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ACCELERATING INFLATION, TECHNOLOGICAL INNOVATION, AND THE DECREASING EFFECTIVENESS OF BANKING REGULATION

Edward J. Kane

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ABSTRACT

This paper attempts to explain the decreasing effectiveness of traditional regulatory restraints on individual U.S. banks' capacity for deposit-gathering and for taking over other firms. It also discusses why in 1980 opportunities for deregulating banking markets were finally seized.

The explanation proceeds within the framework of the regulatory dialectic. This concept envisages an alternating interplay of action and reaction between political processes of regulation and economic processes of regulatee avoidance.

In explaining the evolution of U.S. deposit institutions and markets in the 1960s and 1970s, the paper feeds into the regulatory dialectic assumptions about the objectives of federal banking regulation and about outside forces that disturb the adjustment process. The disturbing exogenous forces are accelerating change in the technological and market environment of commercial banking and increasing uncertainty concerning the future speed of environmental change. Differences between private-sector and governmental incentive structures suggest that, in the face of environmental changes, the adaptive efficiency shown on average by deposit-institution managers should be greater than that shown by managers of the several competing banking agencies. Incorporating this differential adaptive capacity into the regulatory dialectic helps to explain how increases in the pace of environmental change and in the degree of environmental uncertainty led regulatee responses to come more quickly and regulatory responses to come more slowly. The bottom line is that, when the environment changes rapidly and becomes more uncertain, traditional forms of U.S. banking regulation can be overwhelmed by technological and regulation-induced innovation.

Edward J. Kane
Economics/Finance
The Ohio State University
343 Hagerty Hall
Columbus, Ohio 43210

(614) 422-8708

ACCELERATING INFLATION, TECHNOLOGICAL INNOVATION, AND THE DECREASING EFFECTIVENESS OF BANKING REGULATION

Edward J. Kane*

In the U.S. and other countries, experience indicates that bank managers who are left to their own devices energetically pursue opportunities for increasing their firm's asset size and diversification.[1] Both to tax and to stabilize the financial system and to make it hard for large banks to monopolize various kinds of local and national markets, state and federal officials have traditionally imposed restraints on individual-bank efforts to grow and diversify. Authorities have focused their efforts particularly on reducing individual banks' capacities for deposit-gathering and for taking over other firms. Since the early 1960s, such restraints have grown increasingly less effective. This paper attempts to explain why. It also discusses why in 1980 opportunities for deregulating banking markets are finally being seized.

Our explanation proceeds within the framework of the regulatory dialectic (Kane, 1977). This concept embodies an interpretive vision of cyclical interaction between political and economic pressures in regulated markets. It treats political processes of regulation and economic processes of regulatee avoidance as opposing forces that, like riders on a seesaw, adapt continually to each other. This alternating adaptation evolves as a series of lagged responses, with regulators and regulatees seeking to maximize their own objectives, conditional on how they perceive the opposing party to behave.

Market institutions and politically imposed restraints reshape themselves in a Hegelian manner, simultaneously resolving and renewing an endless series of conflicts between economic and political power. The approach envisions repeating stages of regulatory avoidance (or "loophole mining") and re-regulation, with stationary equilibrium virtually impossible. In particular, a completely deregulated state, if achieved, would almost certainly contain unexploited opportunities for an individual sector to benefit from accumulating and exercising political power. Our dialectical approach emphasizes the tensions, paradoxes, and ambiguities inherent in efforts for regulators either to impose

individual investments. In addition, when the intermediaries choose to borrow via instruments whose maturities are longer or shorter than the assets on which they lend, allowances for interest-rate risk come into play as well.

Bank regulators close off selected contract opportunities either by direct prohibitions or by balance-sheet and interest-rate restrictions. The restraints abridge opportunities for profit, asset growth, and diversification open to an expansion-minded domestic banker, much as burdening an athlete with weights or shackles would reduce the accomplishments he could achieve in a competitive sport.

Over the years, the thrust of U.S. banking regulation has changed from merely discouraging unsafe banking practices and policing abuses to differentially handicapping broad classes of banks to benefit politically powerful competitors or customers. Although targeted beneficiaries are usually economically disadvantaged in some way (as, e.g., very small deposit institutions), this is not always the case. Traditionally, the beneficiaries of banking regulation were existing competitors (Stigler, 1971). However, during the 1970s, and largely as a reaction to discrimination fostered by traditional forms of regulation, customer-oriented regulations mandating that banks engage in "fair credit practices" moved strongly onto the scene.

Traditional forms of banking regulation constrain strategic elements in deposit-gathering and interpose barriers to bank entry into "nonbanking" activities. Traditional regulations limit means for entering or expanding operations in particular markets, often in the hopes of preventing specific financial-contract opportunities from being arbitraged away from politically favored firms. Formal regulations have focused on restricting a bank's access to the following strategies for asset growth and diversification:

1. Expansion in the geographic area spanned by office locations
2. Expansion through merger or de novo entry into related and unrelated lines of business
3. Expansion through price competition for deposits.

Early efforts to limit individual-bank access to the first two strategies for expansion took the form of prohibitions on specific activities and restrictions on merger

Invention is the act of finding new ways to do useful or profitable things—usually cheaper and more efficient ways of doing them. Innovation is the act of putting an invention into practice. Invention is a technical or scientific activity; innovation is an implementation of some business decision. Every invention makes one or more innovations feasible, but we can always identify an innovation lag. Before an invention can be adopted commercially, the opportunities it opens up must promise enough profits — after making allowance for applicable implicit and explicit taxes — to counterbalance the costs of overcoming institutional inertia and the management and employee resistance typically associated with changing established ways of doing things.

The burden of bank regulation increases the rewards for doing things differently per se. Whether or not a particular innovation is technically advantageous, rearranging a bank's formal organization (e.g., through affiliating with a holding company) or its product lines tends to render obsolete particular elements and concepts of pre-existing regulation. For this reason, regulating an industry tends to reduce its innovation lags, while ongoing acts of innovation tend to lengthen and exploit parallel regulatory lags that develop as regulators contemplate the unexpected problems created by specific innovations and decide what (if anything) to do about the situation.

In an unregulated firm, an innovation can only be justified by its technical productivity. Until an invention can accomplish a task more efficiently (i.e., better or more cheaply) than existing arrangements, the invention has no hope of getting off the shelf. However, in a regulated firm, an innovation can be justified as well, or even instead, by its productivity in regulatory avoidance: its ability to release pent-up competitive pressure. The more heavy an industry's regulatory burdens become, the more its managers become oriented toward change, rather than resistant to it. Innovations may be searched out eagerly and adopted in full awareness that they are now, and will probably long remain, technically inferior to pre-existing arrangements.

Regulation-induced innovation is a predictable economic response to attempts to use legal force to change market solutions. We can liken the evolutionary interaction of

Table 1

SELECTED SUBSTITUTES FOR REGULATED BANKING ACTIVITIES, CONTRACTS, AND ORGANIZATIONAL ELEMENTS DEVELOPED BY U.S. BANKS AND COMPETING INSTITUTIONS

Regulated Item	Bank Substitutes	Substitutes Available Only from Competitors
1. Interstate branch office	a. BHC bank affiliates established in another state before 1966 b. Nonbank BHC subsidiaries i. Wholesale banking operations: Edge Act affiliates; loan-production offices; leasing companies ii. Retail banking operations: finance companies, industrial loan and investment companies	Establishment of multistate branches by foreign banks
2. Intrastate brick-and-mortar branch	Bank subsidiaries; off-premises EFT terminals; telephone and cable connections to customer premises; mobile offices	
3. Bank mergers	BHC affiliation	Acquisitions by foreign banks
4. Prohibited activities	Nonbank BHC subsidiaries; e.g., service corporations mortgage-banking companies	
5. Interest payments in cash	Implicit interest: merchandise premiums; customer-service improvements and expanded entitlements, ranging from convenience items (such as bigger parking lots, longer hours, drive-in windows, additional office locations and electronic accessibility) through preferential loan treatment and bank-sponsored social and educational activities	
6. Checks	Negotiable orders of withdrawal (NOWs); remote electronic access to deposit balances; automatic, preauthorized, telephone, or cable transfers of time or savings funds	
7. Demand-deposit accounts	a. Deposit substitutes: automatic-transfer savings accounts; NOW accounts; automatic surplus-transfer accounts linked to domestic or Eurodollar certificates of deposit (CDs) b. Nondeposit substitutes: automated repurchase agreements, credit-card overdraft facilities that are accessible at cash-dispensing machines or points of sale.	a. credit-union share-draft accounts b. cash-management accounts at brokerage firms; money-market funds (MMFs) with check or toll-free-telephone redemption privileges

lists prominent substitutes for each of these traditional constituents of banking operations.

3. Accelerating Inflation, the Computer Revolution, and Avoidance Incentives

Banking regulation is a form of taxation. When the costs of avoiding traditional forms of regulations are low, regulatory intentions are easily frustrated. In the 1970s, loophole mining and fabrication became the main business of modern depository institution (Kane, 1979). It was the main avenue left along which bankers could exercise old-time yankee ingenuity. Their innovative behavior stands as a convincing contemporary manifestation of the can-do spirit that made our country great.

Managerial substitution is altering the face of contemporary banking and sharply changing the macroeconomic meaning of traditional monetary aggregates. Banks and other retail deposit institutions now look far more like appliance stores than sturdy treasure houses. During the last two decades, our "money stores" turned increasingly to barter. Bank windows became full of ads and displays promising tableware, cooking utensils, radios, TV sets, luggage, and even discount coupons redeemable at local department stores. Bank advertisements seldom mentioned anything as old-fashioned as differences in explicit interest. One wonders whether even a burglar could collect much money plying his craft at such an institution.

During the same interval, institutional balance sheets changed drastically too. With each passing year, regular passbook accounts constituted a smaller and smaller percentage of total assets. For S&Ls, the percentage has fallen from 77 percent in 1968 to below 30 percent today. The trend is even sharper for large S&Ls in California.

These and other changes in the nature of the S&L and banking business are the unintended consequences of regulating deposit-institution activities, prices, and office locations, in the face of accelerating inflation and the ongoing electronic revolution in information processing. Accelerating inflation is important because, by raising nominal rates of interest, it tends to increase the opportunity-cost burdens associated with pre-existing regulations. Exogenous technological change is important because it lowers the

can get away with it. Treating each innovation as a brave and socially promising experiment that deserves a chance either to prove itself or to fail on its own is no more controversial than favoring the idea of progress per se. Unless a regulatory crisis threatens, officials prefer to postpone a definitive regulatory response until a large body of information accumulates. However, participation in market competition gives the institutions they regulate better access to the flow of relevant information. Finally, because banking regulators compete for clients, they must be at least mildly sympathetic to the welfare of their regulatees (Stigler, 1971). Also, in many cases, an official's post-government career prospects may lie almost entirely in the regulated industry. Federal banking agencies are disposed to overlook some side-stepping of regulatory burdens, particularly when these burdens have been unintentionally intensified by accelerating inflation.

On the other hand, regulators are also concerned with defending their bureaucratic turf. They know full well that an unchallenged regulatory circumvention rapidly earns squatters' rights. When such an innovation is eventually re-regulated, the new restrictions may be assigned to a different agency and are usually introduced gradually and made less burdensome than the regulations that had applied to pre-innovation arrangements. Although the agency could ultimately lose some budget funds, individual regulators face few penalties for letting a regulation's effectiveness erode in this way. The political system is far more forgiving of excessive delay than it is of hasty and ill-considered action.

5. Pre-existing Regulations Greatly Accelerated the Spread of EFT

Developments in computer technology, telecommunications, and information storage open up a variety of new ways to use electronic devices and connections to perform basic financial services. Because they move electronic records rather than pieces of paper (cash and checks) between transactors, these alternative delivery systems and services have come to be known collectively as electronic funds transfer or EFT.

Banker and regulator decisions about EFT must take account of economies of scale. One of the hardest questions concerns regulatory policies about the possibility of either

BHCs and EFT are making physical distance an increasingly less effective barrier to banking competition. The resulting geographic and product diversification is changing the functional structure and integrative stategy of the typical banking firm, multiplying the operative levels of supervisory authority (cf. Caves, 1980). In substituting capital for labor, bank use of EFT is changing importantly the nature of the productive process itself. First, it is raising the average skill level of bank employees. Second, it is moving transactions accounting and interest computation for loan and deposit accounts from a discrete-time batch-processing pattern to a continuous-flow technology.

6. Emerging Patterns of Re-regulation

Just as regulation calls forth regulatee avoidance, circumvention activity generates political pressure for re-regulation. This third stage in the original process becomes simultaneously the first stage in a fresh cycle of regulation and avoidance.

Re-regulation occurs because the political coalition that sponsored the regulation and the regulators required to act in their stead inevitably become aware of developing circumvention. This awareness leads them to examine possibilities for controlling each and every new-found substitute for the activities originally targeted for regulation. By what we could call the principle of revealed political preference, no regulation can be installed in a democracy unless its avowed purposes receive the political support of an effective majority. An "effective majority" need not also be a numerical majority. It needs only to command a majority of votes in the forum where regulatory choices are made. Often the pivotal forum reduces to the leadership of a 10-person Conference Committee charged with working out differences in legislation passed separately by the House and Senate.

For some time after a truly new class of regulations is adopted, its sponsoring coalition is apt to remain powerful enough to respond to circumvention by increasing penalties, by enforcing more-extensive reporting requirements, and by insisting that important substitute activities be brought into the control network. As long as the sponsoring coalition retains its force, the extent of the government control tends to

regulation allowed banks and thrift institutions to discriminate effectively between their interest-sensitive and interest-insensitive depositors. It allowed the regulated institutions to tailor posted interest rates, across accounts and over time, to individual customers' ability to negotiate a better deal elsewhere. In effect, the ceilings were redesigned to make the penalty that they imposed on a given household fall rapidly with family members' wealth and sophistication. Hence, the burden of these regulations fell particularly hard on the young, the old, and the poor (Kane, 1980), whose adaptive efficiency to financial change is inherently low.

While this strategy of re-regulation protected the flow of funds to regulated institutions and their profit margins in the short run, it maintained incentives in the long run both for implicit rate competition and regulation-induced innovation. Banks continued to expand service subsidies to deposit customers, including favorable interest rates on loans and commitments to accommodate their requests for loan funds even at times when additional lending might prove inconvenient for the bank. Moreover, innovative use of nondeposit instruments and the spread of money-market funds and minibonds continually expanded the set of households who could hold out for a decent return on their wealth.

On the political front, the blatant discrimination against small savers and borrowers enhanced and legitimized by these regulatory actions generated consumerist political pressure to get even. Exploiting this pressure, public-interest lobbyists have called down upon banks a veritable plague of what we may call financial fair-play regulation. To discourage banks and other institutional lenders from discriminating "unfairly" among individual customers, Congress has passed a series of laws that add important social objectives to regulators' responsibilities:

1. Federal Truth in Lending Act (1968)
2. Fair Credit Reporting Act (1970)
3. Fair Credit Billing Act (1973)
4. Equal Credit Opportunity Act (1974)
5. Real Estate Settlement Procedures Act (1974)
6. Fair Credit Billing Act (1974)
7. Home Mortgage Disclosure Act (1975)
8. FTC Holder-in-Due Course Rule (1975)
9. Consumer Leasing Act (1976)
10. Fair Debt Collection Practices Act (1977)
11. Community Reinvestment Act (1977)

to keep open the option of potentially massive government aid made it difficult for them to lobby effectively against any promising long-term solution.

The solution adopted legitimizes the threatened demand-deposit substitutes, introduces NOW accounts nationwide (after a nine-month waiting period), provides for a six-year phase-out of interest ceilings on time and savings accounts, and greatly expands the investment and trust powers of federally chartered savings institutions.[2]

To shield itself from short-term political fall-out, Congress handed over the responsibility for administering the designated six-year phase-out of deposit-rate ceilings to a new Deposit Institutions Deregulation Committee (DIDC). The voting members of the DIDC are the Secretary of the Treasury, the Chairman of the Federal Reserve Board, the Chairman of the Federal Deposit Insurance Corporation, the Chairman of the Federal Home Loan Bank Board (FHLBB), and the Chairman of the National Credit Union Administration. (The Comptroller of the Currency is an additional nonvoting member.) Responsibility for administering the rate of expansion in S&L portfolio powers was delegated to the FHLBB. While S&Ls can count upon the FHLBB for sympathetic regulation of their authority to undertake new activities and to enter new markets, banking interests greatly outweigh those of thrift institutions on the DIDC.

This arrangement simultaneously gives S&Ls a strong political voice in determining the future scope of their portfolio activities, while making it politically difficult for them to fight off the demise of differential deposit-rate ceilings. It encourages individual thrift institutions to accept the loss of the industry's interest differential and to concentrate instead on broadening the scope of business operations.

Thrift-institution lobbying activity to influence the DIDC has so far proved ineffective. In late May, the DIDC raised ceilings on 6-month and 30-month CDs and narrowed the range of interest rates over which the thrift-industry rate advantage applied. Despite massive pressure, S&Ls were unable to persuade Congress either to rebalance the DIDC in their favor by adding the Secretary of the Department of Housing and Urban Development to the list of members or to declare that the DIDC was

small deposit institutions lose political muscle and as securities firms such as Merrill Lynch improve their foothold in retail banking markets, the lines of financial-institution lobbying pressure will adapt accordingly.

FOOTNOTES

*Everett D. Reese Professor of Banking and Monetary Economics, The Ohio State University. The author wishes to acknowledge the impact on his thinking of repeated conversations on this issue with Richard C. Aspinwall, Robert A. Eisenbeis, George Kaufman, Edward J. McCarthy, and Edward J. Ray.

[1] Marris and Mueller (1980) survey research in industrial organization tending to support the hypothesis that in all industries corporate managers pursue growth and diversification, sometimes even to the detriment of stockholder wealth.

[2] The Act also imposes Fed-administered reserve requirements on all deposit institutions, overrides state-imposed usury ceilings on a variety of loans, and provides for a simplification of the requirements of the Truth in Lending Act. These provisions are not considered here.

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