MONTHLY REVIEW

JULY 1955 — FEDERAL RESERVE BANK OF SAN FRANCISCO

THE TWELFTH DISTRICT AUTOMOBILE MARKET

BUSINESS developments in the nation and District during both the 1953-54 recession and the succeeding upturn point to changes in consumer purchases of automobiles as a major source of instability in the economy. From July 1953 to January 1954 total retail sales in the country (seasonally adjusted) dropped $800 million, with new and used motor vehicle sales accounting for approximately 65 percent of the decline. During the subsequent revival from January to June of 1954, automobile purchases again accounted for about 65 percent of an $800 million rise in seasonally adjusted total retail sales. And, since the summer of last year, a continued high level of automobile sales has been—along with the housing "boom"—a major source of strength during the current high level of general business activity.

Available data suggest that fluctuations in the dollar volume of sales by District new and used automobile dealers—recently accounting for about one-sixth of the national figure—have probably had a similar impact on total retail sales in this region. A special retail trade report compiled by the Bureau of the Census for the Federal Reserve System indicates that the dollar volume of sales by automobile dealers is currently of about the same relative importance to total retail trade in the District as in the nation. Also, annual statistics on new passenger car registrations from 1947 to 1954 show that fluctuations in the District series closely paralleled changes in the country as a whole. However, during the first quarter of this year, new passenger car registrations in California, which last year accounted for about 70 percent of the District total, were 54 percent above the first quarter of 1954 compared to a corresponding period rise of 30 percent in the nation.

Per capita car ownership higher in the District than in the nation

As indicated in Table 1 per capita passenger car registrations in 1954 were slightly more than 25 percent greater in the District than in the country as a whole. Arizona, the only District state below the national average, had 29 passenger cars per 100 persons while Nevada and Oregon were both at the upper extreme with 42 passenger cars per 100 persons. California, which accounts for about two-thirds of total passenger car registrations in the region, had 40 cars per 100 persons.

TABLE 1

TOTAL NUMBER OF PRIVATELY OWNED PASSENGER CAR REGISTRATIONS PER 100 PERSONS[1]
TWELFTH DISTRICT AND UNITED STATES, 1941 AND 1954

	1954	1941[2]
Arizona	29	24
California	40	37
Idaho	37	27
Nevada	42	32
Oregon	42	33
Utah	32	23
Washington	36	30
Twelfth District	38	33
United States	30	22

[1] Privately owned includes commercial cars, *e.g.*, taxicabs.
[2] Includes both public and privately owned passenger cars. Publicly owned cars are estimated to be less than 1 percent of total automobile registrations in 1941.
Source: Automobile Manufacturers Association, *Automobile Facts and Figures*, and United States Department of Commerce, Bureau of Public Roads.

The high per capita passenger car ownership in the District reflects a greater distribution of car ownership combined with a relatively larger number of multiple car owners in this region than in the nation as a whole. The 1955 Survey of Consumer Finances estimates that about 77 percent of the "spending units" in the West (Mountain and Pacific Coast states) owned one or more automobiles compared to approximately 67 percent in the nation. As for multiple car ownership, 11 percent of the spending units interviewed in the West owned two or more cars compared to a national figure of 8 percent.

Comparison of pre- and postwar data indicate that all District states—to somewhat varying degrees—shared in a national postwar trend of a higher ratio of automobiles to population. Though the District had a larger percentage increase (85 percent) in total passenger car registrations than the nation (64 percent) from 1941 to 1954, the difference was more than offset by a faster rate of population growth in this region. As a result, the percentage increase in per capita automobile registrations

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was smaller in the District than in the country as a whole. Nonetheless, as shown in Table 1, the District ratio was actually greater in 1941 than the national figure in 1954.

The greater rate of increase in total passenger car registrations in the District relative to the nation apparently did not result in this region's gaining a larger share of the country's new car market. New passenger car registrations in the District accounted for about the same fraction (11 percent) of national new car registrations in 1954 as in 1941. The upward trend in new passenger car registrations in the District was about equal to that in the country as a whole. The differential rates of growth between new and total passenger car registrations thus point to this region as an important used car market.

Replacement demand an important factor in District automobile market

Further comparisons between the District and nation also indicate something about the relative importance of major sources of demand for new automobiles. Sales of new passenger cars represent the sum of sales to new owners, replacement sales, and purchases by persons wanting another automobile. For the country as a whole, the Survey of Consumer Finances estimates that 86 percent of the spending units buying new cars during 1954 either traded-in or sold a car. The greater distribution of automobile ownership in the District strongly suggests that replacement demand is even more important in this region than in the nation.

Studies of the automobile market[1] have found that, after taking account of other factors, replacement demand for new cars has been closely associated with scrappage age of automobiles. As an indication of trend in the scrappage age of cars, the Automobile Manufacturers Association (using national scrappage estimates) approximates that the average life of motor vehicles scrapped during 1952 was 14.3 years compared to 10.2 years during 1941. Though similar estimates for the District are not available, statistics on the age distribution of automobiles indicate that the average scrappage age is probably greater in this region than in the country as a whole.

As shown in Table 2, approximately 27 percent of the automobiles registered in the District during 1954 were over 9 years old compared to about 19 percent in the nation. In contrast, the proportion of cars registered in the 4 to 9 year and the less than 4-year age groups were smaller in the District than in the country as a whole. The percentage of war and prewar cars was larger in each of the District states than in the nation. In California, slightly less than 28 percent of the cars registered were 10 years old or older. A similar comparison of the importance of prewar cars only shows about the same percentage point difference between this region and the entire country because of the small wartime production of automobiles.

Large real per capita income in District important factor in high per capita car ownership

Differences in real per capita incomes, suburbanization, and automobile prices are probably the three most important factors accounting for differences between the District and nation in per capita car ownership and the age distribution of automobiles. A greater degree of suburbanization and higher real per capita incomes in this region have contributed to the higher per capita car ownership in the District relative to the country as a whole. On the other hand, generally higher automobile prices in the West have probably been a damper on both per capita car ownership and new car sales in this region compared to the nation.

Changes in both the total number of passenger cars in use and in new car registrations have, in the past, been closely associated with movements in the level of consumer incomes after taxes and adjusted for price changes. Estimates from 1947 to 1953 indicate that real per capita income payments in the District have remained consistently higher, but have increased at a slower rate, than in the country as a whole. The higher level of real per capita income may therefore account, in part, for the larger per capita car ownership in the Dis-

[1] See, for example, "Markets after the Defense Expansion," United States Department of Commerce, 1953 and "Dynamics of Automobile Demand," C. F. Roos, *et. al.*, published by General Motors Corporation, 1939.

TABLE 2

AGE DISTRIBUTION OF PASSENGER CARS—TWELFTH DISTRICT AND UNITED STATES, JULY 1, 1941 AND JULY 1, 1954

	1954				1941			
	Total number of automobiles (in thousands)	3 years or less	4-9 years	10 years or more[1]	Total number of automobiles (in thousands)	3 years or less	4-9 years	10 years or more[1]
		(percent distribution)				(percent distribution)		
Arizona	259	23	54	23	108	26	48	26
California	4,439	22	50	28	2,457	26	48	26
Idaho	202	25	54	21	120	28	47	25
Nevada	71	28	51	21	33	33	48	19
Oregon	580	23	52	25	323	29	44	27
Utah	224	23	57	21	117	28	50	22
Washington	803	21	53	26	483	26	46	27
Twelfth District	6,576	22	51	27	3,642	27	48	26
United States	44,387	27	54	19	25,968	28	48	24

[1] Automobiles unindentified as to year of manufacture are included in "10 years or more" group.
Note: Figures may not add to totals due to rounding.
Source: *Automotive Industries*, January-June 1942 and 37th Annual Statistical Issue, March 15, 1955.

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trict than in the nation. And, the movement towards equality of real per capita incomes between this region and the nation may partially explain the decline in per capita new car sales in the District relative to the country as a whole.

Annual changes in new passenger car registrations have also been found to be closely associated with—and highly sensitive to—differences in the rates of changes of real per capita disposable income. This probably explains, in part, the close parallel movements in new passenger car registrations between the District and the nation. Plotted real per capita income payments over the postwar years also show a very close parallel movement between this region and the country as a whole. The data also indicate a fairly similar pattern of annual fluctuations in new car registrations among the District states.

Generally higher automobile prices in this region, owing in large part to greater freight costs, have probably contributed to differences in both per capita new car sales and the age distribution of automobiles in use between the District and the nation. Statistical studies for the nation indicate that new car sales are probably sensitive to differences in prices of new automobiles, among other things. This suggests that the failure of the District dealers to gain a larger share of the country's new car market—despite large wartime and postwar inmigration—may, in part, be due to the generally higher level of new car prices in this region relative to those in the country as a whole. Also, higher automobile prices mean higher replacement costs. Thus, unless individuals are willing to get less transportation for their dollar in this area compared to individuals in most other regions of the country, they have to "stretch" the durability of their automobiles.

The greater use of automobile credit is still another important factor explaining the higher level of automobile ownership in this District. The amount of credit involved in automobile purchases is apparently more important in the District than in the country as a whole. This is largely due to both the higher price of automobiles and the more liberal credit terms during recent years in the West. According to the 1955 Survey of Consumer Finances, approximately 37 percent of car owners in the West owed debt on their automobiles compared to 31 percent in the country as a whole. As to size of debt, the Survey estimates indicate that about 22 percent of car owners in the West have debts on their cars of $500 or more compared to a national figure of 15 percent.

Suburbanization an important long-run factor in District automobile demand

Population distribution is probably one of the major long-run factors explaining high per capita car—and particularly multiple car—ownership in the District. The 1950 Census of Population indicates that a large proportion of total District population—especially in the Pacific Coast states—was concentrated in urban areas. And, a large percentage of the inhabitants in the District living in urban areas resided in suburbs rather than in large concentrated central cities. The relative importance of suburban living in this region is shown by the fact that approximately 23 percent of total District population lived in suburbs compared to 14 percent in the country as a whole. The large degree of suburbanization in the District, often accompanied by inadequate public transportation, has perhaps made the automobile more of a transportation necessity in the West than in the country generally.

Increases in the number of households formed also help to explain the long-run upward trend in automobile sales. Changes in the number of automobiles in use are generally associated with changes in the number of households rather than changes in total population. Statistics on population changes and new housing starts suggest that there has recently been a larger increase in household formation in the District than in the nation as a whole. In 1954, new housing starts in the 11 western states accounted for about 24 percent of the national total, yet these states account for only approximately 14 percent of the population in the country. The West, in fact, is the only area in the country where the ratio of regional to national housing starts was larger than the regional to national population ratio. And this apparently is a continuation of a postwar trend.

Summary and outlook

During the postwar years total passenger car registrations have increased at a faster rate in the District than in the country as a whole. However, the larger rate of growth in this region has been primarily marked by a greater rise in used rather than in new car registrations. New car registrations in the District were, in fact, about the same proportion of new car registrations in the entire country in 1954 as in 1941. The data also suggest that annual fluctuations in new car sales in this region very closely parallel changes in the country as a whole.

A breakdown of the age distribution of cars shows a larger proportion of prewar cars registered in the District than in the nation. This suggests that the generally higher price of cars in this region compared to most other areas in the country may, in part, be resulting in a greater average scrappage age for automobiles in the District states than in the country as a whole. The greater degree of suburban living in this region has probably also contributed to the greater importance of multiple car ownership—and thereby to the big used car market—in the West relative to other areas in the country.

As for the outlook, the statistics indicate that by far the largest proportion—perhaps somewhere in the range

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of 90 percent or more—of new car sales in the District is to meet replacement demand. Automobile marketing studies have found that in the past new car sales have been closely associated with the scrapping of older cars. To the extent that this is generally true, the District has a sizable pool of prewar cars which may not be too far from their final mile. Also, recent declines in used car prices may, in many cases, make it cheaper for individuals to scrap and replace older cars with new and later models than to repair them. Among the long-run factors, a continual trek to District suburbs accompanied by an increasing number of households could mean a growing demand for multiple car ownership as well as an increase in new owner sales.

THE ROLE OF BANKERS' ACCEPTANCES IN INTERNATIONAL TRADE AND FINANCE

SINCE 1949, and in particular during 1954, there has been a significant growth in the use of bankers' acceptance financing in the United States. Bankers' acceptances are particularly well suited to, and are used primarily for, short-term financing of international trade. Despite the fact that they were once of considerable importance in this country and are widely used abroad, they are not at present a well-known credit instrument in the United States, not even among bankers except those in some of our major financial centers. The recent growth in the use of bankers' acceptances, however, indicates a growing interest in this type of financing. This increased interest has also been in evidence in the Twelfth Federal Reserve District, which has had a greater relative increase in bankers' acceptance financing than other parts of the country.

The renewed interest in bankers' acceptances has been welcomed in many quarters. Growth in the volume of bankers' acceptances outstanding can be expected to expand the supply of private short-term dollar credit available to finance foreign and international trade. Not only could this encourage the growth of trade but it should be of assistance to those countries endeavoring to relax controls over trade and payments and by so doing restore the convertability of their currencies.

Early in April of this year the Federal Open Market Committee of the Federal Reserve System began to purchase moderate amounts of bankers' acceptances from dealers. By including bankers' acceptances in the open market operations of the Federal Reserve System, it is hoped that the development of the market for these short-term investments will be encouraged and interest in this type of financing increased.

Historical background

The bill of exchange, a draft drawn by the seller of commodities on the purchaser, is virtually as old as trade. If such drafts provide for payment at a deferred date, and the debt is acknowledged by the purchaser through his acceptance of the draft, a trade acceptance is created. The bankers' acceptance is a further refinement of the bill of exchange in which the draft is drawn on and accepted by a bank and the bank name replaces that of an individual or firm. It also has a long and interesting history. In the United States, however, the history of bankers' acceptances is a relatively short one and for practical purposes dates back only to the enactment of the Federal Reserve Act in 1913. Prior to that time national banks and most state banks were without specific authority to create acceptances. In the United Kingdom, on the other hand, the bankers' acceptance was a major factor during the nineteenth century in the development of London into its position of pre-eminence as the world's leading money market, a market in which the major part of the world's trade was financed, including a significant part of that of the United States.

The history of the London money market during the last half of the nineteenth century and up until the eve of World War I has long been of major interest to students of monetary policy and international finance. This period was the "golden era" of foreign trade during which the London money market provided a mechanism for mobilizing short-term private capital, capital which was free to move from country to country in response to relatively small changes in short-term interest rates. It was the availability of this stock of extremely mobile short-term capital which had led many to believe that the gold-standard mechanism was indeed the final answer to monetary stability and provided a means of automatically adjusting short-term balance of payments disequilibria.

During the period between the two world wars, however, the movement of short-term funds, rather than assisting in adjusting balance of payments problems, became perverse as a result of political and economic instability, first during the 1920-21 commodity crisis and to a much greater extent during the world-wide depression of the 1930's. Such perverse capital movements were accentuated as fears of impending war developed. As a result most countries instituted direct controls over the movement of private capital. Such controls were strengthened during World War II and were carried over into the postwar period.

More recently significant progress has been made in the relaxation of direct controls over trade and payments and in the restoration of currency convertibility. This improvement has been made possible by the restoration of production to or above the pre-World War II level over most of the free world. It is hoped that in this more favorable environment a reservoir of short-term private capital may be built up, not only to finance an expanding volume of world trade and to replace to a large extent Government financing but also to provide a source of short-term capital which can move between countries in response to interest rate differentials. These short-term

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capital movements would assist in the correction of temporary balance of payments disequilibria.

One of the ways in which this short-term capital might be mobilized is through an increase in financing by bankers' acceptances. It should be noted, however, that in a number of respects the situation today with regard to the development of acceptance financing, and through this medium the encouragement of equilibrating short-term capital movements, differs significantly from earlier periods. Before considering these differences and the role that bankers' acceptances might play in an expansion of privately financed foreign trade, it would seem appropriate to consider first the mechanics of acceptance financing and the nature of the bankers' acceptance market in the United States.

What is a bankers' acceptance?

A bankers' acceptance is a time draft (bill of exchange) which has been drawn on and accepted by a bank. When a bank accepts such a draft by stamping it "accepted" on the face, it is committed to pay the amount of the draft at maturity to the person presenting it for payment. A bankers' acceptance thus is two-name paper, that is, it carries the name of the drawer and that of the accepting bank. What has occurred in effect is that the name and credit of a bank has been substituted for that of the bank's customer. Once a bank has accepted a draft it may be sold at a discount by the holder and immediate funds acquired, the discount being the interest paid for the use of the funds for the period until the acceptance matures. A bankers' acceptance may also become three-name paper if it is subsequently resold with the endorsement of another bank or dealer in bankers' acceptances. By such endorsement a contingent liability is incurred. Such a third name is of importance in certain countries where banks are permitted to invest only in three-name paper, and also in those instances when the accepting bank may be a foreign bank or a bank unknown to the purchaser where the endorsement of a local bank or well-known bank becomes highly desirable.

While bankers' acceptances may have a maturity of as long as 180 days, most acceptances mature within a period of 90 days or less. Furthermore, they are never renewed.[1] Thus they are an extremely liquid investment. Because of their liquidity and relatively riskless nature bankers' acceptances are virtually the commercial counterpart of Treasury bills.

Types of transactions which result in the creation of bankers' acceptances

Because the buyer and seller in foreign trade are often not well known to each other, the bankers' acceptance is a particularly attractive method of financing. As a result most bankers' acceptances cover transactions in foreign trade. Very few acceptances are created to support domestic trade transactions, but a considerable volume is created to support the domestic storage of certain commodities.

Bankers' acceptances in foreign trade most often arise from the issuance of a letter of credit. Under a letter of credit a bank is committed to pay drafts which arise out of specified transactions occurring within a particular period of time. If the letter of credit specifies sight drafts, then such drafts are paid upon presentation and no acceptances are created. However, if time drafts are specified, they are accepted upon presentation and paid at maturity.

In a typical transaction a United States importer will go to his bank with a request that a letter of credit be opened in favor of his foreign supplier covering a particular shipment or series of shipments and specifying the credit terms—sight, 30, 60, 90, etc., days. The United States bank then notifies the exporter either through its foreign correspondent or foreign branch or subsidiary that the credit has been established. Upon shipment the exporter draws a draft which is forwarded with appropriate documents for acceptance by the United States bank. Upon acceptance the exporter can either sell the draft at a discount and obtain immediate payment or hold it as a short-term investment. The importer is expected to put the bank in funds before the draft matures.

Letters of credit which give rise to bankers' acceptances may also be opened in the United States at the request of foreign customers or correspondent banks covering imports, exports, or transactions between foreign countries. Such letters of credit may specify drafts drawn either in United States dollars or foreign currencies.

Today by far the largest part of all foreign trade is financed through the issuance of bank letters of credit. A large proportion of these letters of credit call for sight drafts and do not result in the creation of bankers' acceptances. However, with more normal trading conditions in world markets and the relaxation of governmental controls on international payments, a larger proportion of time drafts relative to sight drafts can be expected.

Another method by which bankers' acceptances come into existence is through the execution of an acceptance agreement between the bank and its customer. Acceptances drawn under such agreements may cover a wide variety of transactions in foreign, international, and domestic trade and may also cover the storage of commodities both in the United States or abroad.

For example, a United States exporter may have an agreement with his bank to accept drafts drawn by the exporter up to a certain amount covering the export of goods. The exporter discounts the acceptances and obtains immediate funds, and the proceeds as received from the foreign purchaser are utilized to pay the bank as the acceptances mature. On the import side, commodities may be imported under sight draft terms and then refinanced under an acceptance agreement whereby the importer can

[1] Under the standstill agreements with Germany beginning in September 1931, United States and other foreign banks were required to maintain credits, with the substitution of new paper for maturing acceptances. Some of this indebtedness was not paid until after World War II, and earlier payments had been made in types of German marks which could only be converted into dollars at a discount. United States banks, however, made prompt and full repayment to holders of their acceptances which had been undertaken for German customers or at the request of German correspondent banks.

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draw drafts on his bank to cover brief periods of sale or distribution in the United States.

While only a very small volume of domestic trade is financed by bankers' acceptances, there has been a relatively large volume of domestic commodity storage financed in this manner in recent years. In this case the owner of the commodities enters into an acceptance agreement with his bank or banks whereby he can draw drafts on the bank, secured by warehouse receipts, which upon acceptance and discount make it possible to finance storage until sale or export. Similarly the foreign storage of commodities can be financed either for United States or foreign customers or at the request of foreign correspondent banks.

In all of the examples mentioned thus far bankers' acceptances have either arisen out of a particular trade transaction or have been secured by commodities held in storage. Thus, in principle, bankers' acceptances are self-liquidating. One exception is in the case of the so-called "dollar exchange" acceptances or bills. Such acceptances are not supported by a particular transaction or storage but are for the purpose of creating dollar exchange. This facility is extended by United States banks only to banks in certain foreign countries and is for the purpose of permitting these foreign banks to draw dollar drafts in order to obtain dollar exchange to finance their importers during seasons of low dollar export earnings. The acceptances are repaid during seasons in which dollar earnings are high. The volume of "dollar exchange" bills, however, is not at present an important part of the total outstanding.

The cost of financing by bankers' acceptances

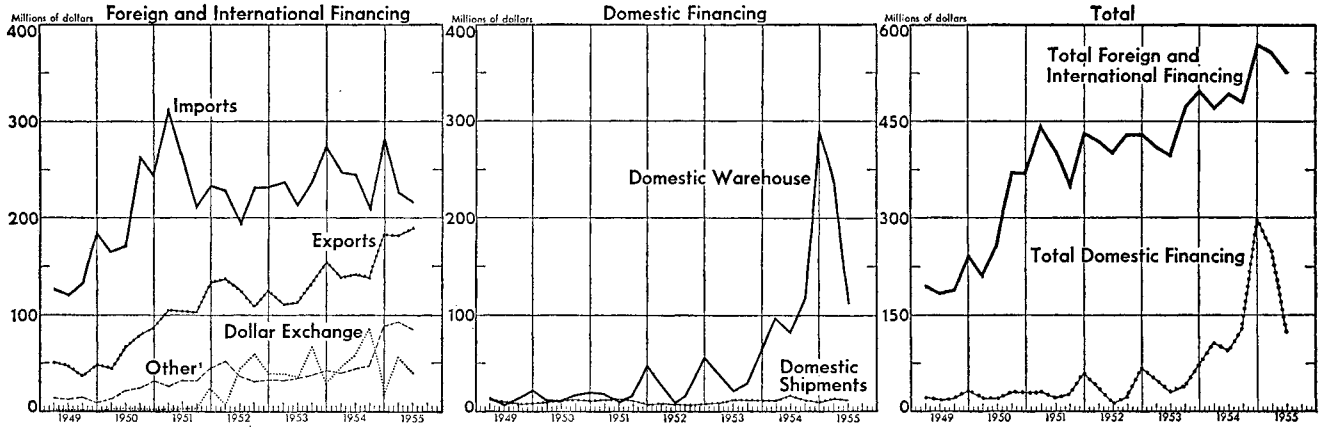
Acceptance financing differs from other methods of financing in that the cost to the borrower is made up of two segments. When a bank accepts a draft drawn on it by a customer, it charges a fee or commission for the use of its name, or in other words for its guarantee. At the present time and for a period of many years this commission for assuming the credit risk has been 1½ percent per year or ⅛ of 1 percent per month. This rate is the minimum rate and thus it might be assumed that it is available only to prime borrowers, but in practice this rate is given to a much wider number of borrowers than would be eligible for the prime rate on a direct loan. In the case of drafts accepted at the request of foreign correspondent banks, a rate as low as 1 percent per year is common.

The second segment of the cost of acceptance financing is the discount charged for selling the acceptance. By the act of accepting a draft a bank extends no funds but merely assumes the risk of ultimate payment. The actual funds extended are furnished by the purchaser or holder of the acceptance and the discount at which it may be purchased is the charge for the use of the funds, since the risk factor is virtually eliminated.

At the end of July dealers in bankers' acceptances in New York quoted a buying rate for bankers' acceptances of 1⅝ percent for maturities up to 90 days which, as pointed out earlier, includes most of the acceptances which are currently being created. For longer maturities the discount was somewhat higher—by ⅛ percent up to 120 days and an additional ⅛ up to 180 days. There is a ⅛ percent spread between these buying rates and the dealers' selling rates. These rates apply only to the acceptances of well-known, or prime, banks. Actually, however, these are the only rates quoted and virtually all banks currently accepting drafts are given these rates.

The sum of these two segments, that is, the 1½ percent acceptance commission and the discount of 1⅝ percent totaled 3⅛ percent, and this was the cost of acceptance financing to the borrower. Since these rates are minimum rates, the relevant comparison for purposes of determining the relative attractiveness of alternate methods of financing would be the rate for prime bank loans, which was 3 percent at the end of July. Despite the fact that the cost of acceptance financing was ⅛ percent above the prime loan rate, there were undoubtedly many borrowers that would have found acceptance financing cheaper. This

BANKERS' ACCEPTANCES OUTSTANDING BY TYPE OF TRANSACTION, 1949-1955
(End of quarter)



[1] Financing of goods stored in or shipped between foreign countries.
Source: Federal Reserve Bank of New York, *Monthly Acceptance Survey*.

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is due to the fact that the minimum acceptance commission is more widely available than the prime loan rate.

Concurrently with the expansion of the volume of bankers' acceptance financing in the United States there has been a narrowing of the differential between the cost of acceptance financing and the prime loan rate. In December 1948 this differential was ¾ percent per year, with the prime rate lower. By early 1954 the costs of these two methods of financing were equal and between March 1954 and January 1955 the cost of acceptance financing was ⅛ percent less than the prime rate. Two increases during the current year of ⅛ percent in the dealers' buying rate on acceptances, one in January and the other in April, while the prime loan rate remained unchanged, eliminated this cost advantage of acceptance financing.[1]

From the standpoint of the investor of short-term funds the relevant rate is the discount at which acceptances can be purchased, or, in other words, the dealers' selling rate which was 1½ percent at the end of July. Because of their characteristics of liquidity and safety, bankers' acceptances are virtually the equal in attractiveness of United States Treasury bills of similar maturities. The appropriate rate comparison to the investor, therefore, would be between bankers' acceptances and Treasury bills. In recent months the yield on 90-day Treasury bills has fluctuated between 1.6 and 1.3 percent which has been relatively near the yield on bankers' acceptances.[2]

Advantages and disadvantages of bankers' acceptance financing

From the standpoint of the borrower the advantages stem primarily from the fact that the name and credit of a bank is substituted for that of the trader or firm. This is of particular advantage in foreign trade where credit investigation and the collection of other commercial intelligence are costly and time consuming. To the borrower who is eligible for a direct loan at the prime rate, acceptance financing is at present at a slight cost disadvantage, although at one time within the past year the cost of acceptance financing was below the prime rate. Among the disadvantages to the borrower, two are most commonly mentioned. First, the mechanics of financing through the bankers' acceptance are somewhat more complicated and entail more paper work than the negotiation of a direct loan. Second, the bankers' acceptance is less flexible than a direct loan in that it carries a fixed maturity. Payment before maturity with an interest credit is ordinarily not possible as in the case of a direct loan because the holder of an acceptance will not present it for payment until the maturity date. Although some banks will allow a partial rebate of their acceptance commission to customers who put them in funds prior to presentation of an acceptance, this practice is not standardized. The use of acceptance financing, in other words, means that the borrower must calculate much more carefully the dates at which funds will become available to cover maturing obligations than would be true if he were being financed by direct loans.

From the standpoint of the lender possibly the greatest advantage of acceptance financing is the fact that a bank can accommodate a customer without advancing any of its own funds. The importance of this advantage to the lender would be directly related to the availability of loanable funds. At times when a bank has no excess reserves, acceptance financing would appear to be highly desirable. On the other hand, at times when excess reserves are available, a bank probably would prefer to extend direct loans. As is true in the case of the borrower, the more complicated mechanism of acceptance financing is a disadvantage from the standpoint of the bank and increases its cost over that which would be entailed in processing a direct loan.

For the investor of short-term funds, the decision to invest in bankers' acceptances or Treasury bills would appear to be largely a matter of yield, since both have similar characteristics of liquidity and safety. To the foreign investor, however, bankers' acceptances have a tax advantage over Treasury bills in that income received from investments in bankers' acceptances is not subject to United States withholding taxes. The extent of this tax advantage would depend upon the particular foreign country in which the investor is resident and the reciprocal tax treaty in effect between his country and the United States. In some of these treaties the withholding tax has been reduced or eliminated. For the nonbank investor in the United States the main factor limiting investment in bankers' acceptances during recent years has been the fact that they have been in such limited supply. Most of the available acceptances have been purchased by banks for their foreign correspondents or accepting banks have bought their own acceptances. As a result, few have been available for other investors. A final disadvantage for all investors is the fact that bankers' acceptances are very often drawn for inconvenient denominations since they cover particular transactions.

The United States market for bankers' acceptances

The development of a market for bankers' acceptances in the United States had its beginning for all practical purposes with the passage of the Federal Reserve Act in 1913 which authorized member banks to accept drafts drawn for certain purposes. The initial development was a rapid one with the total volume of bankers' acceptances outstanding reaching the $1 billion mark by 1920. The volume of acceptance financing fell off sharply during the 1920-21 recession, and it was not until 1927 that the total outstanding again reached $1 billion. There followed another period of rapid expansion and in 1929 an all-time high of over $1.7 billion was reached. During the depression of the 1930's acceptance financing again declined sharply along with world trade and business activity. This decline continued up until the beginning of World War II when the amount outstanding was less than $200 million.

[1] Early in August the rate for prime bank loans was increased from 3 to 3¼ percent and the dealers' buying rate on bankers' acceptances was increased from 1⅝ to 1¾ percent. As a result the cost of financing by these two methods was equalized at 3¼ percent.

[2] Reflecting increasing money market rates, Treasury bills issued as of August 4 were sold to yield 1.85 percent.

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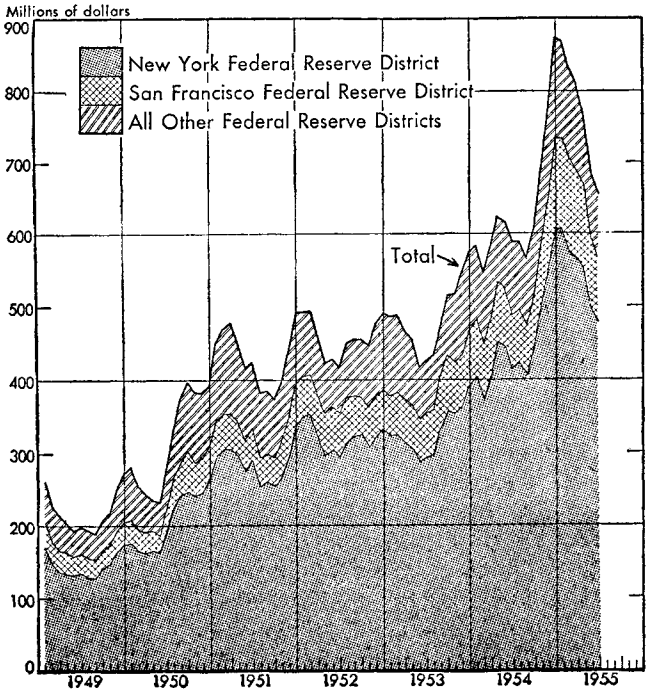
The major part of the most recent expansion in the amount of bankers' acceptances outstanding has taken place since 1948. At the end of December 1948 the total amount outstanding was $259 million. By the end of December 1954 this total had increased to $873 million. While this has been a 237 percent increase in six years, the total amount outstanding at the end of 1954 was still only slightly more than one half the level reached in 1929. The most rapid expansion occurred during 1954 when there was an increase of $299 million. Most of this expansion, however, took place in bankers' acceptances drawn for the domestic storage of commodities, which increased from $64 million to $290 million, rather than in acceptances drawn for purposes of foreign financing. The most important single commodity involved was cotton, a major part of which was being assembled and stored prior to export. Other domestic acceptances have remained virtually unchanged in amount since 1948.

During the first six months of 1955 the total amount of acceptances outstanding has decreased seasonally and as of the end of June totaled $655 million, some $66 million greater than a year earlier. Out of the total decline of $218 million since the first of the year, $178 million was accounted for by a decline in acceptances for the domestic storage of commodities, reflecting in part a seasonal run-off of cotton bills which had expanded so rapidly during earlier months.

While there has been a relatively rapid expansion in the total volume of bankers' acceptances outstanding since 1948, there apparently has been little change in the number of United States banks which regularly accept drafts.

DOLLAR BANKERS' ACCEPTANCES OUTSTANDING
(End of month figures)
1949 to 1955



Source: Federal Reserve Bank of New York, *Monthly Acceptance Survey*

Most of the acceptances outstanding have been created by a small number of large banks in major cities, with New York City playing a dominant role. The very nature of the acceptance business and the necessity for foreign connections have precluded most small banks and even larger inland banks from engaging in this type of financing.

The New York market for bankers' acceptances also has the advantage of having a small group of dealers who regularly buy and sell bankers' acceptances. The acceptance business of these dealers, however, is usually a sideline to their main business of dealing in Government and other securities. In their acceptance activities these dealers actually act in a brokerage capacity, deriving their profit from a ⅛ percent spread between their buying and selling rates and seldom carrying any acceptances for their own account. Customarily banks sell to these dealers their own acceptances which they have discounted at the dealers' buying rate, deriving no profit from this transaction. In turn they purchase, at the dealer's selling rate, acceptances of other banks primarily for the account of foreign customers and foreign correspondent banks to which they add their own endorsement for a fee of 1/16 to ¼ percent. Foreign investors with short-term dollar balances to invest have a traditional preference for such acceptances bearing the names of two banks.

The dominant position of New York in the United States acceptance market is indicated by the fact that the New York Federal Reserve District in recent years has accounted for approximately 70 percent of the total bankers' acceptances outstanding. Of the remainder, the San Francisco, Boston, Chicago, and Philadelphia Districts account for all but a minor fraction.

Bankers' acceptance financing in the Twelfth Federal Reserve District

San Francisco is one of the few cities outside of New York where the bankers' acceptance has continued in use as a credit instrument all during the years since 1913. Since World War II the Twelfth Federal Reserve District has been second to the New York District in the total amount of bankers' acceptances outstanding, and for the first six months of 1955 the total outstanding has been larger than the combined total of all other Federal Reserve Districts outside of New York.

The total value of acceptances outstanding in the Twelfth District increased from $34 million to $125 million between December 1948 and December 1954. This three to fourfold increase exceeded that for the country as a whole, being slightly greater than the percentage increase for the New York District and almost twice as large as the increase for the rest of the country.

Federal Reserve participation in the bankers' acceptance market

Provision for the establishment of a bankers' acceptance market in the United States was a key feature of the Federal Reserve Act of 1913. Not only were member banks given their first specific authority to accept under

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the Act but Federal Reserve Banks were also authorized to rediscount and purchase such acceptances in accordance with regulations of the Board of Governors.

The Federal Reserve Banks began purchasing acceptances in 1915 and continued to do so until 1934. After that year and up until the current year only occasional purchases were made. During the period of relatively high activity in the bankers' acceptance market in the 1920's the Federal Reserve Banks along with foreign central and commercial banks were the main purchasers.

In practice each Federal Reserve Bank has had a minimum buying rate approved by the Board of Governors, at or above which it would set a buying rate which would fluctuate with changes in the market rate. During the period in which Federal Reserve Banks were buying bankers' acceptances in volume their buying rates were only slightly above the dealers' buying rates. In later years, however, these rates have been sufficiently above the dealers' rates as to make them ineffective.

During the 1920's dealers in bankers' acceptances were also assisted by the Federal Reserve Banks through repurchase agreements or "sales contracts" under which the dealer agreed to repurchase bills sold to the Federal Reserve Banks within 15 days. This assured dealers that funds could be obtained if needed.

Because the Federal Reserve buying rates during this earlier period were usually below the Federal Reserve discount rate, bankers' acceptances were not offered for rediscount. All purchases by Federal Reserve Banks were outright purchases for immediate delivery and they were held until maturity. The acceptances themselves were all three-name paper, that is, they contained the additional endorsement of a bank or recognized dealer, and a practice of not buying directly from the accepting bank was followed.

In April 1955, after many years of inactivity, the Federal Reserve System again assumed a more active interest in the bankers' acceptance market. Under the direction of the Federal Open Market Committee the Federal Reserve Bank of New York has begun to purchase moderate amounts of bankers' acceptances at market rates. It is hoped by this activity that a greater interest and wider participation in the market for bankers' acceptances can be encouraged. These purchases have been quite moderate and total holdings have fluctuated between $10 million and $20 million. Federal Reserve holdings will tend to vary in relation to general credit policies and seasonal swings in the bankers' acceptance market. There is no intention, however, to interfere with established market relationships or to determine market rates.

The bankers' acceptance and international movements of short-term capital

One might very well inquire as to why there is so much interest in developing the use of bankers' acceptance financing in the United States. If foreign traders have alternative methods of financing, such as direct loans, why is the further development of a bankers' acceptance market considered to be an important objective?

An answer to this question has two aspects which, although directly related, should be considered separately. One has to do with the growth of privately financed foreign and international trade and the other has to do with smoothing out fluctuations in the flow of this trade.

During the post-World War II period a major portion of the world's trade has been closely controlled and financed by governments. Such controls and official financing were necessary in order to restore circulation to the channels of world trade, not only to heal the war damage and thus restore production but also to overcome the effects of years of an abnormal trade environment and to restore confidence among the private traders of the world.

Today with production above the pre-World War II level throughout most of the free world and with important progress being made by many governments in the relaxation of controls over trade and payments, it is reasonable to assume that private trade and finance will assume a more important role. Furthermore, private capital can be expected to play an increasingly important role in any future expansion in the flow of trade.

At the present time the United States is by far the most important potential source of an increase of private capital, both short- and long-term. Short-term capital would help finance the flow of trade and long-term capital would be used for developmental projects which are needed to support a growing volume of trade.

An expansion in the bankers' acceptance market in the United States would provide an additional means of mobilizing needed short-term capital. A larger bankers' acceptance market need not compete with other means of mobilizing short-term capital for foreign and international financing but it could supplement other existing mechanisms.

Even under the most favorable economic and political environment, world trade is subject to fluctuations and individual countries may be expected to face temporary balance of payments problems. The vagaries of nature and changing consumer preferences alone can assure this. If such temporary fluctuations are to be weathered without the necessity of instituting or continuing controls over trade and payments, it is necessary that trading countries have adequate reserves of gold and foreign exchange, or that their reserves can be augmented by an outside source of short-term funds. More active acceptance markets in world financial centers would assist in the shifting of short-term funds from countries where there is a surplus to those countries where there is a shortage. For a country experiencing a deficit in its trade, higher short-term interest rates might be expected to attract short-term funds from outside the country and at the same time encourage their traders to shift their financing to other countries where costs would be lower. Both of these forces would help to reduce pressure on the country's balance of pay-

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ments. The development of a stock of mobile short-term capital sensitive to interest differentials between markets in various countries, which was of sufficient magnitude to play a significant role in adjusting temporary balance of payments disequilibria, would require reasonably stable domestic and international monetary conditions.[1] It would perhaps be unrealistic to assume that conditions which prevailed prior to World War I, when London was the financial center of a highly effective world trading system, can be duplicated in the modern trading world. Today's trading system has become vastly more complicated and the problems which have given rise to balance of payments disequilibria in many countries are of the sort which are not amenable to adjustment through the movement of short-term funds. Nevertheless, an increase in the availability of short-term funds in international financing channels, particularly United States dollars, could be an important stabilizing factor and of great assistance to those countries endeavoring to restore their currencies to full convertibility.

It should also be noted that the transfer of funds through the medium of bankers' acceptance markets is only one of the available methods of transferring short-term funds between countries. Investors of short-term funds desiring to transfer them from one country to another can also do so through the medium of interest-bearing bank deposits or Treasury bill markets.

The growth of the Treasury bill market in the United States since 1929, as well as its increased use abroad, has an important bearing on the potentialities of developing a larger volume of bankers' acceptances. Prior to 1929 bankers' acceptances were a preferred investment medium for United States banks. Many banks customarily held bankers' acceptances as secondary reserves and adjusted their reserve position through the purchase and sale of these acceptances. Since 1929 United States Treasury bills have taken over this function formerly performed in part by bankers' acceptances; therefore, this reason for a large bankers' acceptance market no longer exists. It is doubtful, therefore, that bankers' acceptances will be able to regain the relative importance in the United States money market which they held in the late 1920's. Nevertheless, considerable expansion in the bankers' acceptance market is possible. If present efforts to broaden the market do create additional interest in this type of financing, a useful supplementary short-term investment for private investors will become more readily available. In addition, such a development will have the desirable effect of increasing the availability of short-term credit for the support of an expanding volume of foreign and international trade.

[1] For a discussion of some of the additional factors involved in the transfer of short-term funds between countries as well as a more detailed discussion of bankers' acceptance financing, see "Bankers' Acceptance Financing in the United States," *Federal Reserve Bulletin*, May, 1955.

UNEMPLOYMENT INSURANCE BENEFITS AS A STABILIZING FORCE DURING RECESSIONARY PERIODS

THE original intent of the unemployment insurance program was to help sustain a portion of a worker's income lost during a period of involuntary unemployment. However, in addition to aiding the individual, the program has since been recognized for its role in stabilizing the income level of the economy, particularly during a period of economic decline. During a recession when wages and salaries are declining, the diminishing income stream is supplemented by the payment of benefits to the unemployed. Concurrently, contributions by the employer to the unemployment insurance fund, which are based on payrolls, tend to decline. During a period of rising economic activity, on the other hand, benefits decrease and contributions tend to increase. These contracyclical changes in benefits and contributions tend to occur automatically, thus providing a built-in stabilizer for the economy.[1]

The compensatory effect of the unemployment insurance benefit program during the recent recession was limited by the incomplete coverage of the nation's working population as well as by the limited income replacement provided by benefit payments. Somewhat less than one-quarter of the decline in total wages and salaries was offset by the payment of unemployment insurance benefits. Even recognizing the limitations of the unemployment insurance benefit program in offsetting the wage loss during a recessionary period, this program is considered one of several significant compensatory devices operating during periods of economic fluctuation.

In the discussion which follows, the nature of coverage, the benefits accorded the individual worker, and the effect of benefits on the economy are examined. This will provide a background for assessing the effectiveness of unemployment insurance.

The Social Security Act of 1935 and unemployment insurance

Under the provisions of the Social Security Act of 1935, the states were encouraged to establish systems of unemployment insurance. To accomplish this a Federal unemployment tax was levied on employers' payrolls. However, if an employer paid unemployment taxes to a state unemployment insurance system which met the minimum standards of the Federal law, the employer could offset the tax paid to the state against all but 10 percent of the Federal unemployment tax. Under this stimulus, the states rapidly established programs of unemployment insurance.

A second system, the Railroad Unemployment Insurance system, was established in 1939 to provide benefits

[1] The use of experience rating plans, however, reduces the compensatory effects of contributions. Under such plans, a lower contribution rate is awarded to an employer with low unemployment experience, *e.g.* smaller unemployment benefit payments are charged against his account relative to his contributions. Consequently, as business declines, experience ratings deteriorate and contributions per payroll dollar increase, particularly during recessions of considerable duration. Similarly, as business improves, contributions for some employers decline. Nevertheless, the level of contributions still tends to vary directly with changes in wages and salaries.

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to railroad workers. With the passage of the Veterans' Unemployment Allowance Program after World War II and the Veterans' Readjustment Assistance Act after the Korean war, special unemployment benefits have been paid to veterans under specified conditions. However, as the latter type of benefit program is a temporary measure, it has been excluded from this discussion.

The unemployment insurance provisions of the Social Security Act (now provided for in the Federal Unemployment Tax Act) do not extend to all persons in the economy. Among the persons originally excluded from the Federal Act, by way of the taxing provisions, were those who were employed in nonprofit (religious, charitable, and educational) organizations, government service (state, local, and Federal), the maritime service, and in very small firms with less than 8 workers. Farmers and domestic workers were also excluded as were railroad employees who were later covered under a separate system. Subsequent Federal legislation extended unemployment insurance coverage to Federal maritime workers as of July 1, 1953, to Federal Government workers as of January 1, 1955, and to workers in firms of 4 or more employees (instead of the present 8 or more) as of January 1, 1956.

The coverage provisions of the state unemployment insurance system generally follow the pattern established in the Social Security Act. All states, in order to receive the tax offset referred to earlier, include at least employment subject to the Federal unemployment tax. But some states extend coverage to workers who are excluded from coverage in the Social Security Act and thus not subject to the Federal unemployment tax. For example, unemployment insurance in California extends to workers in firms employing one or more employees and several states cover state and local government workers.

Unemployment insurance and the Twelfth District

Among the Twelfth District states, there are some differences in the unemployment insurance benefit programs compared with the average for the nation as a whole. Differences occur in regard to over-all coverage, level of benefits, and benefits as a percent of wages as well as in duration of benefits, eligibility for benefits, and supplements for dependents. In 1953 a slightly greater proportion of total civilian employees of the Pacific Coast states, as a group, were covered by state unemployment insurance programs than were covered in the nation (60.5 and 59.2 percent, respectively).[1] This greater coverage was due entirely to California where 62 percent of the civilian workers were covered. In Oregon, coverage was considerably below that of the national average (51 percent); whereas in Washington coverage was about equal to the national average. From 1947 to 1952 coverage of Washington's workers was greater than the national average, but recently Washington's advantage has been steadily declining.

[1] Data on total employment (nonagricultural and agricultural) are available for only these three District states.

These differences in coverage are the result of several factors. In all three Pacific Coast states, coverage is extended to employees of small firms—firms of one or more employees in California and Washington and firms of four or more employees in Oregon. In the country as a whole half of the states cover only employees in firms of 6 or more workers. As only California has coverage greater than that of the national average, other factors must have reduced or offset the effect of small firm coverage in Washington and Oregon. The industrial composition of the work force is one such factor. In California, a smaller proportion of workers in the typically noncovered sector of agriculture and a higher concentration of workers in the trades and services, which are generally covered in California because of the provisions for employees in small firms, contribute to the inclusion of a relatively larger number of workers in the unemployment insurance program than in the nation. In Washington, the distribution of workers in the trades and services and agriculture more closely resembles the pattern of the nation than does that of California. Possibly explaining Oregon's lower than national coverage is the greater concentration of workers in trades and services than in the nation and the exclusion of large groups of these workers from coverage through the minimum size firm provisions. The significance of the exclusion of a portion of this group is well illustrated by a comment of the Oregon Unemployment Compensation Commission which said if coverage were extended to employers of one or more workers, service and trade lines would contribute about 67 percent of the additional members. Oregon also has fewer workers employed in manufacturing and construction—industries with a high proportion of their members covered by unemployment insurance—than does the nation.

Further differences in the unemployment insurance program between the District states and the national pattern are evident in the benefit provisions. Differences in required qualifying wages, minimum and maximum weekly benefits, and minimum and maximum total benefits payable in a year are reflected in the average weekly payments. For the District as a whole, average weekly payments are only slightly higher than in the nation. As indicated in the accompanying table, Nevada, Utah, and

TABLE 1

BENEFIT PAYMENTS AND WAGES—TWELFTH DISTRICT AND UNITED STATES, 1939 AND 1953

	Average weekly wage of covered workers		Average weekly benefit payment		Benefits as a percent of wages	
	1939	1953	1939	1953	1939	1953
California	$30.40	$78.92	$10.99	$23.34	36.2	29.6
Washington	26.92	75.63	11.82	24.43	43.8	32.3
Oregon	28.81	75.83	11.90	22.84	41.3	30.1
Arizona	24.52	72.52	11.19	21.23	45.6	29.3
Nevada	26.87	78.42	12.94	26.86	48.2	34.3
Utah	23.92	66.35	10.32	25.39	43.1	38.3
Idaho	21.60	64.96	11.21	23.18	51.9	35.7
Twelfth District	26.15	73.23	11.48	23.90	43.9	32.6
United States	26.15	72.98	10.66	23.58	40.8	32.3

Source: United States Department of Labor, Bureau of Employment Security, *Labor Market and Employment Security.*

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Washington granted average weekly benefits in 1953 which were above the average for the nation; average weekly benefits in the remaining District states were below the national average.

More indicative of the adequacy of benefits is the ratio of average weekly payments to average weekly wages of covered workers. Twelfth District payments as a percent of wages were substantially the same as the national average in 1953, but were considerably higher than the national average in 1939. During this period, District wages increased more and benefits less than those for the nation as a whole. In part the District lost its advantage because the statutory limitations on maximum weekly benefits were raised on the average less in District states than in the nation generally between 1939 and 1953.

Measuring the role of unemployment insurance in the national economy

The role of unemployment insurance within the national economy is suggested by the extensiveness of coverage of the nation's labor force and by the proportion of the wage loss which is offset by benefits. Unemployment insurance extends to a major proportion of the labor force and its role in the economy has grown as the comprehensiveness of the system has been enlarged. But at the same time that the coverage of the system has been extended, the portion of the average individual worker's wage loss offset by unemployment benefits has been decreasing.

Measured either in terms of workers covered or payrolls covered, unemployment insurance has become more comprehensive since its inception. The proportion of employed persons in the civilian labor force covered by unemployment insurance programs—both state and railroad—had climbed from 52 percent during the early years of the program to 62 percent by 1953. The recent extension of unemployment insurance to Federal Government workers and to workers in firms of 4 or more employees will increase coverage to about 68 percent of the working population, according to the Bureau of Employment Security. An even larger proportion of civilian wages and salaries are covered by unemployment insurance. In 1953 payrolls covered by state and railroad unemployment programs accounted for 77 percent of civilian wages and salaries in contrast to 68 percent in 1939.

The greater coverage of payrolls than of employment principally reflects the relative wage levels in the covered and noncovered industrial sectors. Covered employment includes more of the higher wage industries such as manufacturing and construction and largely excludes lower wage groups in agricultural work, domestic service, and in small service and retail outlets.

Another peculiarity in the data results from the sensitivity of manufacturing, construction, and transportation to business swings. As business activity declines, for example, the three industries mentioned suffer declines in employment much greater than do many of the noncovered sectors, thereby causing the ratio of covered employment to total employment to decline. As a result there are cyclical swings in the ratios of covered employment which coincide roughly with swings in business activity.

Another and perhaps more significant way of measuring the coverage of unemployment programs is provided by the proportion of unemployed people receiving benefits. This measure is influenced not only by the number of unemployed persons covered by the program but also by benefit exhaustions, ineligibilities for reasons such as failure to accumulate enough wage credits, and retirements from the labor force. On the other hand, statistical and definitional difficulties make this measure, as well as the one above, somewhat imprecise. In 1953, 62 percent of the total unemployed received benefits under the state and railroad programs but only 58 percent received benefits in 1954.

These measures of unemployment insurance coverage based on average annual data partially conceal the decline in coverage during recessionary periods. The decline in the effectiveness of the program the longer the recession continues is better illustrated by quarterly data. For example, during the recent recession the proportion of unemployed receiving benefits fell from 70 percent in the fourth quarter of 1953 to 58 percent in the third quarter of 1954. In part, at least, this decline resulted from the increase in the number of beneficiaries who exhausted their benefits. This number increased from 800 thousand in 1953 to 1.8 million in 1954.

Unemployment insurance benefits as an offset to the wage loss of the unemployed worker

When the unemployment insurance system was first instituted, it was suggested that it would be desirable to have an average of 50 percent of the unemployed worker's wage offset by unemployment benefits. In 1939 average weekly benefits were equal to 41 percent of the average weekly wage of covered workers. But by 1953 average weekly benefits of $23.58 offset only about 32 percent of the average weekly wage of covered employees.

It should be noted that this type of measure of the offset provided by benefits most probably understates the income replacement received by the individual unemployed worker. If it were possible to determine the average weekly wage previously earned by an unemployed worker, which presumably would be less than that of the average covered worker, the average offset of benefits to the unemployed workers' wages would be somewhat larger.[1] Similarly, if benefits were considered in relation to net spendable earnings, the relative offset to the real reduction in purchasing power also would be greater.

Nevertheless, the decline in benefits as a percent of wages has reduced the effectiveness of unemployment in-

[1] Several factors suggest that the previously earned average weekly wage of the unemployed worker would be lower than that of the average covered worker. Probably the principal factors are a higher rate of unemployment among unskilled and lower paid workers (as indicated by census data) and earlier loss of jobs by less skilled and newer workers.

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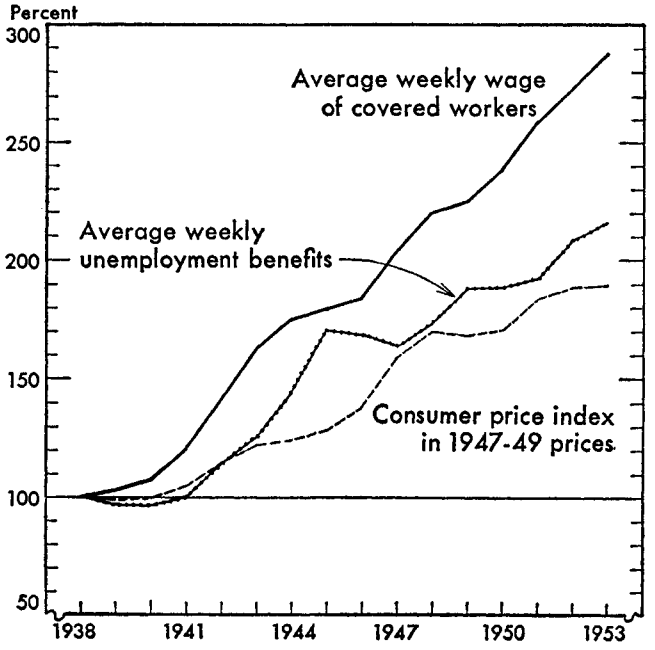
surance for the individual worker. Between 1939 and 1953, the rise in average weekly benefits, due in part to a statutory increase in the maximum benefit allowable by state law and in part to the rise in wages of which benefits are a calculated percentage, has not been as great as the increase in wages. Although benefits have not kept pace with rising wages, benefits have increased somewhat more than the cost of living between 1939 and 1953, as shown in Chart 1.

RELATIVE CHANGES IN WAGES, UNEMPLOYMENT BENEFITS, AND PRICES—UNITED STATES, 1938-1953
(1938=100)



Source: United States Department of Labor, Bureau of Employment Security and Bureau of Labor Statistics.

The use of average benefits as a percent of average weekly wages of covered workers as a measure of income loss offset by benefits conceals the variations among workers and among states. In 1953, the higher paid worker might have received benefits considerably less than 32 percent of his weekly wage because of the statutory maximum limit on benefits. Conversely, the lower paid worker might receive more than 32 percent of his weekly wage if he could qualify for maximum benefits. And among the states, the ratio of benefits to wages ranged from 27 percent in Delaware to 41 percent in North Dakota in 1953.

Unemployment benefits—a stabilizing force for the economy

In addition to the major function performed by unemployment insurance — providing the unemployed worker with partial benefits in lieu of wages lost through involuntary unemployment — unemployment insurance benefits also contribute to the income stream of the economy in a contra-cyclical manner. When unemployment benefits are considered relative to total wages and salaries, disposable personal income or personal consumption expenditures, their contribution to the income stream appears small, as indicated in Table 2. If we turn our attention to the proportion of wage and salary loss which unemployment benefits offset we get a quite different picture.

Estimates of the proportion of the wage loss for the economy as a whole compensated by unemployment insurance benefits during recent recessionary periods have varied from 10 to 25 percent, depending in large part on the method of measurement used and on the period selected. Two examples will show the substantial differences in results which may be obtained from various methods of measurement. For example, the wage loss in private wages and salaries during the 1948-1949 decline was greater than the wage loss in total wages and salaries because of the increase in Government payrolls during this period. Thus, measuring benefits in relation to wage loss in the private sector would yield a smaller relative offset than measurement against the total wage loss. Again illustrating the effect of different measures, the longer the time period used to measure wages and salaries, the greater the likelihood that the degree of change will be obscured. If quarterly data were used instead of monthly data to measure wage loss, the peak would be lower and the trough higher than the corresponding values based on monthly data because of the averaging process, unless all the monthly values in either the high or low quarter were the same.

The effect of benefits in offsetting the decline in total wages and salaries (which account for close to 70 percent of total personal income) has been illustrated just recently. During the last recession the cumulative loss in total wages and salaries between the peak month of July 1953 and March 1955 was $7.3 billion.[1] This measure of wage loss includes income effects due to increases in wage rates and declines in hours worked as well as losses due to unemployment and should be considered as only a rough approximation of wage and salary loss due to unemployment. During the comparable period, state and railroad unemployment insurance benefits increased $1.6 billion, offsetting about 22 percent of the wage loss.

During the 1948-49 recession, the wage loss replacement provided by benefits, calculated on the basis of monthly data, amounted to 25 percent of the wage loss. In contrast to the experience during the two most recent periods of economic decline, only about 11 percent of the total wage loss during the 1945-47 post-war adjustment period was offset by state and railroad unemployment

[1] The calculation of wage loss during a recession is based on the difference between wages and salaries in the peak month before the recession and wages and salaries during each succeeding month until the original peak is reached again. The loss for each month between the pre-recession peak and the return to this original peak is cumulated. Seasonally adjusted wage and salary data were used to exclude loss of income due to normal seasonal factors. Changes in benefits are calculated on a comparable basis. The dates used to measure wage loss during the three periods discussed are July 1953 to March 1955, November 1948 to April 1950, and March 1945 to August 1947. This method is presented by Daniel Creamer in a study entitled "Importance of Government Offsets to Cyclical Losses in Personal Income" which is to be published by the National Bureau of Economic Research.

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benefits. The diminished compensatory effect of benefits during this period is largely explained by the large exodus of temporary war workers from the labor force and the decline in the military forces, resulting in a significant wage loss for the economy which was generally not compensated by state or railroad unemployment insurance benefits. The Federal Government, however, did provide some unemployment payments to veterans in 1945-47, offsetting about 8 percent of the military wage loss.

The income replacement provided by benefits for the economy as a whole amounts to far less than the average relative wage offset received by the insured unemployed worker (as measured by average weekly benefits as a percent of average weekly wages). The reasons for this

TABLE 2

STATE AND RAILROAD UNEMPLOYMENT INSURANCE BENEFITS AS A PERCENT OF INCOME, EXPENDITURES, AND WAGES

United States—Selected years

	Disposable personal income	Personal consumption expenditures	Total wages and salaries
1939	.62	.64	.95
1944	.04	.06	.05
1946	.71	.77	1.01
1948	.44	.46	.61
1949	.97	1.01	1.36
1952	.44	.47	.56
1953	.40	.44	.51
1954	.86	.93	1.12

Sources: United States Department of Commerce, *National Income Supplement*, 1954 and *Survey of Current Business;* United States Department of Health, Education, and Welfare, *Social Security Bulletin*.

are several. The wage loss incurred by noncovered workers or part-time workers (except in special cases) is not compensated by unemployment insurance benefits. Moreover, a portion of the covered workers may not qualify for benefits. Finally, compensation would no longer be forthcoming after a worker had exhausted his benefit rights.

Unemployment insurance benefit payments do not appear to be either comprehensive enough or sizable enough to be relied upon as a sole or even major economic stabilizer during a period of business decline. Nevertheless, benefit payments do inject limited support into the economy and maintain to a degree the purchasing power of some of those individuals who are unemployed. Moreover, this injection of supplementary income into the economy occurs automatically and as soon as unemployment arises.

Conclusion

To date the effectiveness of the unemployment insurance program has been tested only during recessionary periods of moderate intensity, namely, the postwar adjustment period, the 1948-49 recession, and the most current period of economic decline, 1953-54. During these periods the impact of the benefit program has been estimated to have offset approximately 10 percent of the wage loss in the 1945-46 period and roughly 25 percent in the latter two periods. But unfortunately this experience to date gives us little indication of what the effectiveness of the program would be during a major depression.

Several factors would limit the adequacy of the unemployment insurance benefit program during a major depression. The reserve funds held by the various states might not be able to withstand a severe depression involving large numbers of unemployed persons who were without jobs for long periods of time. Moreover, the statutory limitations on the amount of benefits as well as on duration of benefits would also limit the compensatory effect of unemployment insurance particularly as the depression was prolonged. States pay benefits for a maximum of 16 to 26 weeks, but in a major depression unemployment would probably continue for a longer period. Even during 1949, a year of moderate recession, the average duration of unemployment was 12 weeks, and about 2 million persons exhausted their benefit rights before finding jobs. The ability of the unemployment insurance program to withstand the demands of a major economic decline would of course vary among states, in view of the varying levels of reserves and the variations in statutory provisions.

The future effectiveness of the unemployment insurance benefit program during periods of declining business activity must also be considered in terms of other limiting factors. Some 30 percent of the working population is still not covered by unemployment insurance programs (excluding Veterans' Assistance programs). Moreover, there has been a decline in the proportion of benefits to wages. And the contribution rates to the unemployment insurance funds have been declining because of experience rating provisions and generally good employment conditions since the institution of the program. All of these factors would tend to limit the adequacy of unemployment insurance benefits in offsetting declining wages and salaries in a major depression.

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BUSINESS INDEXES—TWELFTH DISTRICT[1]
(1947-49 average=100)

Year and month	Industrial production (physical volume)[2]								Total nonagricultural employment	Total mf'g employment[4]	Carloadings (number)[2]	Dep't store sales (value)[2]	Retail food prices[4, 5]	Waterborne foreign trade[3, 6]	
	Lumber	Petroleum[3] Crude	Petroleum[3] Refined	Cement	Lead[3]	Copper[3]	Wheat flour[3]	Electric power						Exports	Imports
1929	80	87	78	54	165	105	90	29	....	....	102	30	64	190	124
1931	42	57	55	36	100	49	86	29	....	....	68	25	50	138	80
1933	34	52	50	27	72	17	75	26	....	....	52	18	42	110	72
1935	45	62	56	33	86	37	87	30	....	47	66	24	48	135	109
1937	61	71	65	56	114	88	84	38	....	60	81	30	50	170	119
1939	60	67	63	56	93	80	91	40	....	55	77	31	47	163	95
1940	65	67	63	61	108	94	87	43	....	63	82	33	47	132	101
1941	77	69	68	81	109	107	87	49	....	83	95	40	52	....	....
1942	77	74	71	96	114	123	88	60	....	121	102	49	63	....	....
1943	74	85	83	79	100	125	98	76	100	164	99	59	69	....	....
1944	74	93	93	63	90	112	101	82	101	158	105	65	68	....	....
1945	61	97	98	65	78	90	112	78	96	122	100	72	70	....	....
1946	80	94	91	81	70	71	108	78	95	97	101	91	80	89	57
1947	94	100	98	96	94	106	113	90	99	100	106	99	96	129	81
1948	102	101	100	104	105	101	98	101	102	102	100	104	103	86	98
1949	104	99	103	100	101	93	88	108	99	97	94	98	100	85	121
1950	116	98	103	112	109	115	86	119	103	105	97	105	100	91	137
1951	115	106	112	128	89	115	95	136	111	122	100	109	113	186	157
1952	111	107	116	124	86	112	96	144	118	132	101	114	115	171	200
1953	119	109	123	130	74	111	96	161	122	139	100	116	113	140	308
1954	111	106	119	132	70	101	99	173	120	136	96	113	113	131	260
1954															
May	123	107	123	143	67	103	96	174	120	137*r*	97	114	114	158	271
June	97	107	119	140	69	105	96	183	120*r*	138*r*	96	114	114	141	237
July	79	106	118	143	63	91	92	179	119	132*r*	88	115	113	144	331
August	87	104	115	137	73	75	101	174	119	131*r*	90	115	113	96	282
September	109	105	121	138	69	97	108	174	120	137*r*	97	110	113	115	262
October	124	104	116	143	70	110	105	176	121*r*	138*r*	102	116	113	112	277
November	117	104	119	132	73	116	104	177	121	139*r*	98	114	111	118	196
December	130	105	119	132	69	114	101	173	122*r*	140*r*	106	118	111	113	313
1955															
January	135	105	116	119	74	118	107	173	122	140*r*	106	124	112	163	287
February	133	105	122	131	76	130	112	179	122	140*r*	99	115	112	183	263
March	121	106	120	137	82	130	108	188	123	140	104	116	112	163	240
April	120	106	118	149	77	127	97	191	123	141*r*	106	122	113	....	290
May	120	106	115	....	77	131	96	....	124	143	110	122	113	....	....

BANKING AND CREDIT STATISTICS—TWELFTH DISTRICT
(amounts in millions of dollars)

Year and month	Condition items of all member banks[7]				Bank rates on short-term business loans[9]	Member bank reserves and related items[10]					Bank debits Index 31 cities[2, 13] (1947-49=100)[2]
	Loans and discounts	U.S. Gov't securities	Demand deposits adjusted[8]	Total time deposits		Reserve bank credit[11]	Commercial operations[12]	Treasury operations[12]	Coin and currency in circulation[11]	Reserves	
1929	2,239	495	1,234	1,790	.....	− 34	0	+ 23	− 6	175	42
1931	1,898	547	984	1,727	.....	+ 21	− 154	+ 154	+ 48	147	28
1933	1,486	720	951	1,609	.....	− 2	− 110	+ 150	− 18	185	18
1935	1,537	1,275	1,389	2,064	.....	+ 2	− 163	+ 219	+ 14	287	25
1937	1,871	1,270	1,740	2,187	.....	− 1	− 90	+ 157	− 3	549	32
1939	1,967	1,450	1,983	2,267	.....	+ 2	− 192	+ 245	+ 31	584	30
1940	2,130	1,482	2,390	2,360	.....	+ 2	− 148	+ 420	+ 96	754	32
1941	2,451	1,738	2,893	2,425	.....	+ 4	− 596	+1,000	+ 227	930	39
1942	2,170	3,630	4,356	2,609	.....	+ 107	−1,980	+2,826	+ 643	1,232	48
1943	2,106	6,235	5,998	3,226	.....	+ 214	−3,751	+4,486	+ 708	1,462	60
1944	2,254	8,263	6,950	4,144	.....	+ 98	−3,534	+4,483	+ 789	1,706	66
1945	2,663	10,450	8,203	5,211	.....	− 76	−3,743	+4,682	+ 545	2,033	72
1946	4,068	8,426	8,821	5,797	.....	+ 9	−1,607	+1,329	− 326	2,094	86
1947	5,358	7,247	8,922	6,006	.....	− 302	− 510	+ 698	− 206	2,202	95
1948	6,032	6,366	8,655	6,087	.....	+ 17	+ 472	− 482	− 209	2,420	103
1949	5,925	7,016	8,536	6,255	3.20	+ 13	− 930	+ 378	− 65	1,924	102
1950	7,093	6,415	9,254	6,302	3.35	+ 39	−1,141	+1,198	− 14	2,026	115
1951	7,866	6,463	9,937	6,777	3.66	− 21	−1,582	+1,983	+ 189	2,269	132
1952	8,839	6,619	10,520	7,502	3.95	+ 7	−1,912	+2,265	+ 132	2,514	140
1953	9,220	6,639	10,515	7,997	4.14	− 14	−3,073	+3,158	+ 39	2,551	150
1954	9,418	7,942	11,196	8,699	4.01	+ 2	−2,448	+2,328	− 30	2,505	153
1954											
June	9,049	6,981	10,087	8,428	4.14	− 21	− 254	+ 277	+ 15	2,413	157
July	8,989	7,190	10,310	8,444	.....	+ 29	− 307	+ 170	+ 3	2,308	145
August	8,977	7,574	10,257	8,501	.....	− 18	+ 28	− 12	+ 7	2,317	154
September	9,054	7,610	10,463	8,555	4.08	+ 16	− 170	+ 196	− 8	2,368	152
October	9,048	8,014	10,749	8,651	.....	+ 9	− 138	+ 142	+ 23	2,364	150
November	9,343	8,089	10,937	8,596	.....	− 1	− 244	+ 342	+ 27	2,440	158
December	9,422	7,973	11,158	8,663	4.01	0	− 127	+ 175	− 23	2,505	173
1955											
January	9,510	7,998	11,246	8,725	.....	− 34	− 150	+ 77	− 79	2,481	161
February	9,612	7,693	10,945	8,765	.....	+ 15	+ 26	− 57	+ 13	2,447	166
March	9,696	7,390	10,733	8,837	3.98	+ 10	− 401	+ 362	− 1	2,418	177
April	9,657	7,756	11,060	8,833	.....	+ 60	− 306	+ 261	+ 15	2,432	165
May	9,810	7,690	10,951	8,885	.....	− 55	− 51	+ 195	+ 50	2,476	170
June	10,102	7,446	11,023	9,026	3.99	+ 27	− 449	+ 429	+ 35	2,439	178

[1] Adjusted for seasonal variation, except where indicated. Except for department store statistics, all indexes are based upon data from outside sources, as follows: lumber, various lumber trade associations; petroleum, cement, copper, and lead, U.S. Bureau of Mines; wheat flour, U.S. Bureau of the Census; electric power, Federal Power Commission; nonagricultural and manufacturing employment, U.S. Bureau of Labor Statistics and cooperating state agencies; retail food prices, U.S. Bureau of Labor Statistics; carloadings, various railroads and railroad associations; and foreign trade, U.S. Bureau of the Census. [2] Daily average. [3] Not adjusted for seasonal variation. [4] Excludes fish, fruit, and vegetable canning. [5] Los Angeles, San Francisco, and Seattle indexes combined. [6] Commercial cargo only, in physical volume, for Los Angeles, San Francisco, San Diego, Oregon, and Washington customs districts; starting with July 1950, "special category" exports are excluded because of security reasons. [7] Annual figures are as of end of year, monthly figures as of last Wednesday in month or, where applicable, as of call report date. [8] Demand deposits, excluding interbank and U.S. Gov't deposits, less cash items in process of collection. Monthly data partly estimated. [9] Average rates on loans made in five major cities during the first 15 days of the month. [10] End of year and end of month figures. [11] Changes from end of previous month or year. [12] Minus sign indicates flow of funds out of the District in the case of commercial operations, and excess of receipts over disbursements in the case of Treasury operations. [13] Debits to total deposits except interbank prior to 1942. Debits to demand deposits except Federal Government and interbank deposits from 1942. *r*—Revised.

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