use of mandatory wage and price controls. In a campaign speech on January 28, Kennedy said,

The time has come for a frank admission that under this President, the voluntary guidelines have run their course and failed.

Inflation is out of control. There is only one recourse: the President should impose an immediate six month freeze on inflation—followed by mandatory controls, as long as necessary, across the board—not only on prices and wages, but also on profits, dividends, interest rates, and rent.⁴¹

The public seemed to share Kennedy's position.^f A mid-January *New York Times*/CBS News poll showed that "65 percent of adult Americans were willing to 'have the Government enforce limits on both wage and price increases' to slow the inflation rate."⁴²

By mid-February inflation data was available for January. The producer price index for finished goods rose at an annual rate of 19 percent, and the CPI climbed 18 percent.⁴³ On February 15, the Fed raised the discount rate from 12 to 13 percent.⁴⁴ The markets responded quickly. Banks raised the prime rate to 15¾ percent.⁴⁵ Precious metals prices fell, while financial futures prices rose.⁴⁶

Also on February 15, *The New York Times* quoted Alfred Kahn as saying that the Administration was considering the use of selective credit controls. Kahn, who opposed wage and price controls, favored Regulation W-type restrictions on loan downpay-

^f Leonard Silk, "Uncertainty on Controls," *The New York Times*, February 22, 1980. Silk reports that Kennedy's position did not contribute much to his popular support. Although Kennedy was the only presidential candidate favoring wage and price controls, survey results found that 62 percent of the public was unaware of his position, while 8 percent believed that he opposed controls.

ments and maturities.⁴⁷ Four days later, Kahn, Eizenstat, and White House Staff Director Al McDonald sent a memo to Carter stating that

[i]t is essential that we move again onto the offensive on the inflation front. The economic situation is critical and the public recognizes this. Working against us are the continuing bad reports, the growing support for controls, widening business assumptions that high inflation is with us indefinitely and public expectations that increased defense spending will fuel it more.

To date the public has been reasonably understanding of your position. They recognize that you are not to blame for the high inflation rate, but they correctly demand to know what you plan to do about it. As soon as the international crisis recedes, this will be the nation's number one preoccupation.

We have no time to lose. We must move out forcefully and visibly to reinforce the importance of the voluntary effort and to reemphasize your priority to bring this aspect of the economy under control.⁴⁸

On February 21, Henry Kaufman, economist and general partner at Salomon Brothers, suggested restrictions on bank credit growth as part of a seven point plan to reduce inflation.⁴⁹

Talk of control programs heated up in Congress in late February. Mandatory wage-price controls had vocal support. Nevertheless, they were unlikely to receive congressional authorization; Democratic Senator Bennett Johnston threatened to filibuster any Senate effort to enact such legislation.⁵⁰ Support for credit controls was somewhat stronger, primarily because the CCA allowed for their imposition without congressional consultation or approval. The Administration feared, as did many in Congress, that the mere request for authorization of wage and price controls would induce firms to borrow heavily and increase prices in anticipation of future restrictions on their ability to do so. In fact, rumors that credit controls might be imposed were having the same effect. A report in *The Wall Street Journal* on such borrowing activity quoted Donald DeLuca, treasurer of Pittsburgh-based Copperweld Corp., as saying that "he could 'smell' credit controls coming. He . . . phoned his New York bankers to accelerate agreement on a \$50 million revolving credit."⁵¹

The issue of credit controls arose again on February 25, when Chairman Volcker was on Capitol Hill giving his semi-annual report on monetary policy as required by the Humphrey-Hawkins Act. Volcker was perceived as a forceful opponent of credit controls, arguing that credit was already slowing because of general market conditions and the restrictive actions the Fed had taken.⁵² While testifying, Volcker

was questioned by Senator Proxmire about his position on selective credit controls. The following exchange ensued:

Volcker: “. . . I just don’t know how they would be workable. . . . I’m no enthusiast of using direct controls in this area and think they can be counterproductive in that they lead to anticipation of inability to raise money and thereby actually increase demand.”

Proxmire: “Then you are opposed to invoking the Credit Control Act which is on the books now which the President could of course invoke? . . .”

Volcker: “Yes.”⁵³

The Federal Reserve nevertheless chose to cooperate with the Administration. Volcker met with Carter on February 20 and 24.⁵ After these meetings, on February 28, Carter received a memo from Treasury Secretary G. William Miller outlining possible components of the intensified anti-inflation program under discussion.⁵⁴ The memo listed several options to restrain credit growth:

The Federal Reserve is considering actions which it will take independently (but with coordinated timing) to reinforce credit restraint consistent with already announced targets. These will be within the general framework of the October 6 actions, but, to the extent feasible, designed to maximize “availability” rather than “interest rate” effects. They could include:

1. Action to tighten existing marginal reserve requirements on liability expansion. These requirements, imposed in October, are not “binding” on most banks now.^h
2. A more visible program of voluntary credit restraint, with reporting requirements, aimed primarily, but not entirely, at banks. This program will emphasize restraint on total lending, but with special accommodation of small business and mortgage lending to the extent feasible. Emphasis would be placed on discouraging “take-over” or “speculative” financing.

Also described in the memo were several actions that the Board might take if the CCA were invoked, along with the pros and cons of each:

[T]he Federal Reserve would constrain credit not tied to autos, home repairs, or mobile homes . . . by a system of special reserve requirements of say, 10 percent, on any increase in outstanding amounts.

⁵ According to the Presidential Diary Office Files at the Jimmy Carter Library, the latter meeting, which concerned the economy, lasted just under two hours and was also attended by Energy Secretary Charles Duncan, Jr., Stuart Eizenstat, Alfred Kahn, Office of Management and Budget Director James McIntyre, Jr., G. William Miller, Press Secretary Jody Powell, Charles Schultze, and the First Lady. See President’s Daily Diary, “2/24/80 Backup Material,” Box PD-73, Presidential Diary Office, Jimmy Carter Library.

^h See Section VI below for a discussion of the effectiveness of the Board’s October 6 marginal reserve requirements on managed liabilities.

Pro: Restraint on growth of consumer credit would directly carry the message to the American public of the need for restraint. Many credit card issuers might welcome official sanction for pulling back from business that is currently unprofitable, and there could be minor effects on consumer saving.

Con: The Federal Reserve Board considers such action of relatively little importance substantively (depending on coverage, only \$70 to \$200 billion of credit is involved and borrowing would take different forms.)ⁱ It would be administratively highly cumbersome because tens of thousands of individual lenders are involved (many of which would have to be exempted).⁵⁵

The Board, however, did not suggest to the Administration the use of consumer credit controls.⁵⁶

Internal Fed memos confirm that the Board was preparing to undertake the actions described in Miller’s correspondence. The dates and content of the memos suggest that the Board made the major decisions regarding which actions to take during February and had decided on all but a few details of its program by March 5. Actions that could be undertaken without the CCA appear to have been planned for at the Board’s own initiative, rather than at the Administration’s request. Where the initiative for the other actions originated is unclear.⁵⁷

Word began spreading during the first week of March about the anti-inflation program the Administration was considering. Media attention turned away from whether credit controls would be imposed and toward what form they would take. Although business borrowing accounted for the bulk of total credit growth, the consensus view was that businesses could too easily evade credit controls through use of the bond and commercial paper markets, making controls on consumer credit more practical. A Washington specialist at an investment firm was quoted as saying that Volcker “‘may be prepared to acquiesce on consumer measures in return for Carter’s people staying out of his hair on commercial lending restraints.’”⁵⁸

The possibility of consumer credit controls did not please bankers, who publicly expressed their concern. *The New York Times* quoted a Citibank newspaper advertisement as reading “‘There may be policy makers who believe this [credit controls] to be in the national interest but it is doubtful that many citizens will find it to be in theirs.’”⁵⁹ Less than a week earlier, though, the Administration had

ⁱ With credit for automobiles and housing excluded from a control program, only about a quarter of total consumer credit would be subject to regulation.

received telephone calls from senior executives at two of the country's largest banks, stating that their banks "would be adversely affected by consumer credit controls. However, both agreed that the financial markets (bond markets) expect and would react favorably" to such controls.⁶⁰ And on March 6, Carter's counsel, Lloyd Cutler, forwarded to Carter's key advisers excerpts from a memo he had received from "the head of one of our largest financial institutions." The banker argued for mandatory restrictions on the annual growth rate of consumer credit, except credit for housing and automobiles. Such restrictions closely resembled the voluntary restrictions that the Board was considering.⁶¹

By Monday, March 10, information was circulating regarding meetings the Carter Administration had held with congressional leaders to discuss the President's economic policy. Carter was said to be planning a program whose economic costs would be borne primarily by consumers. Bank and retail credit cards and checking account overdrafts were rumored to be likely targets of a control program. The Board was thought to be preparing Regulation W-type restrictions that would set minimum downpayments and maximum maturities, limit the size of credit lines, and perhaps reduce grace periods.^{j,62} Administration sources also hinted at a possible tightening of the marginal reserve requirement on managed liabilities. A program with rigid quantitative restrictions on the amounts of various types of credit extended was, however, definitely ruled out by both the Board and the White House.⁶³

The markets did not respond well to this news as traders upped their expectations of a recession in the near future. Precious metals prices, which had begun falling three weeks earlier, all fell sharply, as did other commodities prices, while financial futures prices rose.⁶⁴

Economic data released March 10 did not help matters. The Fed announced that all major components of consumer credit grew more slowly in January than December, with consumer installment credit growing at an annual rate of 5.3 percent. For January and December combined, the installment credit growth rate was the lowest since the expansion began in 1975. These credit conditions were accompanied by the first decline in retail sales in four months. Commerce Department data showed February's retail sales 0.7 percent lower than January's.⁶⁵

^j Recall that the memo from Treasury Secretary Blumenthal to Carter in March 1979 recommended credit controls of this form.

On March 12, Treasury Secretary G. William Miller sent Carter a memo consisting of a checklist of policies that could be part of the President's fourth anti-inflation program.⁶⁶ That afternoon, Carter held a meeting with his advisers in the Cabinet Room.⁶⁷ Carter chose to invoke the CCA to control consumer revolving credit (except credit for home mortgages and automobiles), credit extensions by depository and non-depository financial intermediaries, and the managed liabilities of banks that were not members of the Fed. Reporting by affected institutions would be required.

On Friday, March 14, *The New York Times* reported the opinions of several economists regarding consumer credit controls.⁶⁸ Otto Eckstein, a Harvard professor and president of Data Resources Inc., described such controls as "a symbolic gesture." Henry Kaufman thought the controls would have "at best . . . some marginal impact." S. Lees Booth, economist and senior vice president of the National Consumer Finance Association, wondered why controls would be placed on consumer credit, which is a small part of total credit in the economy. Another economist, former Board Chairman Arthur Burns, spent March 14 testifying before the Senate Banking Committee, at which time he gave his opinion of the CCA:

I think it's one of the worst pieces of legislation ever written by the Congress. I hope that you [Sen. Proxmire] . . . would think seriously about having the piece of legislation rescinded.⁶⁹

At 4:30 p.m. that day, in the East Room of the White House, Carter made a prepared statement announcing the fourth anti-inflation program of his presidency, and issued Executive Order 12201 invoking the CCA.⁷⁰

V. ANATOMY OF THE 1980 CREDIT RESTRAINT PROGRAM

An Overview of the Board's Credit Restraint Program

In his address from the White House on March 14, Carter announced his imposition of credit controls under the CCA:

Just as our governments have been borrowing to make ends meet, so have individual Americans. But when we try to beat inflation with borrowed money, we just make the problem worse.

Inflation is fed by credit-financed spending. Consumers have gone into debt too heavily. The savings rate in our nation is now the lowest in more than 25 years. . . .

The traditional tools used by the Federal Reserve to control money and credit expansion are a basic part of the fight on inflation. But in present circumstances, those tools need to be reinforced so that effective restraint can be achieved in ways that spread the burden reasonably and fairly.

I am therefore using my power under the Credit Control Act of 1969 to authorize the Federal Reserve to impose new restraints on the growth of credit on a limited and carefully targeted basis.⁷¹

Executive Order 12201, invoking the CCA, stated that the credit controls would be "in effect for an indefinite period of time and until revoked by the President."⁷² Carter's political advisers hoped that the anti-inflation program would be accepted by the public, thus giving the President an advantage over the other presidential contenders for the Democratic nomination.⁷³

After Carter announced his economic program, Volcker introduced the Board's Credit Restraint Program (CRP):

[T]he Federal Reserve has . . . taken certain further actions to reinforce the effectiveness of the measures announced in October of 1979. . . .

One consequence of strong demands for money and credit generated in part by inflationary forces and expectations has been to bring heavy pressure on credit and financial markets generally, with varying impacts on particular sectors of the economy. At the same time, restraint on growth in money and credit must be a fundamental part of the process of restoring stability. That restraint is, and will continue to be, based primarily on control of bank reserves and other traditional instruments of monetary policy. However, the Federal Reserve Board also believes the effectiveness and speed with which appropriate restraint can be achieved without disruptive effects on credit markets will be facilitated by a more formal program of voluntary restraint by important financial intermediaries⁷⁴

As Board Vice Chairman Schultz later said of the program,

. . . [T]he overspending in the economy, . . . if there are excesses, appears to have been on the Government side and on the consumer side in terms of open-end credit. . . .

So, are we going to slow this economy down. . . ? The answer to that is yes; I think we must.⁷⁵

The Board's program consisted of six restrictive measures:

1. a voluntary credit restraint program under which all domestic commercial banks, bank holding companies, finance companies, and U.S. agencies and branches of foreign banks were expected to limit their total annual loan growth
2. a special deposit requirement of 15 percent for all lenders on increases in certain types of consumer credit

3. an increase from 8 percent to 10 percent in the marginal reserve requirement on managed liabilities of large banks
4. a special deposit requirement of 10 percent on the additions to the managed liabilities held by non-member banks
5. a special deposit requirement of 15 percent on any additional assets held by money market mutual funds
6. a surcharge on the discount window borrowings of large banks.

The special deposit requirements were simply reserve requirements applied to institutions not otherwise subject to such regulation. For example, the special deposit requirement on consumer credit mandated that lenders hold 15 cents with the Fed as non-interest-bearing reserves for each dollar of consumer credit extended over some predetermined amount.

The Federal Reserve Act grants the authority for actions 3 and 6, while the CCA confers authority for the others.^k Failure to comply with the regulations could result in a maximum civil penalty of \$1,000 (12 USC 1908), and a maximum criminal penalty of \$1,000 and a year in jail (12 USC 1909). The Board informed the public of these potential penalties.⁷⁶

The CRP bore little resemblance to the credit controls imposed previously and described in Section II. Consequently, a more detailed description of the program's components is warranted before proceeding to analyze its effects.

The Voluntary Credit Restraint Program

The first component of the Board's program restricted total loan growth by affected financial institutions (primarily banks) to a range of 6 percent to 9 percent over the period from December 1979 to December 1980. Other lenders, not specified in the program, were also requested to participate. To monitor the program, the Board required affected institutions to file reports of lending activity besides those normally required. All affected lenders with total assets of at least \$1 billion filed monthly reports. Into this category fell 170 domestic commercial banks, 139 U.S. branches and agencies of foreign banks, 161 domestic affiliates of bank holding companies, and 15 finance companies.⁷⁷ In addition, banks with assets totalling at least \$300 million but

^k Board of Governors, Press Release, March 14, 1980. The inclusion of finance companies in action 1 required the CCA.

less than \$1 billion filed quarterly reports, and smaller banks were exempt from the filing requirement. The base over which loan growth was calculated was the average for December 1979 for banks that normally filed weekly reports with the Fed, the average from the November and December reports for finance companies that typically reported monthly, and the level as of December 31 for non-member banks. All reports were filed with the lenders' district Federal Reserve Banks.⁷⁸

The 6 percent to 9 percent growth range for total bank lending was thought to be consistent with the announced target ranges for growth of the monetary aggregates. The 9 percent upper bound was considerably lower than the growth rate of 13½ percent for the previous year, December to December, and the accelerated rate of 17¾ percent for January and February of 1980.⁷⁹ According to the Board, these growth rates

could not continue without threatening achievement of the restrained growth in money and credit in 1980 which was deemed necessary to help curb inflation. . . . [A] supplemental program to restrain loan growth seemed appropriate, so long as the burden of the restraint did not fall on those classes of borrowers least able to bear it.⁸⁰

No quantitative rules were given for how lenders should allocate available credit. Rather, the Board simply set forth a few broad qualitative guidelines. It discouraged banks from making unsecured loans to consumers, financing corporate takeovers or mergers, lending for speculative purposes (e.g. speculative purchases of commodities or precious metals), and approving back-up credit lines in support of credit raised with commercial paper. In contrast, funding for small businesses, farmers, homebuyers, and automobile buyers and dealers was strongly encouraged.⁸¹ Board Vice Chairman Frederick Schultz explained,

. . . [T]he Board expects that, in setting interest rates and other lending terms banks will, where possible, take account of the special needs of these borrowers. . . .

. . . Large businesses are on notice that they should not turn to the commercial paper market to replace other credit, as such a shift would reduce the residual credit available for other borrowers.

. . . [T]hese measures can not prevent small, and indeed all, businesses from encountering strains in coming months.⁸²

Lenders were expected to ensure a continued flow of credit to borrowers without access to other forms of financing. The Board required reports on such activities to monitor the lenders' progress and would consult with those whose efforts were inadequate. Further, the nation's 365 nonfinancial corporations

with at least \$30 million of outstanding commercial paper or total annual revenue of at least \$2 billion filed monthly reports on their commercial paper issues and their foreign borrowings.⁸³

Consumer Credit Restraint

To restrain consumer credit growth, the Board imposed a special deposit requirement (SDR) on all increases in certain types of consumer credit. The SDR required that lenders hold with the Fed in non-interest-bearing accounts reserves equal to 15 percent of the amount of consumer credit extended over the amount of covered consumer credit outstanding on March 14, 1980.¹ Credit subject to the SDR included all open-end credit, secured or unsecured, and closed-end consumer credit either unsecured or secured by collateral not purchased with the credit. Open-end credit consisted of credit card, bank overdraft and revolving credit.^m For calculating the required deposit, all open-end credit was presumed to be used for non-business purposes. Closed-end credit included unsecured personal loans, loans for which the borrower already owned the collateral, travel and entertainment card plans, retail merchant credit, and credit secured by financial assets other than savings deposits. Thus, car, mobile home, and mortgage loans were exempt from the SDR because the proceeds of the loans financed the purchase of the car or home.⁸⁴

Any lender extending at least \$2 million in covered credit was subject to the regulation. The \$2 million cut-off exempted 1.7 million retail firms and 36,595 other firms from the SDR. There were 10,108 firms remaining, of which about 6,000 were banks; these firms extended about 85 percent of all covered credit.⁸⁵

All non-exempt lenders based on their covered credit outstanding on March 14 had to file monthly reports with the Federal Reserve (the Federal Home Loan Bank Board for thrifts and the Federal Credit Union Association for credit unions). The reports determined the lenders' covered credit outstanding during the previous month based on the daily average amount outstanding or the amount outstanding on a date approved by the Board.⁸⁶ For multi-

¹ The base was later changed; see Section VI.

^m Credit card credit includes credit arising from purchases on retail credit card plans and from cash advances extended through such plans. Revolving credit includes special installment overdraft credit and revolving credit arising from arrangements with travel and entertainment charge cards and other nonbank credit plans.

subsidiary firms, the parent company filed a single report that combined the covered credit issued by all its subsidiaries.⁸⁷

The SDR was designed to raise the cost of credit extensions and thus discourage credit growth. At the end of 1979, \$38.4 billion in credit was available to MasterCard holders, of which 31.6 percent was used, and credit lines totalling \$27 billion were available to Visa cardholders, with 48 percent outstanding. Though the growth in consumer installment credit outstanding slowed considerably during the last half of 1979 and the first two months of 1980, the Board was concerned that the record inflation rates being experienced might induce credit card holders to make greater use of their cards' credit lines. Limiting credit use through price rationing was not possible because state usury ceilings prevented card issuers from raising credit card interest rates in response to inflation.⁸⁸

Although the SDR was only one part of the Board's program, it probably had the broadest reach, touching almost every American consumer. Many economists, however, questioned the SDR's usefulness. They viewed it as a cosmetic measure because it applied only to a small fraction of total credit in the economy. In terms of credit use at the end of 1979, covered credit was 48 percent, or \$184 billion, of the \$381 billion of total consumer credit outstanding,⁸⁹ and total credit was measured to be approximately \$4 trillion.⁸⁹ As a result, the SDR was not expected to have any effect on inflation.⁹⁰ There was also concern that consumers would be unduly harmed by the requirement because they had few alternative funding sources. Volcker shared that concern but believed that the requirement was needed:

[T]hey do bite at the consumer, at certain types of consumer lending, but ultimately at consumer spending because that is considered under present conditions not to be an area of high priority, given that credit has to be restrained overall. . . .

. . . . [The Board is] trying to get at uses of credit that are less immediately relevant to the problems of the economy today.⁹¹

⁸⁷ The \$381 billion of total consumer credit consisted of all covered open- and closed-end credit plus credit for home improvement loans, automobiles, mobile homes, service credit (unpaid bills to providers of services), and purchases secured by the goods purchased with the loan proceeds. Mortgage debt is not included. See Memo from Axilrod, Kichline, and Petersen to the Board of Governors, "Proposed Consumer Credit Regulation."

Marginal Reserve Requirements on Managed Liabilities

As described in Section IV, on October 6, 1979 the Board imposed a marginal reserve requirement (MRR) on managed liabilities in addition to the reserve requirements already in place. The MRR was levied on domestic member banks and U.S. branches and agencies of foreign banks and applied to any increases in their managed liabilities over their bases. The base was the larger of \$100 million and the average amount of managed liabilities held as of the two statement weeks ending September 26. Institutions with managed liabilities exceeding \$100 million had to report their bases to the Fed and were subject to the program.

The objective of the MRR was to slow bank credit growth by raising the cost of funds used to finance lending activity. Bank credit growth had slowed considerably during the fourth quarter of 1979; however, the slowdown was attributed primarily to the drop in credit demand that accompanied an increase in the cost of funds and growing concern over recession prospects. As demand fell, banks subject to the MRR reduced their managed liabilities. When their managed liabilities fell below their bases, they became able to increase their lending without holding marginal reserves. This made the MRR less effective. Loan demand rose in January and February of 1980, but marginal reserves responded considerably less because many banks could finance their credit extensions without going over their bases.

The MRR also failed to restrain credit growth because of several loopholes. One loophole allowed large domestic commercial banks and U.S. agencies and branches of foreign banks to circumvent the MRR because it applied to *net* Eurodollar borrowings, borrowings net of balances due to a bank's own non-U.S. branches. This loophole worked as follows. Consider a financial institution using Eurodollar borrowings to directly fund a loan. The MRR required reserves be held against such borrowings. To avoid holding reserves, however, a bank would switch its loan customers to a foreign affiliate and provide its affiliate with the funds to make the loan. This type of indirect funding created Eurodollar loans to off-set Eurodollar borrowings, reducing net borrowings and required reserves.⁹²

A second loophole existed because the MRR applied to large time deposits with maturities of less than one year; thus, banks could issue deposits with longer maturities without increasing their marginal

reserves. In addition, federal funds purchases from small member banks and agencies and branches of foreign banks that were below their bases, and so not subject to the MRR, were exempt from the requirement.⁹³ Banks apparently recognized these methods for evading the reserve requirement; as a chief financial officer of a major New York bank explained, "If someone really doesn't want to carry the extra reserves, he doesn't have to."⁹⁴

As part of its March 14 credit restraint efforts, the Board tightened the MRR on member banks and U.S. agencies and branches of foreign banks and, under the CCA, extended its coverage to include non-member banks. The Board raised the MRR from 8 percent to 10 percent and reduced the base by the greater of either 7 percent or the decrease in a bank's domestic office loans to foreigners plus the gross balances due from foreign offices of other institutions that occurred between the original base period and the week ending March 12. A bank's base would be reduced even further by future drops in foreign lending.⁹⁵ The Board expected holdings of marginal reserves to increase by about \$1.3 billion as a result of these changes.⁹⁶

For non-member banks, the base was the greater of \$100 million or marginal liabilities over the two-week period ending March 12. As for member banks, the base would decrease by the amount of future reductions in foreign loans. The reserve requirement was 10 percent.⁹⁷

Restraint on Money Market Mutual Funds

As part of its credit restraint program, the Board required money market mutual funds (MMMFs) and other similar creditors to maintain a non-interest-bearing deposit with the Federal Reserve. The deposit was equal to 15 percent of a fund's increase in assets over its March 14 base level. The 15 percent requirement was expected to reduce the return on a brand new fund by approximately 2 percent. All managed creditors had to report their bases to the Board and, on a monthly basis, their daily average asset levels.⁹⁸

The reserve requirement on MMMFs was designed to slow the outflow of funds from thrift institutions and smaller banks. The percentage change in the growth of consumer savings from January to September, 1979 relative to the same period in 1978 was 184.2 at MMMFs, -13.3 at commercial banks, -14.9 at savings and loan associations, -49.0 at credit unions. By slowing the flow of funds into MMMFs and thus the national money market, the

Board hoped to reduce the supply of credit available for large borrowers while easing credit availability for borrowers with few alternative funding sources.⁹⁹

The legality of the Board's regulation of MMMFs was questioned from the moment the program was announced. House Representative Reuss argued that the public's transfer of funds from thrifts to MMMFs did not contribute to an "extension of credit in excessive volume" as required for use of the CCA.¹⁰⁰ The Investment Company Institute, a trade association of mutual funds, considered filing a lawsuit against the Fed, charging that the CCA did not authorize the Board to hinder individuals' attempts to manage their savings wisely and that the deposit requirement, which was essentially a tax on the return to MMMF deposits, was unconstitutional because only Congress could impose taxes. The Institute ultimately decided against filing the lawsuit because it did not want "to disrupt the government's overall economic program and because the precise effects of the [B]oard's action" were unclear. Instead, the Institute formally petitioned the Board to lift the deposit requirement.¹⁰¹ The Board responded by exempting certain MMMFs from the regulation, although it began requiring weekly, rather than monthly, reporting.^o

Discount Rate Surcharge

Acting on requests from the directors of the twelve Federal Reserve Banks, the Board added a 3 percent surcharge to the rate of 13 percent charged on discount window borrowings. The surcharge applied only to borrowing by banks with at least \$500 million in deposits when the borrowing occurs in at least two consecutive weeks or more than four weeks in a quarter. Of the 5,459 Federal Reserve member banks, 270 had deposits of at least \$500 million.¹⁰²

The surcharge was imposed to discourage frequent discount window borrowing by the largest and most active users of the discount window. According to the Board, because the surcharge applied only to a segment of banks, it would have a smaller effect on short-term interest rates than would a general increase in the basic discount rate. It was not meant as a device for guiding market interest rates.¹⁰³

^o Board of Governors of the Federal Reserve System, Press Release, April 11, 1980. Exempted were "bona fide" personal trusts, pension, retirement, and other tax-exempt accounts invested in MMMFs; tax-exempt assets of MMMFs that invested at least 80 percent of their assets in short-term tax exempt obligations; and funds with a base of under \$100 million. Unit investment trusts were allowed to be "rolled over" without satisfying the deposit requirement.

VI. THE ECONOMIC EFFECTS OF THE 1980 CREDIT RESTRAINT PROGRAM

The Immediate Market Response

The Board's announcement of its CRP was followed immediately by turmoil in the financial markets.¹⁰⁴ On Friday, March 14, the day of the announcement, the prime rate was 18½ percent. It rose to 19 percent Monday, March 17, the third increase in four business days. The rise was attributed to the increased cost of funds caused by the Board's modification of the marginal reserve requirement on managed liabilities.¹⁰⁵ The same day, Henry Kaufman predicted that "the peaks of credit stringency and of interest rates are still ahead of us."¹⁰⁶ A Fed official was reported as admitting that the CRP would affect the allocation of credit. "He added that 'rationing by price in the marketplace hasn't been well distributed, and demand for credit has been a lot stronger than we [the Fed] thought it would be.'"¹⁰⁷

Between the end of February and the middle of March, the rate on 90-day Treasury Bills rose 150 basis points. Announcement of the CRP and heavy government supply caused it to rise another 120 basis points before the end of March. According to Donald Maude, a senior vice president at Merrill Lynch Government Securities, Inc., "[T]he appetite of investors for anything with a maturity longer than two years is negligible at best."¹⁰⁸ By April, two weeks after the CRP began, the prime rate reached 20 percent, up 350 basis points in one month, and the federal funds rate exceeded 19 percent. The rise in the funds rate equalled about two-thirds of the discount rate surcharge on large banks and was not expected by the Board.^P

Complying With the Program's Requirements

There was considerable confusion among consumers and businesses over how to comply with the program. Although the Board tried to keep the

^P Many banks offered small businesses a below-prime interest rate to satisfy the Board's request for special programs for these borrowers. In addition, the Board announced on April 17, a "temporary seasonal credit program" for banks with less than \$100 million in deposits. Aggregate credit lines of \$113 million were arranged under the program for 129 banks, primarily from the Midwest. A total of \$1.5 million was actually borrowed by five banks. This low borrowing level is attributed to the steep decline in the federal funds rate after April 17. See Board of Governors, "Federal Reserve Credit Restraint Program," p. 17; Letter from Volcker to Chairman Nowak, August 20, 1980, in U.S. House, *Hearings on Federal Monetary Policy And Its Effect On Small Business (Part 3—Credit Controls and Availability of Credit)*, p. 329.

control program simple by letting lenders independently develop policies to allocate credit in ways consistent with the regulations, creditors required much more detailed instructions regarding reporting requirements, maintenance of special deposits, and monitoring of compliance with supposedly "voluntary" restrictions. As a result, the Board issued 9 press releases over 8 weeks, providing answers to commonly asked questions about all factors of the program. Daily conference calls were made by the Board to the Federal Reserve Banks, providing the latest interpretation of the regulations so that the regional Reserve Banks could handle the thousands of phone calls they received for additional information.¹⁰⁹

On March 17, Chairman Volcker was in Washington, D.C. briefing 65 of the leading bankers on the CRP. According to *The New York Times*, he told them that the Board expected their cooperation with the program, and he drove home his point by suggesting that other government agencies "would be involved in assuring compliance with the program." After the meeting, the bankers expressed concern over having responsibility under the program for allocating credit among their customers.¹¹⁰

By mid-March, when the voluntary credit restraint program was imposed, loan growth at many banks was already close to, if not exceeding, the maximum 9 percent annual rate. Banks were especially concerned about their ability to comply with the voluntary credit restraint program because of their loan commitments. Unused commitments at large banks rose from \$235.6 billion at the end of December 1979 to \$248.4 billion at the end of February 1980, and rose even further before March 14. As of mid-March, business loans outstanding totalled \$157.3 billion.¹¹¹ If businesses made full use of the committed funds, bank lending would increase much more than 9 percent, the maximum under the CRP. When banks expressed concern over this possibility, the Board suggested that the banks decide which prospective borrowers had legally binding commitments and encourage them to postpone takedowns or find alternative financing.¹¹²

Bankers, especially those from banks with a strong consumer orientation, were upset that the Board imposed the surcharge instead of raising the basic discount rate.¹¹³ At the time, federally chartered banks were permitted to charge one percentage point more than the prevailing discount rate on loans made. Thus, an increase in the basic discount rate would have provided banks some relief from usury laws that

made consumer lending unprofitable given the federal funds rate of over 16 percent on March 14.¹¹⁴

The immediate effect of the tightening of the marginal reserve requirement on managed liabilities was an increase in the number of member banks with covered managed liabilities in excess of their base levels from 115 to 199 between February 27 and March 26. The number of U.S. branches and agencies of foreign banks having to hold such reserves rose from 19 to 44 over the same period; 43 non-member banks were also affected by the program as of March 26. Overall, covered managed liabilities in excess of affected institutions' base levels rose from \$4.0 billion to \$21.2 billion between February 27 and March 26.⁹

As stated in Section V, the Investment Company Institute decided against filing a lawsuit over the 15 percent special deposit requirement levied on MMMFs. One factor behind this decision was the realization that the regulation, along with the Securities and Exchange Commission's corresponding requirement that MMMFs disclose the effects of the CRP on their funds, would not be as onerous as first thought.¹¹⁵ James Benham, chairman of Capital Preservation Fund, was quoted as saying "At first, this [the CRP] looked very messy for all of us, but now I think the fund business is going to continue booming."¹¹⁶ Many MMMFs initially responded to the program by stopping their advertising so as not to attract new investors. Many stopped accepting new accounts altogether but continued accepting deposits from existing shareholders. Existing funds expected that staying below their base level, and thus avoiding the 15 percent special deposit, would be easier than originally thought because the CRP coincided with income tax season, which could increase redemptions.¹¹⁷ Managers of existing funds accepted that they would have to keep at least small amounts on deposit because of the normal errors in predicting weekly asset levels.

During the first four weeks following the CRP's announcement, MMMF assets declined over \$1 billion.¹¹⁸ The Board's March 28 exemption of certain funds from the special deposit requirement contributed to a resurgence of asset growth in the second half of April, as did the creation of new funds, called "clones." Clone funds were developed to allow MMMFs to accept new deposits without lowering

the return to incumbent shareholders, and possibly exposing the mutual funds to legal challenges by these shareholders. The clones held portfolios resembling those of the first generation funds from which they derived. By late April, approximately 96 money-market funds were operating, of which 15 were clones with assets of about \$329 million.¹¹⁹ Of the 70 older funds sold to individual investors, 32 were still accepting additional investments. During their first few weeks of operation, the clones offered higher yields than the older funds. For example, as of April 16, clone funds offered a 30-day average yield of 17 percent while older funds offered only 15.3 percent.¹²⁰ This differential arose, despite the special deposit requirement, because clones that were set up quickly were invested heavily at the higher, post-controls interest rates. By the end of May, the older funds had a slight yield advantage. Special deposits by MMMFs with the Board peaked at \$817 million and were \$573 million, or 0.72 percent of assets, when the controls were lifted.¹²¹

Besides MMMF assets, increases in consumer credit were also subject to a 15 percent special deposit. Announcement of the deposit requirement on lenders of certain types of consumer credit brought complaints that the regulation was unfair and difficult to comply with because of existing state and federal laws. Specifically, creditors argued that the choice of March 14 as the base ignored the seasonality in their sales, and thus credit extensions.¹²² Also, the Truth in Lending Act required that customers be notified of any changes in the terms of credit card agreements. Each state had its own notification laws, requiring between 15 and 105 days' notice.¹²³ Credit card issuers complained that these laws made changing card terms difficult. Moreover, changes that were made could not be applied only to new extensions of credit without great expense and delay; consequently, outstanding balances would be affected also.¹²⁴

In response to these complaints, the Board made several technical changes in its consumer credit restraint regulations on April 2. First, the Board established a uniform national requirement that written notice of changes in charge account terms be given to account holders at least 30 days in advance. Second, account holders had to be given the option of paying their outstanding balances under the original account terms. Although the Board superseded state notification requirements, it chose not to waive state interest rate ceilings. Later on April 14, the Board did waive conflicting federal regulations on finance charges for oil company credit

⁹ Board of Governors, "Federal Reserve Credit Restraint Program," pp. 40, 42. A few other non-member banks later became subject to the program.

programs.¹²⁵ Third, to adjust for the seasonality in sales, creditors were given an alternative method of calculating their bases. They could use either March 14 or the amount of outstanding covered credit for March 1979, scaled up by a factor based on the increase in the firm's covered credit between March 1979 and March 1980. The scaling factor would be reduced by one-twelfth each month to make the SDR applicable by March 1981 to any year-over-year increase in covered credit over the base level. Finally, responding to a petition by the Consumer Federation of America, the Board said that it would try, but could not promise, to give the public an opportunity to comment on rule changes before making a final decision.¹²⁶

Lenders had reduced their issuing of credit cards for several months before the CRP because high market interest rates were bumping against usury ceilings.¹²⁷ Once the uniform 30-day notification requirement was imposed, they began modifying their charge account terms. A congressional subcommittee survey of 59 creditors offering 96 distinct charge cards found that the most frequent change in terms made in response to the CRP was the imposition of an annual fee. This change was made on 49 percent of the cards surveyed. Creditors stopped accepting credit card applications for 42 percent of the cards. Forty-one percent raised the standards for qualifying for credit; 41 percent changed the finance charge calculation method; 35 percent increased the annual percentage rate; and 23 percent increased the minimum monthly payment. Eighty-six percent of the cards had their changes applied retroactively to the account holder's outstanding balance. Among the most stringent actions were Exxon's announcement of a 50 percent increase in its minimum monthly charge and that, effective August 1, single purchases under \$40 would be included in the minimum monthly payment. Even in 1980, a tank of gas cost less than \$40.¹²⁸ To discourage credit card use more generally, a television advertisement ran in which Russell Hogg, president of the Interbank Card Association, which franchises MasterCard, discouraged use of MasterCard for anything other than "necessities and emergencies."¹²⁹

The Big Surprise

On March 24, just ten days after the CRP began, the Administration saw the first sign of recession: an increase in unemployment benefit applications.¹³⁰ As the Administration later explained,

Early in 1980 there were few signs of recession. If anything, activity seemed to be picking up. The evidence available

at the time hinted that households . . . were on a buy-in-advance spending spree. . . .

By early March there was fear that inflationary pressures . . . were mounting . . . and that without some additional action these would . . . lead to an explosion of prices. . . . It was in this environment that . . . the President authorized . . . selective controls on credit.¹³¹

In retrospect, it appears that . . . interest rates finally had reached levels in late February and early March which were sufficient to discourage borrowing. However, data [available when the credit controls were planned] . . . did not show this development. . . . [N]ew home sales fell slightly in February and plunged in March, although the only information available in early March had shown that sales advanced in January.¹³²

Additional evidence of recession soon followed the unemployment data. Statistics for March indicated that the narrow money aggregates fell sharply in late March; the Board attributed this to the increased opportunity cost of holding money caused by the reserve requirements on managed liabilities and the start of a recession.¹³³ Weekly data for large banks showed loan growth remaining strong through early March, but slowing considerably over the rest of the month. As a result, total bank loan growth for March fell to an adjusted annual rate of 2½ percent from rates of 15 percent to 20 percent earlier in the year. Consumer installment credit rose only 5 percent in March and 7 percent for the first quarter.¹³⁴ Housing starts suffered their largest fall in twenty years.¹³⁵ By April 11, market analysts were speculating that the Board would ease its credit controls soon because of the accumulating evidence suggesting that a severe recession was underway.¹³⁶

One month after credit controls were imposed interest rates began a sharp decline. The prime rate was 19.5 percent on April 18, while the federal funds rate was 18.3 percent and the 3-month commercial paper rate was 16.2 percent. The 3-month Treasury bill rate, which had peaked at 16.5 percent at the end of March, was down to 13.8 percent, its lowest level since the beginning of March.¹³⁷ Traders rejoiced that the corporate bond market was reborn because companies once again began seeking long-term financing. Market analysts attributed the bond market's revival to anticipations that inflation would not be allowed to get out of control and to firms' attempts to replace bank loans with fixed-cost market financing.¹³⁸

The consumer credit controls were largely symbolic and without teeth; however, they induced consumers to alter their buying behavior. Consumer spending, especially credit-financed expenditures, fell off dramatically. The country's major retailers

(e.g. The J.C. Penney Company, Sears, etc.) experienced declines of about 20 percent in charge account applications and 10 percent in credit sales during March and April.¹³⁹ Retail sales fell at the fastest rate in twenty-nine years.¹⁴⁰ According to economist S. Lees Booth, the program “‘may have been symbolic, but it was shocking.’” A *New York Times*/CBS News poll taken in April showed “58 percent of Americans . . . using credit cards less than they did . . . in [1979], while only 5 percent were using them more.”¹⁴¹ As President Carter described the situation, “[M]any [credit] card holders began to believe that it was almost unpatriotic to buy items on credit.”¹⁴² Typical of the letters Carter received from the public regarding the controls was one from Dennis Gordon of San Francisco, California. It read,

We are supporting you sir, one-hundred percent. Your inflation fighting program has forced us into alternatives that we are not finding hard to live with. We are spending with more wisdom and not as frequently. We are drawing closer to each other during this fight against inflation. An evening once [spent] going “out on the town” is now enjoyed gathering in our home or the homes of friends. We have once again discovered parlour games, sing songs, lengthy walks and other means of “old fashioned” entertainment.

I believe myself and my group of friends are not unique. I believe all across America we are pulling together to survive, and will do so quite nicely and to our surprise, comfortably.¹⁴³

An informal *New York Times* survey of consumers in Ridgewood, New Jersey revealed similar attitudes.¹⁴⁴

The decline in consumer spending, however, concerned the Federal Open Market Committee at its April 22 meeting. According to the Board’s description of the meeting,

The contraction in activity was projected to be somewhat larger than had been anticipated a month earlier and to be accompanied by a substantial increase in unemployment. . . .

The degree of prospective weakness in consumer spending was viewed as a major source of uncertainty. The anti-inflationary measures announced on March 14 appeared to have curbed considerably spending in anticipation of price increases. It was noted in this connection that a rise in the saving rate from the abnormally low levels of the most recent two quarters to a more normal rate would imply a marked cutback in consumer spending. . . . However, it would be premature to conclude that inflationary attitudes and behavior had been fundamentally altered, especially in view of the prospect that the rapid rise in the consumer price index would persist for a number of months. . . .

Several members noted their concern that if a large decline in interest rates were to occur over the next few weeks, it was likely to be perceived by some market participants . . . as an easing of monetary policy and could have very undesirable repercussions on inflationary psychology¹⁴⁵

For the month of April, the narrow money aggregates again fell sharply, hitting below the lower end of the Federal Open Market Committee’s long-run target range. Only three banks still had annual loan growth rates exceeding 9 percent. Total bank loans outstanding fell 5 percent (annualized).¹⁴⁶

In May, interest rates plummeted, falling about one percentage point each week.¹⁴⁷ Bank loan growth declined further. The slowdown in bank loan growth in April and May reduced by over 100 the number of financial institutions having to hold reserves against managed liabilities.¹ By May 5, market analysts speculated that the end of the CRP was near because “the measures weren’t needed in the first place,” and the program was “‘scaring people away from the stores.’” The consumer controls were expected to be lifted within six weeks.¹⁴⁸

The Board’s first step toward easing the controls was elimination on May 7 of the 3 percent discount rate surcharge. While the surcharge was in place, few banks had to pay it because it had been imposed only two weeks before the first quarter ended. Consequently, at most seven banks paid the surcharge in any statement week, and almost all that did borrowed in two consecutive weeks. The surcharge was lifted just days before any banks could be subject to the surcharge for borrowing four weeks in any quarter.⁵

On May 14, Volcker announced that the Board could “‘legitimately look forward to dismantling’ [the CRP]. . . . ‘We have not wanted to move prematurely, we will not. . . . But equally, we are not interested in fostering any impression that credit allocation, formal or informal, can be any part of the basic, continuing armory of monetary policy.’”¹⁴⁹

The Board eased the credit restraint measures considerably on May 22, the day lenders of consumer credit were to make their first special deposit. It cut the deposit requirement on consumer credit and MMMFs from 15 percent to 7.5 percent, cut the reserve requirement on managed liabilities from 10 percent to 5 percent, and revised its lending guidelines to make credit more available for certain

¹ Board of Governors, “Federal Reserve Credit Restraint Program,” pp. 40, 42. The excess of covered managed liabilities over base levels dropped by \$11.1 billion over this period.

⁵ Peter Keir, “Impact of Discount Policy Procedures on the Effectiveness of Reserve Targeting,” in *New Monetary Control Procedures*, pp. 158-159 and Table 2. Those paying the surcharge borrowed an average of \$80 million.

types of loans.¹⁵⁰ Treasury Secretary Miller, meanwhile, encouraged consumers to return to the stores.¹⁵¹

The May easing of the CRP did not slow the flow of bad economic news in June. Early in the month, data was released showing that unemployment rose 1.6 percentage points to 7.8 percent over April and May; it was the largest two-month increase ever.¹⁵² In addition, consumer installment debt fell 8 percent in April, with the decline greatest for personal loans. This was the first decrease in consumer debt since May 1975.¹⁵³ On the bright side, producer prices rose only 0.3 percent in May. Economist Lawrence Chimerine, chairman of Chase Econometrics, called the credit controls “‘overkill,’” and saw the recession as being “‘very severe,’” with little chance of a quick recovery.¹⁵⁴ By the end of June, the National Bureau of Economic Research declared that the economy was in a recession that had begun in January.¹⁵⁵

The economy was so weak by late June that the controls were nonbinding.¹⁵⁶ As a result, on July 3 the Board announced the phase-out of the CRP, and President Carter removed the Board’s authority under the CCA except as needed to end the program. Carter warned that he retained the authority to impose controls and would invoke the CCA again if signs of excessive credit use reappeared.¹ Retailers were concerned that the psychological effect the controls had on consumers might not be reversed by simply lifting the controls.¹⁵⁷ They immediately began planning credit promotions in hopes of revitalizing charge sales, although they retained many of the more stringent credit policies they had adopted while the controls were in place (e.g. annual fees and higher minimum monthly payments) because they were “‘good business practices.’”¹⁵⁸

Data released July 9 showed that consumer installment credit fell a record 13 percent in May. New consumer credit extensions were 25 percent lower than the September 1979 peak. These declines were attributed to the effect the CRP had on consumers. Between January and May, output of consumer goods fell 3.7 percent, while retail sales fell 10.3 percent. From April through June, preliminary data showed an 8.5 percent (annualized) decline in GNP. Inflation, however, was down to 11 percent by July, as was the prime rate.¹⁵⁹

¹ Board of Governors, Press Release, July 3, 1980. Also “White House Credit Text,” *The New York Times*, July 4, 1980. The reserve requirement on managed liabilities would be lifted July 10; the special deposit on consumer credit, July 23; and the deposits by MMMFs, July 28.

The Aftermath of the Controls Program: Another Surprise

After the precipitous drop in economic activity during the second quarter, economists generally expected the recession to last through the end of 1980 and be almost as severe as the 1974-75 recession. In reality, however, private sector demand “‘rebounded with surprising alacrity.’” The sharp drop in interest rates was a driving force in the recovery, stimulating housing and consumption. Housing starts rose 70 percent between May, their low point, and September; car sales also rebounded dramatically, increasing 28 percent between May and October. Although outstanding consumer installment credit experienced its largest decline in the postwar period during the second quarter, it began rising as soon as the controls were lifted, albeit at a slower pace than early in the year. The rise in credit use was accompanied by an increase in consumer spending. Real retail sales rose 17.8 percent in June and 27.3 percent in July. In the third quarter, real personal consumption expenditures rose 5.1 percent, compared with a record 9.8 percent second quarter decline.

The drop in interest rates in the spring was short-lived. As the economy strengthened and inflationary pressures intensified, the demands for money and credit increased and interest rates rose. The prime rate climbed from 11 percent in July to 21.5 percent in December. The federal funds rate hit 19.8 percent as the three-month commercial paper rate reached 19.5 percent.

Looking at 1980 in its entirety, the economy experienced a short but severe recession during the first half of the year and quickly recovered during the second half. Real GNP remained essentially unchanged, while the money aggregates were close to the upper end of the Federal Open Market Committee’s fourth quarter-to-fourth quarter target ranges. Disposable income rose only 0.5 percent, but personal consumption fell 0.3 percent. Consequently, saving rose one percentage point over the previous year, fourth quarter to fourth quarter, to 5.7 percent. The CPI, excluding food, energy, and home purchase and finance, rose 9.0 percent between April and November, slower than the 12 percent rate during the first quarter, but higher than the 7.2 percent rate for the year ending November 1979.¹⁶⁰ In retrospect, the credit control program appears to have lowered interest rates and inflation only while it was in effect, and did so by worsening a recession that was already underway.

Data Resources, Incorporated conducted a preliminary study in 1980 of the CRP's overall economic impact.¹⁶¹ DRI found that

"the March 14 Credit Controls had some negative impact on the economy in the second quarter. . . . The credit controls did make the fall off in economic growth more severe."

In addition, DRI concluded that the CRP reduced real output, but not inflation; other factors accounted for the lower inflation rate during the second and third quarters.¹⁶² DRI's simulations indicated that the CRP's total, long-run cost to society would be losses of \$23 billion of GNP, \$19 billion of total consumption, 300,000 man-years, 50,000 housing starts, and 500,000 new domestic car sales.

VII. WHAT WENT WRONG?

Although the 1980 recession was underway before the CRP was imposed, the Board, the Administration, and the financial markets believed that the program contributed to the steep fall-off in economic activity beginning in March. This slowdown is apparent in the time series of the key macroeconomic variables, as Figures 1-10 show. This section addresses two questions: To what extent did the controls accomplish the Board's objectives? To what extent did they contribute to the recession?

Each component of the CRP had a different effect on the economy. Some accomplished what they were designed to do; others did not. Some were too effective at reducing credit use.

The reserve requirements on managed liabilities and the discount rate surcharge were not expected to affect market interest rates, but they did. The imposition of these measures immediately raised the cost of funds to large banks. This increased cost quickly led to increases in the prime and federal funds rates. Loan growth slowed as the rising interest rates priced borrowers out of the credit markets.

Also contributing to the decline in bank lending was the voluntary credit restraint program. According to the Board,

It is difficult, if not impossible, to say how much of the weakness in bank loans [under the program was] . . . due to the recession, how much to reaction to fiscal announcements and general credit conditions (including expectational effects), how much to the cumulative effects of earlier

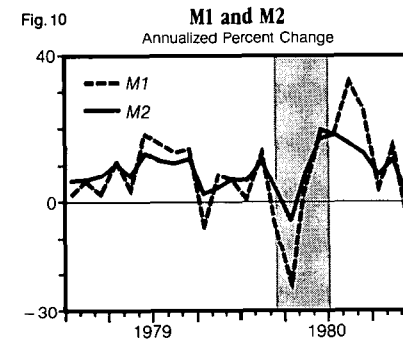
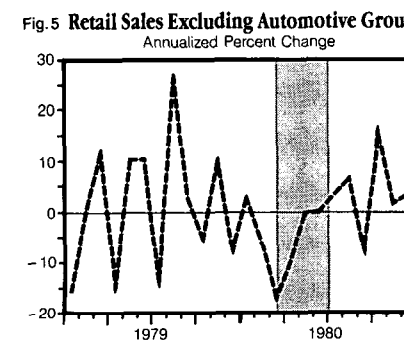
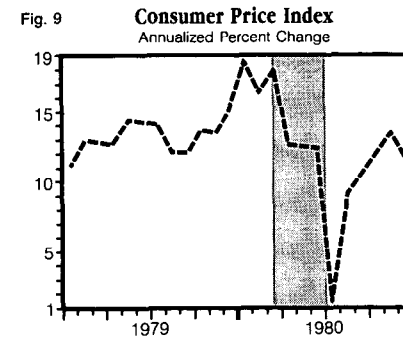
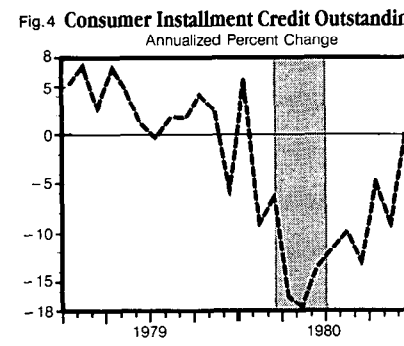
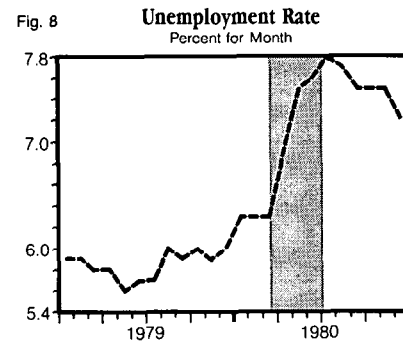
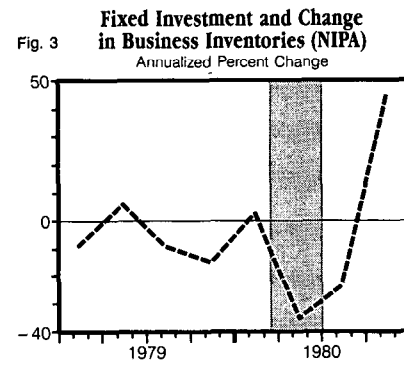
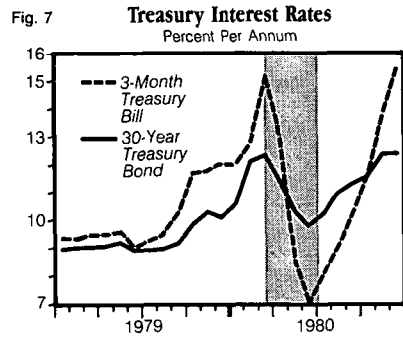
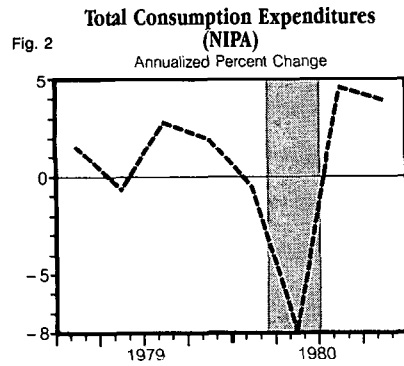
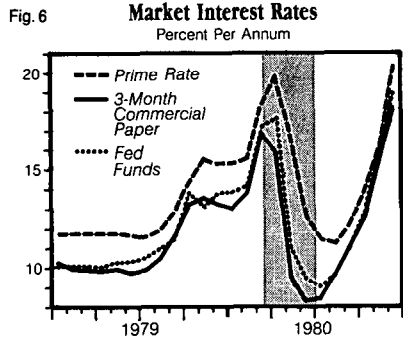
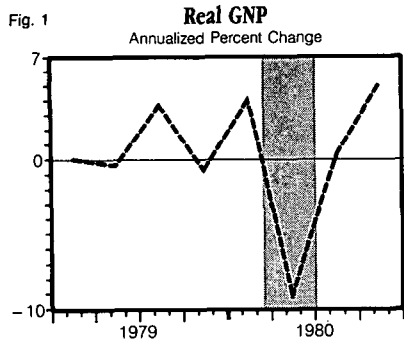
overall restraints, and how much to the credit restraint programs. But the timing and abruptness of the change in loan growth trends suggest that announcement of the programs played a significant role. Indeed the immediate effect of the programs on bank lending may have been exaggerated by the initial reactions of lenders to these restraints, as they sought to evaluate what the Federal Reserve actions—especially the 6 to 9 percent limitation—would mean in their particular case¹⁶²

In contrast, the special deposit requirement on MMMFs was designed not to reduce credit use but rather to alter the disintermediation from financial institutions. It did not accomplish its objective because, as explained in Section VI, it had a negligible effect on fund yields. Although assets at MMMFs fell during the first four weeks of the CRP, they quickly recovered, growing over 30 percent between mid-March and late July.¹⁶³

Similarly, the consumer credit restraint program was not expected to have a major impact on credit use or consumer behavior because it focused primarily on charge card credit and personal loans and was imposed on lenders, rather than directly on consumers. Consequently, the declines in consumer installment credit, personal consumption expenditures, and retail sales were a big surprise. This surprise may have been caused in part by the response of charge card issuers to the restraint program. Despite the Board's announcements that the CRP would be in place only temporarily,¹⁶⁴ many of the changes in charge card terms made under the program were not designed for temporary use. The most effective, least costly, and easiest ways for creditors to temporarily reduce the growth of charge card use were to stop accepting card applications and reduce credit lines while the program was in place. These were not the steps most commonly taken in response to the controls. Rather, creditors more often introduced annual fees and changed the methods of calculating the minimum balance and finance charge, changes that were more costly to implement and inconsistent with the program's temporary nature. These changes also applied retroactively, thereby penalizing charge account holders generally rather than only those who used their cards while the controls were in force.¹⁶⁵ Because creditors decided individually how to respond to the CRP, the changes made in credit terms varied greatly across charge cards. The diversity in charge term changes, together with the failure of creditors to communicate these changes clearly, contributed to consumers' confusion over the impact of the program on their finances.¹⁶⁵

¹⁶¹ The Chamber of Commerce's summary of DRI's results does not specify what these other factors might be.

¹⁶⁵ Many of these changes are still in place today.



Figures 1, 2, and 3 use quarterly data, all others use monthly data. Data points are centered over their respective time periods, those periods represented by segments between tick marks.

Data for Figures 1-5, 8, and 9 are seasonally adjusted.

Gray shading indicates period of Credit Controls: March 14, 1980 - July 3, 1980.

As the preceding discussion indicates, the CRP led to an immediate rise in short-term interest rates and affected consumers' buying psychology. The rise in interest rates was only temporary; within a month after the CRP began, rates started falling. This suggests that the CRP resulted in an immediate decrease in the supply of credit, followed by a larger decrease in the demand for credit. The drop in demand was in addition to the decline that would have occurred even in the absence of credit controls because of the recession that was already underway.

Looking back on the CRP, Board Vice Chairman Schultz explained why it did not work as planned:

We [the Board] learned in 1980 that it is exceedingly difficult to assess in advance the impact of controls on economic activity. When the Board enacted its program, we did not anticipate, and we had no reason to anticipate, the market impact it would have. *Given the limited coverage of the program, it would have been expected to have had a moderate effect on aggregate demand; however, we did not reckon correctly the dimensions of the psychological impact of the program on borrowers and lenders.* To be sure, some of this impact owed in part to a misunderstanding, especially at the beginning, about the scope and intent of the program, but beyond this, there was [a] remarkable shift in attitudes that led to a sudden contraction of credit flows. This contraction involved even those sectors that were explicitly exempted from the controls, and . . . contributed to a sharp economic recession. Then, when we removed the controls in the early summer, we were surprised once again by how quickly the economy snapped back.¹⁶⁶ [emphasis added]

Two events increased uncertainty concerning labor income in the first half of 1980. First, rumors began spreading in late 1979 that a recession was imminent, but its length and severity were unknown. This led to a slowdown in consumer credit use in late 1979 and early 1980. Second, the imposition of credit controls in mid-March increased consumers' uncertainty about their ability to use their charge cards and obtain personal loans. For consumers, charge cards and personal loans are a source of liquidity and a means to smooth their consumption expenditures over time because they enable consumers to access their future income. Consequently, the controls raised consumers' uncertainty about the amount of income accessible in the present, causing consumers to reduce current consumption even more sharply than they had before the controls became effective.^w

^w Why would consumers alter their buying behavior as they did in response to restrictions on credit card use and extensions of personal loans? The economics literature shows that when faced with greater uncertainty regarding labor income increases (i.e. increases in the variance of expected future income), a risk-averse consumer will reduce current consumption and plan to

Table I presents evidence supporting the claim that the 1980 recession was "the worst consumer recession since World War II."¹⁶⁷ The table, which is patterned after one by Barro,¹⁶⁸ shows the shortfall in real GNP for each recession since World War II and the percentage of the shortfall attributable to personal consumption and investment. The shortfall is calculated as the average over all quarters in a recession of the deviation of actual GNP from its trend level. For the 1980 recession, personal consumption accounted for 79.4 percent of the shortfall in real GNP; this is more than twice the average 34.8 percent contribution for all postwar recessions and is 36 percentage points greater than that for the 1973-1975 recession. The contribution of expenditures on durable goods alone is 37 percent, 3.3 times the average of 11.2 percent. In contrast, investment, defined as gross fixed investment plus the change in business inventories, contributed 64.9 percent of the shortfall in real output, compared with an average of 69.5 percent for all recessions considered.^x Thus, this evidence suggests that the CRP contributed to the 1980 recession by inducing a greater reduction in consumption, especially consumption of durable goods, than that in the typical postwar recession.^y

VIII.

THE FATE OF THE CREDIT CONTROL ACT

Senator Helms's attempt to repeal the CCA in 1979 was not the last such attempt. In fact, while selective credit controls were in place in 1980, another effort was made at legislative repeal. In May 1980, Senator William Armstrong proposed an amendment to Senate bill S. 2352, which would extend authorization for the Council on Wage and Price Stability. The amendment would end the President's authority under the CCA as of July 1, 1981. According to the amendment's supporters,

increase future consumption. That is, the consumer behaves more prudently, saving more in the current period as a precaution against possible future misfortune. See Olivier Jean Blanchard and Stanley Fischer, *Lectures on Macroeconomics* (The MIT Press, 1989), pp. 279-291; Stephen P. Zeldes, "Optimal Consumption with Stochastic Income: Deviations from Certainty Equivalence," *The Quarterly Journal of Economics*, vol. 104, no. 2 (May 1989), pp. 275-298.

^x For some recessions, the percentage contributions of consumption and investment to the GNP shortfall sum to over 100 percent. This occurs when government purchases and net exports combined had a stimulative effect, contributing to a reduction (i.e. a negative percentage change) in the GNP shortfall.

^y There are methods, other than those used in Table I, for calculating the shortfall in real GNP. They result in consumption making an even greater contribution to the shortfall than shown here.

Table I
Breakdown of Shortfall in Real GNP During Postwar Recessions

Time Period of Recession										
Quarterly*	48:IV- 49:III	53:II- 54:II	57:III- 58:I	60:II- 61:I	70:I- 70:IV	73:IV- 75:I	80:I- 80:II	81:III- 82:IV		
Monthly	48:11- 49:10	53:7- 54:5	57:8- 58:4	60:4- 61:2	69:12- 70:11	73:11- 75:3	80:1- 80:7	81:7- 82:11	Mean for Postwar Recessions	
Average Quarterly Shortfall of Real GNP**	9.56	17.66	28.03	13.61	22.08	38.17	48.29	41.20	27.32	
Average Quarterly Real GNP	1114.53	1429.13	1534.97	1665.15	2417.53	2720.47	3195.25	3191.28	2158.54	
Average Shortfall as a % of Average Trend Real GNP	0.86	1.24	1.83	0.82	0.91	1.40	1.51	1.29	1.23	
% of Real GNP Shortfall accounted for by:										
Personal Consumption Expenditures	26.15	20.66	26.24	37.43	26.26	43.35	79.38	18.51	34.75	
Durables	-14.45	4.70	10.15	16.33	19.57	16.02	37.02	0.59	11.24	
Nondurables	19.52	17.54	12.88	19.22	4.67	21.98	24.66	9.41	16.23	
Services	21.08	-1.58	3.21	1.88	2.02	5.36	17.71	8.50	7.27	
Gross Fixed Investment plus Change in Business Inventories	129.41	27.86	48.03	107.99	38.36	72.02	64.94	67.50	69.51	
Other***	-55.56	51.48	25.73	-45.41	35.39	-15.38	-44.32	14.00	-4.26	

* Barro studies the period 1929-1982 and uses annual data; consequently, he combines the 1980 and 1981-82 recessions. Here, quarterly, data are used. In determining the first and last quarter in a recession, we include quarters with at least two months of recession.

** The shortfall, measured in billions of 1982 dollars, is the average difference between trend GNP and actual GNP for each quarter in the recession. Trend GNP is determined by multiplying the actual GNP for the previous quarter by the trend quarterly growth rate of 0.8% + for the period studied.

*** "Other" consists of government purchases and net exports.

Having suffered the inevitable inequities, costs and frustrations inherent in . . . [selective credit controls], a coalition of business and consumers want the March 14th program stopped and the Act repealed. . . .

On paper, the credit control program was simple: direct bankers to restrain credit lending, allowing each to say how. In reality, the program has been a nightmare.¹⁶⁹

During Senate debate of the amendment, Helms argued that

[b]y leaving the Credit Control Act on the books, we make it almost mandatory that the President use it when he has a seemingly good excuse to use it. In other words, if he neglected to use it, some might say that he was not "doing all he could" to fight inflation. By leaving such an act on the books, we make the President more subject to pressures to "do something" even though "doing something" using credit controls is the wrong thing to do.¹⁷⁰

The House considered its version of the bill in September. This bill did not include an amendment for sunseting the CCA. In debate of the bill, Representative Annunzio suggested that the Senate's amendment was politically motivated to detract attention from the success of President Carter's anti-inflation program and hurt his chances in the upcoming election.¹⁷¹

A conference committee met to arrange a compromise between the House and Senate versions.

The committee amended the Senate bill to sunset the CCA on June 30, 1982, a year later than originally proposed. The Senate approved the Armstrong amendment and S. 2352 by votes of 43-40 and 72-11, respectively, and the House gave its unanimous consent to S. 2352 as amended.¹⁷² Carter signed the bill into law on December 9, 1980,² stating,

I believe that abolishing the authorization granted to the President under the [CCA] . . . is highly unwise, because many of the act's provisions can be extremely helpful at critical periods in the fight against inflation. This is no time to strip a President of inflation-fighting powers. At the same time, I recognize that certain improvements to the Credit Control Act may be desirable. It is my hope that during the next 18 months Congress will enact a new Credit Control Act that saves the essential inflation-fighting powers that the act makes available.¹⁷³

Thirteen days after the sunseting of the CCA, the House held hearings on H.R. 6124, a bill "to reduce interest rates, control inflation, and ensure the availability of credit for productive purposes, and promote economic recovery by extending the Credit Control Act." Specifically, the bill would repeal the

² See Act of December 8, 1980, 94 Stat. 2748-9. Section 9 amends the CCA by adding to it Section 211, terminating the authority conferred by the CCA on June 30, 1982.

termination of the CCA (Sec. 211) and amend Section 205(a) to read

"Whenever the President determines that such action is necessary or appropriate to reduce high levels of unemployment in any sector of the economy, or to prevent or control inflation or recession, the President may authorize the Board to regulate and control any or all extensions of credit." [emphasis added]

It also allowed for limiting credit for nonproductive purposes.¹⁷⁴

Typical of the arguments given in support of H.R. 6124 were those by J. Morton Davis, president of D. H. Blair & Co., Inc., and J. C. Turner, general president of the International Union of Operating Engineers and chairman of the National Council for Low Interest Rates. Davis called the CCA a "spare tire" and wondered why anyone would not want to have a spare tire available. Turner argued that high interest rates were the "quicksand" of the 1981-1982 recession and that the CCA provided "the only avenue available for removing the crushing burden of high and volatile interest rates." He also supported the addition of unemployment and recession as "triggers" to allow use of the Act.¹⁷⁵

The Board and the Reagan Administration opposed H.R. 6124. Preston Martin, Board Vice Chairman in 1982, testified,

[The Board does not] believe that credit controls are an effective, efficient, or fair method to deal with [unemployment, recession, high interest rates or] . . . inflation when the more general instruments of monetary and fiscal policy can be used. Our experience with the administration of controls for a brief period in 1980 amply demonstrated the difficulties encountered in the application of credit controls.¹⁷⁶

Former Board Vice Chairman Frederick Schultz concurred:

Now, with the benefit of 20/20 hindsight . . . , I am convinced that controls were not the right way to address the economic problems we experienced in early 1980. . . .

One reason some people have proposed that credit controls be used today is that they feel this would help to lower interest rates and aid the economy. . . . Certainly one does not lower interest rates by reducing credit supplies! So the lowering of rates must be achieved by reducing effective credit demands, which in the aggregate is not consistent with higher rates of spending and economic activity. . . .

. . . . We still found ourselves at the end of . . . 1980 with the need to deal with inflation, high interest rates, and languishing productivity. Indeed, I think that there is a considerable risk that the underlying problems of the economy will be found to be even more intense once a period of credit controls has been ended. . . . The quick-fix or the bandaid policy always looks attractive, but that is a

cruel deception. This is why I oppose having credit controls available even on a standby basis, for emergency situations.¹⁷⁷

On behalf of the Reagan Administration, Manuel Johnson, Acting Assistant Secretary for Economic Policy, reported that

the Administration strongly opposes the use of credit controls, or any controls for that matter. . . .

The recent experience with credit controls in 1980 exemplifies virtually all of the undesirable consequences of controls. . . . Key industries targeted for relief, such as housing and autos, collapsed under the weight of credit scarcity. Interest rates were temporarily reduced but the cutoff of credit at the lower rates produced rising unemployment and a general weakening of the economy that subsequently turned into a full scale recession from which we still have not fully recovered. And, instead of declining, inflation continued strong throughout the year.¹⁷⁸

H.R. 6124 died in committee, but its fate and the testimony given opposing it did not prevent an extended version of the bill from being introduced as H.R. 1742 just one year later. In June 1983, the House Subcommittee on Economic Stabilization held a hearing on the bill, called the Credit Control Act of 1983. The bill amended the CCA of 1969 as H.R. 6124 would have and included a provision for the Board to review the financing of corporate acquisitions and mergers.¹⁷⁹ At the subcommittee hearing on the bill, Representative Norman Shumway asserted,

I have read the bill. Certainly no one can quarrel with the stated purposes of it: to reduce interest rates, to control inflation, to ensure the availability of credit for productive purposes and to promote economic recovery.

But I would suggest [that] . . . there is no evidence whatsoever that explicit control by the Federal Government of credit availability and allocation will contribute to the achievement of any of these objectives.

In fact, the most recent experience we have had with credit controls under the past administration proved to be a disaster. It depressed an economy which was already headed for a period of lesser growth as a result of existing trends and policies. . . .

Mr. Chairman, you know as well as I that although the bill before us provides the President standby authority only, this President neither wants nor needs such authority.

He has indicated, in fact, that he will veto the legislation if sent to him. This, of course, is highly unlikely because the Senate has no intention whatsoever of considering the measure.

I can only conclude, therefore, that the introduction of H.R. 1742 and today's hearing are both rather desperate attempts to embarrass the administration.

In the face of the increasingly bright signs of a healthy recovery, I can perhaps understand the desire of my friends on the majority side to score partisan political points, but I don't understand why this senseless and rather meaningless proposal was chosen as the vehicle.¹⁸⁰

The hearing was brief, and the bill never got out of committee.

No bills have been introduced subsequently to reenact the CCA of 1969. For now, the Presidential authority for selective credit controls conferred under the Act remains repealed.

IX. COULD CREDIT CONTROLS BE PART OF OUR FUTURE?

The Carter Administration apparently decided to impose credit controls to signal that it was actively fighting inflation. The Board and the Administration designed the credit restraint program to have minimal economic impact on real production and employment. Contrary to their expectations, however, the program's immediate effect was to raise, not lower, short-term interest rates and to dramatically reduce consumer confidence. Interest rates started down within a month after the program began as a decline in consumer spending worsened the developing recession. The economy's recovery after the credit controls were lifted was as fast and sharp as its decline when they were imposed. Credit controls

thus proved to be a blunt policy instrument whose economic impact was impossible to manage.

At present, there is no legislative authority for selective credit controls like those used in 1980.¹⁸¹ The only Presidential authority to regulate credit is granted under section 5(b)(1) of the Trading With The Enemy Act of October 6, 1917 (40 Stat. 415). This act allows for the investigation, regulation, or prohibition of "transfers of credit or payments between, by, through, or to any banking institution" during wartime.¹⁸²

Although no legislative authority now exists for credit controls, the U.S. experience with such controls probably has not come to a close. This experience suggests that in times of rising prices and interest rates, there are always voices advocating the use of credit controls. And in such times, Congress grants the authority for such controls, despite its own earlier recognition of the ineffectiveness and economic harm that credit controls have caused. The 1980 experience makes clear the dangers involved in using credit controls to fight inflation. This article has reconstructed the details of that experience in the hope that policymakers will be more aware of the dangers of credit controls in the future.

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