

Federal Reserve Bank of Dallas

Business Review



**Federal Funds—
A Market Comes of Age in the Eleventh District
Part II: Characteristics of the Market**

**Gulf Coast—
Boom in Offshore Drilling Keeps Rig Builders Busy**

April 1972

A Market Comes of Age In the Eleventh District

PART II: CHARACTERISTICS OF THE MARKET

The Federal funds market—the market in balances of member banks at Federal Reserve banks—has expanded rapidly in the Eleventh Federal Reserve District in recent years. Sales of these funds by commercial banks in the District tripled between the end of 1968 and the end of 1970. Purchases by banks in the District more than doubled.

As reported last month in Part I, this expansion reflects, at least in part, a substantial change in the number and types of banks participating in the market. Large banks still dominate the market, but small banks have made major inroads. Large banks have maintained their preeminence in the market only by increasing their outstanding sales of Federal funds threefold and their outstanding purchases twofold. Growth in participation by smaller banks, on the other hand, has resulted mainly from the increasing number of such banks just beginning to trade in Federal funds, rather than from any significant increase in the average dollar volume of transactions

by small banks already in the market.

The pattern of this growth in trading was influenced, of course, by variations in overall credit conditions and differences in the availability of funds at banks of various sizes. But it was also affected by—and, in turn, had an effect upon—differences in the portfolio management policies and characteristics of Federal funds transactions at various sizes and types of banks. These matters are explored in the current article.

Another article examines the impact of the explosive growth of the Federal funds market on the soundness of banks in the Eleventh District and on the servicing of local credit needs. That article will appear next month as Part III.

The market itself

The Federal funds market, like all markets, has characteristics that distinguish it from others. Nationally, for example, transactions tend to be very short term. Transactions are sometimes for two days or more and, although such situa-

tions are extremely rare, occasionally for a week or more. Ordinarily, however, trading is for the one-day (overnight) use of funds.

And while maturities are usually very short, the amounts traded are fairly large. The standard trading unit is \$1 million. Funds may be traded in smaller amounts, however, particularly during times of tight credit conditions, when large banks are typically pressed for funds and more willing to accept smaller trades. Also, with the growth in correspondent relationships between banks, smaller trades are becoming more frequent as banks try to accommodate their smaller correspondents. Transactions as small as \$50,000 are no longer as infrequent as they were, and some are even made in units of \$10,000.

Transactions are carried out several ways. Most are unsecured, being direct transactions between banks. Collateral is sometimes required, however, especially of smaller banks and banks that want to exceed previously agreed limits on borrowing. Also, some transactions include a repurchase agreement. Under such an agreement,

MATURITY ON FEDERAL FUNDS TRANSACTIONS, SEPTEMBER 1971

Eleventh Federal Reserve District

(Percentage of respondent banks, by deposit size)

Item	All size banks	Bank deposit size (Million dollars)			
		\$500 or more	\$100 to \$499	\$50 to \$99	Less than \$50
Purchases of Federal funds					
Overnight	83%	100%	80%	87%	79%
Two-day	2	0	5	0	0
Other	15	0	15	13	21
Sales of Federal funds					
Overnight	87	100	90	96	81
Two-day	4	0	5	0	4
Other	9	0	5	4	15

**RATE ON AUTOMATIC DAILY COMMITMENTS
TO FEDERAL FUNDS TRANSACTIONS, SEPTEMBER 1971**

Eleventh Federal Reserve District

(Percentage of respondent banks, by deposit size)

Item	All size banks	\$500 or more	Bank deposit size (Million dollars)		
			\$100 to \$499	\$50 to \$99	Less than \$50
Prevailing rate	57%	0	43%	56%	68%
Average daily rate	27	80	36	20	23
Negotiated rate	16	20	21	24	9

one party sells a security but is obligated to buy it back later at a specified price, usually the selling price plus interest. In both instances—when the security is sold and when it is bought back—the transaction is paid in Federal funds.

Most transactions are carried out through correspondents—an arrangement that allows trades to be settled simply by debiting or crediting correspondent balances. Some transactions, however, are carried out through banks that are not correspondents, and some are conducted through brokers. These may be handled through the debiting or crediting of balances directly at Federal Reserve banks.

Trading in the District

To isolate characteristics of Federal funds trading in the Eleventh Federal Reserve District, more than 100 banks active in the market in the five-state area were surveyed in late 1971. Their responses indicate that trading in the District is much the same as trading in the nation.

Maturity—More than 80 percent of the banks reported that most of their Federal funds purchases and sales have an original maturity of one day. That was the case with all six of the District's very largest banks—those with deposits of \$500 million or more. As the average size of the bank declined, however, more frequent reference was made to longer-term transactions. More than 20 percent of the banks with

deposits less than \$50 million said most of their purchases are for more than two days, and 15 percent said their sales are generally for longer periods. The most frequently mentioned maturity at these banks was three to five days.

A significant number of banks also pointed out that they have an automatic daily commitment to either buy or sell Federal funds and that these transactions are “rolled over” daily. Most banks with these commitments automatically accept the interest rate prevailing at the time of each daily transaction. This procedure is most common among small banks. Larger banks tend more to use the average rate prevailing during the day, and some in all sizes of banks negotiate the rate daily, even under automatic commitments.

Collateral—Roughly 95 percent of the banks conduct most of their Federal funds transactions (both purchases and sales) without requiring collateral. This is the practice of all the very largest banks. Among smaller banks, some rely more on secured transactions, which take the form of both secured direct trades and repurchase agreements. In almost all cases, the collateral is some kind of U.S. Government security, usually Treasury bills.

Types of agents—Most banks in the District buy Federal funds from correspondent banks in the region. And except for one of the very largest banks (one that obtains substantial amounts through

brokers) and a few small banks, this is true regardless of the deposit size of the purchasing bank.

Although responses were not as uniform, this was also found to be the general case with Federal funds sales. Almost all the largest banks sell most of their Federal funds primarily through brokers, with the rest going to correspondent banks. Some of the smaller banks also reported sales to brokers, as well as to noncorrespondent banks. Most of their sales, however, are to correspondents. None of the banks reported dealings to any extent with other financial institutions.

Method of transfer—As might be expected—considering the importance of correspondent relationships in the sale and purchase of Federal funds—most transactions are carried out through the debiting or crediting of accounts at correspondent banks. More than 70 percent of the banks reported that they handle purchases this way, although many small to medium-size banks reported that they settle such purchases directly through their balances at the Federal Reserve Bank.

The settlement of sales directly at the Federal Reserve Bank is much more common than the settlement of purchases, particularly among larger banks. All but one of the banks with deposits of \$500 million or more complete their Federal funds sales this way—probably because most of their sales are to brokers rather than to correspondent banks. A large number

COLLATERAL ON FEDERAL FUNDS TRANSACTIONS, SEPTEMBER 1971

Eleventh Federal Reserve District

(Percentage of respondent banks, by deposit size)

Item	All size banks	Bank deposit size (Million dollars)			
		\$500 or more	\$100 to \$499	\$50 to \$99	Less than \$50
Purchases of Federal funds					
Unsecured	94%	100%	94%	95%	93%
Secured by:					
Government securities...	5	0	6	5	5
Other	1	0	0	0	2
Sales of Federal funds					
Unsecured	95	100	94	88	98
Secured by:					
Government securities...	5	0	6	12	2
Other	0	0	0	0	0

of banks with deposits less than \$500 million also settle their sales at the Federal Reserve Bank. The prevalence of transfers of balances at correspondent banks increases, however, as the size of banks declines. Again, this is probably because of the importance of correspondent banking relationships in the sales by smaller banks.

Location—The market is essentially regional. Most of the Federal funds purchased in the District originate in the District, and most of the funds sold in the District remain there. Roughly a fourth of the banks indicated that most of the Federal funds they purchase originate in the city where they are located, and well over half the banks indicated that the funds they purchase originate elsewhere

in the District. Purchases in New York City and other markets outside the District are most common among the very largest banks, although some of the small and medium-size banks also obtain funds outside the District.

Sales of Federal funds to other banks in the District are slightly less common than purchases, but other banks in the District still provide the main outlet for banks selling Federal funds in the area. The largest banks, however, because of their greater dealings with brokers, sell nearly all their Federal funds outside the District. Two of the largest banks, in fact, indicated that most of their funds go to New York City.

But among smaller banks dealing generally with their correspon-

dents, most of the sales end up within the District. Of banks in the very smallest deposit size category, 30 percent reported that most of their sales are in the city where they are located and almost 60 percent reported that they sell their funds elsewhere in the District.

Alternatives to selling

The buying and selling of Federal funds is important in the management of bank portfolios—particularly at larger banks. Banks have several alternatives to the placement of excess funds in the Federal funds market, however, as well as alternatives to the Federal funds market as a source of funds. Part of the study of the market in the Eleventh District was designed to

TYPE OF AGENT FOR FEDERAL FUNDS TRANSACTIONS, SEPTEMBER 1971

Eleventh Federal Reserve District

(Percentage of respondent banks, by deposit size)

Item	All size banks	Bank deposit size (Million dollars)			
		\$500 or more	\$100 to \$499	\$50 to \$99	Less than \$50
Purchases of Federal funds from:					
Correspondent banks	97%	83%	100%	97%	100%
Noncorrespondent banks	2	0	0	3	0
Federal funds brokers	1	17	0	0	0
Sales of Federal funds to:					
Correspondent banks	92	17	87	96	100
Noncorrespondent banks	3	0	9	4	0
Federal funds brokers	5	83	4	0	0

METHOD OF TRANSFER IN FEDERAL FUNDS TRANSACTIONS, SEPTEMBER 1971

Eleventh Federal Reserve District

(Percentage of respondent banks, by deposit size)

Item	All size banks	Bank deposit size (Million dollars)			
		\$500 or more	\$100 to \$499	\$50 to \$99	Less than \$50
Purchases of Federal funds through:					
Balances at correspondent banks	72%	83%	59%	64%	82%
Balances at Federal Reserve Bank	28	17	41	36	18
Sales of Federal funds through:					
Balances at correspondent banks	66	17	22	59	93
Balances at Federal Reserve Bank	34	83	78	41	7

LOCATION OF FEDERAL FUNDS TRANSACTIONS, SEPTEMBER 1971

Eleventh Federal Reserve District

(Percentage of respondent banks, by deposit size)

Item	All size banks	Bank deposit size (Million dollars)			
		\$500 or more	\$100 to \$499	\$50 to \$99	Less than \$50
Purchases of Federal funds					
In same city as respondent bank	25%	0	21%	23%	31%
Elsewhere in Eleventh District	55	60	53	50	59
In New York City	6	20	11	7	0
Elsewhere outside Eleventh District . . .	14	20	15	20	10
Sales of Federal funds					
In same city as respondent bank	24	0	13	28	30
Elsewhere in Eleventh District	48	0	36	46	59
In New York City	8	40	16	10	0
Elsewhere outside Eleventh District . . .	20	60	35	16	11

rank alternatives to Federal funds purchases and sales and to determine why banks borrow Federal funds.

Banks were asked to pick the three most important alternative sources and uses of funds available to them, as well as the three reasons they considered most important for entering the market. They were to assign three points to the most important alternative or reason, two points to the next most important, and one point to the third most important.

Computation of the results shows banks consider the purchase of short-term securities far and away the most important alternative to the sale of Federal funds. Most banks would have put these funds into Treasury bills, although a large number of banks indicated that they also consider short-term commercial paper an important option.

A distant second alternative, in the view of most banks, is the making of business loans (other than through the purchase of commercial paper). All sizes of banks consider this an option to some extent, although banks in the \$100 million to \$499 million deposit size mentioned it most often as a possibility.

There are also indications that banks would have made more of other types of loans had they not put their funds into the Federal funds market. Loans to other banks (other than as Federal funds) and loans to consumers were mentioned, particularly by smaller banks. A few even listed real estate loans, although this type of loan is apparently too long term to represent a real option for most banks.

Some banks would have also repaid borrowings had they not been lending in the Federal funds market. This response was especially prevalent among the largest banks. The most frequently mentioned borrowings they would have

repaid were Federal funds, Euro-dollars, and even loans from the Federal Reserve Bank.

Alternatives to buying

Banks consider borrowing from the Federal Reserve Bank their most important alternative to the purchase of Federal funds. This response was fairly uniform for all sizes of banks, although it was somewhat less common among the smallest banks—which would be consistent with the apparent reluctance of small banks to borrow at the discount window.

Taken as a whole, banks consider the sale of assets (mostly short-term securities, such as Treasury bills) almost as important an alternative to Federal funds purchases as borrowing from the Federal Reserve Bank. And smaller banks seem to consider the sale of assets more important as an option than do larger banks.

Among the very smallest banks, in fact, sale of assets is considered the most important alternative.

Also considered an important alternative to purchases of Federal funds are other forms of borrowing from commercial banks. Here again, however, the importance attached to this option varies substantially with the size of bank.

None of the very largest banks indicated that other borrowing from banks is an important alternative source of funds for them. But among banks of the smallest deposit size, borrowing from other banks is considered almost as important an option as the sale of liquid assets.

Many banks, especially in the larger deposit sizes, reported that they would issue CD's if they did not raise funds in the Federal funds market. The very largest banks, in fact, consider CD's their most important alternative source of funds.

A few banks also mentioned the Eurodollar and commercial paper markets. But, again, most of these

MAJOR ALTERNATIVES TO SELLING FEDERAL FUNDS, SEPTEMBER 1971

Eleventh Federal Reserve District

(Percentage of total points given each response, by respondent bank deposit size)

Alternative	All size banks	Bank deposit size (Million dollars)			
		\$500 or more	\$100 to \$499	\$50 to \$99	Less than \$50
Purchases of short-term securities . . .	57%	58%	50%	56%	59%
Loans to businesses	14	17	24	15	11
Loans to commercial banks (other than Federal funds) ¹	10	0	11	13	10
Loans to consumers	8	0	8	4	11
Mortgage loans	2	0	1	2	3
Repayment of borrowings	3	25	3	4	0
Other	5	0	3	6	6

1. Including loan participations

MAJOR ALTERNATIVES TO BUYING FEDERAL FUNDS, SEPTEMBER 1971

Eleventh Federal Reserve District

(Percentage of total points given each response, by respondent bank deposit size)

Alternative	All size banks	Bank deposit size (Million dollars)			
		\$500 or more	\$100 to \$499	\$50 to \$99	Less than \$50
Borrowing from Federal Reserve Bank . . .	30%	33%	39%	33%	23%
Sale of securities or loans	27	12	26	27	31
Borrowing from banks (other than Federal funds)	21	0	9	18	30
Issuing CD's	17	39	23	17	12
Borrowing in the Eurodollar market	1	9	1	0	0
Borrowing in the commercial paper market (through affiliates, subsidiaries, etc.)	(¹)	6	3	0	0
Other	3	0	0	4	4

1. Less than one-half of 1 percent

MAJOR REASONS FOR BORROWING FEDERAL FUNDS, SEPTEMBER 1971

Eleventh Federal Reserve District

(Percentage of total points given each response, by respondent bank deposit size)

Reason	All size banks	Bank deposit size (Million dollars)			
		\$500 or more	\$100 to \$499	\$50 to \$99	Less than \$50
Short-run reserve needs	55%	43%	49%	54%	60%
Long-run reserve needs	17	11	14	10	18
Loans to businesses	11	11	15	12	10
Loans to consumers	5	0	2	5	7
Real estate loans	1	0	1	0	1
Purchases of short-term securities	6	7	8	9	2
Accommodation of correspondent banks	6	29	9	9	0
Other	(¹)	0	1	0	2

1. Less than one-half of 1 percent

were the very largest banks. No bank with deposits less than \$100 million indicated it considers these markets as alternative sources of funds.

If they cannot raise the funds they need in the Federal funds market, then, larger banks are most apt to turn first to the issuance of CD's and second to borrowing at the discount window. Smaller banks, on the other hand, are more inclined to rely on the sale of securities or borrowing from other banks. This difference is indicative of the newer *liability management* approach to liquidity needs being used more and more at larger banks, compared with the more traditional *asset management* approach still predominating at smaller banks.

Reasons for borrowing

Banks responded overwhelmingly that they borrow in the Federal funds market mainly to meet short-term reserve needs. And while this was the major response from all sizes of banks, the impor-

tance of this reason increased somewhat as the size of banks declined. A sizable number of banks also indicated that they use the Federal funds market to meet reserve needs extending beyond the two-week reserve settlement period. Again, this is slightly more important for smaller banks.

A significant number of banks use Federal funds to make loans. Business loans were most frequently mentioned, but consumer loans were also cited, particularly by smaller banks. Very few banks indicated that they consider Federal funds important in making real estate loans.

A few banks use Federal funds to purchase short-term securities, such as Treasury bills and commercial paper. A fairly sizable proportion of the very largest banks indicated that they purchase considerable volumes of Federal funds to accommodate their smaller correspondent banks. In fact, next to borrowing to meet reserve needs, this is the most important reason for their purchasing Federal funds.

In effect, these larger accommodating banks are "making a market" in Federal funds for their smaller correspondents.

Summing up

Most Federal funds trading at banks in the District is on a short-term, unsecured basis with correspondent banks in the region. Most purchases are to meet reserve needs, although a significant number of banks indicated they use these funds to make various types of loans. Large banks also buy an appreciable amount in the Federal funds market to accommodate smaller correspondents that have funds they want to sell.

If they could not obtain funds in the market, large banks would rely mainly on the issuance of CD's and smaller banks would depend mainly on the sale of securities. Under such circumstances, all sizes of banks would also rely fairly heavily on borrowing from the Federal Reserve Bank. Alternatively, if they were unable or unwilling to place excess funds in the market, most banks would use the funds to buy short-term securities—although, again, a substantial number of banks said that in such a situation they would make loans.

The recent rapid growth in the Federal funds market is indicative of changes in banker attitudes and practices regarding Federal funds trading. Next month, Part III will explore the implications of these changes for the soundness of banking and the servicing of local credit needs in the Eleventh District.

—Joseph E. Burns

Boom in Offshore Drilling Keeps Rig Builders Busy

Texas and Louisiana shipyards building offshore drilling rigs are enjoying a boom in activity. Orders for new rigs began pouring in about mid-1971, breaking a lull in demand that had caused the number of rigs under construction in these two states to drop from ten in the summer of 1969 (half the number being built worldwide) to only two in the summer of 1970. By early 1972, some 52 rigs were under construction throughout the world. Of these, 32 were in the United States—21 in Texas and Louisiana alone.

These rigs are all mobile units designed primarily for use in exploratory drilling. The first offshore wells were drilled from fixed platforms built on location and used for both exploration and development. Advances in rig design, however, have made mobility itself a factor in offshore operations. By shortening the time taken up between sites and making remote areas accessible for drilling, mobile rigs have encouraged the spread of offshore exploration around the world.

New jackup and semisubmersible rigs and even drilling ships have now replaced fixed platforms entirely in exploratory drilling. Fixed platforms are still used in development work, but several wells are usually produced from the one platform.

Source of the slump

For all the advantages mobile rigs offer, they take a year or more to build and represent an enormous investment. A new semisubmersible costs up to \$25 million, a jackup \$15 million, and a drilling ship \$20 million.

Once in service, a rig is good for many years. But because of the initial high investment and subsequent high fixed cost, it must be used almost constantly to be profitable. As a result, drilling contractors—the owners and operators of rigs—must keep a cautious eye not only on prospects for leasing their equipment but also on changes in construction and financing costs.

All these factors conspired to dampen demand for new rigs in 1970. Construction costs were rising. Interest rates were high and credit conditions tight. And a change in federal tax law increased the industry's tax burden. Also, after the oil slick in the Santa Barbara Channel, new pollution controls curtailed some drilling and added to the uncertainty of prospects for lease sales of offshore mineral rights.

Orders for new rigs fell. Where 20 mobile rigs were under construction around the world at mid-1969—half of them in Texas and Louisiana—only 12 were being built a year later. And of these, only two were being built in Texas and Louisiana.

But the drop in construction then added to the boom now. With credit easier, offshore lease sales more certain, and exploration up sharply overseas, construction yards are being called on to furnish whole fleets of new rigs to catch up with the growing world need for offshore exploration. Even with recent court tie-ups of drilling off Louisiana that have caused some companies to postpone equipment orders, yards in Texas and Louisiana have enough backorders to keep the boom going throughout the next year. And with the rising

need for oil, orders are apt to keep coming in.

Demand for drilling

Projections show the world consuming as much oil in the next two decades as it has produced to date. And discoveries of huge offshore fields in recent years lead experts to believe there are greater potentials for major discoveries offshore than onshore.

In the short run, however, two factors account for the sudden worldwide boom in offshore drilling that has developed in spite of the tremendous reserves already being produced inexpensively in North Africa and the Middle East. One is a demand for sources of oil outside the often troublesome Mediterranean area. The other is improvements in rigs that extend the range of offshore exploration.

Recent interruptions of production in the Mediterranean area have sparked the interest of international oil companies in the development of other fields. And with their success in the discovery of new offshore fields and the development of better offshore drilling equipment, they have turned increasingly to offshore exploration.

Also, many of the major consuming countries, concerned about the increasing volume of their oil imports and the rising world prices of oil, are encouraging exploration in their own countries or off their coasts in hopes of meeting at least part of their needs from domestic sources. Like the oil companies, these countries want to stave off the possibilities of another costly disruption of energy supplies that could come with a flare-up in the Middle East.

Altogether, the continental shelves make up an area almost a third as large as all the continents themselves, and they include at least a third of the geological formations believed to contain oil.

Although it usually costs more to drill offshore than onshore, intensive onshore exploration of the most promising geological structures leaves many offshore structures with greater potential for large discoveries. Furthermore, oil has sometimes been found offshore in areas that exploration onshore had previously shown to be unproductive.

Offshore drilling may even be less expensive in some areas, such as remote places where the geological structure seems promising but onshore exploration can be undertaken only at great financial risk. The large fields found recently in Alaska provide a case in point. Some companies spent vast sums of money exploring the oil-rich North Slope only to find that oil produced onshore could not be brought to market. Oil produced offshore can almost always be taken out by tanker.

Offshore operations already make up a large part of the world's oil production, and with the increase in offshore exploration, they will make up a far larger part in the years ahead. About 18 percent of world production—7 million barrels a day—comes from offshore wells. And it is generally believed that by the end of the decade, wells in the ocean floors will provide a good third of the world's total output. That will call for enormous growth in offshore exploration.

Several important fields have been developed since the early beginnings of serious efforts in offshore production soon after World War II. Large fields were first discovered off the coast of Texas and Louisiana and later off the California coast. Development of these fields has since brought offshore production to account for 16 percent of all U.S. oil production. Offshore crude, in fact, has accounted for half the total growth in U.S. crude production over the past eight years.

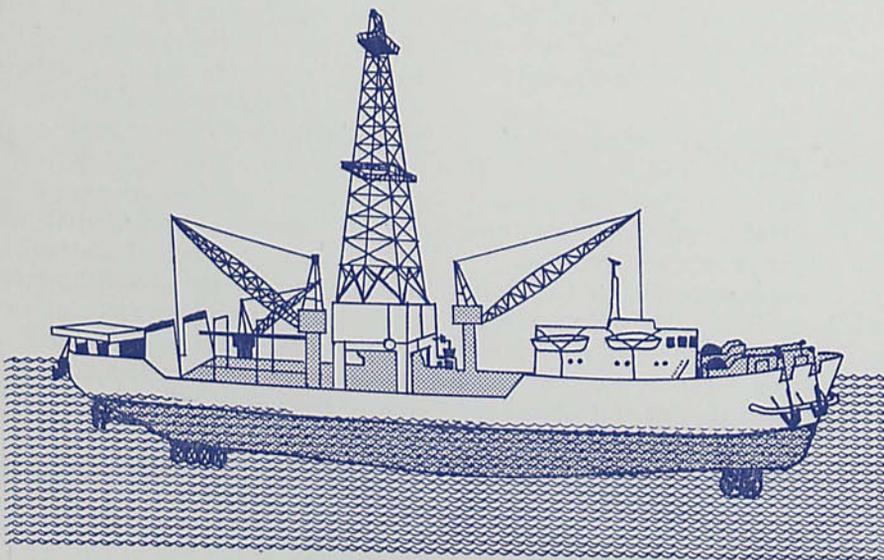
Oil fields have also been discovered in the Mediterranean, off Africa, and in Indonesian and

Southeast Asian waters. The most publicized recent discoveries, however, have been in the North Sea. These new fields off Europe are important not only for their size but also, like those off the United States, for their location in politically stable areas and proximity to major markets. While fields in the North Sea will not make Europe self-sufficient in oil, they could provide enough petroleum to take care of much of the future growth in European demand and will certainly improve the bargaining position of Europeans in negotiating oil import prices.

The richness of new offshore discoveries continues to provide the lure to sustain exploration—in spite of the costs and risks. And prospects for profit, combined with the mounting concern over the rapidly increasing world need for oil, are bound to keep offshore efforts up for many years to come.

Advances in rigs

The search for oil and development of commercial fields take more rigs, and newer ones—all to the benefit of construction yards. Part of the



Drilling Ship

These units are the easiest rigs to move. Sometimes converted freighters, they can carry more equipment than other types of mobile rigs—an advantage in remote areas where self-sufficiency is a consideration. A series of anchors and stabilizing propellers along the lower edge of the hull hold the ship in position for drilling.

rising demand for offshore rigs relates to the need for equipment that can be worked under extremes of weather conditions and at ever greater ocean depths.

Progress in the development of such rigs has already extended exploration over areas never before seriously considered, even though they were believed to be potentially rich in oil and gas. Although development drilling and commercial production are still not feasible at such depths, exploratory drilling can now be done beyond a continental shelf, in ocean depths up to

1,500 feet. And there is a general belief that technological breakthroughs—even in the windswept North Sea—will eventually bring deepwater capacities for commercial production up to a par with those for exploration.

High costs still confine deepwater drilling to areas that seem promising for the discovery of large fields. But technological changes that reduced deepwater drilling costs would make the search for small fields less costly and less risky, stimulating still more offshore drilling—and still more demand for rigs.

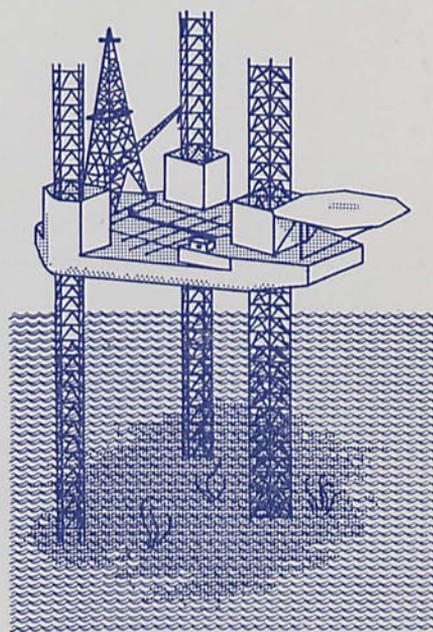
Another consideration is the rig itself. Yards in this country have depended on their expertise in the design and construction of offshore rigs to offset differences in costs here and abroad. But many of the skills and facilities needed to build an offshore rig are the same as those needed to build ships. And advances in shipbuilding abroad have made the advantages of expertise hard for Americans to maintain.

Delivery is another consideration, however, and U.S. yards have a generally favorable reputation regarding their ability to meet

Competitive factors

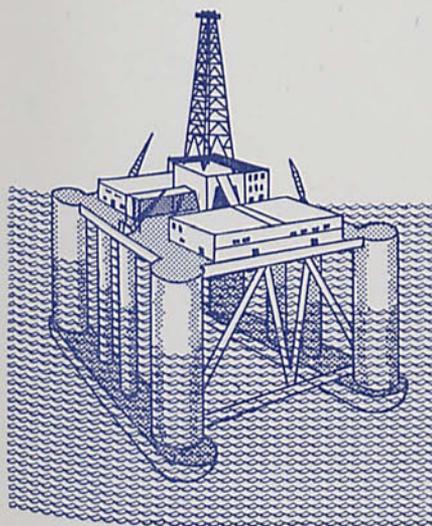
The outlook for rig producers in Texas and Louisiana depends, however, not only on continued growth in offshore drilling but also on their continued competitiveness. Roughly two-thirds of the world's offshore rigs are built in the United States, and most of these are built in these two southwestern states. But rigs are also built in Canada, Spain, Germany, the Netherlands, Japan, and Singapore. And although companies that solicit construction bids in other countries report that U.S. yards are thoroughly competitive with those in other countries, international competition could be severe—as it has been in the past.

Several factors influence competition between U.S. and foreign yards. Cost, of course, is a primary consideration. The recent devaluation of the dollar and the continued cost inflation abroad are helping U.S. yards develop new business. Also, the Export-Import Bank has undertaken to help finance some rigs built for use overseas, further bolstering the competitiveness of U.S. yards. And although rigs do not qualify for the subsidies granted to transport vessels, the Maritime Commission is beginning to help with the financing of U.S. rigs.



Jackup Rig

Long legs, stilts sunk up to 50 feet into the ocean floor, give this rig a firm footing for drilling operations. But they also limit use of the rig to ocean depths up to 300 feet and make it hard to move to new drilling sites. The platform can be raised and lowered along the legs to an efficient drilling position at a safe height above the waves.



Semisubmersible Rig

This rig is the most stable floating drilling unit. Its legs and large horizontal pontoons are flooded to help stabilize the rig and position its platform out of reach of waves, while a series of anchors holds the rig in position. In some advanced designs, propellers on the underside of the pontoons also help counteract ocean movements. Some rigs are self-propelled to facilitate movement between sites. Newer semisubmersibles can drill to record depths of 30,000 feet in water more than 1,000 feet deep.

Offshore Operations Around the World



SOURCE: Oil & Gas Journal

schedules, especially when compared with the performance of some of their major overseas competitors for work on rigs to be used in the North Sea. Much of the backlog in rig orders results from demand for exploration in this field. Scheduling of deliveries becomes highly important in the selection of a yard.

Location of the yard can also be important. Because of the time and cost required to tow a rig across the ocean, there is an advantage to its being built close to where it will be used. Other factors, such as cost and the delivery schedule, can be overriding considerations, however, especially in the construction of new mobile rigs. Many semisubmersibles being built on the Gulf Coast of Texas are destined for foreign use even though they may have to be towed as far as the North Sea. Japanese yards, which might otherwise be highly compet-

itive with yards on the Gulf Coast, are simply too far away to participate in construction of rigs for the North Sea.

As matters of cost, location, and delivery schedules mean many rigs will continue to be built abroad, some U.S. yards have arranged to participate in foreign construction, particularly in the Far East. Because of their location, Gulf Coast yards are at a disadvantage in competition in that area.

Under these arrangements, rig technology is rapidly transferred to other countries. A rig may be designed in the United States, for example, and key construction and planning personnel be assigned to a foreign yard to facilitate construction there. Similarly, drilling contractors that design many of their own rigs and seek construction bids worldwide may help a yard overseas overcome its technical and management problems.

But if construction costs at U.S. and foreign yards are close, rigs built in the United States may actually be cheaper, because the contractor does not have to stand the cost of sending personnel overseas. Also, because most of the equipment used on rigs is manufactured in the United States—much of it in the Eleventh District—installation of the equipment in this country saves the expense of shipping it to yards overseas.

Prospects for the District

The net result is a fairly bright outlook for rig-building yards in Texas and Louisiana, in spite of competitive pressure from foreign yards. There has been some concern that the offshore drilling industry may be overbuilding. Orders already placed will expand the world rig fleet by 45 percent over the next few years. But orders have continued to come in to Gulf

Coast yards during the tie-up of drilling off Louisiana, and resumption of lease sales there will doubtless lead to additional orders.

Some rigs planned for construction in other countries but not yet started may be canceled, especially those due originally to have been built in countries where costs have been rising rapidly. Cancellation of these rigs would slow expansion of the fleet.

Also, much of the existing fleet was built in the 1950's. With the enormous strides made in offshore

technology since then and exploration being undertaken increasingly in deeper water, these rigs will soon be overage and due for replacement.

All told, elements making up the foreseeable future of rig construction point to a continuation of the boom for several years—perhaps long enough for the courts to resolve environmental issues. And with this last barrier to large-scale offshore operations removed, demand for rigs would almost certainly turn upward.

Again, the extent to which Texas and Louisiana yards participate in meeting this future demand will depend largely on their competitiveness. To meet the current boom, however, these yards have already undertaken substantial expansion of their facilities and work forces, providing themselves with a broader base not only for participation in the current boom but also for holding their lead in meeting future demand for rigs.

—Stephen L. Gardner



Statistical Supplement to the Business Review

Total credit at weekly reporting banks in the Eleventh District rose sharply in the four weeks ended March 22. Total deposits increased only moderately, but loans expanded faster than seasonally expected, as did bank investments.

The advance in total loans reflected larger than usual increases in almost every major loan category, probably in response to recent improvements in general economic conditions. Demand for business loans was especially strong, partially reflecting borrowings in connection with the March corporate tax date. Banks added to their holdings of U.S. Government securities mainly through substantial acquisitions of Treasury bills. They also sharply increased their holdings of municipal issues.

Inflows of demand deposits moderated, while net withdrawals were reported in time and savings deposits. Large CD's outstanding declined slightly, again probably as a result of corporate demand for funds to meet tax payments. On balance, borrowings in the Eurodollar and commercial paper markets were essentially unchanged.

The Texas oil allowable was raised to 100 percent of maximum efficient production for April, allowing full production for the first time in a quarter century. Shortly after this announcement, however, the allowable for the East Texas field was cut back to 86 percent. Low inventories of Texas crude and increased demand accounted for the overall rise.

Although the increase from 86 percent in March appears sharp, the capacity remaining in many older fields was already well below that allowable level, leaving the

prospective increase in actual production at less than 6 percent. And given the level of crude imports set by the Government, it is believed that even at the current record rate, demand can barely be met.

To keep production from damaging the capacity of some fields, the Texas Railroad Commission has indicated that, if necessary, it will cut back production—as already done for the East Texas field—to head off either conservation problems or disorderly market conditions.

Some observers point out that a 100-percent allowable represents a loss of the state's capacity to respond to any further surge in demand. They doubt, however, that the 100-percent rate will be maintained through the year. In future years, a rate of 100 percent or even higher may predominate in Texas as it does in Oklahoma, formerly a leading oil state.

In Louisiana, the rate was held at 75 percent—in effect since November—and the regulatory agency has declared that this rate is the maximum production rate that can be allowed without damaging producing fields. Other District states also left their oil allowables unchanged.

Seasonally adjusted, total employment in the five southwestern states changed very little in February. And with the labor force about the same as in January, the unemployment rate matched the 4.5 percent of a month before. This rate, down from 4.9 percent a year before, compared favorably with the national rate of 5.7 percent.

Although most categories of employment outside agriculture showed little change from January,

nonmanufacturing employment showed enough strength overall to more than offset a slight decline in manufacturing employment, allowing nonagricultural wage and salary employment to edge up slightly. Reflecting the sharp upturn in construction since the 1970 recession, construction employment made the largest year-to-year gain—an advance of 9.1 percent. Employment in mining and in transportation and utilities registered the smallest increases. Both were up less than half a percent from a year earlier.

Planting intentions on March 1 indicate upland cotton acreage in the five states of the Eleventh District will increase 7 percent this year. Sorghum acreage is expected to decline 8 percent. For the nation as a whole, cotton acreage is expected to be up 10 percent and sorghum acreage down 13 percent.

Planting was off to a good start in southern parts of the District by mid-March. Range and livestock conditions were substantially better than a year before and somewhat better than the average for the past ten years. The wheat crop was making excellent progress on the Northern High Plains and fair to good progress elsewhere. Livestock were being moved from wheat fields into feedlots.

There were slightly more than 1.8 million head of cattle on feed in Texas on March 1—17 percent more than a year before and 42 percent more than two years before. In Arizona, cattle on feed totaled 548,000 head—5 percent more than a year before.

The index of prices received by Texas farmers and ranchers rose nearly 2 percent in the month end. *(Continued on back page)*

CONDITION STATISTICS OF WEEKLY REPORTING COMMERCIAL BANKS

Eleventh Federal Reserve District

(Thousand dollars)

ASSETS	Mar. 22, 1972	Feb. 23, 1972	Mar. 24, 1971	LIABILITIES	Mar. 22, 1972	Feb. 23, 1972	Mar. 24, 1971
Federal funds sold and securities purchased under agreements to resell.....	1,096,071	1,222,013	517,700	Total deposits.....	12,081,815	12,024,421	10,752,463
Other loans and discounts, gross.....	7,525,750	7,350,532	6,666,500	Total demand deposits.....	6,687,188	6,625,982	6,044,603
Commercial and industrial loans.....	3,481,009	3,411,347	3,189,980	Individuals, partnerships, and corporations....	4,573,284	4,534,081	4,150,890
Agricultural loans, excluding CCC certificates of interest.....	181,762	169,161	117,426	States and political subdivisions.....	451,883	429,591	339,355
Loans to brokers and dealers for purchasing or carrying:				U.S. Government.....	232,155	161,153	87,833
U.S. Government securities.....	1,160	1,125	500	Banks in the United States.....	1,293,861	1,364,476	1,347,025
Other securities.....	47,059	51,142	50,370	Foreign:			
Other loans for purchasing or carrying:				Governments, official institutions, central banks, and international institutions.....	2,989	3,335	2,158
U.S. Government securities.....	4,895	4,650	1,565	Commercial banks.....	33,910	41,803	26,700
Other securities.....	460,008	445,404	435,711	Certified and officers' checks, etc.....	99,106	91,543	90,642
Loans to nonbank financial institutions:				Total time and savings deposits.....	5,394,627	5,398,439	4,707,860
Sales finance, personal finance, factors, and other business credit companies.....	117,548	121,278	212,516	Individuals, partnerships, and corporations:			
Other.....	540,882	477,793	481,079	Savings deposits.....	1,147,537	1,122,498	1,005,513
Real estate loans.....	915,186	912,421	664,941	Other time deposits.....	2,779,547	2,781,515	2,474,084
Loans to domestic commercial banks.....	21,214	20,911	18,761	States and political subdivisions.....	1,339,892	1,365,105	1,087,085
Loans to foreign banks.....	29,056	36,487	11,937	U.S. Government (including postal savings)....	9,142	10,042	41,479
Consumer instalment loans.....	826,765	820,323	733,907	Banks in the United States.....	92,109	94,879	85,914
Loans to foreign governments, official institutions, central banks, and international institutions.....	0	0	0	Foreign:			
Other loans.....	899,206	878,490	747,807	Governments, official institutions, central banks, and international institutions.....	25,300	23,300	12,685
Total investments.....	3,548,373	3,372,420	3,016,930	Commercial banks.....	1,100	1,100	1,100
Total U.S. Government securities.....	1,115,589	1,091,917	998,515	Federal funds purchased and securities sold under agreements to repurchase.....	1,852,580	1,789,179	1,020,752
Treasury bills.....	191,566	124,750	148,896	Other liabilities for borrowed money.....	35,776	39,703	37,003
Treasury certificates of indebtedness.....	0	0	0	Other liabilities.....	430,553	397,116	377,003
Treasury notes and U.S. Government bonds maturing:				Reserves on loans.....	135,912	137,138r	136,638
Within 1 year.....	199,993	193,261	149,954	Reserves on securities.....	22,588	22,578r	19,934
1 year to 5 years.....	528,577	586,355	531,260	Total capital accounts.....	1,093,754	1,091,407	1,043,425
After 5 years.....	195,453	187,551	168,405	TOTAL LIABILITIES, RESERVES, AND CAPITAL ACCOUNTS.....	15,652,978	15,501,542	13,426,095
Obligations of states and political subdivisions:							
Tax warrants and short-term notes and bills....	110,558	69,314	67,782				
All other.....	2,095,794	2,017,011	1,718,815				
Other bonds, corporate stocks, and securities:							
Certificates representing participations in federal agency loans.....	20,312	16,640	103,555				
All other (including corporate stocks).....	206,120	177,538	128,263				
Cash items in process of collection.....	1,400,022	1,490,549	1,157,074				
Reserves with Federal Reserve Bank.....	957,737	929,926	954,991				
Currency and coin.....	100,955	98,105	88,575				
Balances with banks in the United States.....	455,287	470,981	559,357				
Balances with banks in foreign countries.....	10,170	12,475	7,237				
Other assets (including investments in subsidiaries not consolidated).....	558,613	554,541	457,731				
TOTAL ASSETS.....	15,652,978	15,501,542	13,426,095				

r—Revised

CONDITION STATISTICS OF ALL MEMBER BANKS

Eleventh Federal Reserve District

(Million dollars)

Item	Feb. 23, 1972	Jan. 26, 1972	Feb. 24, 1971
ASSETS			
Loans and discounts, gross.....	14,904	14,748	12,931
U.S. Government obligations.....	2,462	2,434	2,302
Other securities.....	4,678	4,636	3,836
Reserves with Federal Reserve Bank.....	1,612	1,708	1,558
Cash in vault.....	295	303	277
Balances with banks in the United States....	1,342	1,257	1,409
Balances with banks in foreign countries ^e	14	14	11
Cash items in process of collection.....	1,730	1,525	1,358
Other assets ^e	1,041	860	829
TOTAL ASSETS ^e	28,078	27,485	24,511
LIABILITIES AND CAPITAL ACCOUNTS			
Demand deposits of banks.....	1,799	1,721	1,738
Other demand deposits.....	10,293	10,071	9,299
Time deposits.....	10,957	10,689	9,428
Total deposits.....	23,049	22,481	20,465
Borrowings.....	1,877	1,998	1,098
Other liabilities ^e	1,234	1,088	1,104
Total capital accounts ^e	1,918	1,918	1,844
TOTAL LIABILITIES AND CAPITAL ACCOUNTS ^e	28,078	27,485	24,511

e—Estimated

CONDITION OF THE FEDERAL RESERVE BANK OF DALLAS

(Thousand dollars)

Item	Mar. 22, 1972	Feb. 23, 1972	Mar. 24, 1971
Total gold certificate reserves.....	438,485	390,426	451,474
Discounts for member banks.....	500	200	0
Other discounts and advances.....	0	0	0
U.S. Government securities.....	3,141,474	3,179,109	2,888,598
Total earning assets.....	3,141,974	3,179,309	2,888,598
Member bank reserve deposits.....	1,616,272	1,612,124	1,521,424
Federal Reserve notes in actual circulation....	2,092,542	2,081,315	1,912,988

RESERVE POSITIONS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. Thousand dollars)

Item	4 weeks ended Mar. 1, 1972	4 weeks ended Feb. 2, 1972	4 weeks ended Mar. 3, 1971
RESERVE CITY BANKS			
Total reserves held.....	861,080	888,099	819,979
With Federal Reserve Bank.....	800,780	824,254	767,634
Currency and coin.....	60,300	63,845	52,345
Required reserves.....	879,873	873,098r	823,875
Excess reserves.....	-18,793	15,001r	-3,896
Borrowings.....	0	0	0
Free reserves.....	-18,793	15,001r	-3,896
COUNTRY BANKS			
Total reserves held.....	948,983	959,336	859,985
With Federal Reserve Bank.....	748,658	746,502	671,916
Currency and coin.....	200,325	212,834	188,069
Required reserves.....	923,877	928,953	828,836
Excess reserves.....	25,106	30,383	31,149
Borrowings.....	216	528	161
Free reserves.....	24,890	29,855	30,988
ALL MEMBER BANKS			
Total reserves held.....	1,810,063	1,847,435	1,679,964
With Federal Reserve Bank.....	1,549,438	1,570,756	1,439,550
Currency and coin.....	260,625	276,679	240,414
Required reserves.....	1,803,750	1,802,051r	1,652,711
Excess reserves.....	6,313	45,384r	27,253
Borrowings.....	216	528	161
Free reserves.....	6,097	44,856r	27,092

r—Revised

BANK DEBITS, END-OF-MONTH DEPOSITS, AND DEPOSIT TURNOVER

SMSA's in Eleventh Federal Reserve District

(Dollar amounts in thousands, seasonally adjusted)

Standard metropolitan statistical area	DEBITS TO DEMAND DEPOSIT ACCOUNTS ¹					DEMAND DEPOSITS ¹			
	February 1972 (Annual-rate basis)	Percent change			February 29, 1972	Annual rate of turnover			
		February 1972 from January 1972	February 1971	2 months, 1972 from 1971		February 1972	January 1972	February 1971	
ARIZONA: Tucson.....	\$8,908,764	4%	25%	25%	\$302,617	29.2	28.8	29.9	
LOUISIANA: Monroe.....	3,686,148	2	14	16	104,550	36.2	36.3	36.5	
Shreveport.....	13,186,848	18	11	13	275,341	47.4	40.5	45.8	
NEW MEXICO: Roswell ²	1,047,012	4	17	16	43,309	24.1	23.3	23.2	
TEXAS: Abilene.....	2,487,420	5	11	12	114,970	22.4	22.3	22.1	
Amarillo.....	6,758,712	0	13	11	178,424	38.8	38.6	37.0	
Austin.....	11,201,652	-23	9	31	421,629	28.2	39.4	31.3	
Beaumont-Port Arthur-Orange.....	6,701,064	-7	-3	7	265,745	25.5	27.2	28.2	
Brownsville-Harlingen-San Benito.....	2,395,512	0	14	16	90,564	26.9	27.1	25.8	
Bryan-College Station.....	1,183,747	2	22	27	50,473	24.3	24.8	23.0	
Corpus Christi.....	7,126,932	-2	12	16	269,800	26.8	26.4	22.4	
Corsicana ²	474,276	-3	-5	3	34,494	13.7	14.6	15.4	
Dallas.....	140,561,532	0	13	8	2,545,536	54.7	56.0	55.5	
El Paso.....	8,760,900	-2	21	20	276,695	32.4	32.7	30.1	
Fort Worth.....	27,447,096	0	14	16	759,254	36.5	37.2	36.0	
Galveston-Texas City.....	3,092,916	-1	-5	-4	120,262	25.2	25.4	27.9	
Houston.....	130,986,504	3	23	19	2,938,530	44.2	44.2	41.4	
Laredo.....	1,052,604	-12	-1	14	45,771	23.1	26.1	25.2	
Lubbock.....	5,513,964	3	24	33	181,395	30.6	30.8	27.4	
McAllen-Pharr-Edinburg.....	2,270,160	-13	23	39	135,565	16.7	19.9	17.8	
Midland.....	2,069,748	-3	0	4	149,185	13.9	14.6	15.7	
Odessa.....	1,731,372	-3	6	9	105,425	16.8	18.3	17.1	
San Angelo.....	1,653,132	7	14	13	73,730	21.9	19.8	20.5	
San Antonio.....	21,652,320	-4	7	13	810,279	27.7	30.0	31.0	
Sherman-Denison.....	1,260,144	4	12	12	73,635	17.4	17.9	16.7	
Texarkana (Texas-Arkansas).....	1,731,228	-1	10	21	78,885	21.7	20.2	21.9	
Tyler.....	2,618,160	4	14	12	116,129	22.9	22.2	23.6	
Waco.....	3,663,576	-4	17	22	139,949	27.3	28.9	26.8	
Wichita Falls.....	2,765,328	-4	9	14	127,585	21.7	22.5	21.0	
Total—29 centers.....	\$423,988,771	0%	15%	14%	\$10,829,726	39.3	40.1r	38.7	

1. Deposits of individuals, partnerships, and corporations and of states and political subdivisions
 2. County basis
 r—Revised

TOTAL OIL WELLS DRILLED

Area	Fourth quarter 1971	Third quarter 1971	Percent change	1971 cumulative	Percent change from 1970 cumulative
FOUR SOUTHWESTERN STATES.....	1,534	1,558	-1.6%	6,494	-7.1%
Louisiana.....	296	212	39.6	1,039	-10.8
Offshore.....	44	52	-15.4	252	-36.5
Onshore.....	252	160	57.5	787	2.5
New Mexico.....	76	112	-32.2	403	17.8
Oklahoma.....	278	284	-2.1	1,170	-12.8
Texas.....	884	950	-7.0	3,882	-6.3
Offshore.....	0	0	—	0	—
Onshore.....	884	950	-7.0	3,882	-6.2
UNITED STATES.....	3,264	2,768	17.9%	11,852	-9.4%

SOURCE: American Petroleum Institute

BUILDING PERMITS

Area	VALUATION (Dollar amounts in thousands)						
	NUMBER		Percent change				
	Feb. 1972	2 mos. 1972	Feb. 1972	2 mos. 1972	Jan. 1972	Feb. 1971	2 months, 1972 from 1971
ARIZONA: Tucson.....	681	1,375	\$15,823	\$33,832	-12%	71%	150%
LOUISIANA: Monroe-West.....	351	420	5,071	6,490	257	334	111
Shreveport.....	447	848	5,042	8,756	36	16	29
TEXAS: Abilene.....	76	129	820	1,433	34	178	141
Amarillo.....	131	256	1,787	4,039	-21	-66	-37
Austin.....	515	1,038	21,930	38,807	30	83	45
Beaumont.....	182	335	1,273	2,575	-2	56	64
Brownsville.....	97	194	1,495	2,126	137	526	243
Corpus Christi.....	438	898	4,404	8,812	0	-15	-5
Dallas.....	1,540	2,790	74,824	108,050	125	265	146
Denison.....	25	52	347	668	8	52	5
El Paso.....	495	903	22,358	50,457	-20	82	155
Fort Worth.....	441	813	5,238	11,460	-16	3	22
Galveston.....	68	123	1,656	1,906	562	208	-24
Houston.....	2,914	5,307	38,352	76,659	0	-40	-24
Laredo.....	36	97	2,008	3,545	31	349	85
Lubbock.....	194	369	5,667	8,693	87	78	-3
Midland.....	114	205	1,343	2,980	-18	96	217
Odessa.....	67	140	1,182	1,897	65	198	102
Port Arthur.....	67	127	257	593	-24	-68	-44
San Angelo.....	75	161	579	1,184	-4	-65	-41
San Antonio.....	1,561	2,875	16,906	28,443	47	130	117
Sherman.....	49	91	953	1,454	90	44	-7
Texarkana.....	45	81	1,285	1,901	109	16	0
Waco.....	220	395	2,775	4,169	99	172	80
Wichita Falls.....	76	135	1,933	2,809	121	142	46
Total—26 cities.....	10,905	20,157	\$235,308	\$413,738	32%	48%	47%

GROSS DEMAND AND TIME DEPOSITS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. Million dollars)

Date	GROSS DEMAND DEPOSITS			TIME DEPOSITS		
	Total	Reserve city banks	Country banks	Total	Reserve city banks	Country banks
1970: February...	10,256	4,625	5,631	7,145	2,554	4,591
1971: February...	11,272	5,118	6,154	9,299	3,689	5,610
September...	11,571	5,311	6,260	9,735	3,769	5,966
October...	11,562	5,246	6,316	9,977	3,819	6,158
November...	11,641	5,264	6,377	10,025	3,879	6,146
December...	11,981	5,519	6,462	10,273	4,044	6,229
1972: January....	12,313	5,580	6,733	10,607r	4,179r	6,428
February...	11,983	5,419	6,564	10,864	4,249	6,615

r—Revised

DAILY AVERAGE PRODUCTION OF CRUDE OIL

(Thousand barrels)

Area	February 1972	January 1972	Percent change from		
			February 1971r	January 1972	February 1971
FOUR SOUTHWESTERN STATES					
STATES.....	6,861.2	6,691.9	7,130.9	2.5%	-3.8%
Louisiana.....	2,533.6	2,485.9	2,665.2	1.9	-4.9
New Mexico.....	323.9	323.1	340.3	.2	-4.8
Oklahoma.....	590.3	592.3	585.4	-3	.8
Texas.....	3,413.4	3,290.6	3,540.0	3.7	-3.6
Gulf Coast.....	644.1	626.2	714.6	2.9	-9.9
West Texas.....	1,720.0	1,650.1	1,697.6	4.2	1.3
East Texas (proper).....	203.7	200.1	220.0	1.8	-7.4
Panhandle.....	76.3	71.8	70.2	6.3	8.7
Rest of state.....	769.3	742.4	837.6	3.6	-8.2
UNITED STATES.....	9,472.6	9,305.7	9,799.8	1.8%	-3.3%

r—Revised

SOURCES: American Petroleum Institute
U.S. Bureau of Mines
Federal Reserve Bank of Dallas

INDUSTRIAL PRODUCTION

(Seasonally adjusted indexes, 1967 = 100)

Area and type of index	February 1972p	January 1972	December 1971	February 1971
TEXAS				
Total industrial production.....	126.5	125.9	122.3r	121.1
Manufacturing.....	128.2	129.4	125.4r	121.8
Durable.....	135.3	137.2	135.5	131.3
Nondurable.....	123.1	123.7	118.1r	114.9
Mining.....	117.1	112.1	108.4r	115.7
Utilities.....	146.4	146.4	147.4r	135.1
UNITED STATES				
Total industrial production.....	109.0	108.2	107.6	105.7
Manufacturing.....	107.2	106.4	105.7	103.9
Durable.....	100.4	99.4	98.4	98.6
Nondurable.....	117.1	116.5	116.2r	111.7
Mining.....	108.1	107.8	107.7r	110.1
Utilities.....	139.5	138.3	136.5r	132.2

p—Preliminary

r—Revised

SOURCES: Board of Governors of the Federal Reserve System
Federal Reserve Bank of Dallas

ed February 15 to a level 21 percent higher than a year earlier. Increases in both livestock and crop prices contributed to the gain.

The seasonally adjusted Texas industrial production index rose moderately in February, following a large increase in January. The index was up 4.5 percent from February 1971, with the year-to-year advance paced by an 8.4-percent gain in utility output and a 5.3-percent increase in manufacturing output. Mining production, regaining strength in the first two months of 1972, was up 1.2 percent from a year before.

All the increase in February resulted from a large boost in mining, especially the production of crude

petroleum, which rose in response to the higher oil allowable. Utility output was about unchanged from January. Production of both durable and nondurable goods slipped, lowering manufacturing production nearly 1 percent. The decline in durable manufacturing was due primarily to a large drop in activity in the transportation equipment industry. Electrical machinery output rose more than 2 percent. The decline in nondurable manufacturing was attributable to sharp drops in petroleum refining, printing and publishing, and apparel output. Overall, however, the change in nondurable manufacturing was held to a slight decline by sizable advances in food, textile, and paper production.

LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Five Southwestern States¹

(Seasonally adjusted)

Item	Thousands of persons			Percent change Feb. 1972 from	
	February 1972p	January 1972	February 1971r	Jan. 1972	Feb. 1971
Civilian labor force.....	8,451.7	8,455.7	8,248.1	0.0%	2.5%
Total employment.....	8,073.4	8,073.8	7,844.2	.0	2.9
Total unemployment.....	378.3	381.9	403.9	-.9	-6.3
Unemployment rate.....	4.5%	4.5%	4.9%	.0	-4
Total nonagricultural wage and salary employment....	6,545.9	6,540.7	6,319.4	.1	3.6
Manufacturing.....	1,144.2	1,146.8	1,125.6	-.2	1.7
Durable.....	616.1	616.4	608.3	.0	1.3
Nondurable.....	528.1	530.3	517.2	-.4	2.1
Nonmanufacturing.....	5,401.7	5,393.9	5,193.8	.1	4.0
Mining.....	229.3	229.5	228.3	-.1	.4
Construction.....	430.7	431.1	394.9	-.1	9.1
Transportation and public utilities.....	455.6	455.2	454.9	.1	.2
Trade.....	1,553.1	1,549.7	1,485.5	.2	4.6
Finance.....	345.8	345.1	324.9	.2	5.8
Service.....	1,057.3	1,058.2	1,016.7	-.1	4.0
Government.....	1,329.9	1,325.1	1,286.6	.4%	3.4%

1. Arizona, Louisiana, New Mexico, Oklahoma, and Texas

2. Actual change

p—Preliminary

r—Revised

NOTE: Details may not add to totals because of rounding.

SOURCES: State employment agencies

Federal Reserve Bank of Dallas (seasonal adjustment)

VALUE OF CONSTRUCTION CONTRACTS

(Million dollars)

Area and type	February 1972	January 1972	December 1971	January—February	
				1972	1971
FIVE SOUTHWESTERN STATES¹					
Residential building.....	720	840	807	1,566	1,121r
Nonresidential building....	385	413	405	800	502r
Nonbuilding construction....	201	221	198	424	414r
Nonbuilding construction....	135	207	204	342	205
UNITED STATES.....	5,607	6,234	6,286	11,811	9,305r
Residential building.....	2,664	2,667	2,997	5,324	3,441r
Nonresidential building....	1,799	1,728	1,959	3,518	3,351r
Nonbuilding construction....	1,144	1,840	1,331	2,969	2,513r

1. Arizona, Louisiana, New Mexico, Oklahoma, and Texas

r—Revised

NOTE: Details may not add to totals because of rounding.

SOURCE: F. W. Dodge Division, McGraw-Hill Information Systems Company

Registrations of new passenger automobiles in Dallas, Fort Worth, Houston, and San Antonio rose 16 percent in February. All four metropolitan centers posted increases. These ranged from 6 percent in San Antonio to 28 percent in Dallas. Registrations were up 13 percent from February last year, and cumulative registrations were 15 percent greater than in the first two months of 1971.

Department store sales in the Eleventh District were 17 percent higher in the four weeks ended March 25 than in the corresponding period last year. Cumulative sales through that date were 12 percent higher than in the same period a year before.