

Rationing Credit to Business:
More Than Interest Rates

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International Monetary
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Rationing Credit to Business: More Than Interest Rates

by Duane G. Harris

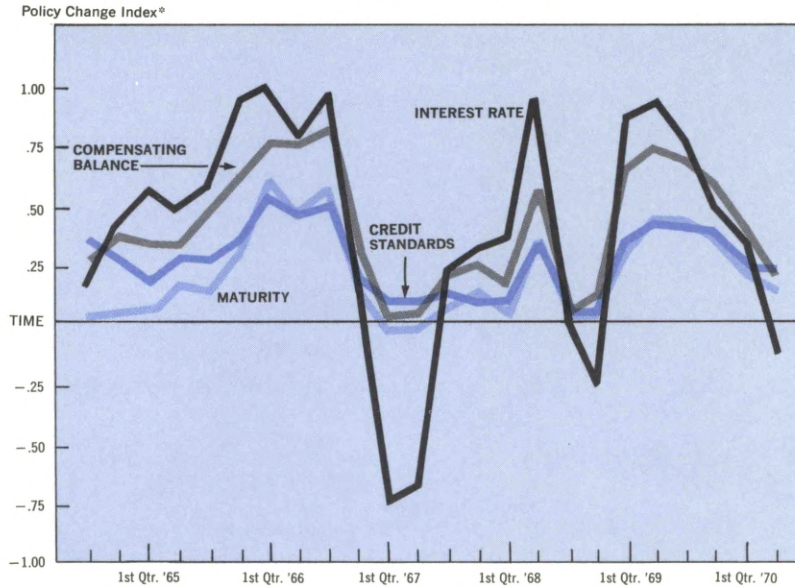
The 1970's stack up as a decade when great social demands and demand for greater affluence in general will place almost unrelenting pressure on available resources. The threat of inflation caused by this economic stress makes it likely that the role of monetary policy will be one of restraint. Bankers, thus, probably will face a chronic shortage of loanable funds and will have to parcel that limited supply among prospective borrowers.

If the recent tight money period is any guide, bankers will rely on more than interest rates to allocate credit. In addition, according to a series of Federal Reserve surveys, bankers utilize a complex network of nonprice terms to distribute available funds. This nonprice credit rationing gives bankers added discretion in allocating credit, causes businessmen to incur additional costs in borrowing, and places the burden of tight money more heavily on some types of borrowers than on others.

THE HOW AND WHY OF RATIONING

Bankers use many avenues to ration credit. For example, from 1965 to 1970, in addition to raising interest rates, bankers rationed credit by increasing compensating balance requirements, raising credit standards, and shortening loan maturities (Chart 1). But bankers do not rely on all of these terms to the same degree. During the past five years, more bankers increased interest rates than any other term. Among non-price terms, compensating balance policy was changed by the greatest percentage of banks followed by credit standards and loan maturity. But why do bankers ration credit by raising non-price requirements on loans? If there are more borrowers than loans to be made, why don't bankers simply raise interest rates far enough to clear the loan market?

CHART 1
LOAN-TERM INDICES



*Fraction of Banks Reporting Firmer Policy Less Fraction of Banks Reporting Easier Policy.

Some theorists contend that bankers ration credit because interest rates are sticky. During periods of heavy loan demand, for example, bankers may not be able to adjust interest rates far enough and fast enough to clear the market. Consequently, they use nonprice terms while the interest rate adjusts upward. According to this view, interest-rate policy and nonprice policy at times move in opposite directions. As interest rates rise to the market-clearing level, banks decrease the stringency of nonprice terms. This suggests that nonprice rationing is only temporary. Credit rationing exists until the interest rate fulfills its market-clearing responsibility, at which time nonprice rationing disappears.

Other theorists view nonprice credit rationing as emanating from the customer relationship and long-run profit picture of the bank. Bankers rely most heavily on deposits as a source of loanable

funds. Thus, they are anxious to build a strong relationship with customers who maintain large deposit balances. One way of cementing the bank-customer relationship is to accommodate borrowers' loan requests.

But when a bank faces heavy loan demand and cannot meet all requests for funds, it must somehow weed out some borrowers. If bankers simply raise interest rates until some borrowers are no longer interested, they run the chance that these disappointed borrowers will include large deposit customers. If these good customers retaliate by taking their banking business elsewhere, a bank may lose an important source of future income.

Nonprice credit rationing, on the other hand, allows the banker to accommodate good customers and say "no" to those who offer less to the bank in the long run. A very subjective and per-

ABOUT THE SURVEY

The Board of Governors has conducted the Quarterly Survey of Changes in Bank Lending Practices since September 1964. Participating banks are located in the major financial centers throughout the country. The Survey questions bankers about changes in lending policies. Senior loan officers are asked to compare current policies on loans with those of three months previous and to categorize current policy as firmer, unchanged, or easier.¹

On the basis of these results, we constructed an index for each lending practice. The indices, which appear in Charts 1-4, show the fraction of banks reporting firmer conditions minus the fraction reporting easier conditions. Each index varies between plus one and minus one, depending upon the extent to which "firmer" or "easier" policy is dominant. A positive figure means that, in general, policy was firmer compared to one quarter earlier. A negative figure indicates that easier policy prevailed.²

¹ Since the third quarter of 1966, loan officers have been asked to categorize policy more precisely. Policy categories include much firmer, moderately firmer, essentially unchanged, moderately easier, and much easier. To produce a consistent series over the entire span from the third quarter of 1964 to the second quarter of 1970, we have grouped the more recent responses so as to fit the earlier classification scheme.

² See the Appendix for a more detailed discussion of the survey and a technical discussion of our evidence about credit rationing.

sonal means of rationing replaces the "impersonal" market process because credit rationing can help generate and preserve profits in the future. Banks simply may be unwilling to lend to some customers at any price (interest rate) if it means rejecting a good customer's request. Thus, in periods of heavy loan demand, bankers

may utilize nonprice criteria to allocate their limited funds.

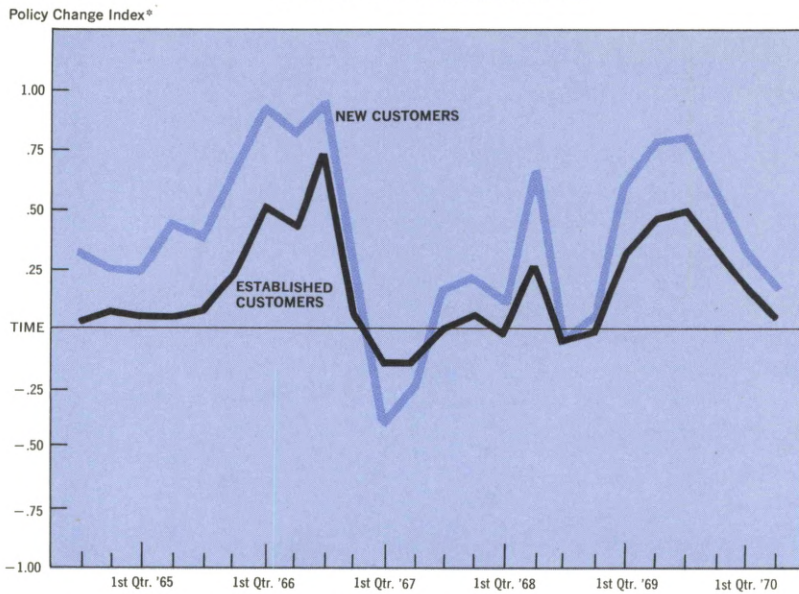
In addition, credit rationing can alter the risk and return on bank assets. Bankers are interested not only in the return on their loans, but also on the riskiness of each loan. It is important that banks be able to meet deposit withdrawals at any time. High-risk loans, because of their greater possibility of default, may impair the bank's readiness to meet customers' demands. Bankers can increase the return on their loan portfolio by requiring compensating balances and can decrease risk by shortening maturities and raising credit standards.

Thus, two opposing views exist about the why of credit rationing. One says that banks ration credit because interest rates are sticky and apply nonprice terms only when interest rates fail to clear the credit market. The other view sees bankers changing interest rates and nonprice terms together in response to basic profit and risk considerations. The Survey results provide insight into this controversy.

The 1965-1970 experience indicates that banks changed policy stringency of all loan terms closely together. They increased stringency of interest rates and nonprice terms simultaneously (Chart 1). This tends to support the view that credit rationing is not just a temporary phenomenon.

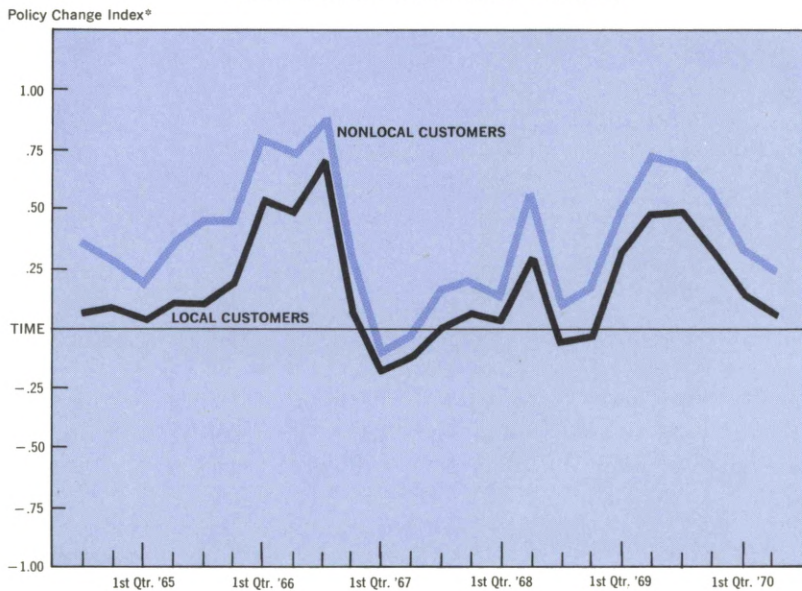
The importance of the customer relationship is emphasized by the fact that banks preferred established customers to new ones (Chart 2). In tight money periods, banks increased loan stringency to new customers as they attempted to satisfy established customers' demands. In periods of monetary ease, banks relaxed standards to new customers to bolster loan demand and foster new customer relationships. Similarly, bankers rationed credit more severely to nonlocal

CHART 2
TYPE-OF-CUSTOMER INDICES



*Fraction of Banks Reporting Firmer Policy Less Fraction of Banks Reporting Easier Policy.

CHART 3
LOCATION-OF-CUSTOMER INDICES



*Fraction of Banks Reporting Firmer Policy Less Fraction of Banks Reporting Easier Policy.

than to local customers (Chart 3). And finally, depositor and loan-use considerations were important in credit extension (Chart 4). As money tightened and bankers had to choose among prospective borrowers, they rationed credit to their best customers and to those who had the most "legitimate" loan requests. Thus, because bankers changed all loan policies together, and because they placed strong emphasis on various customer characteristics, it seems likely that credit rationing is based on the fundamental motives of profit and risk.

IMPLICATIONS FOR BORROWERS

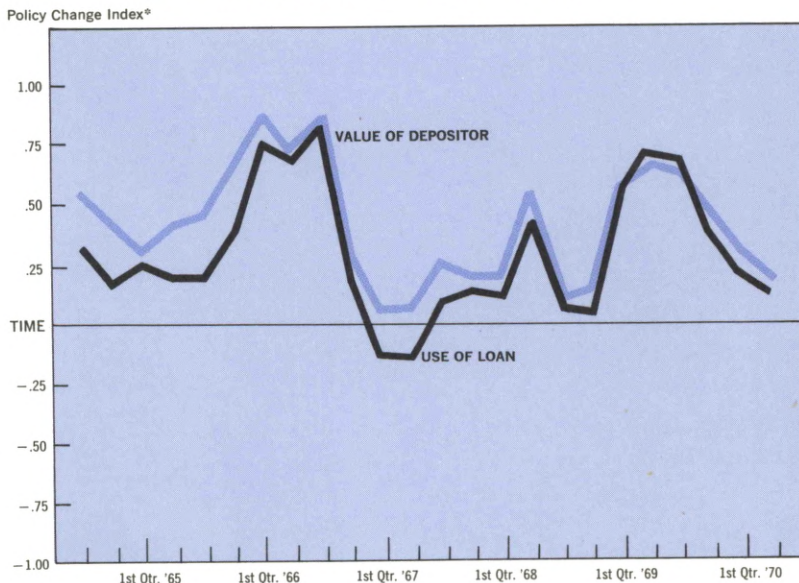
What does credit rationing mean for businessmen seeking bank credit? Since bankers alter the stringency of nonprice terms in addition to interest rates, borrowers find that qualifying for credit is more difficult during tight money peri-

ods. The impact of credit rationing on borrowers stems from the individual nonprice items. Each loan term has a particular effect on the borrower and his business.

For example, compensating balances may raise the effective cost of credit. Suppose a businessman borrows \$1,000 at 8 per cent with a 20 per cent compensating balance. He will be required to maintain \$200 (20% of \$1,000) in his deposit account. If he normally maintains less than \$200, part of the loan proceeds must be used to meet the compensating balance requirement. Thus, he will have use of less than \$1,000 but must pay interest on the full \$1,000. The effective rate of interest the borrower pays will be greater than the stated 8 per cent.

Shorter maturities also change the environment in which businessmen operate. They require that borrowers generate repayment pro-

CHART 4
VALUE-OF-DEPOSITOR AND USE-OF-LOAN INDICES



*Fraction of Banks Reporting Firmer Policy Less Fraction of Banks Reporting Easier Policy.

ceeds in less time. To do so, businessmen may have to adjust inventory positions, alter production plans, and so on.

Also, stiffer credit standards imply that businessmen have to maintain a sound financial position if they wish to acquire bank funds. They are pressured to guarantee their ability to repay the loan. Adequate liquidity, a balanced capital structure, and an impressive past credit record are important ingredients in meeting credit standard requirements. Furthermore, banker preference for particular types of customers emphasizes the importance of a good relationship with one's bank.

Thus, credit rationing introduces important additional considerations for borrowers seeking funds. It can create a higher cost of borrowing, may require more efficient management of production and inventories, necessitates sound financial management, and dictates the need for a good banker-borrower relationship.

IMPLICATIONS FOR POLICYMAKERS

Any circumstances which cause the demand for loans to outstrip the supply set the stage for credit rationing. Bankers, influenced by basic profit and risk motives, apply more stringent nonprice terms to allocate their limited supply of funds. Thus, nonprice credit rationing is a natural by-product of tight money. If the Federal Reserve engages in restrictive monetary policy during the 1970's, it can expect bankers to use nonprice criteria to ration credit.

Nonprice credit rationing will have no effect on the aggregate amount of credit extended by banks. Credit rationing simply enlarges a bank's discretionary power over allocation of its limited amount of credit.

Also, credit rationing probably will not shorten the lag between changes in monetary policy and changes in economic activity. It would shorten the lag if nonprice terms were altered more quickly than interest rates in response to monetary policy. But the Survey evidence indicates that such is not the case. Bankers change all loan terms together.

But the rationing process may have an important effect among borrowers. Bankers give preferential treatment to large, established customers because they are the most mobile in the credit markets. If one bank will not accommodate a company with impressive credentials, another bank likely will. Refusing a large customer, then, may mean losing his business in the future. But since many small borrowers are locked in to one source of credit, when their banker says "no," they have no place else to turn. Bankers can ration small borrowers out of the market with fewer consequences for their own future profits.

This means that restrictive monetary policy in the 1970's may lead bankers to favor large, established concerns at the expense of smaller firms with less impressive financial credentials. Conditions will be especially unfavorable to the establishment of new and innovative businesses by the inexperienced. Nonprice credit rationing may inhibit some of the very elements most conducive to economic growth.

Of course, if bankers react differently in the ensuing decade than they have in the past, nonprice credit rationing may have less discriminatory impact. But if the past record is any guide to future performance, tight money in the 70's will not press down evenly on all sectors of the economy.

TECHNICAL APPENDIX

We know that a loan transaction between a bank and its customer involves more than just agreement on the rate of interest to be charged. Various non-price dimensions, such as compensating balances, credit standards, and maturity, are included in the bargaining process. A loan agreement is a set of terms which includes the interest rate and all nonprice variables.

Credit rationing is a change in loan terms offered by banks. It is strictly a supply phenomenon which occurs when banks increase nonprice requirements on loans. Credit rationing should not be confused with *credit availability*, which is the entire set of loan terms generally prevailing in the market at any given time. Credit availability refers to a condition of the market and is influenced by both demand and supply of funds, that is, by both borrower and lender.

Our analysis is confined to the credit rationing or supply question only. Our primary objective is to investigate changes in terms of lending offered by commercial banks.

MORE ABOUT THE SURVEY

The Board of Governors aggregates the Survey responses and reports them as shown in Table 1. The figures in the table relate the number and proportion of banks that respond in each of the policy categories for various lending practices. For example, Table 1 shows that 87 of 125 banks (69.6 per cent) reported interest-rate policy was essentially unchanged compared to three months earlier. We derived our index values from these reported figures.

TABLE 1

EXAMPLE OF SUMMARY RESULTS OF QUARTERLY SURVEY

QUARTERLY SURVEY—NOVEMBER 1967

CHANGES IN BANK LENDING PRACTICES AT SELECTED LARGE BANKS: POLICY ON NOVEMBER 15, 1967, COMPARED WITH POLICY 3 MONTHS EARLIER

Number of banks; figures in parentheses indicate percentage distribution of total banks reporting

Item	Total	Much stronger	Moderately stronger	Essentially unchanged	Moderately weaker	Much weaker
Strength of demand for commercial and industrial loans: ¹						
Compared with 3 months earlier	125 (100.0)	1 (0.9)	37 (29.6)	70 (56.0)	17 (13.5)	.....
Anticipated in next 3 months	125 (100.0)	1 (0.9)	89 (71.1)	34 (27.1)	1 (0.9)	.....
	Total	Much firmer policy	Moderately firmer	Essentially unchanged	Moderately easier	Much easier
Loans to nonfinancial businesses:						
Terms and conditions:						
Interest rates charged	125 (100.0)	4 (3.2)	34 (27.2)	87 (69.6)	.....	.....
Compensating or supporting balances	124 (100.0)	4 (3.2)	28 (22.6)	91 (73.4)	1 (0.8)	.....
Standards of credit worthiness	124 (100.0)	4 (3.2)	7 (5.6)	113 (91.2)	.....	.....
Maturity of term loans	124 (100.0)	3 (2.4)	14 (11.3)	105 (84.7)	2 (1.6)	.....

(CONTINUED ON NEXT PAGE)

TABLE 1 (CONTINUED)

EXAMPLE OF SUMMARY RESULTS OF QUARTERLY SURVEY

QUARTERLY SURVEY—NOVEMBER 1967

CHANGES IN BANK LENDING PRACTICES AT SELECTED LARGE BANKS: POLICY ON NOVEMBER 15, 1967, COMPARED WITH POLICY 3 MONTHS EARLIER

Number of Banks; figures in parentheses indicate percentage distribution of total banks reporting

Item	Total	Much firmer policy	Moderately firmer	Essentially unchanged	Moderately easier	Much easier
Practice concerning review of credit lines or loan applications:						
Established customers	125 (100.0)	8 (6.4)	117 (93.6)			
New customers	125 (100.0)	8 (6.4)	23 (18.4)	90 (72.0)	4 (3.2)	
Local service area customers	123 (100.0)	9 (7.3)	113 (91.9)		1 (0.8)	
Nonlocal service area customers	122 (100.0)	7 (5.7)	19 (15.6)	93 (76.2)	3 (2.5)	
Factors relating to applicant:²						
Value as depositor or source of collateral business	125 (100.0)	5 (4.0)	21 (16.8)	98 (78.4)	1 (0.8)	
Intended use of the loan	125 (100.0)	5 (4.0)	16 (12.8)	101 (80.8)	3 (2.4)	
Loans to independent finance companies:³						
Terms and conditions:						
Interest rate charged	125 (100.0)	2 (1.6)	11 (8.8)	112 (89.6)		
Compensating or supporting balances	125 (100.0)	1 (0.8)	13 (10.4)	111 (88.8)		
Enforcement of balance requirements	125 (100.0)	1 (0.8)	21 (16.8)	103 (82.4)		
Establishing new or larger credit lines	125 (100.0)	10 (8.0)	15 (12.0)	93 (74.4)	7 (5.6)	
	Total	Considerably less willing	Moderately less willing	Essentially unchanged	Moderately more willing	Considerably more willing
Willingness to make other types of loans:						
Term loans to businesses	125 (100.0)	3 (2.4)	19 (15.2)	96 (76.8)	7 (5.6)	
Consumer instalment loans	124 (100.0)			104 (83.9)	18 (14.5)	2 (1.6)
Single family mortgage loans	121 (100.0)	2 (1.7)	14 (11.6)	94 (77.7)	11 (9.0)	
Multifamily mortgage loans	121 (100.0)	4 (3.3)	18 (14.9)	94 (77.7)	5 (4.1)	
All other mortgage loans	122 (100.0)	4 (3.3)	18 (14.8)	94 (77.0)	5 (4.1)	1 (0.8)
Participating loans with correspondent banks	125 (100.0)	1 (0.8)	7 (5.6)	103 (82.4)	14 (11.2)	
Loans to brokers	125 (100.0)	2 (1.6)	12 (9.6)	101 (80.8)	9 (7.2)	1 (0.8)

¹ After allowance for bank's usual seasonal variation.

² For these factors, firmer means the factors were considered to be more important in making decisions for approving credit requests, and easier means they were considered to be less important.

³ "Independent," or "noncaptive," finance compa-

nies are finance companies other than those organized by a parent company mainly for the purpose of financing dealer inventory and carrying instalment loans generated through the sale of the parent company's products.

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, April 1968, p. 367.

INTERPRETATION OF THE DATA

Although there are problems inherent in any analysis which uses survey data, the Quarterly Survey of Changes in Bank Lending Practices is unique in several ways. First, the sample of banks used, although small relative to the total number of banks, does account for approximately 60 per cent of the total loans outstanding at all commercial banks. Even if statistically we cannot generalize from this sample to all banks, we can draw conclusions about an important segment of the loan market. Second, responses are expressed in percentage terms. This helps to eliminate problems associated with changes in sample size.³ Third, nonresponse bias is avoided because the response rate for the surveys has been nearly 100 per cent for each quarter.

The possibility of response errors does constitute a difficulty for this particular survey. Response errors may arise by accident, intention, or from lack of information. For example, a respondent might think that loan policy has become firmer when, in fact, it has not. Or, he might report a policy change which he feels coincides with what the central bank is advocating. Finally, he may have trouble estimating changes because concepts such as average maturity are nebulous.

It is not possible to eliminate bias caused by response error with the data available. However, responses are made by a senior loan officer who is quite familiar with bank policy. The same officer completes the survey each quarter, so that once he formulates a basis for a particular response, he can consistently use that basis as a guide for future responses. Thus, bias should be minimal and should not seriously alter our conclusions.

Another shortcoming of the data is that in calculating indices, responses are weighted equally for all banks. A more appropriate method might be to weight a response by the relative size of the bank's assets, loans, deposits, or some other measure. However, individual bank surveys were not available, so we could not develop such a weighting scheme. The difficulty may be minimized by the fact that all banks surveyed are "large" banks.⁴

ANALYSIS OF THE DATA

Some loan terms we described as more volatile than others. To analyze the relative policy changes for various loan terms, we compared the average deviation from zero of the indices for each loan term. The absolute value of the deviation of an index from zero measures the extent to which banks have moved away from an unchanged policy. More specifically, it measures the degree to which banks, in the aggregate, have committed themselves to positive or negative rationing. The average absolute deviations (AD) for the four loan terms during the 64III-70II period are as follows:

Interest rate:	AD = 0.550
Compensating balance:	AD = 0.410
Credit Standards:	AD = 0.262
Maturity:	AD = 0.204

³ The sample size has varied from 80 to 133 over the series. It was 80 in 64III, 81 from 64IV to 66IV, jumped to 133 in 67I, and has varied from 124 to 126 since 67II.

⁴ For a description of the banks surveyed, see "Revision in Quarterly Survey of Interest Rates on Business Loans," *Federal Reserve Bulletin*, May, 1967, pp. 721-727.

To determine the relationship of the movements of the various loan-term changes and cast light on the two opposing views about the why of credit rationing, we calculated the correlation coefficients of all possible pairs of indices. In addition, each term index was correlated with a one period lag for each of the remaining indices. These correlation coefficients are presented in Table 2. All of the contemporaneous coefficients are larger than their lagged counterparts. We tested the significance of the difference between concurrent and lagged correlation coefficients and found such significance in all but the interest rate-maturity and the interest rate-credit standards cases. Consequently, movements in loan policy changes were positively related and more nearly move simultaneously than in a lagged or staggered pattern. Furthermore, changes in nonprice terms persisted along with interest rate changes.

TABLE 2
SIMPLE CORRELATION COEFFICIENTS BETWEEN LOAN-TERM CHANGES

		I	I ₋₁	B	B ₋₁	S	S ₋₁	M	M ₋₁
Interest Rate (I)	r	1.00	0.49	0.90	0.43	0.80	0.37	0.80	0.30
	Z	—	—	3.20*		2.25**		2.50*	
Compensating Balances (B)	r	0.90	0.52	1.00	0.56	0.96	0.53	0.94	0.48
	Z	2.83*		—		4.29*		3.84*	
Credit Standards (S)	r	0.80	0.53	0.96	0.58	1.00	0.56	0.95	0.48
	Z	1.61		4.06*		—		4.14*	
Maturity (M)	r	0.80	0.57	0.94	0.62	0.95	0.52	1.00	0.56
	Z	1.43		3.20*		3.97*		—	

I = Interest Rate
 B = Compensating Balances
 S = Credit Standards
 M = Maturity
 r = Correlation Coefficient

Z = Z-Statistic
 * = Significant at 0.01 Level
 ** = Significant at 0.05 Level
 — — = Undefined

The evidence is by no means conclusive, however. Suppose, for example, that monetary conditions tighten at the beginning of a quarter. Furthermore, suppose that a bank increases compensating balance requirements during the first month of the quarter, shortens maturities during the second month, and finally increases interest rates during the third month. The bank respondent would report an increase in stringency of all three loan terms and our data could in no way reflect that policy changes had actually been made in some staggered pattern. Thus, the apparent relationship between quarterly loan-term changes could be a result of either simultaneous or staggered application of various rationing terms.

In addition, the "opposite-movement" theory of loan terms is typically formulated in the context of a single shock (for example, decrease in bank reserves) in the economy to which banks adjust once and for all. What, in

fact, may be happening is that the economic system is subjected to a *series* of shocks over time. Before banks can react completely to new conditions, more changes occur. The opposite-movement pattern may not materialize in the data if banks are frequently revising policy in response to continued changes in the economy. If so, we cannot reject the opposite-movement theory, but must simply conclude that we find no evidence of such behavior in our quarterly data.

Average absolute deviations from zero of the indices also indicate the extent to which policy changes differed for established and new customers respectively. The average deviations are as follows:

Established customer: AD=0.205
New customer: AD=0.434

Another approach to the treatment of new and established customers is to compare changes in differential stringency to the two classes of customers with movements in the loan-term variables. If loan-term changes are made in response to changing conditions, we might expect that the difference in stringency to customer types would change in a similar manner. To test this hypothesis, we correlated the difference in the two customer index series with the interest rate and also with an average of the three nonprice terms. For simple correlation coefficients and t-values, see Table 3. The symbol (N-E) represents the difference between the indices; R is the simple average of the nonprice series and can be regarded as a general measure of nonprice credit rationing.

TABLE 3
SIMPLE CORRELATION COEFFICIENTS FOR CUSTOMER CLASS
AND LOAN USE CONSIDERATIONS

		Interest Rate (I)	Average of Nonprice Terms (R)
New Minus Established (N-E)	r	0.88	0.76
	t	8.49*	5.36*
Nonlocal Minus Local (NL-L)	r	0.57	0.54
	t	3.18*	2.94*
Value of Customer (V)	r	0.86	0.96
	t	7.72*	15.71*
Use of Loan (U)	r	0.86	0.96
	t	7.72*	15.71*

* = Significant at the 0.01 level r = Correlation coefficient
t = T-statistic

All of the correlation coefficients are significant at the 0.01 level. This means that as loan-term changes became more stringent, the preferential treatment afforded established customers became greater. A greater net percentage of banks rationed new customers relative to established customers.

Average deviations from zero for the two customer-location classes are as follows:

Local customer: AD=0.205
Nonlocal customer: AD=0.380

Differential stringency between these two groups was also correlated with movements in loan-term changes. Table 3 shows the relevant coefficients and statistics. The symbol (NL-L) represents the difference between the two customer series. Both the interest rate and average nonprice changes carry a significant positive correlation with (NL-L) at the 0.01 level. As loan term changes became more stringent, a greater net percentage of banks rationed nonlocal customers relative to local customers.

To test the importance of depositor-value and loan-use considerations we correlated the value and use indices with the interest rate and average non-price indices. Correlation coefficients and t-values are shown in Table 3. Correlation coefficients are significant at the 0.01 level, which means there was a significant positive relationship between loan-term changes and changes in the importance of depositor characteristics and use of the loan.

IMPLICATIONS FOR FURTHER RESEARCH

Our analysis may have some implications for further analysis of bank behavior and monetary policy. Usually when economists try to explain or predict the supply of bank loans, they exclude all loan terms but the interest rate in their analysis because data on these other elements are not available. Our findings suggest that, because of the high correlation between interest rate and non-price changes, the interest rate may possibly serve as an approximation for the effect of *all* loan terms. If such is the case, in many studies we must change our interpretation of the influence of the interest rate to include part of the effect of all loan terms. This may prove disappointing to those who are anxious for credit rationing to bolster the impact assigned to monetary policy in empirical investigations.

Regional Planning Arrives

by Elizabeth P. Deutermann

Over the past decade, a multitude of public and private experiments to attack the ills of the nation's cities was highly publicized. Much less publicized was a nationwide experiment to attack city and suburban problems simultaneously—through regional planning. Despite long and widespread recognition that many problems of metropolitan America extend beyond central cities, solutions have been slow to arrive. In the sixties, however, when the regional planning experiment caught fire, it skyrocketed. By the close of the decade, comprehensive planning agencies, which were unacceptable in large urban regions at the dawn of the decade, not only were operative in almost half the country's 233 metropolitan areas, but also were established instruments of federal policy.

What is this new type of governmental instrument? It is an agency that is publicly constituted through cooperative agreement among local governments that comprise a metropolitan area. A major function of the agency is to carry out continuous and coordinated planning for efficient use of the area's scarce resources of land and of money available for public facilities. The planning unit advises the region's political entities on how to achieve their community goals most effectively and, at the same time, promote the best interests of the region as a whole.

During the fifties, two important developments occurred which gave local governments strong motivation to cooperate in regional planning in the sixties and to take advice of a responsible new agency. One was the phenomenal growth of suburbs surrounding large cities, accompanied by problems which suburban governments were not equipped to handle alone—neither financially nor administratively. The other development was new federal support for regional planning to cope with a wide range of metro-

politan problems. When the two developments converged, comprehensive planning agencies, similar to the Delaware Valley Regional Planning Commission, emerged nationwide. These agencies may very likely play a unique role in our federal system of government in the future.

EXPLODING SUBURBIA PAVES THE WAY

Although at the close of World War II the nation's population was largely urban, most residents of major metropolitan areas still lived within limits of central cities. In the post-war decade, however, residential patterns changed dramatically. By 1960, over half the metropolitan population lived outside central cities. This residential shift brought with it a rapid expansion of trade, which both served new markets and created new employment centers. Furthermore, the proportion of manufacturing employment that concentrated in suburbs of large metropolitan areas between 1947 and 1963 grew more than twice as fast as in the preceding 18 years.

The suburban explosion created perplexing problems for unprepared county and township governments. Providing high levels of public services demanded by affluent new residents and burgeoning industry painfully strained financial resources. Throughout the fifties, federal grants for a variety of community services relieved some of the strain. But local efforts to ease many growing pains ran into roadblocks. Numerous problems accompanying rapid growth could not be tackled as if each jurisdiction were an island. A county park, for instance, developed around a fresh-water stream, quickly could become a major health hazard if the county two miles upstream permitted industry to use the water to carry industrial wastes out of its jurisdiction. Development objectives of one jurisdic-

tion often were thwarted by changes taking place in neighboring communities. Consequently, suburbanites became aware of local administrative incapacity to attack interdependent problems of growth.

Suburban agitation with growth vexations that did not confine themselves to political boundaries gave new impetus to regional cooperation. This was a prerequisite, previously missing, for the vintage idea of regional planning to become a reality in the sixties. Although the concept had many advocates during the 1920's, early enthusiasm with metropolitan planning was smothered by higher priorities stemming from the Great Depression, World War II, and post-war economic readjustment. In the early fifties, interest in regional problems revived, but considerable resistance remained to areawide planning as a solution. Suburban communities, for example, strongly feared a loss of political power to central cities. The ring of resistance weakened, however, when frustration began to outweigh fear. Comprehensive regional planning hardly emerged full-blown, but its seed was planted by the close of the decade when a number of multi-jurisdictional problems were cooperatively attacked by single-function agencies.

The single-function agencies that played the major role in making the sixties the decade of U.S. regional planning were those created to tackle transportation chaos. Because of the suburban explosion, monumental traffic jams were no longer confined to central cities. This problem mustered a willingness to cooperate between suburbs and cities that no other regionwide problem had achieved.

Roadbed for Regionalism in the Delaware Valley. The experience of the Delaware Valley illustrates how the transportation problem fostered

regional cooperation, which had been hampered for decades by typical city-suburban rivalries—both public and private. A further hindrance stemmed from the fact that Philadelphia's metropolitan area includes parts of two states.¹ In 1959, transportation chaos motivated two states and nine counties to cooperate in transportation planning. To do the job, these governments created the Penn Jersey Transportation Study (PJ).²

A transportation crisis hardly developed overnight. It just seemed that way, relative to time required to install adequate facilities. When the suburban boom began, the region was fairly well equipped to meet its largest single travel need—the journey to work and home again. For city residents, mass transit was available on subway-surface lines. And commuter rails accommodated workers into center city from suburban communities, long established at points adjacent to rail lines. One glaring deficiency was a freeway system. But so long as mass transit was popular and existing radial streets and highways could be widened and extended as residents moved further from city jobs, there was no major crisis.

Post-war developments triggered the transportation demand which made existing facilities completely inadequate. Between 1945 and 1960, dwelling units in suburbia more than doubled and automobile ownership and travel of subur-

banites grew at a faster pace than population.³ Affluent newcomers bought homes on larger lots than they previously had owned. Suburban employment growth took more acreage than plants required at former locations. New technology fostered one-floor plant operations, auto parking for employees required large lots, and industrial reliance on trucks instead of rails necessitated space for parking, storage, and materials' handling.

All these developments induced dramatic changes in patterns of land utilization and regional travel. From 1945 to 1960, over 100,000 acres of land were developed for new urban uses.⁴ This land area exceeds the size of the City of Philadelphia and nearly equals all land devoted to urban uses in 1945. Furthermore, 83 per cent of the land developed as intensive employment centers was outside the core city. Within 15 years the most important origins and destinations of travel—homes and jobs—had sprawled across the region in a fashion that created demands existing transportation facilities did not meet and resulted in mutual frustration for suburbs and the central city. By the late fifties, the average speed of auto trips in the area was creeping toward 11 miles per hour. For suburban residents, particularly, auto travel was vital to daily living and snail-paced speed was intolerable.

Although motivation mounted for a regional attack on the problem, obstacles to a workable solution remained. Government had major responsibility for providing transportation facilities. But no single agency had responsibility for an adequate regional transportation system.

¹ The Philadelphia metropolitan area includes the counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and the counties of Burlington, Camden, and Gloucester in New Jersey.

² In addition to the eight counties of the Philadelphia metropolitan area, governments participating in the Penn Jersey Transportation Study included the states of New Jersey and Pennsylvania, the City of Philadelphia, and Mercer County in New Jersey. The Philadelphia metropolitan area plus Mercer County, New Jersey, comprise the Delaware Valley planning region.

³ Penn Jersey Transportation Study, *The State of the Region*, Vol. 1, Philadelphia, 1964, p. 51.

⁴ *Ibid.*, Summary, p. iii.

Many levels of government were accountable for parts of the system and for how effectively, or in this case, ineffectively, it operated. Local planning efforts to meet local needs seemed to be meaningless exercises in ignorance of what some other authority was planning. If, for example, a federal highway interchange attracted high-density industrial and commercial developments, travel patterns and volumes through nearby communities changed radically. When the state stepped in to expand feeder roads, local plans for alternative uses of land were blown by space requirements for highways, wider streets, and extensive parking.

The magnitude of the problem, its expected exacerbation, and local governments' awareness of their unilateral inability to cope motivated regional cooperation. Coordinated transportation planning for a region encompassing 353 municipalities in nine counties of two states gained local support and the Penn Jersey Transportation Study received its mandate. Local willingness to cooperate made PJ possible. But if regional cooperation had not, the federal government would have made it a necessity.

AN ASSIST FROM THE FEDERAL GOVERNMENT

Federal policy played a key role in creating agencies for comprehensive regional planning. Highway and housing legislation, particularly, had a major impact on the development of regional transportation planning; on broadening the scope of transportation agencies to plan for all land uses; and on giving these agencies a special assignment to help allocate federal grants to governments *within* metropolitan regions.

Because the federal government had a large stake in funding highways in and around metropolitan areas, it was justifiably concerned with how funds were spent. This concern was mani-

fested in the Federal-Aid Highway Act of 1956 which required that 1.5 per cent of all money allocated to highway construction be spent on planning. Initially, a large part of this massive dose of planning funds went for research to discover a system to estimate future volumes of traffic. The PJ study, for example, took the approach that traffic estimates for transportation planning could be adequate only if the location of future traffic generators was guided by an overall land-use plan for the region. This approach became a necessity when a 1962 amendment to the Highway Act made comprehensive planning a requirement for highway grants. The amendment gave regional planning a solid boost throughout the country.

Other federal legislation of the sixties extended the scope, permanency, and potential power of regional planning. The Housing Act of 1964 made planning grants available to metropolitan agencies *provided* the agency was established as a continuous, cooperative, and coordinated regional planning body to prepare a comprehensive plan. In addition, the law required that if funds were to be granted to local governments within metropolitan areas to construct water and sewer lines and to acquire open space for recreation and conservation, plans for these projects had to be *consistent* with the regional plan.

The same year, the first act authorizing aid for mass transit was passed with the same "consistency" provision. Simultaneously, other grant-dispensing agencies viewed the consistency requirement as an efficient device for allocating funds within regions. The Department of Interior liked the idea for its program for clean streams, as did the Department of Health, Education, and Welfare for grants for air pollution control and solid waste disposal.

Efforts of federal agencies to allocate grants to local governments in a manner consistent with regional plans intensified in 1966. Under terms of the Demonstration Cities and Metropolitan Development Act, local capital development and planning projects for which aid is sought must be reviewed by a regional agency. Review is required to determine the extent to which local projects are consistent with areawide plans and contribute to fulfilling metropolitan objectives.

This piece of legislation contains some significant language that speeded the arrival of regional planning. The law appears to assume that each metropolitan area had one planning agency which had a comprehensive land-use plan against which local applications for aid could be evaluated. Furthermore, the legislation appears to assume regional planning is an effective guide to improve federal allocation of grants to parts of a region.

If a metropolitan area had no agency to do the reviewing, nor a plan against which it could evaluate local applications, it would be a loser in competitive grantsmanship. If communities comprising metropolitan areas, prior to this law, had failed to cooperate to attack areawide problems through regional planning, they now had a powerful motivation to get moving together.

REGIONAL PLANNING ARRIVES IN THE DELAWARE VALLEY

In the Philadelphia area, regional planning evolved in the past decade to make it possible to take advantage of grants under the new legislation and also to better utilize the area's own scarce resources. The temporary PJ study developed into the region's permanent planning agency—the Delaware Valley Regional Planning Commission (DVRPC). Cooperative plan-

ning for transportation became comprehensive to include all land uses. The regional development plan produced by DVRPC was adopted by 14 county, city, and state governments in December, 1969. Furthermore, the potential power of planning to guide regional development increased substantially in the 10-year span.

Although the formal foundation for metropolitan planning began in 1959 with the Penn Jersey Transportation Study, it was not constituted to meet new federal requirements. DVRPC was formed in 1965 to take over and expand PJ's efforts on an interim basis, through interstate contracts. In 1967 DVRPC achieved full legal status by an interstate compact between New Jersey and Pennsylvania. Another kind of status was given to DVRPC that year when it was officially designated by Washington as the *one* regional review agency for the Delaware Valley.

Transportation to Comprehensive Planning. The original transportation study, nevertheless, had made a start toward fulfilling federal requirements. Fortunately, PJ's basic study design called for development of a transportation plan to meet needs of 1985 which would, among other objectives, promote a desired pattern of regional development. As PJ pursued transportation planning consistent with this further objective, it laid groundwork for the comprehensive plan DVRPC was required to produce. DVRPC produced the plan, and the region accepted it.

What was accepted were regional guidelines for the investment of five billion dollars for highways, public transportation, water supply, sewage disposal, and recreation facilities over the next 15 years. These guidelines are spelled out in the comprehensive land-use plan, which

is actually a composite of six separate plans, designed to dovetail. Five plans are for the five specific activities noted above. The sixth contains a generalized concept of how the region's scarce land might best be utilized in 1985. This land-use plan identifies areas where people will live at various density levels and areas to be preferably left as open spaces. It suggests locations for shopping, public services, cultural activities, and major manufacturing centers and relates all these activities to a proposed transportation system.

Highway and mass-transit plans are integrated to show what is needed to prepare for vast growth in travel anticipated by 1985—especially for the projected 85 per cent increase over 1960 in auto trips each workday. The plans recommend expenditures of two billion dollars for 300 miles of new freeways and three new bridges across the Delaware River and one billion dollars for improved transit facilities. The water supply plan advocates expanding transmission and distribution mains to areas where new development is proposed and expected. The plan for water pollution control suggests extending the public sewer system to serve an additional two million people and one thousand square miles. And the open space plan specifies the number of acres of land, by location, to be set aside to meet present deficiencies and anticipated demands for recreation and conservation.

Benefits of Cooperative Planning. There is a big difference between local governments agreeing to adopt, even in principle, regional guidelines for their development and agreeing to support *another study!* Adoption of the regional plan manifested a radical change in community thinking over the past 10 years. Behind this change was areawide consensus on the need for

federal assistance. Comprehensive regional planning as a precondition for grants to local governments was a powerful magnet.

This was not, however, the only factor underlying the change in thinking. Another was growing awareness that local governments could reduce future investments in public facilities and, at the same time, protect their communities from pollution and blight that had accompanied rapid expansion in the past, through regional cooperation. Benefits governments anticipate by cooperating are detailed in the plans for the region. In summary, localities hope they can better prepare for new growth to avoid inefficient uses of natural and financial resources and to create a better environment.

1. *Natural Resources.* Numerous examples of how the region can prepare for growth to avoid inefficient use of natural resources are contained in the overall land-use plan. Land itself is the region's most limited natural resource, but future demands on its use are unlimited. DVRPC's projections of all space needs in 1985 show the largest single demand will be residential. The plan proposes a way to meet this demand and still leave adequate space for all other activities residents will desire.

The proposal is to locate new housing where maximum advantage can be taken of investments already made in facilities and services. This could be done by planning compact, contiguous developments, in which larger amounts of future medium- and high-density housing are concentrated in a variety of building types. In these concentrated areas, high-quality public services can be provided at a comparatively low cost. High-density apartments are proposed within walking distance of existing commuter rail stations, and medium-density developments within a short driving radius of these stations. An

underlying objective of this residential pattern is to make mass transit more competitive with automobiles and reduce the heat on highway demand. However, very low-density residences are planned close to institutional holdings and other open land uses in areas of prime-quality natural resources. The open land can provide a greenbelt break in an otherwise continuous pattern of urban development.

2. *Financial Resources.* An example of how the region can economize on financial resources is found in the plan for water pollution control. Regional projections show where residential and industrial growth is most likely to occur and, therefore, where pollution control services will be needed most. Suburban expansion has created extensive demands for pollution-control systems that are difficult, if not impossible, for municipal governments to meet on their own.

Water pollution problems spill over political boundaries. In discharging wastes from small municipal sewage-treatment plants, communities exceed assimilation capacity of streams within their bounds and also cause contamination of water resources in communities downstream. By combining treatment facilities of several communities, pollution control is both more effective and less expensive. Capital and operating costs of sewage treatment decrease with increasing amounts of sewage handled. For example, treatment costs for a community of 5,000 run around 40 dollars per person, but for a treatment plant serving a community eight times larger, the cost per person is more than halved.⁵ To utilize financial resources more efficiently, the areawide plan for a sewage system

envisions eventual construction of 15 giant regional plants and the phase-out of almost 200 small plants.

3. *Better Environment.* In accepting all of the proposed regional plans, local governments consented that areawide planning offered more preferable ways to achieve the "better environment" objective than localities could unilaterally. One way is suggested in the plan for open space.

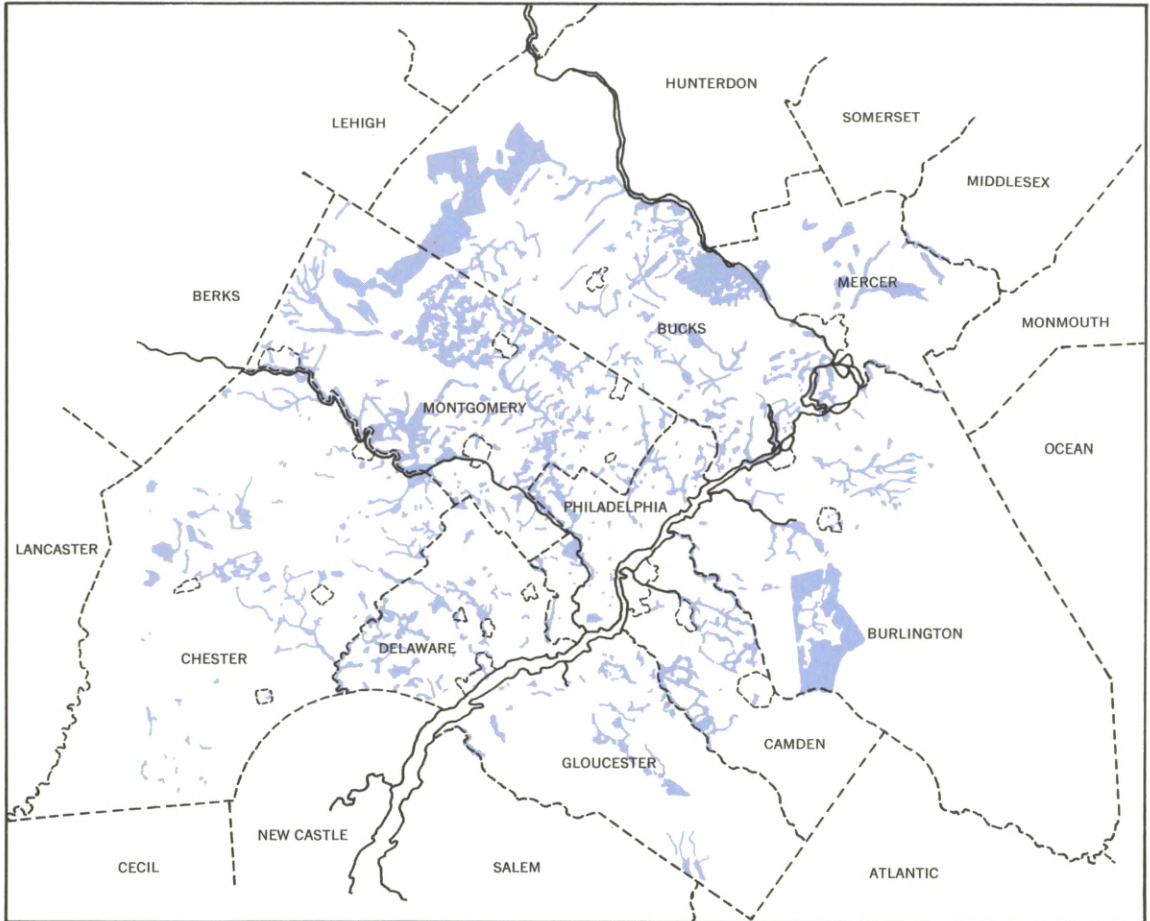
DVRPC found that "conservation needs of the Delaware Valley increase almost in direct proportion to the threat to the region's ecology posed by urban expansion."⁶ Since certain features of the landscape are vital for ecological balance, they need protection from urban development. Many of the region's drainage basins, for example, have had their natural features preempted by urban uses. The result is costly property damage from pollution and flooding. Consequently, these drainage basins are recommended to be left as open spaces.

The region's residents also need open space for recreation. DVRPC estimates that demand for recreation facilities will double by 1985, so that more than twice the amount of open space will be required than is available today. The plan advocates that recreation and conservation needs be met simultaneously. Areas important for conservation should be secured before prices rise and be used also for recreation where areas are readily accessible to a high proportion of the population. DVRPC concludes that a regional system of open spaces would beneficially influence a better environment by protecting natural features and conservation areas and by providing a critical control over land consumption. Com-

⁵ Nicholas W. Classen, B. W. Scaif, and J. P. Cope-land, Jr., "Economics of Regional Sewage Systems," *Public Works*, April, 1970, p. 77.

⁶ Delaware Valley Regional Planning Commission, *1985 Regional Plans in Summary*, Philadelphia, n.d., p. 28.

LOCALLY PLANNED OPEN SPACE FALLS SHORT OF —
Parks and Recreation Areas Proposed by Municipal Planning Agencies.



Source: Composite map of local land use plans within the Delaware Valley urban area. Delaware Valley Regional Planning Commission, May, 1968.

bined with planning for residential development, a regional open-space system could curtail urban sprawl and provide greenbelt buffers between built-up areas.

Guiding Regional Development. For communities within the Delaware Valley to benefit from regional planning, they must depend on decision-makers with authority DVRPC does not have to effectively use the plans. DVRPC has authority only to *advise* local and state governments to follow guidelines for future land use and public capital expenditures.

Are there any reasons, then, to expect regional plans to influence the development of the area? Brief experience indicates that there are.

State and local governments with authority to implement parts of the plan have demonstrated new willingness to cooperate to solve common problems. During the past 10 years, representatives of 14 governments met once a month, in over 120 sessions, to work at regional planning. This is probably the first time that the same areawide delegates spent so much persistent effort on one mutual concern. Other representatives of these same governments further participated in the planning process by serving on numerous advisory committees of DVRPC. This active cooperation to produce regional plans helped make them acceptable as guidelines for local decisions on capital investments and zoning.

Private decisionmakers have begun to take part in implementing regional plans. To make an investment decision for a major shopping center, for example, a developer wants all information he can muster on expectations for the region's future. Where major highway interchanges, high-density residences, and accessibil-

ity to wide markets are proposed, and where his land requirements can be met is valuable intelligence the private investor obtains from DVRPC. When this information is used to determine the location for his investment, simultaneously the developer helps carry out planning goals. Plans may be used only to justify his independent decision to local zoning boards. However, the impact on implementing regional plans is effective.

The strongest potential for plans to influence development decisions currently lies with the "review and comment" authority of DVRPC. The review and comment statement, required on local applications for federal aid, gives DVRPC's opinion of whether the application is for a project consistent with regional plans and the extent to which the project contributes to fulfilling development objectives of the region. Although a negative opinion does not necessarily kill a project, local governments prefer to have DVRPC's blessing. Rather than face a lengthy hassle to receive this stamp of approval, governments work in advance with DVRPC to prepare applications which will receive favorable review and comment. This procedure helps insure that duplication of facilities are avoided; that federal grants to the region are used efficiently and economically; that neighboring communities are aware of one another's proposals; and that local governments are encouraged to make investments in accord with regional planning objectives.

LOOKING FORWARD

Throughout the sixties, the evolution of regional planning experienced in the Delaware Valley was duplicated, with variations, in metropolitan areas across the nation. Limited popular attention to this movement focused on its pitfalls,

rather than its growth, maturation, and promise. Regional planning is hardly a panacea for the nation's urban-suburban ills, but it has become an accepted means for attacking regional problems for which there were no acceptable approaches 10 years ago.

Areawide planning, however, is still a means, not an end. It will probably continue to evolve in two directions—toward broader responsibility and a closer tie-in to authority. The scope of planning most likely will expand into areas more touchy than physical facilities, such as low-income housing, economic development, education, and health. Wider planning responsi-

bilities depend largely on programs the federal government elects to subject to regional review and comment. National domestic policy also could determine whether metropolitan planning agencies will eventually lead to some form of areawide government. Close ties between regional planning and a regional implementing authority may be a long way off, but it is not an unlikely expectation. Zeal for some form of metropolitan government, suppressed in the 1950's and experiencing a revival today, reminds one of the regional planning aspirations of the twenties which were realized in the past decade.

Have you ever wondered why the United States has had a persistent deficit in its balance of payments? What the mechanism is for making payments in the international transactions? Or how we go about defending the dollar? Designed for the general reader rather than the expert in international economics, this is the third of three articles which attempt to provide answers to these questions.

International Monetary System: Problems and Proposals for Reform by Clay J. Anderson*

“Sterling devalued;” “Franc devalued;” “Massive flow of funds into West Germany;” “Mark revalued upward.” Phrases of this nature have frequently hit the headlines. They reflect the problems which arise periodically in the operation of the international monetary system—a system which embraces policies and measures concerning foreign-exchange rates, international monetary reserves, and the adjustment process for correcting disequilibria in the balance of payments. These features—exchange rates, reserves, and the adjustment process—are closely interlinked.

Foreign-exchange rates reflect supply and demand forces generated by a vast number of international transactions. Balance-of-payments deficits and surpluses arise from temporary and more fundamental imbalances between payments and receipts. A deficit for the United States, for example, tends to push market demand for foreign currencies above supply and builds up large holdings of dollars abroad. Foreign-exchange dealers in New York would likely respond to strong demand by raising their quotas for foreign currencies as their balances abroad dwindled. Dealers abroad with too many dollars would offer them at a lower rate. In short, a deficit puts downward pressure on the value of nation’s currency, and if the deficit continues, it results in a loss of reserves. The loss of reserves depends not only on the size of the deficit, but also on how much the rate for the currency declines in foreign-exchange markets and how promptly and effectively the adjustment process functions.

The primary focus of this article is on the present international monetary system and how it operates. The article deals with four principal questions:

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1. What are the main features of the present system?
2. What problems have emerged in the system's operation?
3. What actions have been taken to improve the system?
4. What are the main proposals for reform?

OUR PRESENT SYSTEM

The international monetary system has undergone marked changes in the past few decades. To gain perspective, it is helpful to note some of these changes.

The Great Depression of the early 1930's brought the final collapse of the international gold standard which had been relied on to maintain stable exchange rates. The depression was also accompanied by financial crises, rumors of economic collapse, and massive flights from one currency after another. In the chaotic environment that developed, currencies were devalued, and many countries established exchange controls as a means of keeping foreign payments and foreign receipts in balance.

In World War II, exchange controls and trade restrictions were tightened. Wartime damage and destruction of productive capacity in many of the major industrial countries made the United States, after the war, the principal source of supply in world markets. An urgent need for United States' goods for reconstruction and development, combined with seriously impaired capacity and ability of major foreign countries to produce for export, led to a widespread shortage of dollars. To conserve limited supplies of dollars, many countries imposed special controls against imports from the the United States.

The widely heralded "dollar shortage" began to vanish as foreign industrial countries restored productive capacity and regained competitive

strength in world markets. Restrictions on goods and capital flow were gradually relaxed, and convertibility of major currencies was restored. Reduction in the unusually large United States trade surplus which characterized the latter part of the 1940's, large Government economic aid and military payments abroad, and a growing outflow of private capital ushered in a long era of balance-of-payments deficits for the United States. For over a decade, the United States has been plagued by substantial deficits and, at times, more dollars in the hands of foreigners than they desired to hold. Nonetheless, postwar conditions did forge a unique role for the dollar in the international payments system, and this role continues largely unimpaired, despite our persistent deficits.

The International Monetary Fund established at the Bretton Woods Conference in 1944 reflected the chaotic conditions in the '30's and the tight harness of controls applied in World War II. Important aims were relaxation of trade and exchange controls as rapidly as feasible and fashioning an international monetary mechanism that would foster a relatively free flow of goods, services, and capital among countries. The framework established is still the foundation of the present international monetary system. This article is concerned with only the principal features of the system.

Stable Exchange Rates. The International Monetary Fund incorporates the philosophy that stable foreign-exchange rates are an essential feature of a good international monetary system. This view is apparent from the provisions relating to exchange rates.

Member nations, in consultation with the IMF, declared a par value for their currencies. They also agreed to maintain the market value

within a narrow band of 1 per cent above or below the declared par value.

The United States declared the par value of the dollar in terms of gold—\$35 an ounce. The Treasury stands ready to buy gold from, or sell gold to, foreign official institutions at that price. Other member nations declared the par value of their currencies either in terms of gold or the dollar. Most of them maintain the market rate within the agreed limits by taking in or paying out dollars in exchange for their own currency.

In case of fundamental payments imbalance, a nation may, in consultation with IMF officials, change the par value of its currency in order to restore equilibrium.¹ This provision recognized that a persistent, basic imbalance in a nation's balance of payments may make it impossible, or at least inexpedient, for a country to maintain the existing par value of its currency. If, for example, a substantial deficit persists because an income-cost-price structure is considerably above those in other countries, restoring balance by devaluing the currency is preferable to imposing the drastic deflationary measures required to reduce the cost-price structure to a competitive level.

International Liquidity. Pegging exchange rates diverts most of the impact of a balance-of-payment deficit to reserves. If the downward pressure exerted by a deficit on a nation's currency in foreign-exchange markets continues for long, operations to maintain the market rate within agreed limits reduces the country's monetary reserves. The length of time the country can support its currency, in the absence of cor-

rective action to restore balance, depends on its reserve holdings and the amount of reserves it can borrow. A deficit in the United States balance of payments builds up dollar balances abroad and tends to depreciate the dollar in terms of foreign currencies. Support operations by foreign central banks build up their holdings of dollars, some of which they may feel excessive and, therefore, may be used to buy gold from the United States Treasury. This is the mechanism whereby our deficits eventually lead to a loss of gold.

The close link between maintaining pegged foreign-exchange rates and reserves directed attention towards international liquidity. How can we determine whether international monetary reserves are adequate? There is no simple answer to this question, but a major consideration is the role reserves are expected to play.

The philosophy underlying the present international monetary system is that reserve adequacy for an individual country is related to two types of needs. One requirement of adequacy is sufficient reserves to cover seasonal and other temporary balance-of-payments deficits. Certainly a country should not be compelled to take restrictive actions to protect its reserves against these short-run imbalances. A second generally accepted principle is that reserves should be sufficient to permit a reasonable amount of time for a country with a chronic deficit to utilize sound methods to restore equilibrium. Measures which operate on internal demand, prices, and costs work slowly. Direct controls operate more quickly but are contrary to the general goal of promoting free flows of goods and capital among nations. Normally, reserves should be sufficient for a nation to correct an imbalance without resorting to restrictive actions which unduly interfere with

¹ So long as the cumulative changes, up or down, are less than 10 per cent of the initial par value, a nation does not have to consult the IMF when altering the value of its currency.

international transactions.

One of the main functions of the International Monetary Fund is to contribute to international liquidity by providing a pool of currency reserves available to member nations in case of need. Borrowings against the "gold tranche"—equivalent to one-fourth of a member's quota—are readily available for short and intermediate (up to five years) terms. Borrowings in excess of this amount are available only on such conditions as the Executive Board of the IMF may see fit to impose. Usually an IMF agreement to lend is dependent upon the country taking some action to correct its balance-of-payments problem.

Adequacy of international monetary reserves refers mostly to the amount of total reserves in the world; although, of course, the amount of reserves available to an individual country at times also may be an important consideration. Growth in the volume of international transactions may render total reserves insufficient to facilitate the smooth functioning of the present type of international payments system. The adequacy of international liquidity, however, received little consideration until the mid-1960's.

Adjustment Process. Reserve adequacy is linked closely to the adjustment process, that is, the process whereby imbalance is corrected and balance-of-payments equilibrium is restored. The reserve drain will be smaller the more promptly imbalance is corrected.

Pegged exchange rates practically eliminate the adjustment function of price in a free market. In a free market, an increase in supply relative to demand for a product results in a decline in price. The lower price tends to inhibit supply and stimulate demand, thereby restoring balance. This balancing function of price is

largely eliminated by the narrow band within which exchange rates are permitted to fluctuate.

The adjustment process contemplated in the present system involves actions to alter internal demand. Deficit countries should pursue restrictive monetary and fiscal policies to check rising demand and prices which should discourage imports and encourage exports. Surplus countries should follow expansionist policies which should bolster total demand, including import demand. Restrictive actions in deficit countries and expansionary policies in surplus countries, therefore, would gradually restore international balance.

Before going into the problems that have arisen in actual operation, it may be well to recapitulate. The present international monetary system embraces three main policies:

1. Pegged exchange rates to minimize the risk of rate fluctuations and thereby encourage international flows of goods, services, and capital.
2. Adequate reserves to conduct rate stabilization operations during periods of temporary balance-of-payments imbalance; and, in cases of more fundamental disequilibrium, to afford reasonable time for remedial action which may involve policies to alter levels of internal demand and prices.
3. A change in par value to remedy a fundamental disequilibrium, especially if excessively drastic monetary-fiscal actions would be required to alter internal cost-price structures to restore balance.

PROBLEMS IN OPERATION

Experience has revealed several defects in the international monetary system. Only the more

important ones are considered here to provide background for understanding steps that have been taken to strengthen the system. The problems relate primarily to two of the key features: reserves and the adjustment process.

Reserve Inadequacies. Two types of shortcomings converge with respect to international monetary reserves. First, individual countries may have inadequate reserves to meet sudden drains resulting from massive speculation against a currency or to meet a persistent drain arising from a very slow-moving adjustment process. Second, total free world reserves may become inadequate to meet the expanding reserve needs of a growing world economy.

Speculation in a currency may develop quickly in response to rumors of a political crisis, especially if a country has a persistent balance-of-payments problem. Massive speculation against a currency puts a severe strain on the exchange rate and reserves. Immediate access to additional reserves, therefore, is sometimes needed to defend against a sudden speculative raid. Because reserve drains, indeed, have been more sudden and massive at times than some countries had anticipated, a vehicle for prompt action is necessary if speculative attacks are to be checked before they gain more momentum.

Another shortcoming is the failure of the total supply of international monetary reserves to respond to an expanding world economy. The supply of gold, the largest component of reserves, tends to be perverse in its movements. Annual production is a small fraction of the total gold stock and tends to decline as costs of mining rise relative to the fixed price. Moreover, industrial and commercial uses of gold are rising: these other uses compete with monetary use of gold. Periodic crises of confidence in a

major currency, such as the dollar in 1960-1961, often stimulate speculation in gold and private hoarding of the metal on a large scale. In the absence of new discoveries, the free world supply of gold increases very slowly. The monetary stock of gold is likely to increase even more slowly, if at all.

The United States dollar is the next largest component of international monetary reserves, comprising about one-fourth of the free world total. The dollar has been the principal source of additional reserves in the past two decades as the persistent deficit in our balance of payments enlarged the reserves of foreign central banks and official institutions.

Recent experience illustrates clearly the inherent weakness of national currencies as a source of long-term reserve growth. Reserve currency countries, primarily the United States, would have to run balance-of-payments deficits in order to provide additional reserves for an expanding world economy. But a chronic deficit, if large, eventually undermines confidence in even the strongest currency, diminishes willingness of foreigners to hold it, and renders the currency vulnerable to massive speculative attacks.

Sluggish Adjustment Process. Reserve adequacy is intertwined closely with response of the adjustment process to basic disequilibria in the balance of payments. With prompt, effective response to remedy basic deficits and surpluses, relatively small national reserves would be adequate. Lack of any effective response would result in a continued flow of reserves from deficit to surplus countries; even huge reserves held by deficit countries would eventually become inadequate.

Automatic response to balance-of-payments

disequilibria has been largely eschewed. Exchange rates are confined within a narrow band, and reserve flows are usually not permitted to initiate corrective adjustments, that is, restraint on income-demand-prices in deficit countries and expansion in surplus countries. Normally, a nation implements monetary and fiscal policies to attain domestic economic objectives.

Experience has revealed three significant weaknesses of monetary-fiscal policies as an adjustment mechanism. First, authorities are usually reluctant to take prompt action, especially when such action conflicts with domestic economic objectives. The United States, with a balance-of-payments deficit which has persisted for over two decades, is a good illustration. Substantial deficits emerged in the latter part of the fifties and continued in the sixties. But periodic economic slack and a slow rate of economic growth inhibited effective use of monetary and fiscal restraints to remedy the deficit. Because of the budgetary process, it is particularly difficult to use fiscal policy to counteract balance-of-payments deficits and surpluses. Surplus countries have shown even more reluctance to use monetary-fiscal policies to stimulate expansion. They like to keep the larger cushion of reserves acquired, and stimulating expansion might generate a boom and inflation. Delay in initiating corrective actions may mean that drastic monetary-fiscal measures are required to restore balance-of-payments equilibrium.

A second factor impairing effectiveness of monetary-fiscal policies is growing rigidity of cost-price structures to softening demand. Ability of corporations to "administer" prices and strength of labor unions in negotiating wage rates have rendered prices and costs largely insensitive to moderate declines in demand.

Drastic restrictive actions may be necessary in deficit countries to bring cost-price structures into line with other countries, unless, of course, expansionary action is pursued in surplus countries or exchange rates are altered. The public in the United States is apparently unwilling to accept the results of strong deflationary actions—economic slack and unemployment—to remedy either a balance-of-payments deficit or domestic inflation.

A third development tending to impair effectiveness of indirect controls as a balance-of-payments tool is the growing importance of capital flows and Government payments in international transactions. Apparently, long-term capital flows are not particularly sensitive to interest rates and monetary-fiscal actions. Decisions to make long-term investments in foreign countries are determined by a number of considerations other than interest rates. Non-economic considerations determine Government economic aid and military expenditures in foreign countries. Consequently, moderate monetary-fiscal actions have relatively little influence on long-term foreign investment and Government payments abroad.

A change in par values, contemplated as another device for remedying a fundamental balance-of-payments disequilibrium, has also proved to be a sluggish method of adjustment. In practice, it has become almost a means of last resort. One serious inhibition has been national pride. Officials usually have been most reluctant to devalue deliberately their nation's currency because of the possibility of unpalatable political repercussions. Another difficulty has been the procedure for changing the par value of a currency. This action is supposed to be taken only after consultation with officials of

the International Monetary Fund.² Because of the time required to negotiate a carefully considered alteration in par value, it is almost impossible to avoid rumors that a change is being considered. And such rumors are likely to touch off massive speculation in the currency. These difficulties have caused officials to deny strongly that any change is being considered and to defer action as long as possible.

Direct controls is another method of bringing foreign payments into balance with foreign receipts. Deficit countries particularly have imposed restraints on foreign lending and investing; sometimes they have imposed broader controls to ration foreign payments in accordance with available receipts. Direct controls, however, are contrary to the philosophy of fostering a freer flow of international transactions among nations; consequently, the tendency in the United States is to delay imposition of such controls.

STEPS TO STRENGTHEN THE SYSTEM

Measures have been taken in recent years to shore up some of the shortcomings revealed by experience in the operation of the international monetary system.³

Official Operations in Foreign Exchange. Most foreign countries have long intervened in their foreign-exchange markets in order to maintain the rates on their currencies within the agreed limits. Until the early sixties, the United States limited its operations to buying and selling gold

² Again, so long as the cumulative changes, up or down, are less than 10 per cent of the initial par value, a nation does not have to consult the IMF when altering the value of its currency. But it is doubtful that a change of less than 10 per cent would be effective in remedying even a moderate basic imbalance.

³ There is no attempt here to detail actions taken by the United States to remedy its balance of payments; the aim is to describe steps of significance in the operation of the international monetary system.

with foreign official institutions at the fixed price of \$35 an ounce.

Official operations in foreign exchange is the first line of defense against speculative and other disruptive market forces in the present type of system. This mechanism was considerably strengthened when the United States decided to intervene in foreign-exchange markets as one method of helping defend the dollar which, because of our chronic balance-of-payments deficit, had become vulnerable to speculative attacks. The Treasury, through the Exchange Stabilization Fund established in 1934, initiated operations in foreign exchange in the spring of 1961. The Federal Reserve System, in order to supplement and reinforce the Treasury's operations, began operations in foreign exchange about a year later. Treasury-Federal Reserve operations are carefully coordinated, and the Federal Reserve Bank of New York, acting as agent for both the Treasury and the Federal Reserve System, executes all official foreign-exchange transactions.⁴

United States operations in foreign exchange were a logical outgrowth of the dominant role of the dollar in the international payments system.

Official intervention [of the United States] in the exchange market . . . arises from the desire of the free world nations to employ all the appropriate means to assure the smooth functioning of payments arrangements that is essential to the continued growth of international trade and finance.⁵

More specific objectives of Treasury-Federal

⁴ For an excellent analysis of U.S. operations, see Merlyn Trued, *United States Official Operations in the Foreign Exchange and Gold Markets*, U.S. Treasury Department, Washington, D.C., 1966. Also, for a periodic summary of these operations, see the *Federal Reserve Bulletin*.

⁵ Trued, *op. cit.*, p. 1

Reserve operations are to prevent disorderly conditions in the foreign-exchange market and sharply erratic movements of a disruptive nature in exchange rates and to avoid excessive outflows of short-term capital and gold.

Stabilization operations in foreign exchange require an available supply of foreign currencies, especially when the dollar is under pressure from a persistent balance-of-payments deficit. The deficit means that stabilization operations would afford few opportunities to buy and accumulate holdings of major foreign currencies.

Bolstering Reserves. Most of the steps taken to strengthen the international monetary system pertain to reserves. Experience emphasizes that reserve adequacy involves actual holdings of existing reserves as well as availability of additional reserves. Although there is no direct link between reserve need and the volume of world trade, some source of increase for reserves is necessary to meet the needs of an expanding world economy. Reserve need is associated more closely with how efficiently reserves are used and how promptly the adjustment process operates. One can logically expect, however, that a growing volume of international transactions will sooner or later create a need for larger international monetary reserves. Some reserve asset other than key currencies or gold will be needed for this purpose.

The International Monetary Fund recently made what is perhaps the most important change in world finance since Bretton Woods by establishing facilities for creation of a new international reserve asset to supplement gold and reserve currencies. This new reserve asset—special drawing rights (SDR's)—is sometimes referred to as “paper gold.” Participating member countries agree to accept SDR's as reserves

and in exchange for convertible currencies. The new reserve asset may be used by governments and central banks in making international settlements; it is not available for use by commercial banks and other private participants in international transactions.

The initial issue of SDR's was made early in 1970, with approximately \$3.4 billion allocated among participating members on the basis of their quotas in the IMF. The United States allocation was \$867 million. Present arrangements call for allocation of \$3 billion at the beginning of 1971 and another \$3 billion at the start of 1972. SDR's make it possible for the International Monetary Fund to create additional reserves in response to a growing volume of international transactions.

Several features of SDR's are significant. First, SDR's differ from IMF borrowings in several respects. They are allocated among all participating members, whereas borrowings initially enlarge the reserves of borrowing countries only. Because SDR's are a form of reserves rather than a form of credit, they are not, in principle at least, subject to repayment; however, average holdings of SDR's are required to be at least 30 per cent of a country's average cumulative allocations over a certain base period. Should holdings drop below this minimum, a country would have to “reconstitute” its holdings of SDR's before the end of the base period in order to restore the average-ratio requirement. The purpose of this reconstitution provision is to prevent exclusive reliance on SDR's in financing deficits and to encourage holding a part of monetary reserves in SDR's. Second, participating countries agree to provide convertible currency in exchange for SDR's and to hold SDR's (so long as it does not need to use them) until the aggregate amount is equal to three times

total allocations. Third, SDR's cannot be used merely for the purpose of altering the composition of reserve holdings, that is, exchanging SDR's for gold or a reserve currency. Fourth, SDR holdings in excess of the amount received on allocation yield a low rate of interest—a provision designed to add somewhat to their acceptability as a reserve asset.

The experiment with SDR's may solve the problem of reserve adequacy for long-term growth. SDR's can be created when there is general agreement that additional reserves are needed. Approval of 85 per cent of the voting power of IMF members is required. Provisions adopted are designed to protect holders and encourage use of SDR's; however, only time will tell whether the international community will actually accept them as readily as other reserve assets, such as gold and reserve currencies.

In addition to actual holdings of existing reserves, reserves adequacy also means the availability of additional reserves to defend against sudden and sometimes massive waves of speculation. For example, in May, 1969, rumors that the mark might be revalued upward touched off a \$4 billion inflow of funds into West Germany within 10 days. There was an inflow of \$2.5 billion in two days. The counterpart was large outflows and reserve losses in other countries, such as England and France. Reserve adequacy against such sudden and vast flows requires immediate access to substantial lines of credit. Prompt official action in foreign-exchange markets, in large volume if necessary, is essential to maintain confidence and forestall self-inflamatory speculation on a large scale. A technique developed by the Federal Reserve System to increase the availability of foreign currencies soon after foreign-exchange operations were instituted has become a major source

of liquidity that can be used to withstand speculative attacks.

Federal Reserve officials began negotiating a series of "swap agreements" with major foreign central banks in 1962. The initial step in these swaps is a standby credit in which each central bank agrees to exchange on request its own currency for the currency of the other country, up to a maximum amount for a certain period of time, usually 90 days. If standby credit is activated, the Federal Reserve credits the account of the foreign central bank with a given amount of dollars and in exchange receives a credit on the books of the foreign central bank for an equivalent amount of that country's currency. Simultaneously, both central banks agree to reverse the transaction at the end of the specified period at the same rate of exchange.

A substantial reserve of foreign currencies has been made immediately available under these swap arrangements. Swap agreements have been negotiated with 14 foreign central banks and the Bank of International Settlements for a total of over \$11 billion. Foreign currencies made available in this manner have not only been used in Federal Reserve operations to stabilize market rates of exchange, but also to absorb surplus dollars acquired by foreign official institutions in their support operations and which otherwise might have been used to buy gold from the U.S. Treasury.

Central bank cooperation has made available, at times, additional resources to defend against sudden speculative attacks on a currency. On occasion, central banks have mobilized, by telephone, credit pools of a billion dollars or more to assist a country threatened with a sudden run on its currency. Swap agreements and prompt mobilization of credit by central banks have materially strengthened reserves against sudden

short-term drains.

Measures have also been taken to increase reserves available for drains of longer duration. Resources of the International Monetary Fund, the primary source of intermediate-term credit (one to five years), have been increased from the original \$8 billion to \$21 billion. Another increase in resources of \$7.6 billion appears to be well on the way to final approval by member countries. If approved, IMF resources will be raised to nearly \$29 billion.

Another step was taken by the IMF a few years ago to bolster this second line of defense for currencies weakened by balance-of-payments deficits. Heavy drawings had left the IMF with only limited resources in some major currencies. A supplementary borrowing arrangement was adopted involving ten of the major industrial countries. Under this arrangement, the ten countries stand ready to lend up to specified maximum amounts of their currencies. The maximum amount for the United States is \$2 billion, and the total for the other nine countries is \$4 billion. The purpose of the arrangement is to create facilities whereby surplus countries in the Group of Ten gaining reserves can lend their currencies via the IMF to deficit countries in the Group reserve. Such loans to the Fund mature in five years, but can be repaid sooner if the borrowing country repays its drawing before maturity. A lending country experiencing a balance-of-payments problem can obtain prompt repayment from the Fund even though the loan has not matured.

Another limited source of intermediate-term credit, initiated by the United States, is the issue of nonmarketable Government obligations to foreign official institutions. The U.S. Treasury has issued such obligations to fund short-term indebtedness in foreign currency and to absorb

dollars accumulated in excess of quantities foreign official institutions desired to hold. Some of the issues have been denominated in foreign currencies, thereby eliminating risk of loss from dollar devaluation. This source of credit is available only to the extent surplus countries are willing to accept the obligations of the issuing country.

Improving Adjustment Process. There seems to be general recognition that the adjustment process often responds too slowly to fundamental disequilibria in the balance of payments. But thus far, remedying the situation has been approached almost entirely from the side of augmenting available reserves instead of making the adjustment process more responsive. A few steps have been taken around the fringes, however, that could facilitate the adjustment process.

International discussion and cooperation have developed substantially in the past decade or so. Central bankers meet monthly at Basle, Switzerland. These meetings provide a forum of discussion of international monetary problems and policies. There are regular meetings of committees established within the Organization for Economic Cooperation and Development, as well as meetings of the Group of Ten, comprising representatives of ten leading industrial members of the International Monetary Fund. Task forces are established to study specific problems. Meetings of these various groups provide forums for discussion and surveillance of national economies and monetary policies, especially on the relation of the latter to balance-of-payments problems. These discussions and surveillance focus attention not only on international cooperation, but also on national policies that are appropriate for the deficit and surplus countries.

International cooperation has made significant progress; however, to what extent the adjustment process has been accelerated is debatable. National self-interest, often viewed narrowly, continues to be the overriding influence in formulating national monetary and economic policies. Thus far, improving the adjustment process lingers in the discussion stage.

MAJOR PROPOSALS FOR FURTHER REFORM

Inherent weaknesses revealed in the present system, especially in the adjustment process, have led to proposals for less rigidity in exchange rates. The proposals are of two principal types: introduce more flexibility into the system of regulated rates; remove the pegs and allow exchange rates to fluctuate freely.⁶

More Rate Flexibility. Restoration of currency convertibility followed almost three decades marked by the chaotic disruptions of the Great Depression and World War II. Rigid exchange control became a way of life in most countries. It was logical that, with the return of convertibility, emphasis was on maintenance of established exchange rates. But as the aftermath of war was cleared away, the stage was set for economic growth and development. The pace was more rapid in some countries than in others. Varying rates of change sometimes helped create basic balance-of-payments problems and, as we have seen, the adjustment mechanism proved to be too rigid to solve the problems efficiently. Hence, proposals for greater rate flexibility have been offered so that the present system may better adapt to changing conditions.

⁶ A small minority advocates return to a full gold standard, but this proposal apparently has little practical significance.

One of the more common proposals is to widen the band within which foreign-exchange rates are permitted to fluctuate. For example, the present band of 1 per cent above and below par might be widened, say, to 2 or 3 per cent or perhaps more.

In theory at least, proposals for a wider band would permit exchange rates to play a somewhat larger role in effecting adjustments necessary to remove imbalances in international transactions. For instance, a deficit in our balance of payments would result in higher rates for foreign currencies. These higher rates would increase the expense of making payments abroad and reduce the cost to foreigners of making payments here. Payments abroad would be discouraged, while receipts from foreigners would be stimulated. Depreciation of the dollar in foreign-exchange markets would thus help correct the deficit.

In practice, however, the main advantage of a 2 or 3 per cent band is that it allows domestic economic policies somewhat more independence from international consideration. Wider fluctuations in exchange rates would relieve some of the pressure of imbalances on reserves and afford national authorities more leeway in using monetary-fiscal policies to achieve domestic goals. Moreover, market rates of exchange would respond promptly to developing imbalance.

Permitting market rates to fluctuate more widely would diminish, of course, some of the benefits of pegged rates. Increased risk from rate fluctuations might inhibit somewhat international transactions. And even the wider rate fluctuations proposed would not be of major assistance in correcting a fundamental imbalance, which is the real problem in the present system. Nor apparently would the limited rate

movements proposed provide much defense against speculative attack on a currency.

Another class of proposals for achieving greater rate flexibility pertains to par values. The aim is prompter adjustment of par values to conditions producing fundamental imbalances.

One suggestion is that authorities be less reluctant to use existing machinery to change the par values of currencies. More prompt adaptation of par values to basic shifts in balance-of-payments positions would enable exchange rates to play a larger role in the adjustment process. Implementation of this plan, however, encounters the serious difficulties already mentioned—national pride and maintaining secrecy while consultations with the IMF are under way.

Another suggestion is for a moving or “crawling peg” which would affect a gradual instead of a sudden, abrupt change in par value. For instance, in case of a chronic deficit, the par value of the nation’s currency might be gradually adjusted downward according to some formula, such as one-quarter per cent a month. In a year, this could result in a 3 per cent reduction in par value. Under this system, advocates contend that exchange rates would become a more effective tool for correcting fundamental imbalances, and short-run rate stability would be retained.

Possible benefits, however, may involve sacrifices. In addition to greater uncertainty as to future rates, gradual changes in par value according to formula could induce speculation. So modest a monthly change as one-quarter per cent also may be insufficient to correct a chronic deficit or surplus, except over a considerable period of time. Hence, there may be an inducement to speculate against further changes in par value and market rates.

Freely Fluctuating Rates. Considerable support has developed in recent years, almost solely

among academic economists, for removal of all pegs on exchange rates. The suggestion is to allow foreign-exchange rates to respond freely to shifting supply-demand relationships, thereby permitting rates to perform the function market price is supposed to accomplish in a free economy.

The principal advantage of freely moving exchange rates is that price would perform its basic function of helping maintain balance between market demand and supply. Exchange rates would respond automatically to emerging imbalance. An excess of foreign payments over receipts would push up the prices of foreign currencies here and depreciate the dollar in foreign-exchange markets abroad. Developing disequilibrium in a nation’s balance of payments would promptly initiate rate changes that would tend to correct the imbalance.

Advocates of unregulated exchange rates point to other advantages. The adjustment process would be speeded materially so that payments imbalances would be corrected more promptly. The pressure on reserves would be substantially reduced; reserve adequacy would not be so serious a problem. National cost-price structures would be largely insulated from each other because movement in exchange rates would bear the brunt of effecting adjustments in the flow of international transactions. By the same token, monetary and fiscal policies could be directed more toward achieving desired domestic economic objectives. Nor would it be necessary to use direct controls to achieve and maintain balance-of-payments equilibrium.

Finally, proponents of flexible exchange rates allege that adverse effects of freely fluctuating rates are often exaggerated. Substantial rate movements would occur only if there were corresponding shift in supply-demand forces; prompt

response of rates would tend to prevent large disparities from developing. Authorities could still intervene in foreign-exchange markets to mitigate or prevent disruptive and disorderly rate fluctuations. Furthermore, a large part of the uncertainty and risk of rate fluctuations could be eliminated by hedging in the forward market.

Critics of flexible exchange rates are not convinced of these advantages. Possibility of wide and erratic movements in exchange rates could inhibit international trade and capital flows. Unregulated rates might also induce destabilizing speculation. For instance, should a deficit weaken a currency in foreign-exchange markets, speculators might drive the rate still lower. Some critics allege that a system of flexible exchange rates would encourage inflation, because national authorities would be largely freed of the discipline of reserve flows and persistent balance-of-payments deficits. Moreover, international cooperation under a system of relatively fixed rates can do much to harmonize national economic policies and alleviate periodic conflicts between international and domestic economic objectives.

THE CRUCIAL ISSUES

Considerable progress has been made in recent years towards bolstering international monetary reserves to meet more effectively sudden speculative attacks against a currency; to tide a nation over short-term balance-of-payments deficits; and to provide reserves needed to support an expanding volume of free world international transactions. If the first experience with SDR's proves successful, facilities will exist for effecting long-term growth in world monetary reserves. The crucial problem which remains, and on which there has been little progress towards a solution, is improvement of the adjustment

process. Automatic adjustments to correct fundamental disequilibrium hardly function in the present system; positive actions have generally proved to be "too little and too late."

What, then, are the fundamental issues and choices confronting us? We may not like the consequences of either free foreign-exchange rates or positive actions to affect adjustments under a system of pegged rates, especially if such actions are in conflict with our domestic objectives. But our choice is limited. We can reject one, but not both.

Basically, there are two types of international monetary systems. In one, foreign-exchange rates are pegged; imbalances in international transactions produce reserve flows; and for adjustments to correct fundamental imbalances, primary reliance is on positive actions by national authorities to alter levels of demand, prices, and costs or to change par values of the currencies. The present system operates this way. In the other, exchange rates respond freely and promptly to market forces; the impact of disequilibrium on reserve holdings is small; and for effecting adjustments to restore equilibrium, market movements in exchange rates is the principal mechanism.

Both systems have defects; each yields unpalatable consequences at times. Pegged rates divert market pressures initially to reserves and periodically create gnawing problems of reserve adequacy. But a much more serious consequence is that correcting a fundamental imbalance requires positive actions to alter demand-price-cost structures or a change in par value of the currency. Effective control of any price requires regulation of some of the principal forces determining the price. Experience demonstrates strong reluctance either to initiate effective indirect or direct controls when inconsistent with desirable domestic policies or to change the par

value of a currency. The result has often been a delayed, slow-moving adjustment process to restore balance-of-payments equilibria. In a sense, sluggish adjustment is inherent in a system of pegged exchange rates; it is analogous to pegging the tail and letting the dog wag.

A system of unpegged rates has the undesirable consequences of possibly wide, erratic movements in market exchange rates. Rate fluctuations subject foreign traders and investors to an additional risk. A portion of the risk can be covered by hedging in the forward market, but the climate may still be less favorable to international business and financial activity than in a system of pegged exchange rates.

Analysis of these two extremes—a system of pegged versus a system of freely fluctuating exchange rates—highlights the basic choices confronting us. The undesirability of using controls to alter internal demand and prices or directly to regulate international trade and capital flows should be weighed against the adverse effects of freely floating rates. Inasmuch as direct controls are contrary to the goals of a freer exchange of goods and capital, the choice seems to be primarily between policies directed toward internal demand and prices, and flexible exchange rates.

Another development relevant to the choice confronting us is that indirect controls, such as monetary-fiscal policies are being blunted somewhat as instruments for correcting international imbalance. Growing rigidity of price-cost-wage structures to declining demand makes it difficult to use these policies effectively to remedy a fundamental imbalance. Restrictive actions may shrink import demand arising from an inflated economy; however, drastic restrictive actions are required to deflate an internal price-cost structure that is higher than those in other major industrial countries. Unwillingness to accept the

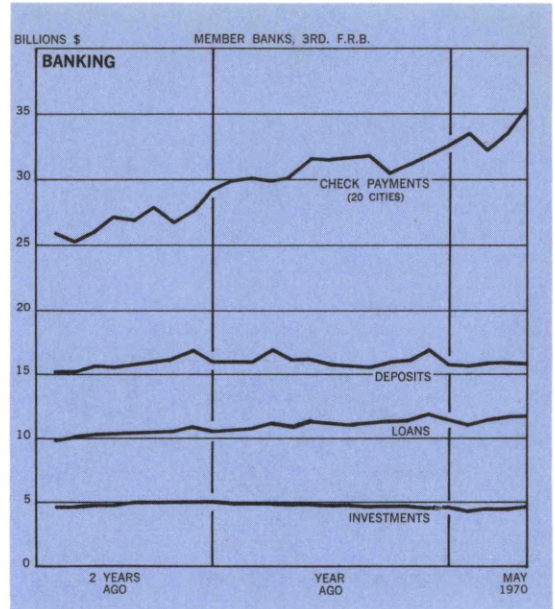
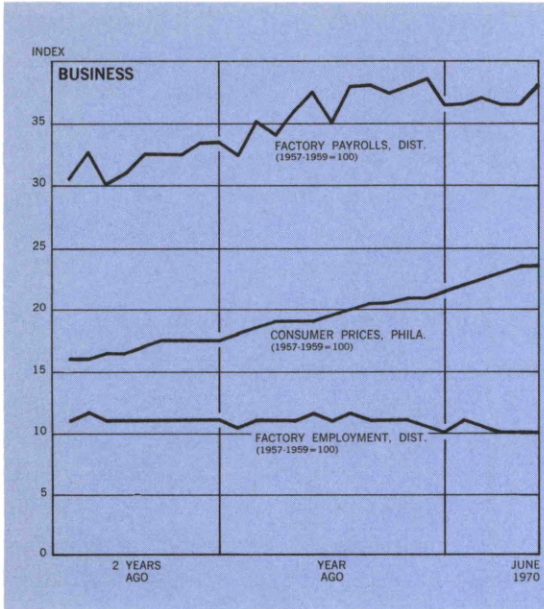
consequences of drastic restraint often delays and may even prevent effective use of monetary-fiscal actions. A second development, which also tends to impair effectiveness of monetary-fiscal measures, is the increasing importance of long-term capital and Government payments in our balance of payments. These categories of international transactions for the most part are not sensitive to monetary and fiscal policies.⁷

Market participants generally view freely fluctuating exchange rates with apprehension, particularly after over two decades of pegged rates. Some fear is understandable. But the protracted environment of pegged rates may lead us to exaggerate the difficulties inherent in flexible rates. Undoubtedly, the policy of supporting Government securities prices during and following World War II created among market participants an exaggerated idea of the difficulties of operating in an unsupported market. Participants in international transactions might adjust to unpegged foreign-exchange rates without the serious consequences many envision.

A practical first step toward improving the adjustment process might be some compromise between freely fluctuating exchange rates and the present system of pegged rates. For example, a logical initial experiment might be to establish some kind of crawling peg or a wider band within which market rates could fluctuate. Experience with gradual movements in exchange rates should provide useful information for deciding other steps that might be desirable—whether toward more flexibility in rates or some mechanism that would facilitate more prompt changes in par value to adjust to fundamental imbalances in internal demand-price-cost structures.

⁷ Neither would Government payments be sensitive for the most part to fluctuating exchange rates.

FOR THE RECORD...



SUMMARY	Third Federal Reserve District			United States		
	Per cent change			Per cent change		
	June 1970 from		6 mos. 1970 from	June 1970 from		5 mos. 1970 from
	mo. ago	year ago	year ago	mo. ago	year ago	year ago
MANUFACTURING						
Production .....	.....	.....	.....	+ 2	- 4	- 2
Electric power consumed	+ 4	+ 1	+ 3	.....	.....	.....
Man-hours, total*	+ 1	- 6	- 3	.....	.....	.....
Employment, total	0	- 3	- 1	.....	.....	.....
Wage income*	+ 1	- 1	+ 2	.....	.....	.....
CONSTRUCTION**	+20	-13	+38	+21	+ 3	+ 1
COAL PRODUCTION	- 9	- 5	- 3	- 7	+ 9	+ 6
BANKING						
(All member banks)						
Deposits	0	- 1	- 2	0	0	- 1
Loans	+ 2	+ 5	+ 6	+ 1	+ 4	+ 6
Investments	- 1	- 5	- 8	- 1	- 1	- 5
U.S. Govt. securities	- 2	- 8	-13	- 3	- 6	-11
Other	0	- 3	- 5	+ 1	+ 2	0
Check payments***	- 1†	+11†	+13†	+ 1	+ 8	+11
PRICES						
Wholesale .....	.....	.....	.....‡	0	+ 6	+ 6
Consumer	0‡	+ 7‡	+ 7	0	+ 3	+ 4

LOCAL CHANGES	Manufacturing				Banking			
	Employment		Payrolls		Check Payments**		Total Deposits***	
	Per cent change June 1970 from		Per cent change June 1970 from		Per cent change June 1970 from		Per cent change June 1970 from	
	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago
Standard Metropolitan Statistical Areas*								
Wilmington ..	+ 1	- 2	+10	+ 6	+17	+14	+ 4	+ 3
Atlantic City ..	.....	.....	.....	.....	+ 1	+10	+ 2	+10
Trenton	+ 2	- 3	+ 3	+ 6	-21	+12	- 3	+20
Altoona	- 1	- 1	0	+ 1	- 5	+11	+ 2	+ 8
Harrisburg ...	+ 3	- 2	+ 2	+ 1	- 7	+10	+ 2	+42
Johnstown ...	+ 2	- 1	+ 7	+ 2	- 7	+10	0	+ 7
Lancaster	+ 1	- 2	+ 1	+ 3	- 1	+13	0	- 4
Lehigh Valley.	+ 1	0	0	+ 2	- 5	0	+ 1	- 7
Philadelphia ..	- 1	- 6	0	- 3	- 3	+11	0	- 1
Reading	0	- 4	+ 1	+ 3	0	+ 8	+ 1	+ 7
Scranton	- 3	- 9	- 4	- 6	- 8	+ 7	+ 2	+ 8
Wilkes-Barre ..	- 4	- 8	- 5	- 6	- 7	+ 4	0	-24
York	+ 2	+ 1	+ 2	+ 4	-10	+ 8	+ 2	- 6

*Production workers only
 **Value of contracts
 ***Adjusted for seasonal variation

†15 SMSA's
 ‡Philadelphia

*Not restricted to corporate limits of cities but covers areas of one or more counties.
 **All commercial banks. Adjusted for seasonal variation.
 ***Member banks only. Last Wednesday of the month.