4 REGULATORY POLICY FOR A CHANGING FINANCIAL SERVICES INDUSTRY

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U.S. financial regulation has sought to maintain clear lines of demarcation between types of financial services firms and between the geographic markets served by deposit institutions located in different cities and states. The regulatory foundations on which walls between geographic and institutional markets were built consist of a series of portfolio restrictions and exclusionary laws. For example, current laws deny deposit institutions various insurance, securities, and real estate powers and limit their ability to conduct activities in jurisdictions beyond that of their home office. Similarly, corporations that own full-fledged deposit institutions are limited in the types of other business they may undertake. In particular, nonfinancial corporations, insurance companies, and securities and futures firms are precluded from owning or operating a commercial bank.

During the past twenty years the cost of circumventing these laws and restrictions has fallen steadily. Although institutional trade associations selectively lobby to keep exclusionary rules in place, technological change and organizational adaptation steadily undermine their enforceability. Inherited regulatory structures are effectively crumbling away. By making minor adaptations in its organizational form and in the labels it attaches to its products, an institution may legally engage in most prohibited activities.

The effectiveness of minor structural adaptations suggests the value of viewing financial markets as imperfectly contestable ones (Baumol,

Panzar, and Willig forthcoming) in which costs of entry and exit are imposed by both regulators and technology. For a given set of exclusionary regulations, R, to be successful, the opportunity cost to regulatees of perfectly circumventing the rules, $C(X_1, X_2|R)$, must be greater than the increased profits occasioned by operating in an additional market. Throughout this chapter we assume that increased profits come principally from economies of joint production (i.e., economies of scope). We let X_1 represent output in a firm's traditional line of business or geographic market and X_2 represent output in a disallowed line of business or geographic area. Economies of scope exist if the legally unconstrained costs of producing X_1 and X_2 jointly, $C(X_1, X_2)$, are less than the costs of serving these markets by separate stand-alone operations, $C_1(X_1) + C_2(X_2)$. The net social cost of exclusionary regulation is the difference between the sum of enforcement costs and unrealized economies of scope and any distributional benefits that may be putatively attributed to cartelization.

Assuming that, on average, technological change lowers the costs of circumventing inherited regulations or raises the value of scope economies $[C_1(X_1) + C(X_2) - C(X_1, X_2)]$ (or both), markets for products one and two become more contestable over time. In financial markets this technological undermining of inherited regulatory structures has its observable counterpart in nonfinancial corporations that are becoming financial conglomerates; in major deposit institutions that are operating nationwide; and in product lines of deposit institutions, securities firms, and insurance companies that are fusing rapidly into a homogeneous blend of asset and liability products. Efforts to permit customers to transact all of their financial business in a single-statement or one-stop framework are restructuring systems of financial services production and delivery. Front and back offices are becoming increasingly robotized, linked together in computer and telecommunications networks, and shared cooperatively with other financial services providers. So that we may have a label for each of these three types of innovation, it is convenient to call them the robotization, the electronification, and the unbundling of financial services production and delivery.

In the long run these changes in the technology of financial services production and delivery are incompatible with inherited market structures. Economists use the term "market structure" to describe the pattern into which producers and distributors in a given market

arrange themselves. The term focuses particularly on the number of alternative providers, their relative shares of product sales, the mix of products they respectively supply, and the size of entry and exit costs. To be cost efficient a firm must be large enough to exhaust economies of scale (i.e., resource savings made possible by the size of a firm's operations) and diverse enough to enjoy any economies of scope (i.e., resource savings made possible by producing or distributing a line of products jointly rather than through the use of completely separate facilities). Through mergers and acquisitions and through the entry and exit of individual firms, the number and character of alternative suppliers adapt to permit customer demand to be served at minimum cost. In financial services markets today, the blending together of traditionally distinct financial institutions and geographic markets reflects the expansion of low-cost producers at the expense of high-cost ones.

NEED FOR A NEW STRATEGY OF REGULATING FINANCIAL FIRMS

Failing to see adaptations in the market structure for financial services as a response to economic incentives, many observers conceive of the demise of the system of exclusionary regulation as a "revolutionary" (i.e., exogenous) political act of deregulation. These observers need to recognize that, at the federal level, outside of interest rate ceilings few regulations have actually been abandoned. In an evolutionary manner, market forces have made preexisting regulations cumulatively less effective and some regulations (e.g., restrictions on S&L—savings and loan—activities) have been formally relaxed. For policymakers, economic events have created a need to define a workable strategy for *re*regulating the financial services industry.

Technological efficiency in executing and accounting for transactions makes the inherited strategy of exclusionary rules and portfolio requirements less enforceable every day. The operative policy issue is not whether to dismantle cross-industry barriers to entry into different service and geographic areas, but how fast and in what order to acknowledge their de facto elimination by market forces. In responding to immediate political pressure for and against various redefinitions of institutional turf, lawmakers must not allow themselves to

lose sight of the fundamental goals of financial regulation that their actions must serve in the long run. These fundamental goals are to ensure the efficiency, integrity, stability, and fairness of financial firms' efforts to serve the needs of their business and household customers.

Conflicts over reapportioning regulatory turf provide a measure of the political significance of the order and speed with which exclusionary barriers and portfolio restrictions are removed. One issue concerns cross-industry competition and the potential expansion of large international, national, and regional financial services firms at the expense of smaller, locally owned enterprise. A second issue concerns the possibility that a reduction nationwide in the number of financial services competitors will increase opportunities for anticompetitive pricing. Analysis shows that these concerns are overwrought and to some extent contradictory.

Actual and potential entry by local and nonlocal competitors symmetrically restrains the exercise of monopoly power by both types of firms. First, local financial services firms have informational advantages that allow them to grant credit to local customers on more favorable terms than regional and national competitors can. These informational advantages make these firms simultaneously tough to displace by direct competition and more profitable as independent operations than as targets for acquisition. Second, by taking part in joint ventures, small and specialized financial firms can unbundle their production to realize the benefits of scale and scope economies through networking. For financial services markets, the long-run regulatory strategy that suggests itself is to keep costs of entry and exit as low as is consistent with maintaining the integrity of competing institutions and avoiding periods of macroeconomic instability. This policy would subject local, regional, and national firms to the maximal acceptable amount of market discipline.

BENEFITS OF COMPETITION AMONG REGULATIONS

For this strategy to work, entry and exit into the derivative business of financial regulation needs to be facilitated as well. In the United States today, financial regulatory services are "marketed" by a number of competitive suppliers. Regulators range from self-regulatory

organizations such as clearinghouses and securities or commodities exchanges to specialized federal, state, foreign, and even international governmental agencies. The regulatory dominions of these alternative regulators overlap chaotically.

Regulators restrain the activity of individual financial services firms to develop industrywide benefits. These benefits take the form of: (1) minimizing the cost of certifying the integrity and competence of individual institutions and other contracting parties; (2) improving productive efficiency by providing coordinating services that lower transactions costs; (3) ensuring the stability and orderliness of the system over time; and (4) monitoring industry pricing arrangements for anticompetitive behavior. From the point of view of society as a whole, whether a governmental agency or a self-regulatory body produces these services, the regulator confronts a fundamental incentive conflict. Self-regulators face socially beneficial incentives to minimize certification costs and to promote efficient arrangements for their members on the one hand, but they face socially harmful incentives to foster cartel pricing on the other. Moreover, over time, cartel pricing encourages the expansion of uncertified firms that operate outside of the aegis of the self-regulatory organization. Hence, under a purely self-regulatory system, market structure adaptation to undo the effectiveness of cartel pricing tends to undermine the soundness and integrity of the financial system as a whole. When regulation is supplied by a governmental organization, the incentive conflict is reversed. Socially beneficial incentives exist to promote stability and—although Stigler (1971) emphasizes that regulatee political activity can subvert this incentive—to restrain cartel pricing, but incentives to minimize certification costs and to produce coordinating and other regulatory services efficiently have little force. Hence, when regulation is purely governmental, regulatory services tend to be produced at unnecessarily high resource costs and to be employed as an engine of redistribution.

The amorphous market structure of U.S. financial regulation serves as an entry-facilitating system of competition among alternative regulators. Viewing this competition merely as a "competition in laxity" is a grave conceptual error. Much as in other kinds of competition, regulatory competition is guided by an invisible hand to resolve apparent incentive conflicts, producing subtle and long-run benefits that are imperceptible to uncritical observers. Even though regulatory overlaps impose avoidable short-run costs, on average and

on balance they diversify against problemsolving at individual agencies and facilitate adaptations in market structure necessary to achieve "dynamic" or "evolutionary" optimality.

Overlapping jurisdictions lead competing regulators to develop a series of alternative patterns of coping with common problems that are routinely tested against each other in the crucible of experience. This allows regulatory problems to be resolved without betting all of society's chips on the problemsolving ability of any particular set of regulators.

Duplicate regulatory functions and overlapping administrative boundaries provide opportunities for the adaptive affiliation and disaffiliation of individual regulatees. Structural adaptation by regulated firms, especially by new entrants into markets for products and services that substitute for regulated ones, punish poor regulators. As clients flow from inefficient to efficient regulators, jurisdictional domains and budgetary resources shrink for regulators whose response to the evolving needs of the marketplace proves shortsighted or inflexible.

Opportunities for regulatees to relabel products and to switch regulators and for regulators to enroll additional classes of regulatees protect financial firms and their customers from experiencing the overregulation to which a monopoly supplier would tend. Especially when ongoing technological and regulation-induced change impels regulators and market participants endlessly to learn new ways of competing, regulatory competition induces more timely and economically better-adapted adjustments in regulatory structures than a set of monopoly regulators would choose to make. Competition from other regulators encourages an agency's regulatory braintrust to produce its regulatory services more efficiently—to adopt regulatory strategies that serve the needs of new forms of business organization and would-be producers of new or improved products. In particular, interregulator rivalry tends to smooth out "bubbles" of overly severe and inefficient regulation that would develop in response to intermittent financial market crises and scandals if financial regulation "barriers to entry" were more significant.

Although the nature of bureaucratic competition for regulatory jurisdiction differs from country to country, it is imbedded in the multinational character of the world economy and in any federal system of government. In the United States, this competition reflects our nation's fundamental respect for freedom. Because it makes in the short run for messy organization charts and an overabundance of

government agencies, this competition could not survive and expand unless it improved the long-run adaptive efficiency of government regulation. It is part of the constitutional system of checks and balances that restrains the arbitrary exercise of political power in the United States. By rearranging its organizational form in prescribed ways, a regulated entity may change the set of laws and the particular regulatory bodies by which it is governed. Although such rearrangements are constrained by various legal obstacles, opportunities for regulators to extend their dominion to new types of institutions and the existence of even greatly constrained options for regulatees to switch regulators create incentives for efficient regulator adaptation. Even though it is very costly to effect a complete exit for a government agency, particularly a federal one, potential loss of domain undermines agency goals and brings economic pressure on bureaucrats to alleviate many of the burdens that in a changing marketplace the inherited system of regulation would otherwise impose on regulated firms and their customers.

In a complex and dynamic economy it is unlikely that an unchanging pattern of either financial contracting or centralized regulation could remain optimal over time. Rather, tension between alternative regulators and between regulated and less regulated purveyors of substitute financial instruments is needed to hold the costs of regulation and industry profit margins in the vicinity of their long-run optimal levels. Concern for dynamic efficiency creates a presumption against imposing substantial barriers to entry into the financial services game for new financial instruments and especially for additional self-regulators. Currently, the high costs of effecting the exit of an inefficient government competitor and underpriced federal guarantees of agency commitments constitute important barriers to entry for self-regulatory bodies.

A BARE-BONES MODEL OF REGULATORY RESPONSE TO INNOVATION BY REGULATEES OR LESS REGULATED COMPETITORS

Financial regulatory services may be partitioned into four broad categories:

1. Protecting investors against monopoly power conferred on financial institutions and counterparties by either superior information or financial market barriers to entry;

2. Monitoring and certifying the integrity and ability to perform of financial institutions and other counterparties to customer contracts;
3. Improving the productive efficiency of financial institutions by providing coordinating services; and
4. Enhancing the stability of individual markets and of the financial system as a whole.

To interpret regulator behavior, it is necessary to specify the goals and constraints that apply to this behavior. In this chapter we assume that, whatever other goals a government regulatory bureau may worry about, its perceived capacity to accomplish its primary bureaucratic missions, which typically includes some redistributional goals, is paramount. This leads agency heads to maximize what we may term the agency's "span of control." An agency's span of control comprises the set of institutions and markets over which it has formal regulatory dominion (its "turf") and the framework of policy instruments the agency has established for use in shepherding these institutions and markets in directions it deems appropriate.

In maximizing its span of control, an agency faces a threefold set of constraints. These constraints are imposed by: distributive politics that define a clientele to be serviced and place statutory limits on an agency's authority, opportunities for regulatee avoidance activity, and action undertaken by competing regulators.

Regulators' share of the market for regulatory services is determined by their regulatees' aggregate share of the financial services business. Other things equal (i.e., neglecting political and economic responses from competing regulators and their constituents), an agency's budget and political standing tends to grow when its particular regulatees expand their operations into markets served by firms that are regulated by other parties. Conversely, an agency loses budget and standing when differentially regulated parties take business away from its traditional regulatees. Whether or not its regulatees' aggregate market share is growing, a sharp redistribution of market shares among the members of an agency's regulatory clientele generates political differences within the agency's constituency that weaken its political clout.

In economic parlance, we may say that agency objective functions incorporate a marginal tradeoff between their clientele's aggregate *share* of the financial services business and *deviations* from a politi-

cally ideal pattern of how this business should distribute itself across the individual members of its clientele. Agencies reregulate more slowly and less effectively when they are faced with regulation-induced innovations that have contradictory effects on the separate elements of this tradeoff than they do when innovations or client requests for rule changes promise to improve or undermine one element without affecting the other.

The extent or absence of obvious goal conflicts helps to explain, for example, the differential welcome that the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC), and the Federal Home Loan Bank Board afforded various deposit industry innovations seeking to circumvent Regulation Q. It also explains these agencies' differential willingness to support proposals to relax particular elements of this regulation. For example, in 1970–1973, removing ceilings on interest rates paid on large certificates of deposit (CDs) was adopted as a way to help large commercial banks to compete with nondepository institutions that was perceived to offer little short-run impact on deposit flows to other deposit institutions, even though this measure's longer run effect was to encourage money market funds (which operated under the regulatory jurisdiction of the Securities and Exchange Commission—SEC) to gather balances that small savers might have placed in smaller banks or thrifts and funnel them back to banks via large CDs. Although deposit institution regulators might have preferred to take action to choke off the regulation-induced growth of money market funds (MMFs), the SEC energetically opposed their efforts to gain the necessary statutory authority.

It is important to recognize that current skirmishing over regulatory jurisdiction is a derivative phenomenon. Although exogenous political forces could play a larger role at other times, the current impetus for change is economic. It is driven not by aggressive acts of bureaucratic imperialism, but by structural changes undertaken by regulatees. As in the SEC–MMF case, political friction experienced along the borders of the various regulators' traditional turfs results from exogenous changes in the opportunities for circumvention facing differentially regulated institutions. These opportunities are created less by deliberate administrative action than by movements in the level and volatility of interest rates and in statutory rates of tax on inflation-adjusted personal incomes and by a secular downward trend in financial transactions costs. Growing overlaps in the

product lines and geographic market areas of different classes of financial institutions are being brought about by efforts to lower the cost of producing and delivering financial services. The dominant forms of cost reduction appear to be scope economies: opportunities for firms to produce and deliver an array of financial products at a lower cost than they could produce the same products on a stand-alone basis. If the scope economies that are driving product line and geographic market extension did not include unintended subsidies flowing from the improper pricing of risk in federal guarantees, the new market structures and accompanying efforts at competitive re-regulation would be unambiguously resource-saving events.

CONTROLLING FEDERAL SUBSIDIES TO FINANCIAL RISK TAKING

Besides affecting regulatory and industry market shares, the electronification and robotization of financial services production and delivery also undermines the government's ability to use implicit and explicit subsidies to selected forms of risk taking as policy instruments. Historically, such subsidies have been used for three purposes: (1) to maintain confidence in the system of depository institutions, (2) to reduce systemwide credit investigation costs (e.g., those borne by purchasers of mortgage pools and suppliers of funds to depository institutions and government-sponsored mortgage corporations), and (3) to reallocate or redistribute financial resources toward politically designated favored activities such as homeownership and housing construction. Because subsidies to risk taking encourage beneficiaries to take economically inefficient risks, it is critically important that the magnitude of such subsidies be kept under administrative control. Unfortunately, by making it cheaper for intended and unintended beneficiaries to force the subsidization of unintended risks, technological change is making it (1) progressively harder for regulators to control either the distribution or the aggregate size of these subsidies and (2) profitable for numerous financial firms to position themselves on the edge of bankruptcy.

Financial instruments are contracts that call for an exchange of current funds against claims to uncertain future cash flows. These contracts partition between holders and issuers the effective risks in the project or entity being financed. When federal regulators cer-

tify the integrity and guarantee the ability to perform of issuers of selected financial contracts, they implicitly become parties to these contracts by underwriting some or all of the risks such instruments price. In principle, federal guarantees truncate the distribution of losses that may ultimately pass through to holders of guaranteed instruments.

Guarantees may be explicit or conjectural. Explicit guarantees formally put the faith and credit of the guarantor behind that of the issuer. Conjectural guarantees exist whenever predictable political pressures may be safely counted on to force federal agencies to rescue borrowers or stockholders even when they are not formally obligated to do so. Because the activation of conjectural guarantees may be contingent on the precise ways in which an issuer's financial problems unfold, the true partition of financial risk is not completely knowable in advance.

Government bailouts mounted to save Penn Central, New York City, Chrysler, Lockheed, the Hunt Brothers, Continental Illinois, and Financial Corporation of America suggest that conjectural guarantees hold for spectacularly troubled sets of issuers. These conjectural guarantees exist for two reasons. First, parties whose jobs, tax revenues, or accumulated wealths are threatened by such failures bring intense pressure on elected politicians to do something to help them. Second, when financial distress is experienced by important borrowers, their financial difficulties threaten the viability of numerous financial intermediaries. This threat links up with the responsibilities of federal deposit insurance agencies and the Federal Reserve's duty as lender of last resort to prevent temporary financial stringency from degenerating into a capital market crisis.

Federal guarantees of payments promised by issuers of mortgages and deposits strongly influence the relative cost of particular types of credit and the shape of market structures for financial services at large. Weaknesses in the economic design of these guarantees aggravate policy problems currently associated with the entry of untraditional types of competitors into financial markets and the ongoing expansion in the product lines and geographic coverage of traditional financial institutions. Until these weaknesses are corrected, a workable strategy of minimizing entry and exit costs cannot be fashioned.

Risk Shifting in Mortgage Markets

During the 1960s and 1970s deposit insurance agencies inadvertently underwrote the bulk of the interest rate risk taken in fixed-rate mortgage lending. As the market value of the net worth of an insured thrift institution was wiped out by secularly rising interest rates, unless the firm was closed by supervisory action, Federal Savings and Loan Insurance Corporation (FSLIC) and FDIC guarantees became the source of its effective equity. In turn, public confidence that these agencies were implicitly backed by the U.S. Treasury made it unnecessary for market participants to test the firmness and extent of these guarantees.

During the 1980s technological change has supported new patterns of mortgage contracting. These new patterns include electronic shopping and origination networks, a wide variety of adjustable-rate loans, and fixed-rate loans the features of which are being standardized to permit them to be easily packaged into collateral pools the cash flows of which can be insured by a private or governmental mortgage insurer and transformed into securities of widely differing maturities by the technology for cash flow stripping developed at investment banking houses. Lags in insurers' recognition of the risk shifting inherent in these new patterns of mortgage contracting facilitated a temporary erosion in mortgage underwriting standards. This deterioration in the efficacy of procedures for evaluating property and qualifying potential borrowers exposed private and federal mortgage insurers to sharply higher risks of borrower default. These risks were rooted in an unwarranted carryover of standards established in underwriting fixed-rate mortgages to procedures for evaluating graduated-payment and adjustable-rate contracts. In particular, until mid-1984 mortgage insurers permitted sizable buydowns in first-year interest rates to qualify borrowers for loans the future payments of which they might not be able to support unless interest rates decline sharply.

Ironically, since 1982, federal deposit insurers (especially officials at the FSLIC) have worked very hard to prevent thrift institutions from placing much of the same kind of interest rate bet. In hopes of lessening the indirect exposure of their insurance funds to interest rate risk, deposit insurers have encouraged their clients to shift the bulk of their mortgage lending from fixed-rate to adjustable-rate

contracts. But they are learning that adjustable-rate lending does not eliminate interest rate risk; it only refocuses it on the borrower's ability and willingness to service the contract.

Mortgage insurance premiums and house-appraisal and mortgagor-qualification practices have to take account of the distinctly greater dangers of default that are occasioned by the built-in graduated payment shock dictated by sharp first-year interest rate buydowns and by the possibilities of negative amortization and downward trends in the future price of housing.

As Villani (1984) has emphasized, empirical evidence suggests that the chance of mortgage default rises with the *level* and *volatility* of two ratios that are central to any mortgage financing:

1. the ratio of the monthly payment to the borrower's income; and
2. the mortgage's loan-to-value ratio.

For this reason, honest measures of these central ratios are critical to determining whether a borrower is qualified for any particular mortgage loan.

With level-payment fixed-rate financing, only the denominator of each ratio is subject to adverse variation: the borrower's income and the value of the home. The monthly payment is fixed and amortization steadily reduces the amount of the outstanding loan. But with adjustable-rate financing, the monthly payment may increase sharply and amortization may turn negative. Moreover, in an environment of nonaccelerating inflation the value of the collateral may show much less correlation with movements in interest rates and from year to year may go down as easily as it may go up (Santomero 1983).

Given the impact of adjustable-rate features on credit risk, mortgagors, mortgagees, and direct and indirect mortgage insurers need to analyze alternative adjustable-rate mortgage contracts with great care. This requires access to an appropriate information system and techniques of analysis.

To reduce the chance of borrower default, adjustable-rate contracts usually place yearly and lifetime caps on the extent to which contract interest rates and periodic payments may be increased. Just as in a fixed-rate contract, once these caps are reached, further increases in interest rates operate to reduce the lender's net worth. Hence, for large swings in interest rates, contractual caps on rate adjustments leaves deposit insurers and the U.S. Treasury holding the bag much as they did in the 1960s and 1970s.

To improve opportunities to sell the loans they originate into the secondary market and to protect themselves from the consequences of borrower default, mortgage lenders typically insure all but their least-leveraged mortgage loans with a third party. Widespread borrower defaults would quickly exhaust the reserve and net worth accounts of private mortgage insurers. Unless arrested by a subsidized Federal Reserve or Treasury bailout (i.e., a generous funding arrangement), sizable defaults by mortgagors would simply take the private mortgage insurance industry and even the government-sponsored mortgage corporations out of the picture, leaving mortgage-lending deposit institutions and investors in mortgage-backed securities without effective coverage. Because elected politicians are unlikely to permit a wave of mortgage defaults either to dispossess a substantial fraction of U.S. homeowners or to provoke a capital market crisis, even private mortgage insurers may be presumed to operate under a conjectural federal guarantee. However, as long as these federal guarantees remain unpriced, competition leads the private mortgage insurance industry and government-sponsored mortgage corporations to undercharge for their insurance services. The resulting inadvertent subsidization of mortgage risk misallocates resources by rewarding excessive risk taking by lenders and borrowers alike.

Risk Shifting in Other Forms of Institutional Lending and in Product Line and Geographic Market Expansion

Because they are underpriced, conjectural federal guarantees of the debt of spectacularly troubled borrowers and deposit institutions cause similar problems in other financial markets. The pricing, coverage, and insolvency-resolution schemes now in place for deposit insurance generate powerful incentives for nondepository institutions to acquire insured S&L or limited-service bank affiliates, for depository institutions to entertain risky lending and funding positions and to expand their operations into innovative activities, and for brokerage firms to help large depositors to spread their money in $100,000 pieces across a multitude of depository firms without concern for the financial condition of these depositories. Deposit brokerage firms coax deposit institutions into shifting some of the deposit insurance subsidy into the brokerage fees they collect (U.S. Congress 1984). In the face of differences in the regulatory treatment of different

types of financial institutions and of substitute financial activities, technological change expands opportunities for organizational adaptation designed to reduce unintended growth in the value of federal guarantees.

Increased volatility of asset prices is combining with the increasing ineffectiveness of rules intended to prevent the entry of nonfinancial corporations into the financial industry and to restrict the geographical and product line diversification of financial firms to enlarge the aggregate risk exposure of federal financial agencies and of the U.S. Treasury, the credit of which implicitly backs these agencies' obligations. Direct regulatory efforts to curb financial institution risk taking tend to be awkward and late. It is not possible to penalize private managers for taking risks the dangers of which bureaucrats either have not yet identified or for political reasons are powerless to sanction effectively. In a world of rapid technological and structural change, reactions of politically constrained government regulators to the economic consequences of unfolding events inevitably lag market perceptions. As a result, recent bureaucratic efforts to ration risk taking have served principally to shift the margin of the search for unregulated risks to nontraditional activities and combinations. Effectively, a strategy of rationing risk taking creates a two-price system in which government guarantees applicable to unfamiliar forms of risk taking are inevitably priced too low. This leads dynamically to a continual expansion in the types of risks that financial institutions take.

Resulting policy problems turn on two points. First, regulatory lags prevent quantitative ceilings on risk taking from eliminating subsidies to newly emerging forms of risk taking. Second, the effect of regulatory lags is more severe, the more politically protected is a given type of risk taking, and the more rapidly operative risks are expanding. Today, operative risks are growing at an unprecedented rate less because of the portfolio investments that a deposit institution makes as because of the guarantees it issues, the joint ventures it enters, and the buildings and capital equipment it and and competing institutions operate as producers of financial services.

NEED FOR ACCOUNTING REFORM

When the effects of contemporary financial innovations are aggregated across society, some of the cost advantages that make multi-

purpose financial firms so profitable are more apparent than real. Unintended subsidies flowing from the mispricing and excessive coverage of implicit federal guarantees embodied in the overly cautious insolvency resolution policies carried out by government officials lower the costs of product line and geographic market extension for individual firms. But these cost reductions have an undesirable counterpart in the unaccounted expense and unrecognized liabilities they impose on federal agencies and on taxpayers and conservatively managed competitors who implicitly backstop these agencies' explicit resources. That the market value of implicit federal guarantees remains unmeasured has helped them to escape being brought under administrative control.

Since 1938 regulators and professional accountants have allowed financial institutions to employ "intrinsic-value accounting." As long as various disqualifying circumstances are scrupulously avoided, generally accepted accounting principles permit an enterprise's managers to measure expenses and asset values by their historical cost rather than by their estimated market value, even when the two criteria diverge greatly over time. This approach to valuation permits assets to be carried at cost even when the credit standing of the issuer has deteriorated greatly and the holder of the asset reluctantly advances accounting credits to the issuer specifically to prevent overdue payments from lapsing into a formal default. This encourages agencies and firms experiencing adverse developments to disguise their financial deterioration by resorting to accounting trickery. Deposit institutions' option to resort to cosmetic accounting impounds an informational risk premium into the prices of their stock and uninsured debt. To inflate the book value of their net-worth accounts, these firms may (if they wish) defer unbooked capital losses and speed up the realization of unbooked capital gains.

In recent months many depository institutions have responded to increases in federal capital requirements by undertaking sale-and-leaseback transactions in appreciated plant and equipment and by selling fee-for-service business to an affiliated or subsidiary firm. Under market-value accounting, such transactions would have no effect on the net worth of the seller. Despite SEC and other regulatory efforts to improve disclosure, in the financial industry suppression of deleterious information remains the rule rather than the exception.

Economic analysis tells us that market-value accounting provides the appropriate measure of the performance of a firm. For this rea-

son, institutions ought to use market-value accounting in their own internal information systems.

Market-value accounting is feasible as long as data on interest rates and asset prices in secondary markets exist. Even when secondary markets do not exist, regulators could facilitate the use of market-value accounting by arranging periodic auctions of instruments selected to produce data suitable for appraising troublesome categories of assets and liabilities.

For financial firms with a computerized information system or with assets and liabilities having direct or indirect secondary markets, it is relatively straightforward to monitor the market value of various balance sheet positions. As the computerization movement matures and as investment banking firms extend the range of instruments the cash flows of which they strip and package for resale in derivative instruments such as collateralized mortgage obligations or receivables-based securities such as those backed by pools of automobile loans or computer leases, the task of appraising the market value of institutional portfolios will become progressively easier and more precise. Even today, many large depository institutions and insurance companies regularly review market-value records. While these estimates are recognized only as accurate to within one or two cents on the dollar, on average these estimates lie closer to the true value of the firm than do traditional book-value calculations.

Reinstituting market-value accounting for loans, investments, and supporting liabilities would sharply increase the risk to managers and stockholders of financial institutions of aggressively exploiting the mispricing of federal guarantees. Requiring financial institutions to keep their accounts at market value may be interpreted as raising the effective cost of federal guarantees by putting the careers of overaggressive managers more fully at risk. In a world where declines in a firm's portfolio values could not be so easily hidden with accounting cosmetics, managers who energetically pursue unregulated risks would face quicker and more extensive damage to their careers if and when these risks go sour. Because the deposit insurance agencies remain free to offer capital assistance to failing clients, market-value accounting should be interpreted as curtailing rather than eliminating the exercise of regulatory discretion as to whether and when to close an economically insolvent institution. By forcing more timely and more explicit forms of intervention, market-value accounting would greatly reduce an insolvent institution's opportunity to operate in a go-for-broke mode.

Moreover, if firms record the market value of their expanded balance sheet, which includes sources of value that current accounting principles designate as off-balance-sheet items, the value of federal guarantee services to an individual firm can be calculated from the value that the stock market places on the equity of the firm. In principle, a firm's stock value (S), equals the market value of bookable and unbookable assets, $A + A'$ minus the market value of bookable and unbookable nonequity liabilities, $L + L'$. If every other off-balance-sheet source of value is accounted for, the value of a firm's explicit and conjectural federal guarantees net of discounted future premiums, F_{CG}, may be calculated as:

$$F_{CG} = S - (A + A') + (L + L').$$

The annual cost of providing this guarantee, $C(F_{CG})$, may be defined as the interest cost of supporting its average value during the year, $i_t \bar{F}_{CG}(t)$, plus the change in the market value that occurs from year-end to yearend:

$$C(F_{CG}) = i_t \bar{F}_{CG}(t) + F_{CG}(t) - F_{CG}(t-1).$$

If the liability of stockholders in every financial institution that enjoys a conjectural guarantee were extended to two (or more) times the par value of their stockholdings, as the liability of stockholders in national banks was until 1959, quarterly or annual charges designed to recover this cost could be levied on an ex post basis.

Whether or not authorities are willing to go so far, a market-oriented approach to financial regulation presupposes a shift to current-value accounting. If stockholders and creditors of financial institutions are to bear a greater risk of failure, they deserve best-efforts estimates of the risk exposure and changing market value of the assets and liabilities that financial institutions book.

SUMMARY

This chapter seeks to describe and explain the evolving market structure of financial competition and to develop a market-oriented strategy for regulating this competition. For this strategy to work effectively, entry into and exit from the business of financial regulation must be made easier and the touchstone for asset valuation must move from historic cost to current market value. Freer competition

in markets for financial regulatory services, including expanded opportunities for regulated firms to choose their regulators, would lead in the long run to better-adapted patterns of regulation that would tend to minimize costs of entry and exit for regulated institutions. Widespread use of current-value accounting would help to curtail managerial incentives to chase subsidies inherent in the mispricing of explicit and implicit federal guarantees of selected financial contracts. Moreover, if combined with extended liability for financial institution stockholders, it could even be used as the basis for arranging a form of ex post settling up that could recover the government's cost of supporting its explicit and conjectural guarantees.

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COMMENTARY ON CHAPTERS 3 AND 4

Franklin R. Edwards

Paul Horvitz and Edward Kane sound a similar note: Technological change undermines regulation. It lowers the cost of circumventing regulation and creates new opportunities and incentives to circumvent regulation. In addition, because of its effects on the structure and boundaries of existing industries and markets, it shifts the traditional political and economic interest of the various political action groups that might normally support the status quo. Both believe that technological change has increased competition in the financial sector and has been beneficial to customers.

Professors Horvitz and Kane provide us with comprehensive and insightful analyses of the dynamic interrelationships between technological innovation and regulation. They are qualified to do so. They have experienced these developments firsthand from a practitioner's perspective, and they have studied and written on financial markets for nearly twenty years, during which time substantial alterations in our financial landscape have occurred.

I am in agreement with much of what they say, as I would suppose are most others. What I find most remarkable about their discussions, however, is what they choose not to discuss. Both agree that technological change has increased institutional risk taking and vulnerability to insolvency, but neither pursues that issue, preferring to avoid making a judgment about whether this poses a serious risk to either system integrity or macroeconomic stability. Is any

issue more important? If technological change has created or intensified this vulnerability, an overriding question is: What kind of financial policies should we adopt to keep this risk within acceptable boundaries? Innovation that ultimately undermines system integrity or stability cannot be defended by pointing to contemporary consumer benefits.

Edward Kane does not directly address this question, but his emphasis on the need for accounting reform is related to it. He sees current-value accounting and fuller information disclosure as the linchpin for a market-oriented approach to financial regulation. Such an approach, he argues, means "freer competition . . . for financial regulatory services." Presumably, Kane believes that if we have full information disclosure and enough competing regulators, the result will be a financial system that is both efficient and stable. The greater threat, in his view, is the possibility of monolithic, monopoly regulation, with its concomitant inefficiency, and not the potential instability that may result from more intense competition and from increased risk taking. Though not explicitly discussed, his implicit view is clear: Competition among regulators will not drive regulation to such a low level that system integrity will be jeopardized. The policy implication: Do not overregulate and do not worry.

Horvitz is worried—at least a little bit. He concludes that "the new technology does expose the system to greater risk," although it is unclear whether he thinks that such risks are too great to tolerate. He finds technology to be both culprit and savior: While it increases system risk, it better enables regulators to manage this risk. Nevertheless, Horvitz firmly endorses the continued need for a deposit insurance system, albeit one that is different from the present system. Even the improved monitoring capabilities of regulators via the new technology, he believes, cannot sustain the present system. Some change is necessary. But precisely how government regulation and deposit insurance should be organized is left unclear.

Horvitz endorses a variable-premium, risk-based deposit insurance system, backed by a sophisticated electronic surveillance and monitoring regulatory system. "Present computer hardware and software make it feasible to measure the duration of bank assets and liabilities and to calculate the change in market values of assets and liabilities in response to interest rate changes." He knows, of course, as we all do, that evaluating a bank's risk exposure is a far more complicated and messy business than simply measuring its asset duration—

although even that may be beyond our present capabilities. Credit risk may be more important than even interest rate risk, and in the future general business risk may be more important than either of these.

How can a better "hardware and software" adequately monitor the kind of risk that banks are exposed to as a consequence of the collapse of government securities dealers such as E.S.M. Government Securities and the Lion Capital Group? Does it really help us to evaluate the riskiness of lending to Argentina or Mexico? Will it be of much help in evaluating the soundness of Sears Roebuck, or of Prudential Insurance Company and its Prudential-Bache Securities affiliate, and their present or future banking affiliates?

I submit that the present technological revolution, and its associated regulatory deregulation (or reregulation), is making it decidedly more difficult, and not easier, to monitor financial institution risk effectively. It is making it less economically feasible even to think of segregating the various financial services into separate and distinct financial units, each to be regulated independently of the other, each subject to different rules and regulatory protections. To be candid, we do not know even which financial assets need to be governmentally guaranteed (or insured) to ensure system soundness. The terms "money" and "deposits" no longer have clear empirical counterparts. If we are to restructure the present regulatory system, and I think we must, the surgery must be more extensive than simply slicing away some of the undesirable aspects of the present deposit insurance system.

Here Kane's market-oriented policy prescription has definite appeal. As long as we can keep legislators and regulators from erecting a monolithic and monopolistic system of regulation, he feels things will work out quite well. Competition among regulators will reduce regulatory burdens and obstacles to the lowest levels consistent with achieving our desired social goal: system soundness. Economic efficiency will be maximized, all externalities properly internalized, and system integrity maintained.

Those of us who have experienced the revolving-door management of regulatory agencies do not find Kane's prescription quite so comforting. The short-run economic and political pressures that beset regulators do not always seem to result in optimal long-run decision-making. The long-run career success of regulators seems to have only a tenuous connection to the quality of their short-run performance

as regulators. Sometimes I think the relationship may even be the opposite of what we might hope for. Competition among regulators, to work in the social interest, must have the long-run social good as an important argument in the regulator's utility function. It is not clear why regulators should expect to advance their future personal careers (often in the very industry they are currently supervising) by optimizing social welfare.

Neither is the recent collapse of the state of Ohio's deposit insurance system reassuring. State deposit insurance schemes represent an alternative to a monolithic, monopolistic, federal deposit insurance scheme—just the kind of competitive regulatory alternative Kane would seemingly endorse. When put to the test, however, the system was not capable of withstanding the fire of crisis. Could it be that those in charge never seriously adopted as one of their primary objectives the maintenance of system soundness?

In summary, while both Horvitz and Kane provide us with insightful analyses of how technological innovation has undermined regulation, and how unwise regulation has spawned innovation, they differ over what the public policy response should be to these developments.

The continued evolution of the structure of our financial service industries, and of international competition, will keep financial markets in turmoil for many years to come. New and changing economic and political interests among industry participants will prevent long-lived political and regulatory equilibriums. There will be many profit-making opportunities and plenty of pitfalls. New risks will spawn new financial instruments and institutions, which will add to the turmoil. Most customers will be better served than ever, but some will suffer heavily from the absence of traditional protections. System risk and the danger of system collapse will always be present and will probably be greater than at any time since the Great Depression. Perhaps, years after the dust has settled, a new and stable industry structure will emerge, and with it a new regulatory system.

But until we reach that moment in history, if we ever do, much will depend, in my mind, on one factor: Federal Reserve policy. The Federal Reserve, together with other major central banks, must in their capacity as lenders of last resort be responsible for preserving the stability of the financial system. We are moving relentlessly to such a lender-of-last-resort "fail-safe" system, whether or not intended. Our analytical and policy focus, therefore, should be on determining

the appropriate central bank policies and conduct in carrying out their lender-of-last-resort responsibilities. Is an aggressive lender-of-last-resort policy consistent with a market-oriented financial system? Is it compatible with an independent and objective monetary policy? And under what conditions? Surprisingly little attention has been given to defining the strategies and boundaries of central bank intervention to preserve system soundness. This volume begins to correct that oversight.

COMMENTARY ON CHAPTERS 3 AND 4

John H. Kareken

I was asked to comment on Edward Kane's chapter and also, although much more briefly, on Professor Horvitz's. Thus, that I devote relatively few lines to Professor Horvitz's discussion implies nothing about how worthwhile I believe it to be. Professor Kane has once again done himself proud. His chapter, perhaps not easy reading, is filled with insights, and besides being informative, it will challenge, even provoke, many a reader. But we are as much in Professor Horvitz's debt as in Professor Kane's. With his chapter, he too makes a valuable contribution. In a way it is too bad that, by long tradition, I am bound to be critical. For, in truth, of all that Professor Kane has to say, there is little to which I take exception; of all that Professor Horvitz has to say, there is even less. That will, I hope, be kept in mind.

To begin my commentary on Professor Kane's chapter, I note that his opening description of present-day U.S. regulatory policy—that to which suppliers of financial services are subject—may be somewhat misleading. According to Professor Kane, that policy is made up in considerable part by exclusionary restrictions. To buttress his assertion, he asserts that nonfinancial and various financial corporations—those, for example, engaged in insurance underwriting—are precluded by law from having controlling interests in commercial banks. That, however, may or may not be so. As Professor Kane

knows, the question is whether a legal loophole exists or whether nonbank banks are, in substance, commercial banks. If, as many believe, they are, then what Professor Kane says is not so.

Professor Kane also says that corporations with controlling interests in depository institutions are limited in their choices of nonbank activities. But, again, do loophole banks qualify as commercial banks? If they do, then we have corporations with controlling interests in depository institutions that are not subject to the Bank Holding Company Act, and, being unregulated bank holding companies, neither are they limited in their choices of nonbank activities. Moreover, some savings and loan (S&L) holding companies are much less limited in their choices than are regulated bank holding companies. There is nothing in present-day federal law that prevents a one-association holding company (a corporation with a controlling interest in only one S&L) from being in both industry and commerce. Amusingly, Sears Roebuck, long a one-association holding company, is about to (if it has not already) become an unregulated bank holding company.

So the present-day regulatory policy to which suppliers of financial services are subject is not quite as exclusionary as Professor Kane seems to suggest. To say that, however, is only to make one of his essential points: that having been subverted, federal exclusionary restrictions are, by and large, less effective than they were even a decade ago. One-association holding companies—monuments presumably to the power of the real estate lobby—have long had special legal status. But loophole banks are relatively new to the financial scene, and their raison d'être is subversion of exclusionary restrictions of the federal government, geographic and other.

Professor Kane alleges that changes in the technologies used in supplying financial services are ultimately what explain such subversion of federal exclusionary restrictions as there has been—or, in other words, why the financial services industry has been so much in flux. As proof, he notes that there has been very little actual, as opposed to covert, deregulation.

> Failing to see adaptions in the market structure for financial services as a response to economic incentives, many observers conceive of the demise of the system of exclusionary regulation as a "revolutionary" political act of deregulation. There observers need to recognize that, at the federal level, outside of interest rate ceilings, few regulations have actually been abandoned.

But "few" is a weasel word. The clear impression conveyed in the quoted passage is that, except for the elimination of restrictions on rates paid by insured commercial banks and S&Ls, there has been no deregulation, in the customary sense of that word, worth bothering about. And that is not right.

We must look not only to what Congress has done recently but also beyond. And, as it happens, the courts, by ruling against the Board of Governors of the Federal Reserve System and, less frequently, the FDIC, have made mergers and acquisitions by bank holding companies easier to manage than they were, and than they would have been if, say, the board had prevailed. They have thwarted the board in its attempts, more than a little disgraceful, to reach the currently unregulated bank holding companies.

If the courts have helped ease exclusionary restrictions, in part by protecting subversive suppliers of financial service, so in their way have the federal agencies responsible for regulating depository institutions. What is most pertinent, more agencies have for better or worse made permissible many activities that once were either impermissible or not clearly permissible. Recall that depository institutions are new to the discount brokerage business.

Here, of course, the emphasis must be on what has been done. It is a useful reminder, though, of the potency of agency discretion that the Glass-Steagall act, so basic to the federal government's policy of exclusion, will likely disappear not with a bang but a whimper. That is, it will more likely be interpreted out of existence than repealed. Recall that recently the FDIC "clarified" its position on the underwriting of private sector securities, although admittedly for a bunch of not very interested (small) banks. Then, too, it is by no means obvious, despite the recent Supreme Court ruling, that banks will be precluded from underwriting commercial paper. And, finally, there is that Citicorp application to engage through an existing subsidiary in general underwriting. At present gathering dust in the board's table, it will one day have to be dusted off; and when it is, the board may not have all that easy a time.

It is rather surprising, given his concern with exclusionary restrictions, that Professor Kane does not mention either the Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA) or the Garn-St Germain Depository Institutions Act of 1982. With the passage of DIDMCA, the Ninety-sixth Congress

affected some changes in the mission of S&Ls; and the Ninety-seventh Congress, author of the Garn-St Germain Act, going further, essentially completed the task of freeing those depository institutions to become in effect commercial banks. But technological change is not what forced the two Congresses to produce their respective statutes. So it is not right that the chaos in the financial services industry, past and current, is to be explained entirely by such change.

Nor can the possibility of a change in sentiment about how suppliers of financial service ought to be regulated, perhaps not a "revolutionary" change but a change nonetheless, be casually dismissed. In his chapter Professor Horvitz considers the elimination of federal restrictions on rates paid by insured depository institutions at some length and, arguably, ends by making technological change the explanation. He says that "the important deregulation that has taken place in the financial services business has taken place because of changes in technology." If the meaning of that assertion seems indisputable, Professor Horvitz goes on to say that without changes in the technologies used by suppliers of financial service, depository institutions would, in his judgment, still be bound by rate restrictions. And it should now be apparent why I indicated above that it was arguable how Professor Horvitz explains the elimination of deposit rate restrictions. Is technological change what "explains" the burst of liberalization? Or was prior technological change only necessary?

I have no trouble with prior technological change having been necessary. That is most reasonable. The point is, though, that at least in principle the federal government always had the option of imposing rate restrictions on money market mutual funds (and, indeed, of making them subject to a cash balance requirement). And that it did not impose such restrictions is consistent with a change in sentiment about how suppliers of financial services ought to be regulated. No doubt, a fear of the wrath of the "gray panthers," especially on Capitol Hill, was of some importance. I also believe that, in some of its parts, the federal government had come to appreciate that Canute was not an appropriate model of behavior. If it imposed rate restrictions on the money market mutual funds, then at some point in the not too distant future it would face having to impose such restrictions on another newly emerged group of suppliers of financial services. But to posit a certain despair is not to deny a change in sentiment; the despair may explain the change. Again, then, accounting for the chaos of the recent past and present in the financial services

industry by appealing only to technological change could be going too far.

If there has been a change in sentiment, then, as I believe, we should all be worried. Because federal deposit insurance policy was not changed first, it was, pure and simple, a mistake to eliminate restrictions on rates paid by insured depository institutions. In their complaints about the brokering of (insured) deposits, the FDIC which keeps "costs of exit and entry as low as is consistent with maintaining the integrity of competing institutions and avoiding periods of macroeconomic instability," is less than wonderfully helpful. Imagine someone struggling with an impossibly difficult differential equation. How much help would I be if I pointed out that the solution has to be consistent with the equation? Down a long string of years, economists and others have struggled mightily to figure out precisely what regulations are "consistent with maintaining the integrity of competing institutitons and avoiding periods of macroeconomic instability."

Toward the end of the chapter Professor Kane does put forward a couple of specific policy recommendations, one being that depository institutions should be denied the use of intrinsic-value accounting and, among other things, made to value assets at market prices. Of course, he appreciates that there is a practical difficulty, often involving an exercise in arbitrariness. The interesting question, however, is what a switch from intrinsic to market-value accounting, if practical, would accomplish.

In defense of his recommendations, Professor Kane argues that the switch "would sharply increase the risk to managers and stockholders of financial institutions of aggressively exploiting the mispricing of federal guarantees . . . managers who energetically pursue[d] unrelated risks would face quicker and more extensive damage to their careers." We are bound to ask, though, how that can be. Except possibly for the odd few, who have been fooled by intrinsic-value accounting? Not managers of financial institutions. Nor regulators. And, as for stockholders of financial institutions, they need only to look at how, for example, bank shares have been trading. The suggestion of "historical multiples" is mostly nonsense. Reasonable earnings projections, incorporating disguised as well as undisguised loan losses, produce historically reasonable multiples.

Evidently, then, what Professor Kane wants to do is deny our insuring agencies (or, more accurately, those federal agencies respon-

sible for closing depository institutions) such discretion as intrinsic-value accounting has afforded them. I say that because it would be extremely difficult, if not impossible, to leave open a depository institution that by the mandatory accounting method was showing negative or even zero net worth. For one thing, lawsuits could threaten.

The question is whether it would be in the public interest to do away with agency discretion. And the answer could well be "yes," for stockholders of an insured but bankrupt depository institution can only gain from one last gamble. Yet, there may be something in the hoary notion, much cherished by our regulatory agencies, that there is a difference between "illiquidity" and "insolvency." Or that net worth may be only temporarily negative. If there is, then denying the agencies discretion could be costly to taxpayers.

As has I am sure become apparent, I do not know how Professor Kane's plea for market-value accounting should be judged. It seems, though, that in diplomacy the "polite lie," the lie which no one believes, serves a purpose. And intrinsic-value accounting, the permission to tell lies that fool no one, may serve a purpose too. Going back a few years, should the majority of S&Ls have been closed? And going back only a year or so, what of our largest banks? By the expectations of the time, some at least were, in a word, bankrupt.

Professor Kane's other specific recommendation is that stockholders of insured depository institutions risk more than their investments. There are, however, all sorts of ways of attempting on the cheap to price federal deposit insurance reasonably, and my sense is that rather than increasing the risk of, for instance, holding bank equities, the federal government might do better by requiring all banks to have short-term subordinated (uninsured) debts outstanding. But I should be hard pressed to back my intuition with a coherent argument.

To conclude my commentary, I call attention to an assertion made by Professor Horvitz: "The only regulation we need is that which is necessary to protect the deposit insurance system." What "protecting the deposit insurance system," means, and I emphasize the word "system," is not obvious. But it may be that for Professor Horvitz the system is protected if, given the current statutory premium, the insurance funds are not exhausted. And he apparently believes that sufficient protections would be afforded by "a good monitoring system, the power to close banks when they become insolvent, and a

capital requirement." I wonder. In the short run the resources of the FDIC are fixed. So with enough looming bank failures, it might have a very difficult time trying to manage without loss, even if possessed of a truly splendid monitoring system and all the power it could want. And what of the FSLIC? In the short run its resources are also fixed.

What is most curious, though, Professor Horvitz would seem by his assertion to deny the need for federal deposit insurance and, hence, for protecting the deposit insurance system. If it is right that "the only regulation we need is that which is necessary to protect the deposit insurance system" or to keep the insurance funds from being exhausted, then evidently Professor Horvitz would not mind if all banks failed together, provided that the FDIC experienced no loss. I suspect, though, that he would. So unless I have misunderstood, he does not say quite what he meant to say.

REJOINDER

Edward J. Kane

In most respects, the differences I have with John Kareken reflect differences in our interpretive frameworks. This difference in perspective stands out most clearly in our respective analyses of the origin of the loophole or nonbank bank.

Kareken treats loophole banks as empirical evidence that "regulatory policy . . . is not quite as exclusionary as Kane suggests." I see these banks as illustrating my thesis that by making minor adaptations in organizational form, an institution may legally engage in most prohibited activities. The difference in our analysis is that I portray "regulatory policy" as an endogenous variable—one that arises as the solution to constrained maximization problems faced by the individual regulators involved. The "regulatory dialectic" (Kane 1981) which I use to interpret financial change distinguishes sharply between regulatory policy, which reflects at least partially discretionary behavior by regulators, and "statutory law," which (along with technology and the strategic behavior of other regulators and financial services firms) constrains and narrows the range of policy choices available to individual regulators.

Kareken paints the courts as unabashed villains for striving to enforce these laws, whereas I see them as making statutory restraints meaningful and occasionally forcing Congress to take a stand on one or another of the distributional issues inherent in reregulation—

issues from which congresspersons ordinarily expect regulators to shield them.

It is particularly ironic that Kareken blames the loophole banks on the courts rather than on Fed lawyers. Since he doesn't cite the case or cases he has in mind, I can only surmise that he is thinking of the Beehive case. As I remember the court's opinion in this case, a determining factor was the Federal Reserve Board's explicit prior agreement with the management of the acquiring institution that if the target firm avoided commercial lending, it could safely offer insured NOW accounts. This means that the board's own reading of the Bank Holding Company Act, *not* the courts', may have been responsible for the loophole bank. In fact, in a Florida case now being appealed to the Supreme Court, U.S. district and appeals courts had no trouble ruling the loophole bank (much as Professor Kareken sees it in his comment) a transparent and unlawful circumvention of the Bank Holding Company Act. As a number of other cases I could cite would document, if anyone is interpreting laws "out of existence," it is federal regulators rather than the federal courts.

Kareken expresses unhappiness with my insistence on using the term "reregulation" in place of the word "deregulation." I plead guilty to not mentioning that, besides phasing out deposit rate ceilings, 1980 and 1982 federal legislation greatly increased the range of assets that a federally insured S&L may hold. However, I may note that I also chose not to mention that the Depository Institutions Deregulation and Monetary Control Act applied Federal Reserve reserve requirements for the first time to roughly 9,000 nonmember commercial banks, 5,000 S&Ls, 500 mutual savings banks, and 22,000 credit unions and increased de jure coverage of federal deposit insurance at individual institutions to $100,000 per account name.

I am bewildered as to why Kareken concludes that I believe that technological change in and of itself forced Congress into enacting the 1980 and 1982 financial reform acts. My writings on this subject (e.g., Kane 1981, 1983) treat Congress as solving a maximization problem in which technology merely imposes one of several economic and political constraints on its ability to pursue political and economic goal variables. With respect to market circumvention of deposit rate ceilings, Kareken fails to acknowledge that money market funds were able to resist federal banking agencies' attempts to

bring their yields under banking agency dominion during the 1970s precisely because these entities were already under the aegis of a turf-protecting Securities and Exchange Commission.

Kareken concludes by dismissing the policy recommendations that stand at the heart of my chapter. He portrays my praise of regulatory competition as an "endorsement of the present-day U.S. institutional arrangement for regulating our financial service industry" and pronounces unfavorably on the value of market-value accounting and extended liability for deposit institution stockholders.

Far from endorsing current regulatory arrangements, I agree with him that the current system inappropriately subsidizes deposit institution risk bearing. One of the reasons this subsidy bothers me so much is that it tends to expand the federal regulatory sector unfairly at the expense of state and self-regulatory ones. I also believe that bureaucratic lags and deposit institutions' and federal regulators' common desire to hide the full effect of interest volatility on the size of this subsidy from taxpayer scrutiny explain why market-value accounting was not adopted long ago.

Kareken supposes that if the true market values of deposit institution balance sheets were known, the majority of S&Ls and some of our largest banks would be closed immediately. His analysis fails to account for the effect on an insured institution's market value of the asymmetric mechanism for sharing unanticipated gains and losses embodied in deposit insurance guarantees. It also neglects the fact that statutes and case law define the legal insolvency of a deposit institution in terms of illiquidity rather than negative net worth. Legal solvency is inescapably a chartering agency's judgment call about an institution's "ability to service its liabilities as they come due or accrue." As long as the discount window remains open and federal deposit insurers declare their unlimited support, customer runs are irrational and therefore self-limiting. The main effect of market-value accounting would be to force regulators and insured institutions to acknowledge the market value of the deposit insurance guarantees that are currently outstanding. These guarantees explain why stock in what appear to be underwater institutions continues to sell at positive prices. Booking the guarantees explicitly would focus regulatory and legislative attention on the need to devise policies that over time could reduce the value of deposit insurance guarantees at individual institutions instead of continuing to permit the worst of

these institutions to make wildly risky endgame plays with taxpayer funds.

The basic asymmetry in stockholder-guarantor sharing of gains and losses traces to stockholders' limited liability for a firm's losses and informational advantages that deposit institutions managers possess over the guarantor which make it difficult to monitor and respond adequately to strategic behavior undertaken by the guaranteed party. The degree of asymmetry is obviously lessened by increases in the market value of the firm's capital. While subordinated debt and extended stockholder liability both can be used to increase a firm's capital, extended liability addresses more precisely the incentive conflicts. The more capital the firm loses or the riskier it becomes in any other way, the greater the negative value of any bonded extended-liability feature that might be attached to outstanding stock. In contrast, the discipline supplied by subordinated debt depends vitally on the nature of the accompanying package of covenants and after issuance loses force until it begins to approach maturity.

I have only a few remarks to make in response to Franklin Edwards. He finds my proposed reliance on competition among self-interested regulators to be overly hopeful. Rather than worry about minimizing the entry and exit costs facing financial regulators, he wants to make sure that legislators enter "the long-run social good as an important argument in the regulator's utility function." It is precisely because the long-run social good is not an operational goal that the market-oriented approach seems so attractive to me.

Currently, the market for financial regulatory services is far from contestable. The Federal Reserve enjoys considerable market power, it and other federal deposit institution regulators control the flow of deposit insurance subsidies to institutions that opt for their regulatory dominion, and for federal agencies exit costs are substantial. To me, the failure of the Ohio Deposit Guaranty Fund teaches three important lessons about regulation, but none of them is the one that Edwards drew. First, underpriced guarantees that are backed by the infinitely deep pockets of the federal government are far more perfect than a system of mutual guarantees issued by seventy-one underwater S&Ls. When the guarantee fund is unable to monitor and adequately penalize noncompliance with its restrictions on client risk taking, the system cannot be sustained indefinitely without credible

supplementary outside guarantees. Second, it is not in the interest of elected politicians to renounce suddenly what the public perceives to be unlimited supplementary guarantees of the liabilities of institutions in such a system. Third, authorities should resolve individual-bank insolvencies within a few days and avoid extended bank holidays at all costs.

Finally, Edwards suggests that I might have explored more fully the distortions and distributional problems that the deposit insurance subsidy to risk taking has generated. Those of you who have read my manuscript on this subject (Kane Forthcoming) are probably overjoyed that I did not.

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