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Land Use Planning Perspectives

By Marvin Duncan

Land use planning elicits at least two sharply defined and diametrically opposed images. On one hand land use planning is viewed as a subtle attempt to dilute the rights of property holders. The converse view holds that planning is necessary to assure wise use of natural resources now and adequate supplies of these resources for the future. More common are intermediate views, often conditioned by access to ownership and use of property, or the lack thereof. In the last 15 years land use issues, ranging from local feedlot pollution control questions to proposed national land use planning legislation, have created controversy and headlines.

This article examines the historical background and the rationale for land use planning, some considerations in implementing planning, and considers briefly the current status of legislation in the United States. Consequently, the primary focus of this article is on the public sector's role in land use planning. A later article will examine resource use issues of special interest in the Tenth Federal Reserve District, means of addressing those issues, and related legislation in Tenth District states.

HISTORICAL PERSPECTIVE

The traditional and legislative precedents for private ownership and control of property—and by extension, natural resources—in this country are principally drawn from England. A brief review of

the evolution of ownership rights is useful in understanding how U. S. property rights emerged.

Landholding in medieval England was at best a risky proposition. Land was routinely seized by the crown for failure to pay debts or obey royal summonses. Collection of feudal dues became progressively more oppressive until during King John's reign the nobles revolted, drafting a set of demands (the "Articles of the Barons" in April 1215). The famed Magna Charta emerged from the ensuing negotiations between the king and his loyal barons and mercenaries. Of particular interest to landholders was chapter 39:

No freeman shall be arrested, or detained in prison, or deprived of his free hold, or in any way molested; and we will not set forth against him, nor send against him, unless by the lawful judgment of his peers and by the law of the land.¹

Almost as soon as agreed to, the Magna Charta was disavowed by King John, but later a shorter version was enrolled in England's Statutes at Large.

Between 1215 and the colonial exodus to America, attitudes and practices regarding the right of government to regulate the use of, and to seize, private land vacillated between strict and loose construction. A substantial body of royal proclamations

¹Edward Coke, *The Second Part of the Institutes of The Laws of England* (London: printed for E. and R. Brouke, Bell-Yard, New Temple Bar, 1797), p. 45.

and acts of Parliament, particularly directed toward planning for orderly, safe, and healthful urban development, had evolved by the time of the major colonial movement to the new world.² A 1580 proclamation by Queen Elizabeth restricted new residential construction within three miles of London's city limits and Parliament, in 1588, restricted new construction to a density no greater than one building to four acres. Regulations restricting access to common land were enacted. As long as land use regulations appeared to promote the public benefit, rather than only the king's benefit, the judicial system supported such regulations.

Interestingly, concurrent with the extensive regulation of land use, a counter movement of revived interest in individual property rights was gaining momentum. There was a revival of interest in the Magna Charta—and an accompanying pre-eminence of individual property owners' rights. Parliament asserted that the ancient laws—the Magna Charta included—were fundamental guarantees of Englishmen's rights and liberties. Thus it was that colonists, fresh from Parliament's victory of private property rights over royal decree, brought to America a concept of property rights that shaped the actions of colonial legislatures during the 1600's. The English tradition also encompassed substantial control over private property for the public good, and in England the pendulum was soon to swing toward renewed attention to public prerogatives. Americans for the past 200 years have, however, considered the concept of property rights brought by colonists to be among our most prized acquisitions from England.

Nonetheless, land use restrictions were accepted early in the American colonies.³ As early as 1631, the Virginia House of Burgesses passed an act requiring each white male over 16 to grow two acres of corn—or forfeit an entire tobacco crop. New Amsterdam in 1647 passed what amounted to zoning and building code ordinances. However, the expanse of free land and readily available resources

to the west minimized consideration of any comprehensive land or resource use planning. It was not until the closing of the American frontier—around 1900—that the country gave any serious consideration to conservation of natural resources.

Coincident with, and partly because of, the closing of the frontier, public sentiment for preserving unique and unspoiled parts of the American wilderness led to Congressional action in 1891 setting land aside for national parks and forests. The Reclamation Act of 1901, a legislative landmark, established the pattern for developing water resources in the western United States. However, urban zoning—as a result of early acceptance and the higher visibility of urban land use problems—dominated land use discussion and practice until the 1960's.

Comprehensive land use planning encompassing resource inventory, data collection, and citizen participation was begun in rural America during the 1930's. It made only limited progress before public attention was turned toward winning World War II. Postwar emphasis on economic growth meant that not until the 1960's—when urban land use problems began to spill over into rural areas as suburban sprawl, city landfills, highways, and airports—was there a vigorous revival of public interest in land use issues. Robert G. Healy suggests people were becoming more aware of the fragility and interrelationships in their environment, as they began to lose their access to and enjoyment of the outdoors, something they had taken for granted.⁴

U. S. PROPERTY RIGHTS

Property rights in the United States can best be likened to a bundle of individual rights—the rights to sell, to produce with, to bequeath, to profit from use, etc. However, the states did not relinquish all of the rights in this bundle when selling land to private parties. The retained rights—police power, taxation, eminent domain, and escheat—though probably interpreted more broadly today by courts,

2/Fred Bosselman, David Callies, John Banta, *The Taking Issue* (Washington: The Council on Environmental Quality, 1973), pp. 60-81. 3/*ibid.*, pp. 82-104.

4/Robert G. Healy, "Controlling the Uses of Land," *Resources*, Vol. 50 (Washington: Resources for the Future, Inc., October 1975), pp. 1-3.

have always rested with the states. The exercise of these retained government rights gives viability to comprehensive land use planning.

Retained Rights

Police Power. Though exercised primarily by the state, police power is available to all levels of government. Governments can and do limit personal and property rights in the interest of public health, safety, and welfare. Easements guaranteeing or prohibiting certain land uses are common. All zoning legislation derives from the right of government to exercise police power subject to due course of law. The exercise of this power recently has infringed so deeply into what had been considered private property rights that questions have been raised regarding the limits to which this power may be extended, without constituting unlawful taking of private property.⁵ Just as public attitude on land use evolves over time, so do court decisions. An examination of property rights cases decided at several judicial levels convinced the authors of *The Taking Issue* that a substantial body of court decisions may be shifting toward support for the present exercise of police power.

Our strongest impression . . . is that the fear of the taking issue is stronger than the taking clause itself. It is an American fable or myth that a man can use his land any way he pleases regardless of his neighbors. That myth survives, indeed thrives, even though unsupported by the pattern of court decisions.

Although the number of cases is still small, there is a strong tendency on the part of the courts to approve land use regulations if the purpose of the regulation is statewide or regional in nature rather than merely local. . . . they show an obvious preference for regulations having broad multipurpose goals.⁶

Taxation. Governmental units have reserved the right to levy and collect taxes on real property. Though designed primarily to raise revenue, taxation can be used effectively to control land use.

Differential assessments and tax credits can delay use shifts, while lack of preferential tax treatment can force development to that use with the highest discounted return over the planning horizon—the highest and best use.

Eminent Domain. The right of government to take private property for public use—in this country only after just compensation to the owner—is widely used in acquiring land for highways, dams, and other public purposes.

Escheat. This refers to the reversion of property to the state when there are no longer persons legally entitled to hold the property. Though one of the bundle of property rights retained by the state, it has little impact on land use planning.

The Spending Power of Government. Though not generally included in a listing of retained property rights, governmental spending patterns have increasingly influenced land use. Public works projects such as harbors, navigable waterways, national defense installations, and land reclamation projects have had large scale impacts on use patterns of both contiguous land and other land in the same general area.

External Effects

The renewed attention to the public welfare has, in part, resulted from a recognition of what economists call externalities.⁷ Externalities occur when the benefits and costs that govern the decisions of a private individual are not the same as those experienced by society. Such decisionmaking can result in unearned benefits accruing to, or undeserved costs born by, the participants. For example, a chemical plant may find its operation very profitable because it can dispose of pollutant wastes

7/Excellent sources for further discussion of externalities and their effects on resource use are Robert U. Ayres and Allen V. Kneese, "Production, Consumption, and Externalities," *American Economic Review*, Vol. 59, No. 3, June 1969, pp. 282-97; Francis M. Bator, "The Anatomy of Market Failure," *Quarterly Journal of Economics*, Vol. 72, August 1958, pp. 351-79; Michael F. Brewer, "Agrisystems and Ecoculture, or: Can Economics Internalize Agriculture's Environmental Externalities," *American Journal of Agricultural Economics*, Vol. 53, No. 5, December 1971, pp. 848-58; R. H. Coase, "The Problem of Social Cost," *Journal of Law and Economics*, Vol. 3, October 1960, pp. 1-44; and E. J. Mishan, "Spillover: Affliction of the Affluent Society," *Technology and Growth: The Price We Pay, Part II* (New York: Praeger Publishing Co., 1970), p. 29ff.

5/The Fifth Amendment to the U. S. Constitution ends with the phrase "nor shall private property be taken for public use without just compensation."

6/*The Taking Issue*, pp. 318-19, and p. 323.

into a nearby stream. However, neighboring users of the stream must bear the cost of removing the pollutants in order to use the water, or forego the benefits from use of the water. Thus, the chemical manufacturer is making production decisions, and chemical consumers are making consumption decisions, based on a cost of production that is less than the actual and full cost society must bear in order to use the product.

Land use problems are characterized by such externalities. The decisionmaking unit—the farmer, the mining company, the manufacturing plant, the real estate developer—is usually too small to encompass all the costs or benefits of its resource-use decisions. Externalities can also result from the timing of the flow of benefits and costs to a firm. A coal mining firm may hesitate to undertake spoil bank reclamation, in part because its planning horizon may be too short to capture the benefits flowing from the reclamation. Institutional structures may also cause externalities. Actions by one political subdivision in a river flood plain or over an underground aquifer may impose costs on members of surrounding political subdivisions.

LAND USE PLANNING

Goals of society change over time, as is shown by the recent concern for environmental protection and the emerging energy conservation ethic. Just as goals change over time, so does public perception of the state's authority to use those property rights it retained—to be exercised in the public interest. Constraints are placed on (or in some instances, removed from) the market system of resource allocation to achieve carefully defined objectives.⁸ The constraints are purposeful, not randomly imposed, and are intended to enhance achievement of publicly stated goals and to have predictable results—results that are capable of change over time. Basic achievements desired are the restoration of land and protection of resource quality, to meet the needs of the next user.

8/John F. Timmons and J. M. Cormack, "Managing Natural Resources Through Land Tenure Structures," *Journal of Soil and Water Conservation*, Vol. 26, No. 1, 1971, pp. 4-10.

Land use planning begins with an inventory of available resources and a determination of their levels of use. Planners then identify long-range goals and shorter-term objectives. Constraints are placed on the market mechanism that are intended to lead to an allocation of resources in accordance with stated goals and objectives. Both private and public benefits and costs resulting from a decision must be considered. In some cases administered resource allocation may be necessary. Trade-offs between maintaining the environment in pristine condition and judicious development of resources, while assuring subsequent users of adequate resource quality, are arrived at. Indeed, judicious development may improve the quality and productivity of the land. Wide public participation in identifying goals and objectives, as well as in determining acceptable development-environmental quality trade-offs, is necessary to achieve workable, effective land use plans.

Dimensions of Planning

Whenever public action for land use planning places constraints on an unimpeded market mechanism for allocating resources, five major questions—the dimensions of land use planning—must be addressed.⁹

Scope. Planners must decide whether to plan separately for parts of a land use system, or to include all separate issues in a comprehensive plan. Typically, partial planning may at first be more easily accepted. The need to plan for sewage systems or transportation systems is readily apparent. Less apparent, but nonetheless real, is the need to consider how partial planning for one purpose may mandate the eventual plan for another purpose. Major partial land use plans need to be compatible. Consequently, successful land use planning will usually include the major issues to be resolved.

Level. Historically, land use decisions have been made at city and county levels within carefully defined authority from the state. However, some

9/Neil E. Harl, "Land Use Legislation: Status and Implementation," paper presented at annual meeting of Mississippi Section, American Society of Agronomy, Mississippi State University, January 28, 1975.

decisions—such as sewage treatment and flood control—may have effects beyond local decisionmaking boundaries. Obviously, different types of decisions must be made at different levels. A creative balance should be attempted in which the level of decisionmaking includes all the costs and benefits of the decision, while being done at the lowest practical level.

Criteria. It is essential that planning decisions be based on well-defined criteria. These may either be explicitly stated or implicit in legal constraints imposed upon the market system. If high levels of economic growth are desired, resources would have to be allocated to uses where the returns are greatest. In contrast, a desire for preservation of scenic areas might require that resources be allocated quite differently. Levels of economic growth, sustainable over time, may require still different resource allocation patterns.

Time. The time frame over which decisionmaking is optimized affects the resultant plans. Environmentalists prefer a several-generation planning horizon accompanied by very low interest rates in order to demonstrate positive benefit cost ratios for projects. Those interested in high levels of economic growth would opt for a much shorter planning horizon, accepting higher interest rates, since they contend technological change would likely make long horizon plans obsolete.

Means. A wide variety of means exists to implement land use planning decisions. Those property rights retained by the state can be used singly or in combination to constrain market solutions or impose legal restrictions. Police power, taxation, eminent domain, and government spending all find ready use as means of implementing planning decisions. Indeed, public opinion and legal practice—under continued redefinition—have in recent years supported increasingly vigorous exercise of publicly retained property rights. Increasing public attention is being directed toward resource use practices that irretrievably alter future availability or use patterns of the resource. Governmental units, including the courts, have evidenced a greater willingness to intervene in those situations.

Federal-State Environmental Legislation

Environmental legislation—attempting to deal with unpriced benefits and costs of resource use—is also an effort to limit or plan uses that permanently alter the character of the resource. Major Federal air and water pollution control initiatives began with the Water Pollution Control Act of 1948, making loans available for treatment plant construction. The Federal Water Quality Act of 1965 made grants available for waste water treatment. A long series of legislative actions including the National Environmental Policy Act and executive creation of the Environmental Protection Agency in 1970, the Federal Water Pollution Control Act Amendments of 1972, and Coastal Zone Management Act of 1972 have resulted in uniform Federal standards for air pollution, effluent limitations at each identifiable point from which pollutants are discharged, discharge permits, and timetables for meeting new standards and limits. Thus, the Federal Government has exercised its control over resource use to enhance the quality and availability of water and air resources for present and future users.¹⁰

To the extent such legislation has required formulation of state—or enforcement of Federal—regulations, resource use planning at a state level has moved beyond where it might otherwise have been. In some instances, continued access to Federal funds has been contingent upon development of state pollution control plans. However, it must be conceded that many air and water pollution problems defy resolution at a state or substate level, and thus a national or regional approach is required.

Oklahoma pollution control legislation is an example of this Federal-state relationship. That state has enacted a number of environmental control acts.¹¹ The 1969 Oklahoma Feed Yards Act requires licensing of feedlots with capacities of 250 head or more (cattle, swine, sheep, and horses). Operators granted licenses are required to control

¹⁰*Agriculture In The Environment*, No. 481, Economic Research Service, U. S. Department of Agriculture, July 1971.

¹¹Dean Barrett and Dan Badger, "Environmental Regulations Affecting Land Use," *O. S. U. Extension Facts*, No. 808, Oklahoma State University, 1975.

pests and diseases, prevent runoff pollution, properly dispose of animal waste, and have proper facilities to conduct operations in conformance with this act, regulations of the State Board of Agriculture, and accepted industry standards. The Oklahoma Solid Waste Management Act of 1970 outlined regulations for disposition of solid wastes such that the public health and welfare are protected, disease and nuisances are controlled, natural resources conserved, pollution prevented, and the beauty and quality of the environment enhanced. The Oklahoma Clean Air Act establishes controls on burning of refuse and other combustible materials. These state laws augment and implement the various Federal environmental quality legislation.

CURRENT LEGISLATIVE STATUS

Comprehensive Federal land use legislation has not been passed by Congress, although the Senate has twice passed legislation, in 1972 and 1973, that would have aided state land use planning and provided for better coordination of Federal programs and projects significantly affecting land use. Currently two land use planning bills are before the Congress—S. 984, The Land Resource Planning Assistance Act in the Senate, and H. R. 3510, The Land Use and Resource Conservation Act of 1975 in the House. Both pieces of proposed legislation would establish a Federal grant program to assist states in taking an inventory of land resources, retaining professional staffs, developing land use goals and objectives, and implementing programs for critical areas and for uses of more than local concern. Both bills recognize the role of state and local government in the planning process. Authority is provided under both proposed bills to assure that major Federal programs and activities affecting land use are consistent with state land resource programs. The proposed legislation may be viewed as a logical extension of the Coastal Management Act of 1972 under which coastal states are developing land use programs for their coastal zones.

Comprehensive Federal land use legislation has been slow in coming, largely because legislators are reluctant to inject Federal authority into what has

been viewed as a state issue. Consequently, the legislation presently under consideration in Congress is enabling in nature, proposing assistance to states involved in comprehensive land use planning. The testing ground for such legislation has thus been in state legislatures. A number of states have moved quietly and creatively in the past 15 years to build a legislative framework in which responsible planning can occur. The Colorado land use legislation of 1974 is an example.

The Colorado General Assembly enacted the state's first comprehensive land use law, H. B. 1041, recognized as among the most comprehensive in the nation. The state designated 13 types of areas and activities as matters of state interest. They are: mineral resource areas, natural hazard areas (flood, geologic, forest fire), historic and archaeological sites, wildlife habitats, airports, public utilities, highways and interchanges, mass transportation facilities, water and sewage facilities, solid waste sites, new communities, water projects, and nuclear detonations. Under terms of the legislation:

First, local governments—counties and municipalities—are given money, encouragement, and direction to plan for/designate and regulate (these) certain specified land use matters. . . . Second, state power to intervene is no longer limited to narrowly defined emergency situations; . . . the executive branch is given authority to force local governments to deal with these matters. Third, state agencies with experience in identifying and managing mineral, natural resource, and hazardous areas are brought into a coordinated program to make their information and expertise available to local governments.¹²

A companion piece of legislation, H. B. 1034, the Local Government Land Use Control Enabling Act of 1974, was also passed to assure local governments that they did indeed have ample authority to deal with modern day land use problems. Local governments were given authority to protect wild-

¹²John R. Birmingham, "1974 Land Use Legislation In Colorado," *Denver Law Journal*, Vol. 51, No. 4, The University of Denver College of Law, 1974, pp. 467-507.

Table 1
STATUS OF STATE ACTIVITY RELATED TO
LAND USE MANAGEMENT*

State	Enabling Legislation					Functional Programs							
	Municipalities	Counties	Regional Agency Advisory Only	Regional Agency Review Authority	Procedures for Coordinating of Functional Programs	Land Use-Value Tax Assessment Law	Surface Mining	Flood Plain Regulations	Power Plant Siting	Wetlands Mgmt.	Critical Areas	Coastal Zone Mgmt. Program Participation	State Land Use Program (see Code)
COLO.	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	N/A	2a-c
KANS.	Yes	Yes	Yes	No	No	No	Yes	No	No	No	No	N/A	1
MO.	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	No	N/A	1
NEBR.	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	No	No	N/A	1
N. MEX.	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	No	N/A	1
OKLA.	Yes	No	Yes	No	No	No	Yes	Yes	No	No	No	N/A	1
WYO.	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	No	N/A	2a-d

N/A Not available.

State Land Use Program Code:

1. Study (executive or legislative) or state legislative consideration in progress.
2. State land use program legislation enacted.

Authorization for:

- (a) inventorying existing land resources, data, and information collection
- (b) policy study or promulgation by agency or commission
- (c) identification of land areas or uses of more than local concern
- (d) regulation or management of land areas and uses identified
- (e) direct state implementation or state review of local government implementation

* Comparable data for all 50 states can be found in **Environmental Comment**, The Urban Land Institute, Washington, D. C., October 1975.

SOURCE: U. S. Department of Interior.

life habitats, historic and archaeological locations, and limit development of areas hazardous to man. Further authority was given to regulate land use on the basis of its impact on the surrounding area.

The carrot and stick combination—substantial financial and technical support to local planning bodies and the authority of the state to take a local government to court to force consideration of critically important issues, as defined by the legislature—is a potent combination in support of comprehensive and issue-oriented planning. For example, local governments wishing to control mining activities may use a range of options from zoning, to developing a master plan for mining, to use of state regulations that may be applicable under the Colorado Open Mining Land Regulation Act of 1973.

Responding to needs within their states, legislators and governors in 49 states have undertaken study or legislative consideration of state land use

programs. Legislatures in nine additional states have enacted comprehensive state land use legislation. All the Tenth District states have such legislation under consideration or enacted (Table 1). Concern over mining, industrial development, and urban growth has prompted Colorado and Wyoming to pass legislation, among the most comprehensive in the nation, authorizing (a) taking an inventory of land resources, and data collection, (b) policy study or promulgation, (c) identification of land areas or uses with more than local concern, and in the case of Wyoming, (d) regulation or management of land areas and uses identified. Additionally, some Tenth District states have enacted a number of functional programs related to surface mining, powerplant siting, flood plain development, land assessment, and pollution control to address present and emerging land use issues at state and substate levels.

SUMMARY AND CONCLUSIONS

Changing public attitudes toward ownership rights and public control over certain of those rights have been characterized as “the quiet revolution.” The changes in attitude and practice have been substantial. The public role in land use planning is greater now than at any time in U. S. history. Legislation affecting such change has taken place largely at state and local levels, close to those affected by such changes and the problems initiating them. It must be conceded, however, that Federal pollution control legislation has forced the hands of state governments to some degree. Court decisions have generally supported the concept of restricting private ownership rights to benefit the public welfare, as long as such restrictions are in accord with evolving legal concepts and American tradition—

the “taking issue” has been substantially defused. Though land use legislation is often vigorously contested, wide participation by citizens usually characterizes its consideration, enactment, and implementation. Consequently an arena of public opinion is provided in which differences can be minimized and a common purpose forged.

State land use planning legislation is presently under study or has been enacted in 49 states. The more comprehensive legislation of California and Hawaii—and Colorado and Wyoming, in the Tenth District—may well be the direction of the future for land use planning. A wide range of state enabling legislation and specific program legislation, aimed at redressing particular problems—such as strip mining—are already in place. A subsequent article will examine Tenth District states’ response to a number of resource use issues.

Account Analysis in Correspondent Banking

By Robert E. Knight

In recent years the incentive for banks to develop improved measures of customer profitability has mounted. As interest rates have risen and sophisticated cash management techniques have matured, corporate treasurers have trimmed non-interest bearing balances to the minimum believed necessary to compensate banks for services. To a lesser extent the same pattern has occurred in correspondent banking as multibank holding companies have expanded and as banks have sought to maximize earnings by selling large sums in the Federal funds market. In addition, rising levels of loan defaults, questions concerning the adequacy of bank capital and profits, and the likely development of expensive new services, such as electronic fund transfers, have all created a renewed interest by banks in the profitability of individual services and accounts.

The standard approaches for measuring bank customer profitability have also been criticized. Bankers frequently maintain that customers are able to use the same balances to compensate for both loans and activity services. Corporate treasurers, on the other hand, have argued that bank profitability measures are not sufficiently accurate. Traditionally,

banks have tended to cost and price only a small group of standard activity services. Others have been offered without charge. By setting prices on the costed services sufficiently high to cover the expenses of all services, banks have been able to obtain a rough indication of the costs of servicing individual customers. This approach, however, results in overstating the costs of customers using few of the noncosted services and underestimating the expenses of those making extensive use of these services. As a result, corporate treasurers have objected. To avoid paying for services not actually utilized they have requested banks to "unbundle" services and to develop separate prices for each.

At most banks the primary measure of individual customer profitability is the account analysis. In performing an analysis a bank determines the revenue represented by an account by multiplying the average collected demand deposit balance, generally adjusted for reserve requirements, by an earnings credit or allowance. The expenses of servicing the account are computed by multiplying the number of times a given service is utilized by the cost (frequently including a margin for profit) of providing the service. The difference between

income and expenses represents the estimated profit the bank derives from the customer relationship.¹

During the fall months in each of the last 5 years, the Federal Reserve Bank of Kansas City has conducted a nationwide survey of major correspondent banks to obtain representative figures on the charges and earnings allowances used in their account analyses. In the most recent survey, data were obtained from 107 banks for the August-September 1975 period. This article reports the results of that survey and discusses some of the difficulties in costing bank services.

ALTERNATIVE APPROACHES TO COSTING

Although the general methods of performing an account analysis are similar at different banks, the prices of services often vary significantly. In part, these differences reflect alternative ways of calculating the costs of services, variations in the number of services costed, competitive factors, and differences in the methods of treating indirect costs, overhead, and desired profit. The implications of some of these alternatives can perhaps best be explained with an example.

Assume that a bank's officers are considering the price that should be charged a corporation for servicing a direct deposit payroll plan electronically. Under the arrangement, the company's 1,000 employees will no longer be issued checks. Instead, the firm will create a computer tape containing the amounts due all employees, the numbers of their respective banks, and their account numbers at the banks. The tape will then be sent to the company's

bank which will sort through it and remove any entries for employees who also have their accounts at the bank. These accounts will then be automatically credited and the remaining entries on the tape forwarded to an automated clearinghouse for processing and distribution to other banks.

The first individual to speak might be the bank's marketing officer: "It's taken me a long time to convince this company that their employees will like this plan and I'm anxious to see it succeed. We should experience substantial cost savings because we will no longer have to process each employee's paycheck as it is cashed or cleared. Our computer has plenty of excess capacity. Since the tape will arrive several days before payday, we can process it during a slack period. In view of our cost savings and the fact that this type of arrangement is likely to be of growing importance in the future, I don't think we should charge the company anything."

The senior vice-president in charge of operations then rises: "I agree that we may experience some cost savings, but these will be small. Displacing 1,000 checks per month will not presently allow us to let any employees go or to retire any equipment. However, there will be direct costs involved with the program which the company should pay. Overtime may be required if our computer operators have to stay late to handle the tape. A charge, therefore, should be made simply for processing the tape. Also our fee should include the computer processing time, the extra bookkeeping that will be necessary, and our transportation costs for delivering the tape to the automated clearinghouse. In my opinion, a flat fee of \$8 for each tape received and a charge of 1 cent per entry on the tapes would just about cover these costs."

"Gentlemen," interrupts the cost accountant, "you are forgetting about the indirect costs. To handle this operation we will have to develop new computer programs. We should also include allowances for overhead, profit, and the costs associated with rent on the building, insurance, taxes, security guards, and possibly the expenses of marketing the program to the company and its employees. Our cost studies have shown that substantial savings

¹A related method for measuring the adequacy of loan terms and compensating balances is "customer profitability analysis." In essence, profitability analysis involves the preparation of considerably more detailed income and expense statements for major customers. Rather than emphasizing activity charges, however, profitability analysis focuses on lending and is of the greatest use in determining the profitability of net fund users.

The general format for a profitability analysis is often similar among banks. Bank income on a relationship is computed by adding the interest received on loans, the interest earned by the bank on the customer's deposit funds, and various fees paid the bank. Expenses include charges for such items as activity services, interest value of funds loaned, loan handling expenses, and the cost to the bank of fee services. The difference between income and expenses—net profit—is then normally related to some base representing the size of the customer relationship to obtain an index number for comparing relative customer profitability. A complete description of profitability analysis techniques can be found in two articles on customer profitability appearing in the April 1975 and the September-October 1975 issues of the *Monthly Review*.

from direct deposit programs will be significant only if a substantial volume develops, but the number of transactions is now small. To cover the costs this program will entail during the first year we will need to charge the company a fee of about 35 cents per entry on a tape. In the future, if other companies adopt direct deposit plans, we may be able to adjust the price downward."

The marketing officer shook his head sadly. "Most of these indirect expenses will be incurred whether or not we perform this program. In my opinion, if we charge those kinds of prices, no company will ever want to adopt a direct deposit plan."

Which officer is correct? What should the company be charged? Might the situation be approached differently? Allocating the costs in a multiproduct firm such as a bank is always highly arbitrary. The difficulty is further compounded by the fact that banks generally must maintain staff and equipment to handle peak loads, but most of the time do not operate at capacity. The marketing officer who argued that no fee should be charged was trying to apply marginal cost principles. The operations head remembered, however, that to avoid losses average variable costs must always be covered in the short run. In effect, he was stating that only the costs directly attributable to the program should be considered. The general costs of being in business and top management salaries should be absorbed elsewhere in the bank. The cost accountant was looking at the long-run situation in which total revenue must exceed total costs. As may be seen in the hypothetical example, alternative methods of analyzing a situation can give rise to very large differences in estimated costs.

The difficulties in costing bank services are manifold. At any time most bank costs appear to be fixed. Plant and equipment expenses are sunk, most employees are salaried, and overhead normally shows little variance with output. By comparison, the increase in total cost which a bank incurs from providing a standard service to one additional customer is normally small—supplies, postage, computer time, perhaps occasional overtime, etc. In the short run, any revenue gain in excess of these mar-

ginal costs adds to total profits. If the bank were to charge these costs, however, the charges would not make any contribution toward meeting the heavy fixed costs and could lock the bank into an unrealistic price structure.

On the other hand, if the bank were to charge average total costs, the situation might be reversed. Most banks maintain substantial excess capacity. If the price were set equal to average total cost, the customer would be asked to pay not only for the cost of providing the service but also for the cost of maintaining the excess capacity and any inefficiencies that may be present. Studies which show the average cost of performing services in an efficient manner—standard cost studies—can be used to eliminate charges for unused capacity and waste, but even so an arbitrary element remains. Alternative methods of allocating the expenses of general bank overhead and support departments (such as the mail room, personnel department, computer service, and employees' cafeteria) can result in widely different cost estimates. For some bank services, these may constitute as much as 40 to 50 per cent of total costs. Varying assumptions about the likely impact of inflation on the cost of performing services can also have a significant impact on prices.

In a complete cost study all bank costs must be allocated. If fewer services are costed, therefore, the estimated average cost of each service is likely to be higher. Although an element of uniformity exists among correspondents in the types of transactions which are commonly included in the account analysis, variants in the specific activities considered may produce differences in estimated costs. Further differences, as the example has illustrated, can arise from the alternative types of costs which may be estimated. Nevertheless, for account analysis purposes the vast majority of banks calculate either the average total standard or historical costs of providing services. In determining the charges which will be made for these services, however, a number of modifications are often made in the cost figures. The average cost figure may be increased to include a profit margin or it may be reduced if competing banks are charging substantially

lower amounts. The prices may also be modified to reflect the earnings allowance used in computing the investment value of an account. Banks which use a low earnings credit are likely to have low charges, and vice versa. A few banks, though, have low charges and high earnings allowances to help them build a larger correspondent business.

EARNINGS ALLOWANCES AND CHARGES: THE SURVEY RESULTS

In the survey, data were collected on the analysis charges and earnings allowances used in analyzing the accounts of both corporate and respondent bank customers. Although respondent banks receive preferential rates on some services, the average prices of services to both sets of customers were often quite similar. As a result, the figures presented in this article are limited to those applicable to respondent banks.²

In performing an account analysis, the initial step for most correspondents is to subtract average uncollected funds or float from the respondent's average ledger balance to obtain an estimate of average collected funds. Uncollected funds represent the dollar amount of cash and noncash items which respondents send to correspondents for collection, but for which the correspondents are unable to obtain immediate credit. Among the banks able to supply figures, float averaged 44.1 per cent of gross ledger balances due to respondents. Large variances existed among correspondents, but on average only about 55.9 per cent of ledger balances were collected. Although this figure is slightly higher than was found 5 years ago, the difference is probably not significant. However, it is rather surprising that correspondent float did not decline during a period in which the Federal Reserve created numerous RCPC's and correspondent banks developed many direct send programs to other correspondents to accelerate check collections. The stability, though, could be coincidental. In recent years the ability of correspondent banks to obtain relatively accurate

measures of the float associated with cash letters has improved considerably.

The second step for most correspondents is to calculate the available or investable funds represented by a respondent's balance. This measure is normally obtained by subtracting an allowance for reserve requirements from the collected balance figure.³ Among the survey banks, all but three indicated that a deduction was made for required reserves. Nearly 43 per cent of the banks stated that the deduction was based on the highest marginal reserve requirement rate for demand deposits to which the bank was subject. The average reserve requirement for demand deposits was used by 35.5 per cent of the banks, while 14.0 per cent reported that the deduction was based on an administrative decision and was not tied in any formal way to actual requirements. Five banks did not indicate how the deduction was obtained. By far the most common deductions for reserve requirements were 13.0 per cent and 16.5 per cent, used by 34.6 per cent and 19.6 per cent of the banks, respectively. The deductions at nearly all of the remaining banks were between these two figures, but the range varied from 10 per cent to 20 per cent.

The earnings or revenue from an account is derived by multiplying the available funds figure by an earnings allowance. Alternatively, if no deduction is made for reserve requirements, the collected balance figure is multiplied by the earnings allowance. Of the banks surveyed, about three-fourths tied their earnings credits to specific money market rates, with 46.7 per cent selecting the 3-month Treasury bill rate. Other money market rates used included the Federal funds rate, short-term CD rates, the discount rate, the commercial paper rate, and an average of several money market rates. A small group of banks tied their earnings allowance to the prime loan rate or to the actual portfolio yield

²A complete set of tabulations by Federal Reserve district for both portions of the survey is available from the author.

³Several banks in the survey reduced the earnings allowance rather than the collected balance figure by the required reserve percentage. Since the estimated earnings value of an account is simply the product of these two variables, the effect of the alternative deduction is identical. To improve comparability of the data, all banks making a standard deduction for reserve requirements in the account analysis were assumed to have made the deduction from collected balances.

on loans and investments. Administratively set earnings credits frequently reflect money market rates, the rate the bank is willing to pay for time deposits in unlimited amounts, or the rate the bank can earn on the funds.

The fact that several banks tied their earnings allowance to a specific money market rate does not necessarily mean that the actual earnings allowance at any time is the same at these banks. Some prefer to use the market rate in the current month or quarter, some lag the rates, and some use moving averages of the rates. Banks lagging the rates frequently want customers to know the earnings value that funds will have in the current period. Moving averages, on the other hand, may be instituted to discourage customers from reducing balances significantly during periods of sharply rising interest rates. At the time of the survey, the earnings allowances used by correspondents ranged from annual rates of 3.5 per cent to 8.32 per cent, with the average and median being 6.09 per cent and 6.1 per cent, respectively. These rates are slightly below the August-September Federal funds rate and the yield on 3-month Treasury bills, but this tendency undoubtedly is attributable to the fact that market rates in those months were rising.

Although most correspondent banks determine the revenue from accounts in a similar fashion, much greater diversity is evident in the methods of calculating the expenses of performing correspondent services. The majority of banks charge for only a small group of basic transactions such as check clearing, wire transfers, and ledger entries; but a handful of banks have identified and charge for as many as 100 separate banking services. Omission of some services from the formal account analysis does not mean that correspondents do not mentally consider these services when evaluating the profitability of an account, but rather that no formal pricing procedures have been developed. Of necessity, the survey results reported in this article are limited to those activities for which charges are commonly assessed.

Comparisons of the basic prices of correspondent services can be misleading. Even

though a correspondent may have a higher charge per item, if the correspondent is more generous with its earnings allowance and makes a smaller deduction for reserves, the collected balance required for that service may be smaller than at another bank which has lower charges. Similarly, some banks charge prices which are greater than costs to obtain a profit, while others charge estimated costs but give an earnings allowance less than actual earnings. To correct for these differences, all item charges have been converted to annual balance requirements for each transaction. If accounts are analyzed by correspondents on a monthly basis, the required monthly balances, ignoring complications of compounding, would be 12 times these amounts.⁴

The collected balance requirements for selected correspondent services are shown in Table 1.⁵ The only service for which all correspondents calculate charges is check clearings. Among survey banks, approximately one-fifth levy identical fees for amount encoded and nonencoded checks. Cor-

⁴Account maintenance fees are an exception to this generalization. Balance requirements for maintenance are not affected by the time period covered in the analysis. Table 1 shows the annual balance requirements for the maintenance of an account for 1 year. If the account analysis were performed monthly, the same dollar balance would compensate for the maintenance for 1 month.

⁵The collected balance requirements in Table 1 refer to the balances a customer must hold for a given service, not what remains after a deduction for reserve requirements has been made. Specifically, if P is the price of a transaction or service, i is the imputed earnings allowance at an annual rate and expressed as a decimal, and r is the fraction of collected balances deducted to meet reserve requirements, the annual collected balance (B) required for a given service can be derived from the following formula:

$$B = P/[i(1.00-r)].$$

A few comments on the tabulations in the table are in order. Banks not shown as charging in the account analysis may in some instances require customers to pay direct fees for services. Previous surveys, however, have generally suggested that such practices are relatively uncommon for standard activity services involving no out-of-pocket expenses to the bank. If expenses are incurred, these costs are normally passed on directly.

In reducing the account analysis charges to the common denominator of required collected balances, a number of difficulties arose. Most banks, for example, list explicit account maintenance fees in the analysis, but a number have only indirect maintenance fees. Such maintenance fees could arise if a bank has a charge for a monthly statement or has varying charges for the number of items deposited. A bank, for instance, might charge 2.25 cents for the first 1,000 items deposited and 2 cents for all additional items. In effect, customers depositing over 1,000 checks are charged a maintenance fee of \$2.50 and a rate per check of 2 cents. In tabulating the results, any charge for a regular monthly statement has automatically been considered to be an account maintenance fee, but a similar adjustment cannot be made for banks which have marginal charges for the number of items deposited. In a few instances, the number of items required to secure the minimum charge is so high that comparatively few customers would be able to qualify. Although it makes little difference in the averages whether the minimum or maximum per item charges are

respondents which differentiate the two generally charge 1 to 2 cents additional for items received which have not previously been encoded. Consequently, the average and median balance requirements for nonencoded items exceed those for encoded items by about 40 and 50 per cent, respectively. In contrast to differentiating for encoding, three of the survey banks levied different charges for transit items drawn on local or nonlocal banks, while one had prices which varied with the time of day the items were received. Another bank had variable prices depending on whether the items were cleared through the Federal Reserve or correspondents. In these cases the banks were entered in the tabulations by averaging the possible charges.

Most correspondents also include ledger entries in the account analysis. About 60 per cent differentiate between credits and debits, with the charge for normal credits generally exceeding the charge for normal debits by 1.5 to 4 times. The collected balance requirements in the table refer only to standard transactions. A small group of banks also have special charges for credits associated with cash letters, intrabank transfers, and wire transfers. By contrast, several banks have charges for debits to correspondent accounts but make no charge for credits.

Nearly all correspondents have established charges for outgoing wire transfers, but only slightly over half have charges for incoming transfers. Most banks charging for both types of transfers have

the same price for each, although a fifth have lower charges for funds received. In addition to a flat charge per transfer, occasionally fees also vary with alternative methods of handling the advice of the transfer and the method of performing the transfer. If more than one price was listed, the charge for transfers performed by the Federal Reserve was used in the tabulations. The prices for alternative methods were generally two to five times these amounts.

Correspondents also use a variety of methods to charge for currency and coin transactions. Many banks have separate fees for currency and coin both received and provided. The most common methods of charging for currency are an hourly preparation or verification charge, or a fee proportional to the dollar amount of the currency. The charges for coin furnished are most typically based on a price per roll, while the fees for coin deposited are most commonly related to the dollar amount of coin or the length of time required to verify a shipment. Several additional methods are also listed in the table. Regardless, the indicated charges do not include an allowance for postage or insurance. Some correspondents pass these charges along to respondents directly, while others include the cost as an expense in the account analysis.

As might be expected, a significantly larger fraction of correspondents charge for furnishing currency and coin than charge for receipts. However, a sizable proportion—30 per cent for currency furnished and 17 per cent for coin furnished—indicated that they did not charge or charged only irregularly for such orders. Many of these correspondents are located in money market cities and have rarely been asked to furnish currency or coin. Respondent banks in these regions frequently obtain currency and coin directly from armored car carriers.

About half of the survey banks also have special charges for bond coupon collections. Most correspondents base the charge on the number of envelopes processed, but several assess fees proportional to the dollar value of envelopes or differentiate between alternative types of securities. If

used, the average of the two has been used wherever reasonable. In other cases, the charge most likely to dominate has been used.

A more basic shortcoming of several entries in the table is that they do not fully show the diversity that exists in the pricing structure of individual banks. Most banks, for example, have a standard charge for all domestic collection items but some charge a given percentage of the amount of the collection and others differentiate between cash and noncash collections, between documentary and clean collections, between city and country collections, etc. Where alternative types of collections are designated, the prices often vary significantly. Similarly, some banks have charges for items deposited which vary with the location of the drawee bank and with the time of day the deposit is received. At some banks the charge is dependent on the method of clearing the checks. The charge for wire transfers at some banks depends on whether the transfer is processed by the Federal Reserve and the method of handling the advice. In all of these types of cases the number of banks with varying charges is relatively limited, implying that separate tabulations of the figures would not have been particularly meaningful. Unless otherwise noted in the text, such situations have been treated by entering a price based on a simple average of the possible charges. This approach makes the figures roughly comparable to those reported by other banks.

Table 1
ACCOUNT ANALYSIS CHARGES FOR SELECTED CORRESPONDENT BANKING SERVICES
August-September 1975
(107 banks)

Transaction	Charge Per Transaction (Amounts in Dollars)		Annual Collected Balance Required Per Transaction in the Account Analysis (Amounts in Dollars)			Per Cent of Banks Charging in Account Analysis	Per Cent Nonresponse
	Range	Mode	Average	Range	Median		
1. Annual Account Maintenance	7.80-720.00	36.00	1,090.00	138.72-21,176.52	583.80	84.11	—
2. Ledger Entries							
Credits	.03-.868	.10	3.18	.66-17.04	1.94	77.57	0.93
Debits	.02-.30	.06	1.74	.36-5.75	1.57	93.46	—
3. Items Deposited							
Not Encoded	.01-.0658	.03	.56	.18-1.12	.55	97.20	2.80
Encoded	.005-.05	.015	.40	.10-.93	.36	98.13	1.87
4. Returned Items	.10-5.00	.50	11.52	1.92-93.54	8.44	76.64	{ 0.93 }
		(Alternative Methods)				1.87	
5. Wire Transfers							
Outgoing	.50-5.25	2.00	44.47	9.58-104.50	39.15	93.46	{ 1.87 }
		(Alternative Method)				0.93	
Incoming	.50-3.00	2.00	38.55	9.78-67.88	38.38	51.40	{ 1.87 }
		(Alternative Methods)				2.80	
6. Securities Drafts	.03-10.25	3.00	63.04	.58-191.41	57.97	39.25	{ 2.80 }
		(Alternative Methods)				9.35	
7. Payable Through Drafts	.03-2.50	.05	3.96	.56-53.31	1.23	54.21	{ 2.80 }
		(Alternative Methods)				4.67	
8. Currency Furnished							
Per \$1,000	.02-1.00	.20	7.08	.42-21.80	5.04	30.84	{ 1.87 }
Per Package	.03-.40	.10	3.12	.57-8.16	2.39	13.08	
Per Hour	5.00-15.00	5.00	147.49	75.46-278.94	140.26	8.41	
Per Order	1.00-10.00	1.50	69.76	19.25-195.05	47.90	6.54	
Per 100 Notes	.008-.20	.20	2.37	.12-3.85	2.44	5.61	
		(Alternative Methods)				3.74	
9. Currency Deposited							
Per \$1,000	.02-1.50	.20 & .40	9.51	.42-27.33	7.54	19.63	{ 0.93 }
Per Hour	5.00-16.10	5.00 & 10.00	154.41	75.46-278.94	140.26	15.89	
Per 100 Notes	.12-.40	—	3.93	2.20-6.27	3.31	2.80	
Per Strap	.03-.40	—	3.12	.57-7.24	1.56	2.80	
		(Alternative Methods)				3.74	
10. Rolled Coin Furnished							
Per Roll	.01-.181	.02	.52	.18-2.84	.44	66.36	{ 1.87 }
Per Hour	5.00-15.00	5.00	152.51	90.57-278.94	106.63	4.67	
Per \$1,000	.60-2.50	2.50	37.86	10.93-54.57	48.09	2.80	
Per Bag	.50-1.33	—	17.30	10.65-23.46	17.79	2.80	
		(Alternative Methods)				4.67	
11. Coin Deposited							
Per \$1,000	.10-9.03	.20 & .40	22.66	1.93-173.70	11.04	14.95	{ 1.87 }
Per Hour	4.50-16.10	10.00	169.18	80.07-278.94	180.34	13.08	
Per Roll	.01-.05	.03	.48	.21-.98	.43	7.48	
Per Bag	.25-1.25	.50	14.29	4.81-29.94	9.73	5.61	
		(Alternative Methods)				2.80	
12. Domestic Collection Items							
Per Item	.08-12.67	1.50	45.82	1.43-228.26	37.25	62.62	{ 2.80 }
Dollar Amount	.1%- .05%	.1%	—	—	—	6.54	
		(Alternative Methods)				6.54	
13. Bond Coupon Collections							
Per Envelope	.075-5.00	.50	19.20	1.46-92.69	14.03	42.99	{ 6.54 }
Per \$1,000	.20-1.00	1.00	13.62	3.10-20.70	15.70	7.48	
		(Alternative Methods)				4.67	
MEMO							
14. Earnings Allowance	3.5%- 8.32%	6%	(Average: 6.09%)				

banks have not established a special rate for coupons, the fee is normally the same as for a deposited item. Collected balance requirements for securities drafts and domestic collection items are also shown in the table. As mentioned previously, most banks have a flat charge for processing collection items, but some differentiate between clean and documentary collections and for the location of the payee bank. If more than one charge was listed, the minimum charge for nondocumentary collection items was used in the tabulations. However, since some banks may have reported only the charge for documentary collections, the tabulations may be biased. A related problem is that some respondents evidently handle payable through drafts as collection rather than cash items. As a result, a small group of respondents listed very low charges for collection items. In view of these considerations, the representativeness of the collection item averages and range of charges is uncertain.

The major omission in the table is the schedule of fees relating to security safekeeping. About half of the correspondents in the survey include such charges in their account analysis and an additional group made direct charges for these services. However, the wide variety of charges makes it impossible to present meaningful summary figures. Safekeeping fees may be based on the dollar amount held, the number of issues or receipts held, perhaps differentiated by the type of security, the number of coupons clipped, the number of in-out transactions, maintenance fees, transfers, etc. The omission of safekeeping charges should not be interpreted as suggesting that these fees are unimportant. For some respondents they represent a major expense in the account analysis.

As with any set of averages, the figures in the table are subject to a degree of distortion. Differences in the proportion of banks charging for specific services could bias the averages. Some banks, for example, have high account maintenance fees to hold down the charge for normal services. Others do not levy charges for returned items but include the processing cost in the average charge for items deposited. Simple averages of the account mainte-

nance fees or the items deposited charges would make no allowance for the fact that prices at some banks are higher because these banks do not charge or have minimal charges for other services. An upward bias in the average charges for these services might be introduced, but in view of the relatively large number of banks included in the sample this distortion is not likely to be great. Also the highest collected balance requirements often occur at major banks with the most sophisticated and lengthy list of charges for services. A more serious difficulty arises from the fact that the distributions of collected balance requirements tend to be badly skewed in the direction of higher charges. Many banks charge slightly below average fees, but a few banks charge considerably above the average. Consequently, the median balance requirements in almost all cases are below the average. For analysis purposes the medians are undoubtedly a better measure of typical balance requirements.

The group of services in the table are those for which analysis fees have commonly been established. Many correspondents also charge for other miscellaneous transactions, but these vary from bank to bank. Examples of services for which comparatively few banks charge are computer reject items, credit investigations, FDIC insurance, special statements, audit confirmations, automated clearinghouse transactions, customer referrals, negative collected balances, security purchases or sales, etc. In this sense the list of services and charges is incomplete. Services for which fees are normally paid by respondents, on the other hand, have also been omitted. These services include data processing charges, exchange costs for clearing non par items, purchases or safekeeping of securities for bank customers, and portfolio analysis studies.

The net profit or loss on a respondent's account is derived by subtracting the total analysis expenses from the earnings value of an account. The meaning of this figure, however, varies greatly among correspondents. Many correspondents build a profit margin into the account analysis by imputing an earnings allowance below the actual return on demand deposit funds, by adding a profit margin to

the estimated costs of performing services, by making a deduction for required reserves which may exceed average requirements, or by being able to collect checks more rapidly than they grant fund availability. Practices differ among banks and are tempered by competition.

Among the survey banks, approximately 50 per cent indicated that they had attempted to make an allowance for profit. The before-tax margin ranged from 15 per cent to 61 per cent, with 25 per cent being the most common amount. Other banks, however, often expressed uncertainty over their actual costs, argued that the original profit objectives had been lost to inflation through rising costs, or felt that the price structures at competing banks had pushed prices to or below the break-even level. Regardless, banks often noted that the continuing U. S. inflation was having a very significant impact on the costs of providing services. As a result, many of these banks expected to recost and reprice services more frequently in the future.

To the extent correspondents have previously made allowance for profits in their analysis computations, the profit or loss figure derived from the analysis statement does not represent profit in the normal sense of the term. Many correspondents feel that this figure considerably overstates profits because many important correspondent services, such as loan participations and Federal funds transactions, are not included in the analysis. In any event, the practices of correspondents tend to be quite uniform in their behavior toward the net profit figure. If a bank's account regularly indicates a profit, the correspondent will generally do nothing. If the account analysis statement consistently shows a loss, the analysis statement may be sent to the respondent and a request made for the respondent to increase compensating balances. If the respondent does not comply, the account may ultimately be service charged the amount of the loss.

CONCLUDING REMARKS

The most consistent finding of the annual account analysis surveys has been the very wide range of prices that exist among correspondents for even

the most basic services. In the past, a portion of this variance could be attributed to the reluctance of some correspondents to modify account analysis charges during a period of price controls and to the subsequent time required to cost services thoroughly. Within the last 2 years, however, nearly all correspondents have modified their analysis prices. On average, the prices of high volume services such as items deposited, ledger entry debits, and payable through drafts rose between 14 and 26 per cent, while the charges for other services such as wire transfers, currency furnished, account maintenance, ledger entry credits, etc., increased between 30 and 40 per cent.

Nevertheless, the 1975 survey again found wide differences among correspondents in the charges for services. For example, among correspondents the maximum collected balance requirement exceeded the minimum by a margin of 9 times for encoded items deposited, 6 times for non-encoded items deposited, 48 times for returned items deposited, and over 150 times for account maintenance. It would be a mistake to anticipate that all banks would ever have identical charges since bank costs and the actual services rendered often differ significantly among banks. Nevertheless, differences of such magnitudes tend to suggest that the methods of establishing charges are often somewhat arbitrary. Moreover, as long as such differences continue to exist, customers are likely to be somewhat skeptical about the figures.

A frequent complaint is that competing banks often do not know their costs and tend to establish unrealistically low charges. To cast some light on the validity of these accusations, the 1975 survey obtained the estimated costs of performing certain services from a small group of correspondents which had recently recosted services. Using a cost-price comparison, the survey found 44 per cent of the banks had losses on ledger entry credits, 36 per cent on debits, 31 per cent on encoded items deposited, 26 per cent on nonencoded items, 57 per cent on wire transfers, etc.

While these percentages must be viewed circumspectly since the sample of banks providing

cost figures was small, they do suggest that a significant proportion of correspondents are providing at least some services at prices below estimated costs. Banks experiencing losses on services often had lower prices than those which found the service profitable; but more interestingly, loss banks almost always had higher estimates of costs than other banks. Whether these cost differences are attributable to alternative methods of computing costs, or reflect actual differences in efficiencies or variations in the nature of services performed cannot be readily ascertained. In any event, for a variety of reasons the figures do not necessarily imply that banks appearing to experience losses on some services would necessarily find the provision of those services to be unprofitable. Some may have deliberately established loss leaders. Others could recover potential losses by granting low earnings allowances, establishing deductions for reserves which exceed average requirements, by making funds available for items deposited sometime after they have actually been collected, or by establishing high prices for other services.

Numerous factors are responsible for the wide variations in the prices of correspondent services and the practice of some banks to charge prices below estimated costs. These include varying degrees of bank competition, marketing objectives, alternative approaches to costing services, as well

as actual differences in costs. Whether these tendencies will be perpetuated cannot be known, but pressures for greater precision in the measurement of costs are likely to rise. Recent statements by the U.S. Department of Justice have suggested that all depository institutions must be granted nondiscriminatory access to automated clearinghouses operated by the Federal Reserve and that prices covering full operating costs must be established for ACH services. If such policies were implemented, the Federal Reserve in all likelihood would ultimately be forced to adopt a similar approach for all regular operating services. While the potential ramifications of these possibilities are enormous, clearly one effect would be to thrust the Federal Reserve into greater competition with correspondent banks in the provision of services. Competition would still focus on the quality and range of services available, but the prices of services would become much more significant. Perhaps fees would tend to replace balances as the standard means of compensating correspondents for services, a possibility that has been much discussed in the past but which has not occurred. Regardless, only if correspondent banks have an accurate measure of the direct costs of providing standard operating services will they be able to make intelligent decisions regarding the profitability of respondent bank relationships and services.