International Competition in Bank Regulation*

1. International Banking in the 1970's What We Have Learned

This paper seeks to identify current and future changes in the international banking system, and to consider the effect of these changes on regulation and on banking stability. In order to put our subsequent discussion in its proper context, we begin with a review of certain salient events and changes of the 1970's, asking what processes have been set in motion and what lessons can be learned.

The 1970's began, of course, with the disintegration of the Bretton Woods system and its piecemeal replacement with a system of floating exchange rates. Capital controls were eased. Intervention continued, but in an unpredictable way; the European joint float broke down several times; and an unprecedented divergence of inflation rates occurred. In an environment of fewer restrictions on cross-border banking, the competitive arena began to fill up with banks attracted to the Eurocurrency and foreign exchange markets by the profit possibilities inherent in wide swings in exchange rates and interest rates.

The volume of foreign exchange trading rose dramatically in response to the exchange rate instability of the early 1970's,[1] and total international bank lending rose from $ 204 billion in 1972 to

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[1] According to surveys conducted by the Federal Reserve Bank of New York, foreign exchange trading in the United States grew from under $ 1 billion per day in 1969 to over $ 5 billion in June, 1977. See: Federal Reserve Bank of New York, Press Release No. 1202, July 12, 1977.

According to estimates made by one of the authors based on daily interbank clearing volume and official sources, the average daily volume of foreign exchange trading was about $ 120 billion in 1977.

$ 657 billion in 1977, according to the figures in Table 1. The same table shows that American bank branching abroad maintained the high pace set in the late 1960's and that the recent international expansion of non-U.S. banks has been even more rapid. Because much of this expansion took place not via growth of existing banks but as a result of new entry by large domestic banks without broad skills or contacts in international business, heavy reliance was placed on the interbank markets for Eurocurrency deposits and foreign exchange.

It was precisely this ease of entry and the resulting surge of activity in the interbank markets that set the stage for the international banking crisis of 1974. While Bankhaus Herstatt and Franklin National Bank played the leading roles in that drama, minor roles were also played by several other big banks which uncovered foreign exchange losses. The most severe effect was felt in the interbank markets: bank-to-bank lending became an area where credit worthiness had to be established, too. These events startled both bank managers and the banking authorities into precautionary action. Banks recognized their need for greater internal controls and

TABLE 1

TOTAL FOREIGN LENDING BY BANKS
IN THE U.S., CANADA, EUROPE AND JAPAN
(Billions of U.S. dollars)

Year	Loans Outstanding at end of year[1]	Number of U.S. Banks' Branches in Foreign Countries[2]	Number of Foreign Affiliates of World's 50 Largest Banks, Excluding U.S. Banks
1966	—	244	—
1967	—	295	—
1968	—	373	—
1969	—	460	—
1970	—	532	—
1971	—	577	997
1972	204	627	—
1973	292	699	—
1974	364	732	—
1975	442	762	—
1976	548	623	1847
1977	657	730	—

1 Figures include interbank lending.
2 Figure represents Federal Reserve System member bank branches.
Source: BANK FOR INTERNATIONAL SETTLEMENTS, *Annual Report*, 1977-78; FEDERAL RESERVE BOARD; and UNITED NATIONS CENTRE ON TRANSNATIONAL CORPORATIONS, *Transnational Corporations in World Development: A Re-Examination* (U.N., May 1978), p. 215.

sophistication in the management of foreign exchange operations. On the whole, however, the institutions and techniques of the international banking system survived intact, and the figures in Table 2 indicate that the volume of credit to end-users intermediated through the Eurocurrency market was barely affected. While the gross size of the market fell for the first time in the third quarter of 1974, the net size continued to grow.

TABLE 2

CHANGES IN THE SIZE OF THE EUROCURRENCY MARKETS,
1970-1978
(Billions of U.S. dollars)

Year	Gross Size	Percentage Change in Gross Size	Net Size	Percentage Change in Net Size
1970	110	22%	65	30%
1971	145	26%	85	32%
1972	200	29%	110	22%
1973	305	35%	160	33%
1974	375	10%	215	22%
1975	460	22%	250	13%
1976	565	20%	310	19%
1977	695	25%	380	24%
1978	860	23%	480	26%

Source: Morgan Guaranty Trust Company.

On the regulatory front, questions of ultimate responsibility for both lender-of-last-resort and regulatory functions were raised. Although the failure of Herstatt shocked bankers into the realization that even a big reputable bank could fail, their fears were assuaged by the willingness of the U.S. Federal Reserve Board to bail out *all* of Franklin National's depositors. That action may have done little to enhance the prudence with which large American banks are managed, but it did persuade the international financial community of the stability of dollar-based international banking.[2]

The role of governments in the international financial system changed in two ways during the 1970's. First, this was the decade of the "privatization" of the international monetary system. Whereas

[2] Despite the depreciation of the foreign-currency value of the dollar, its role in foreign exchange trading and in the denomination of international credit has almost certainly increased since 1974. According to figures supplied by Morgan Guaranty the proportion of Eurocurrency deposits denominated in dollars averaged .76 in 1974; by 1977 it had risen to .80, and at present (1979) it is about .75.

in the 20 years following World War II the determination of exchange rates and interest rates and the direction of capital flows was regarded in large part as within the province of governments, those are now determined largely by private market forces. The second, related change was the increase in international borrowing by countries, particularly private borrowing. Table 3 shows that from the mid-1960's to 1976, private sources rose from 39 percent to 58 percent of capital flows to developing countries; Table 4, showing the growth in the proportion of official foreign exchange reserves held in Eurobanks, illustrates one facet of the increased participation of governments in the deposit side of private international banking.

Finally, the international banking community was forced to adapt to several major changes in the structure of the world economy.

TABLE 3

FLOW OF FINANCIAL RESOURCES TO DEVELOPING COUNTRIES
(Billions of U.S. dollars)

Source	1965-1967 average	1970	1973	1974	1975	1976
Official Development Assistance	6.1	6.8	9.4	11.3	13.6	13.6
Other Official Flows	0.4	1.1	2.5	2.2	3.0	3.3
Private Capital	4.1[1]	7.8	12.8	14.5	23.6	23.7
Total	10.6	15.7	24.7	37.0	40.2	40.6

[1] Excluding grant by voluntary agencies, included in other years shown.
Source: OECD, *Development Co-operation*, 1977, Statistical Annex.

TABLE 4

OFFICIAL DEPOSITS IN EUROBANKS
(Billions of U.S. dollars)

	1970	1971	1972	1973	1974	1975	1976	1977
Total Official Holdings of Foreign Exchange	45.4	75.1	96.1	102.0	126.9	137.5	160.6	201.2
Official Holdings of Eurocurrencies [1]	10.9	11.6	21.2	26.4	38.0	45.7	53.1	70.3
Eurocurrency Holdings, Percentage of Total	24.0[2]	15.4[2]	22.1[2]	25.9[2]	30.0[2]	33.2[2]	33.1[2]	34.9[2]

[1] Includes only identified official holdings of Eurocurrencies; hence may underestimate true holdings.
[2] Percentage.
Source: INTERNATIONAL MONETARY FUND, *Annual Report 1978*.

The vast accumulation of large trade surpluses by the OPEC countries and the increased external financing of development by LDC's constitute the two most prominent examples of such real-sector changes. These, coupled with the continuing payments deficits of the U.S. and surpluses of Japan and Germany, affected the banking system by substantially altering the ownership of deposits and loan liabilities worldwide. That the banking system has accomplished those changes with minimal disruption to credit availability shows its flexibility. It appears that even large-scale adjustments in international trade and finance can be accomodated, as long as no serious crisis of confidence in the banks themselves occurs.

2. The Shape of International Banking in the 1980's

In this section we offer several hypotheses about the future of international banking. The hypotheses possess a common theme, and that is that the forces of self-interest and competition and the increased availability of low-cost information-processing and funds transfer technology will fundamentally alter the role of regulators in banking.

2.1 *The distinction between domestic and international banking will disappear.*

Domestic wholesale banking markets, traditionally dominated by a local oligopoly, are becoming increasingly encroached upon by other financial and nonfinancial institutions, by foreign banks and by offshore markets. Tables 5, 6 and 7 demonstrate each of these three incursions into the U.S. banks' domestic market. Since wholesale deposit and loan services to corporations can readily be obtained from each of those four sources, it will not be long before international banking will merge with domestic banking to form a single, global wholesale banking market. The lower cost of information storage and funds transfer techniques,[3] and the increasing sophistication of

[3] Prices of integrated circuits have conformed to an experience curve such that costs decline about 28 percent with each doubling of the industry's cumulative experience, as measured by the number of units produced. The cost per bit (smallest unit) of computer memory is being reduced from about .5 U.S. cents in 1973 to an estimated .02 U.S. cents by 1983. See ROBERT N. NOYCE, "Micro-electronics", *Scientific American*, Vol. 237, No. 3 (September 1977), 63-69.

banks' customers, will eliminate geographical distance as a barrier to entry.

Some banks, of course, will not go global, just as some banks will not go national as barriers within the United States are eroded.

TABLE 5

NONBANK COMPETITION FOR U.S. BANKS' BUSINESS*

5.1 Shares of Corporate Short Term Debt in the U.S.

	1952	1957	1962	1967	1977
Bank Loans	.89	.88	.83	.85	.73
Commercial Paper	.01	.01	.02	.03	.05
Acceptances	.01	.01	.01	.01	.02
Finance Company Loans	.07	.08	.11	.08	.18
U.S. Government Loans	.03	.02	.02	.03	.02

5.2. Total Deposit Market Shares in the U.S.

	1952	1957	1962	1967	1977
Commercial Banks	.80	.72	.67	.67	.62
Mutual Savings Banks	.10	.11	.11	.10	.09
Savings & Loan Associations	.09	.15	.21	.21	.26
Credit Unions	.01	.01	.02	.02	.03

* The authors wish to thank Professor David H. Pyle for supplying the figures in Table 5.

Sources: U.S. FEDERAL RESERVE BOARD, *Banking and Monetary Statistics, 1941-1970; Federal Reserve Bulletin,* various issues; *Flow of Funds Accounts, 1946-1975,* and *Flow of Funds Accounts,* various issues.

TABLE 6

FOREIGN BANKS' MARKET SHARES IN THE U.S.

Assets of U.S. Offices of Foreign Banks as a Percentage of Assets of 300 Large U.S. Banks

	November 1972	November 1974	May 1977	May 1978
Commercial and Industrial Loans	10.0	13.8	17.9	20.2
To U.S. Residents	8.9	11.0	14.6	16.2
To Foreign Residents	88.1	94.1	90.4	128.9
Interbank Loans	18.1	30.7	59.8	56.9
Domestic	17.8	33.0	51.1	43.8
Foreign	19.4	24.0	89.3	114.1
Other Assets	4.4	7.1	8.5	11.4
Total Assets (Percent of U.S.)	6.2	9.9	12.8	15.6
Total Assets (U.S. $ billions)	$24.3b	$50.4b	$68.8b	$98.6b

Source: From HENRY S. TERRELL and SYDNEY J. KEY, "U.S. Offices of Foreign Banks: An Analytic Survey," *Federal Reserve Board, IFDP* No. 113 (1977) and "U.S. Offices of Foreign Banks: The Recent Experience", *Federal Reserve Board, IFDP* No. 126 (1978).

TABLE 7

DOMESTIC AND OFFSHORE DOLLAR-DENOMINATED ASSETS OF U.S. BANKS

(Billions of U.S. dollars)

	1970	1971	1972	1973	1974	1975	1976	1977
Assets of U.S. Banks' Home Offices	485.9	536.5	622.7	709.1	775.1	807.5	873.4	960.2
Assets of Foreign Branches of U.S. Banks Payable in Dollars	9.9	13.2	17.0	25.8	36.8	45.5	59.2	71.3

Source: Federal Reserve Bulletin, various issues.

The important distinctions will not be between regulation-protected local monopolies or between political divisions. They will, instead, be between geographical and functional specialization, and between "footloose" and "rooted" banking.

2.2. *Financial services will be unbundled and "relationship" banking will fade.*

The "bundling" of financial services, such as tying deposit taking to loan making, are products of national oligopolies and of peculiar tax and historical structures. Because the bank that offers the most suitable loan terms is frequently not the bank that gives the most attractive rates on deposits, banks will have an incentive to provide these services separately.

Whereas in the past, to borrow $ 20 million French francs one had to go to France and deal with a French bank (and probably with the French government... and speak in French) the Eurocurrency market now enables one to choose independently the currency of denomination, the country of jurisdiction and the nationality of the bank for a wide range of financial contracts. Table 8 demonstrates the shift to a much broader distribution by nationality of large international banks in the 1970's. The separation of loan maturity from the interest-contract period, as in roll-over credits, is a prime case of the unbundling of two financial services. This unbundling, undertaken at first primarily in the Euromarkets, has now spread to several domestic markets.

TABLE 8

THE TOP 100 BANKS BY NATIONALITY
(Billions of U.S. dollars)

	Total Assets*		Total Deposits	
	1971	1977	1971	1977
U.S.	247,444	484,858	202,730	388,872
Japan	168,839	578,613	138,541	482,301
Germany	92,215	363,192	75,332	315,535
U.K.	76,234	152,300	67,946	136,127
France	50,604	242,920	46,486	209,034
Italy	74,133	146,479	60,184	127,064
Canada	46,302	115,674	43,780	110,029
Brazil	8,527	46,590	3,805	26,482
Switzerland	26,877	77,116	21,918	60,905
Netherlands	12,449	65,420	6,851	60,797
Australia	10,422	25,124	9,891	21,005
Belgium	13,140	64,463	12,045	11,741
Other	19,067	101,999	15,833	81,612
Total	847,253	2,464,748	704,181	2,031,504

* Less Contra Accounts.
Source: The Banker, various issues.

Paradoxically, unbundling financial services has led to a proliferation of special-purpose package contracts and instruments such as project financing deals and multi-currency, dual-country Euroloans. The growth of international merchant banking is evidence of the demand for the services of banks in arranging such packages.

2.3 *Government regulation of banking will decline.*

Despite the apparent growth of government and the burden that its hegemony places on commercial banks, there is good reason to believe that that trend will be reversed by the end of the next decade. Communications technology and the financial community's experience with capital controls, coupled with the unprecedented range of participants and the unbundling of services in international banking will provide banks and their customers with a choice of with whom and where to do business. The result is a choice of regulators.

If banks and their clients can do similar business under the aegis of the British, Bahamian and U.S. banking authorities, those authorities are, to some extent, competing for the same business.[4] Indeed, one can think of banking regulation as an industry with its own set of services, costs and prices, and of the regulators as firms who can gain and lose business, as has been the case with the U.S. Federal Reserve System in recent years.

Regulation, therefore, is an industry whose quantity is governed by supply and demand. The suppliers, however, are not motivated by the typical profit incentive but rather by the desire for a large number of regulatees and the concomitant volume of activity.[5] In order to attract more customers, regulators will tailor their requirements to accomodate the desires of demanders, these being the banks and ultimately the consumers of banking services.

Whereas individual governments once had a monopoly on the supply of regulation, and so could impose whatever price (burden) they chose, now they must reduce that price to a competitive one, where the marginal cost of regulation will equal the marginal benefit. What is the benefit? What service does regulation provide to the international business community? Regulations, such as geographical restrictions, that merely protect local oligopolies, surely cannot be in high demand. Those regulations that banks' clients want include the provision of confidence through insurance-type facilities, and uniform public disclosure standards.

One implication is that detailed regulatory supervision of bank activities may be on the way out, since the banking authorities can provide the same degree of security to depositors at lower cost by means of a combination of deposit insurance and lender-of-last-resort facilities.

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[4] In the words of the New York Banking Superintendent, Muriel Siebert, "we are trying to replicate the banking climate of London, Singapore, and other Eurodollar centers" in setting up an International Banking Facility scheme. (Press Release, Dec. 12, 1978).

[5] In so asserting we are implicitly adhering to the economic theory of bureaucratic behavior originally espoused by WILLIAM A. NISKANEN in *Bureaucracy and Representative Government*, (Chicago: Aldine-Atherton, 1971). Stigler and Posner have hypothesized that regulators behave like a fulcrum when reaching a decision weighing the views and pressures exerted upon them by various interest groups. See GEORGE J. STIGLER, "The Theory of Economic Regulation", *Bell Journal of Economics and Management Science*, Spring 1971, 3-21, and RICHARD POSNER, "Theories of Economic Regulation", *Bell Journal of Economics and Management Science*, Autumn 1974, 335-358. We believe the Niskanen view to be more applicable in this situation.

2.4 *Governments' role in the financial markets as borrowers and depositors will increase.*

If governments are indeed forced to compete for the institutions and transactions under their aegis, they will have to become more cost and market-conscious. One implication is that they will do their international borrowing and depositing with private institutions more readily than with other governments. The evidence presented earlier suggests that that is already happening. Even the U.S. Treasury, with its five billion dollars of Deutsche mark and Swiss franc borrowing, has taken the plunge.

2.5 *Small banks will rise again.*

The apparent trend toward large banks absorbing smaller ones, which has some economic logic as geographical barriers to entry are broken down, will encounter a countervailing tendency for relatively small, specialized international financial institutions to emerge and sometimes succeed.

This unconventional belief arises because there are few economies of scale in wholesale banking,[6] and because sharply lower costs for information access and processing, shared funds transfer facilities, combined with fewer regulatory barriers to entry and the unbundling of services, will enable more smaller institutions to try their hand at providing a specialized banking service. They will be the gourmet shops of the banking industry.

On the other hand, a major source of big banks' advantage is the public's belief, based on experience, that central banks will not allow large, prominent banks to fail. If this implicit subsidy is retained, smaller or newer banks will continue to face obstacles to entry. Yet the present uncertainty over international jurisdiction and responsibility may well be resolved in another, more sensible way: with a system in which government responsibility is well defined and priced in accordance with the volume and riskiness of insured liabilities. Under such a regime, guarantees will be neutral as to size and the public will gain confidence in small, innovative institutions.

[6] See, for example, DALE S. DRUM, "Relative Costs of Affiliated Versus Independent Banks", *Federal Reserve Bank of Chicago*, Occasional Paper No. 78-3 (1978), in which it is found that long-run average costs reach a minimum when a bank reaches about $ 200 million in assets. This is a rather small bank by world standards. For a good survey see GEORGE J. BENSTON, "Economies of Scale of Financial Institutions", *Journal of Money, Credit and Banking*, Vol. 4, No. 2, May 1972, 312-421.

The new small international banks will not necessarily participate in the highly competitive Eurocurrency market. Eurobanking has become the fast-food or supermarket segment of banking, with low margins, high turnover and many competitors. Small banks will be entrepreneurs — they will use their specialized contacts and knowledge and new technology to create for themselves a niche of banking. They will be innovators, risk takers and packagers of services.

3. International Banking in the 1980's: Four Possible Events and Their Aftermaths

The emphasis of this paper, up to this point, has been on general trends and new directions for the international banking system. Both these potential changes and their origins are viewed as being gradual in nature. But shifts of a continuous nature are often accompanied, and sometimes altered, by periodic shocks to the system or incidents of abrupt change.

A more complete preparation for the coming decade requires some anticipation of those discrete events that may impact strongly upon the banking system, should they occur, and their consequences. To that end, this section considers four possible events of the 1980's and their ramifications for the banking system. Events entailing adverse concomitants were selected on the rationale that they are the ones where prior consideration may be most helpful. Further, we largely eschew discussion of the conventional concerns — balance of payments shifts, country debt defaults and foreign exchange risk — in order to highlight additional possibilities and subsequent issues which have received less than requisite attention.

3.1 *Interbank market crisis*

Interbank markets for bank deposits and foreign exchange provide an extremely efficient mechanism for international payments and credit allocation. This market is currently huge and is still growing. Our concern revolves around the large deposits major banks have with smaller international banks. Problems of international banks have tended, in the past, to reverberate throughout the inter-

bank system; hence concern must focus on the repercussions of solvency problems on the part of even minor international banks. The distinct possibility of a major reversal of foreign exchange trading fortunes or country debt losses implies potential solvency problems for some of the less well-managed international banks. The direct effect of such an event on the system is unlikely to be serious. The evidence is that most major foreign banks, and certainly the big American ones, could absorb fairly severe country loan or foreign exchange losses. U.S. national banks' net foreign exchange positions, for example, seldom exceed 1 per cent of capital and their total loans to non-oil developing countries constitute only 6.3 per cent of total assets and 1.26 times their equity capital (see Table 9). The secondary effects, however, could be severe in either of two ways.

First, a country debt default could have a domino effect. The subsequent uncertainty would cause a temporary drying-up of the market for LDC debt, and other countries would be unable to roll over debt, thus becoming delinquent on existing debt service. The second effect, of more interest to us, is that on the interbank markets for bank deposits and foreign exchange.

When the interbank market crisis comes, if it does, history suggests that trading will be severely cut back, tiering will re-emerge, and spreads will widen. More internal constraints will result and the authorities will bail out some banks and require more information from all. The Basle Agreement notwithstanding, central banks' obligations on whom and when to assist have not been clearly defined. The best preventive medicine on the part of the banking authorities, therefore, would be to state in advance the extent of liquidity and insurance that would be provided in times of trouble, and the price that their banks would be expected to pay for the insurance.

TABLE 9

CROSS BORDER CLAIMS OF U.S. BANKS, ASSETS AND CAPITAL
(millions of U.S. dollars, as of June, 1978)

	Total Claims	Claims as Percent of Total	Claims as Percent of Capital[1]	Claims as Percent of Assets[2]
G-10 and Switzerland	83131.1	41.60[3]	212.3[3]	10.78[3]
Non G-10 Developed Countries	19369.0	9.69	49.5	2.51
Eastern Europe	6977.1	3.49	12.8	.90
Oil Exporting Countries	16541.7	8.28	42.2	2.15
Non-oil Exporting Developing Countries-Latin America and Caribbean	34583.1	17.31	88.3	4.48
Non-oil Exporting Countries-Asia	11518.0	5.76	29.4	1.49
Non-oil Exporting Countries-Africa	2642.8	1.32	6.75	.34
Offshore Banking Centers	24661.4	12.34	62.98	3.20
International and Regional Organizations	417.4	.21	1.07	.05
Total (percentage)		100.00[3]	510.4[3]	25.92[3]
Total (millions of U.S. dollars)	$199842.0m		$39156.6m	$771100.0m

Sources: Office of the Comptroller of the Currency Country Exposure Lending Survey.
1. O.C.C. Country Exposure Ratio Report B2 (A), International Examination Office (Figure represents equity capital of reporting banks).
2. Federal Reserve Bank (Figure represents assets of reporting banks).
3. Percentage.

3.2 *Snake-bite*

The implications of the establishment of the European Monetary System (EMS) may be more serious than the initial squirms of the super-snake suggest. The EMS has a sufficiently diverse set of high-powered adherents in Europe to make the system viable at least during the early years of the next decade. Yet maintenance of the system in a form similar to the present EMS may well result in *greater* instability of exchange rates and short-term capital in the medium-term future. There are two ways that instability could occur.

First, Europeans may succeed in establishing a comprehensive system of exchange rate intervention, reserves and compensation, and a monetary unit. The stronger the system, the longer they will be able to accommodate divergent economic policies.

Eventually, however, we envision that expectations will dominate and large amounts of short-term capital will be shifted. The system will swing between function and dysfunction, with a shakeout of membership and temporary capital controls as the probable outcome. It will return to a Deutsche mark bloc or involve the unification of monetary policies.

Second, if a real monetary policy commitment is achieved at an early stage, the EMS may work internally, at least until political pressures on the monetary authorities emerge. Then, at best, years of political and economic strains will follow, during which the viability of monetary unification will remain in question. Speculation into and out of the dollar would be expected to accompany such uncertainty.

The implication of either scenario, therefore, is years of foreign exchange uncertainty. Even if the EMS succeeds, stability cannot

reasonably be anticipated for ten to fifteen years. While this suggests greater systemic instability in Europe, it also means that notions that the U.S. dollar will soon lose its hegemony as the currency of international payments and credit are premature.

3.3 *Major government clamp-down on international banking*

A third event, less probable than the previous two, but sufficiently likely to warrant consideration, is the imposition of severe controls on international banking by a government whose jurisdiction includes some segment of the international financial markets or institutions. The cause might be a belief that the country's economic problems result from an inability to effect the aims of monetary or balance-of-payments policy: governments readily blame the faceless potentates of global finance. Such an economic isolationist response could take one or more of the following forms:

— Capital controls on an international financial center;
— Activity controls on a particular country's own banks;
— Controls on currency use.

If, as we have argued, global wholesale banking is ultimately footloose and free of fetters, even U.S. capital controls will not reverse the relentless march towards a low-regulation system. In the 1960's, much was learned about capital controls and how to deal with them, and payments technology now eases the task. The burden of such controls will fall on the banks, foreign investment and international trade of the instituting country. In the short-term, international credit and payments associated with that country would be disrupted, but eventually the banking business would shift to a different location, currency or set of banks. Indeed, many banks now have contingency arrangements for just such an event. Dual books are kept outside the country, for example. If the Bahamas were to control or seize all offshore branches, the nominal location of many offices could readily be shifted because few of the assets or depositors of a Eurobank are physically located in the country of jurisdiction.

The medium-term effect of such controls would be to alter some of the practices and perceived risks of international banking. One result could be a shift of the more cautious segment back into domestic markets and an increase of the Eurocurrency location premium.

3.4 *Competitive failures*

The fourth and final event adverse to international banks is the failure and merger of less competitive institutions that stem from weakened barriers to entry. If, as we have asserted, the wholesale banking environment at home and abroad becomes one of heightened competition and curtailed regulation of bank entry and activities, then what happened to U.S. brokerage firms in the 1970's may happen to commercial banks in the 1980's. U.S. banks, historically over-protected by constraints on geographical entry and activities, are particularly vulnerable to such a shakeout.

The adjustment costs would be rather painful and bank regulators might even consider to what extent, and how, they should ease such an adjustment. If many less-efficient banks, faced with offshore and foreign banking competition, are liable to fail, who should be bailed out, and under what circumstances? How can bankers and their customers best be provided with correct signals in advance? Simultaneously, a distinction between lender-of-last-resort and deposit insurance functions should be made. The proper role of the agency given responsibility for the first of these functions is that of supplier of liquidity to the system in extreme situations of massive bank failure likely to create widespread monetary contraction. In contrast, the insuring agency should structure its coverage so that in more normal circumstances the failure of even a few banks would not lead to a loss of confidence in bank deposits as the means of payment. Deposit insurance alone, therefore, should be sufficient to preclude the negative externalities associated with normal bank failures, such as the withdrawal of funds by depositors and the contraction of interbank loans.

4. Advice for Bank Regulators

Thus, the world we see for the 1980's is one in which technology and banking sophistication will allow many new entrants, domestic and foreign, bank and non-bank, big and small, into the field of wholesale banking. Banking competition in a number of historically protected markets will, as a result, increase greatly, thereby fostering unbundling and repackaging of financial services, erosion of unwanted regulation and the likelihood that many will succumb to com-

petition. In the long run, the strong will survive. During the interim period, however, many U.S. banks will be more vulnerable to unanticipated disruptions than before.

Four actions seem reasonable to prepare bank regulators for such a world.

First, if bank regulation is an industry in which the regulators' services are in demand only to the extent that they serve the banking public's interest, then regulators might do well to take a business-like approach to their market. An examination of the present role of central banks and other authorities in the banking system will reveal much that is not necessary to the preservation of banking stability. Market research by regulators might suggest which of their present supervisory and regulatory functions are worth the cost to the banking public.

Second, regulators should build on that analysis and research to specialize in those functions that are in real demand. We have suggested that insurance and information-type regulation may survive where detailed supervision of activities and credit allocation may not. If that is the case, regulators must specialize their roles or face an erosion of their banks' market shares.

Third, in order to prepare for the period of adjustment to a new competitive world, we have suggested a clarification of who has depositor protection and lender-of-last-resort responsibility to whom. The present system of a vague but blanket assurance that central banks will support their big banks both allows unnecessary uncertainty and provides no clear prudential incentives to banks. By selectively removing central bank responsibility for bank solvency, many corrective processes are started in motion in anticipation of, rather than in reaction to, a banking crisis.

Fourth, bank regulators should emphasize those aspects of the present regulatory system that appear to preserve stability without altering free-market risk-return decisions. Bank management should be left to bank managers and the public sector should be concerned only with that risk that the public is asked to bear. The single most desirable move in that direction, in our view, would be to seek proper pricing of the deposit insurance and lender of last resort services that the authorities provide to banks.

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