

Voice

of
the Federal Reserve Bank of Dallas
El Paso · Houston · San Antonio

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Since You Asked

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A fringe benefit of working at a Federal Reserve Bank is the frequent invitation to speak before various groups. And speeches inevitably generate questions. This is a brief response to the question asked most frequently following speeches during the past month.

Question: When we succeed in killing off inflation, what rate of increase in wage rates would you expect to be consistent with a noninflationary economy?

Answer: No precise answer can be given; probably it would be about the same as the average annual change in production per hour.

Production per hour increased around 35 percent in both the 1950's and the 1960's. In the 1970's, it increased less than half as much. In 1979, it actually declined.

Changes in compensation per hour have been much larger and, seemingly, quite independent of changes in production per hour. Hence, labor cost per unit of production has increased at a variable but accelerating pace. Unit labor costs and prices (inflation) have moved "neck and neck."

	Production per hour	Compensation per hour	Unit labor cost	Prices (Inflation)
	Percent changes			
1950's ...	37	74	27	26
1960's ...	34	67	25	23
1970's ...	14	120	93	87
1979 ...	-1	9	10	9

The early 1960's are often cited as one of the better periods among recent years. In 1959-64, both unit labor costs and prices increased about 5 per-

cent, roughly 1 percent per year. Unit labor costs rose fairly slowly in the period primarily because of a relatively slow rise (24 percent) in compensation per hour; production per hour increased at about the same rate as in the 1950's.

The parallel movement of unit labor costs and prices does not necessarily indicate a cause-effect relationship. Both may be determined largely by other things, such as rates of increase in money and credit, fiscal policy, exchange rates, etc.

The relation of hourly wage rates and prices is affected also by a number of economic forces. In the current environment, it is affected by a decline in the "terms of trade" between the United States and the rest of the world. The sharp increases in prices of imported crude oil, for example, have eroded the U.S. terms of trade. More exports are required to pay for a barrel of imported oil. This reduces the increase in compensation per hour that would be consistent with price stability.

The relation may be affected also by changes in the trend of hours paid for but not worked—for

example, vacations, holidays, and sick leave; changes in the proportion of the population working and the proportions working in relatively high output industries; changes in the capital equipment available to the work force and the state of technology; changes in the effectiveness of management; changes in Government regulations that affect productivity or prices; and so on.

It is obvious, however, that money wages cannot buy more goods and services than are produced. Real income is determined by production, not hourly wage rates. And production is a function of output per hour and hours worked.

Thus, while the relation is not precise and the causes are diverse, a noninflationary economy probably would yield up changes in hourly wage rates roughly comparable with the changes in production per hour. Undoubtedly, this is one reason for the recent surge of interest in policies designed to improve production per hour.

—Ernest T. Baughman
President, Federal Reserve Bank of Dallas

New member banks

Humble National Bank, Humble, Texas, a newly organized institution located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, opened for business July 1, 1980, as a member of the Federal Reserve System. The new member bank opened with capital of \$1,000,000 and surplus of \$1,000,000. The officers are: J. Mike Keller, Chairman of the Board; Robert T. Curry, President; Stephen G. Marshall, Vice President; and Charliene L. Hebert, Cashier.

The Woodlands National Bank, The Woodlands, Texas, a newly organized institution located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, opened for business July 1, 1980, as a member of the Federal Reserve System. The new member bank opened with capital of \$625,000 and surplus of \$625,000. The officers are: A. W. Schmidt, Chairman of the Board; Daniel E. Hauser, President; J. Jack McBride, Vice President and Cashier; and Alice F. Bean, Lobby Service Officer.

First United Bank—Richland, N.A., North Richland Hills, Texas, a newly organized institution located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business July 21, 1980, as a member of the Federal Reserve System. The new member bank opened with capital of \$625,000 and surplus of \$625,000. The officers are: Robert Harrison, President and Chairman of the Board; Jim Turner, Vice President; and Joy Lawrence, Vice President and Cashier.

Pioneer National Bank, Richardson, Texas, a newly organized institution located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business July 25, 1980, as a member of the Federal Reserve System. The new member bank opened with capital of \$700,000 and surplus of \$700,000. The officers are: Max W. Wells, Chairman of the Board; Larry C. Shumate, President; Albert A. Shirley, Vice President and Cashier; and Glenn Smith, Auditor.

Benefits of Crude Oil Price Decontrol Largely Offset by Windfall Profit Tax

By Edward L. McClelland

Phased decontrol of domestic crude oil prices was initiated last year to allow oil prices to rise in order to reduce domestic consumption and stimulate domestic production. As an integral part of the decontrol, the Congress also passed the Crude Oil Windfall Profit Tax Act of 1980 to capture for the Federal Government a portion of the projected rise in total revenues of oil producers. Together, the two programs will help restrain consumption and increase crude production.

Most of the windfall tax revenues will not be invested in energy production or conservation. It is not known, of course, to what extent the increased flow of crude oil revenues, absent the windfall tax, would have been invested in energy production or how successful that investment would have been in expanding domestic oil supply. It may be presumed, however, that the impact of decontrol without the windfall tax would have been somewhat greater than for decontrol with the windfall tax.

Deregulation of crude oil prices . . .

Crude oil production has been regulated for nearly a half century. Most regulations were implemented by major producing states as conservation measures to prevent what were perceived to be wasteful production practices, to limit domestic output,

and to support prices. Production was limited so that crude output would equal a forecast level of demand at a given market price. In the 1950's the Federal Government established import quotas to insulate domestic production from fast-growing supplies of inexpensive foreign oil.

In the 1970's, several fundamental changes took place in petroleum markets. U.S. crude production peaked in 1970 at 9.6 million barrels a day, but input to U.S. refineries, at 10.9 million barrels a day that year, continued to grow. By 1979, domestic output had declined to 8.5 million barrels a day, even though Alaskan production had added about 500,000 barrels a day. Crude input to refineries averaged 14.5 million barrels a day. The difference was made up by a growing volume of imports. Last year, crude oil imports supplied 44 percent of total refinery input, up from 12 percent in 1970.

Another change, direct regulation of domestic prices of crude oil and petroleum products by the Federal Government with the enactment of the Economic Stabilization Act (ESA) of 1970, was laid atop state production controls. The wage-price freeze in August 1971 was not aimed specifically at petroleum prices, but subsequent programs were. Phase IV of the price control program, initiated in August 1973 and authorized under the ESA, created two classes of oil and a two-tier price system—old oil, whose price was controlled,

and new oil, whose price was not controlled.¹

This was followed by a parade of regulatory legislation. In December 1973, following the Arab oil embargo in November that year, the Emergency Petroleum Allocation Act (EPAA) was adopted. The EPAA adopted the concept of a two-tier system of oil prices established by the ESA and increased the ceiling price of old oil. Effective in February 1976, the Energy Policy and Conservation Act established a composite, or weighted-average, price for crude oil and essentially put a ceiling on the price of upper-tier production—new, stripper, and released oil. Finally, in August 1976 the Energy Conservation and Production Act was passed and set up a three-tier price structure by deregulating stripper production and retaining a composite price for lower- and upper-tier oil.

Regulation of domestic oil has held U.S. crude prices well below the world level and encouraged consumption and growth of oil imports. One measure of the disparity between domestic prices and world prices is the refiner acquisition cost—or the average of domestic and imported oil costs, including transportation and fees, that refiners may pass on to their customers. In 1979, for example, U.S. refiners paid an average of \$17.72 a barrel for crude oil. Price controls held the cost of domestic oil to \$14.27, while the price of imported oil averaged \$21.67 a barrel. Thus, the cost advantage to U.S. consumers over the world price was nearly \$4 a barrel.

Without controls, domestic crude oil would have sold at the world price. Higher prices would have provided more stimulus to domestic production and greater restraint on consumption, both tending to reduce imports.

In order to restrain consumption, promote domestic oil production, and reduce dependence on foreign oil supplies, a program of phased decontrol of domestic oil prices was initiated on June 1, 1979. The period of phased decontrol extends to September 30, 1981, with the lifting of price ceilings varying by category of oil. Prices of newly discovered oil from wells drilled after June 1, 1979, and incremental production of tertiary oil employing specified enhanced-recovery techniques were

decontrolled immediately, that is, on June 1, 1979. Phased decontrol of upper-tier oil and 20 percent of all marginal oil was begun January 1, 1980. At the same time, the conversion rate of lower-tier oil to upper-tier oil—the mechanism by which lower-tier production is decontrolled—was doubled to 3 percent per month.

Regulation of domestic oil has held U.S. crude prices well below the world level and encouraged consumption and the growth of oil imports.

Deregulation of domestic prices is estimated to boost gross revenues of domestic oil producers about \$1 trillion above the level they would have been if controls were continued during the 11 years from 1980 through 1990. The equivalent increase in after-tax revenues is estimated to be about \$402 billion. If this increase in revenues were plowed back into domestic oil production, annual output is estimated to rise an additional 2.0 million to 2.5 million barrels a day by the end of the decade, according to the industry. But even that increase probably would not have been enough to offset the continuing decline in domestic oil production, so total output at the end of the decade would likely be below the current level.

... the windfall profit tax ...

The windfall profit tax is perhaps the largest tax ever imposed on a single industry. Moreover, the tax is not a levy on profits, as its name implies. It is an excise tax levied on the increased revenues expected to result from decontrolling domestic oil prices. The tax applies to revenue from both existing and future wells.

The Joint Committee on Taxation has estimated the windfall profit tax will divert \$402 billion of the projected \$1 trillion increase in oil revenues to the U.S. Treasury. It is estimated that oil producers will also pay an additional \$157 billion in corporate income taxes, raising direct tax payments to the Federal Government by around \$559 billion. Under current tax laws and without the windfall profit tax, oil producers would pay the Treasury about \$332 billion more in corporate income taxes, or about \$227 billion less than they are estimated

1. "Old" oil was defined as output from oil properties, except stripper wells, that were producing prior to 1973. "New" oil was defined as that from stripper wells and oil reserves discovered after 1972. Stripper oil is production from wells whose daily output is 10 barrels or less.

to pay with the windfall tax in place. Severance and income taxes will still be paid to state governments, and taxes on royalty and dividend income will continue to be paid to all levels of government. Under the windfall tax law, oil producers will retain about 29 percent of total revenues, compared with about 43 percent without the tax, a reduction of one-third. The windfall tax is now planned to be in effect through 1990 or until the U.S. Treasury collects the additional \$227 billion on the projected increase in oil revenues.

The windfall tax is imposed on the first sale of domestic crude oil and is limited to 90 percent of net income. It is levied on the difference between sales price less state severance tax and a base price adjusted for inflation since the second quarter of 1979. The base price is the portion of the sales price that is exempt from the windfall profit tax. If, for example, production from a given well sells for \$36.00 a barrel, the state severance tax is 5 percent of the sales price, and the adjusted base price is \$15.20, the appropriate windfall tax rate, depending on whether the producer is a major or an independent, is applied to \$19.00—the difference of \$36.00 less \$1.80 ($\$36.00 \times .05$) less \$15.20.

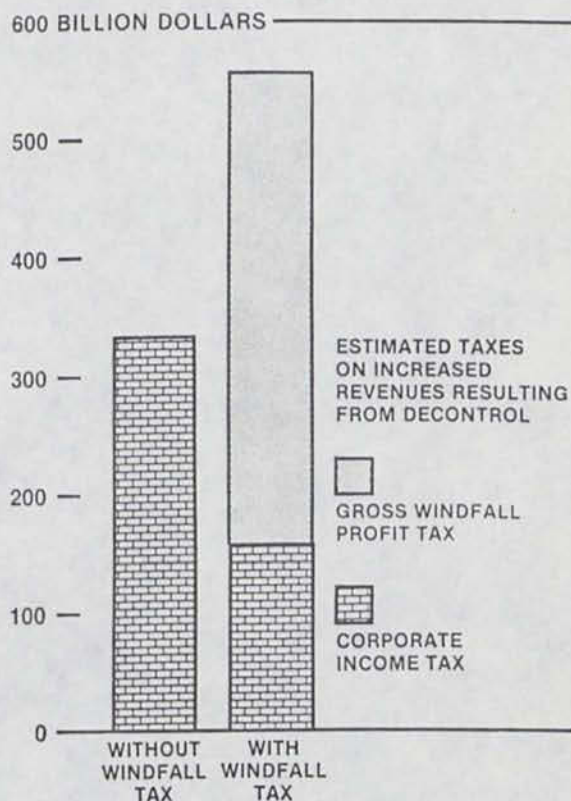
The windfall profit tax is not a levy on profits, as its name implies. It is an excise tax levied on the increased revenues expected to result from decontrolling domestic oil prices.

The tax rate varies by type of production and size of producer. The oil production categories established by the U.S. Department of Energy were grouped into three new categories by the Internal Revenue Service for tax purposes. Tier 1 is largely lower- and upper-tier oil that was in production before 1979 and is taxed at a 70-percent rate. Tier 2 is stripper output and production from the National Petroleum Reserve and is taxed at a 60-percent rate. Tier 3 is newly discovered oil, heavy oil, and incremental tertiary production and is taxed at a 30-percent rate.

Producers are classed as majors or independents. Independents are producers with gross annual sales of \$5 million or less and with refining capacities of no more than 50,000 barrels a day. The tax rates applied to all oil properties are the same,

CHART 1

Decontrol of domestic crude prices will substantially increase the oil industry's tax liabilities from 1980 through 1990 with or without the windfall tax



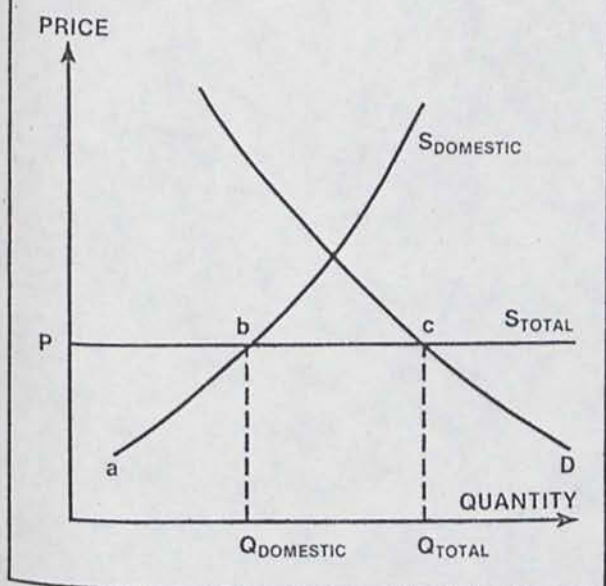
SOURCE: Joint Committee on Taxation, U.S. Congress.

except the first 1,000 barrels a day of Tier 1 and Tier 2 production by independents are taxed at reduced rates of 50 percent and 30 percent, respectively. Royalty owners are taxed according to production category of their properties but are not allowed the preferential tax rates on the first 1,000 barrels a day of production as are independent producers.

Although an economic argument can be made for taxing the increased revenues resulting from phased decontrol of prices of existing production,

CHART 2

Market Demand and Supply Curves for Crude Oil



taxation of future production somewhat reduces the incentive and capital available to develop new oil wells. The windfall tax, being an excise tax instead of a tax on profits, becomes a cost of doing business. Industry estimates indicate the windfall tax will reduce future domestic production by 1.0 million to 2.0 million barrels a day in the late 1980's and offset much of the increase of 2.0 million to 2.5 million barrels a day in domestic production that would result from price decontrol. Those estimates, of course, are based on current projections and could vary if crude oil prices rise faster than anticipated and a large number of additional marginal oil fields are brought into production.

... and an economic analysis

A comprehensive analysis of the effects of decontrol and the windfall profit tax quickly becomes very complex. Under the windfall tax 16 production categories, 7 producer-owner categories, and 4 tax categories are defined. Therefore, the pos-

sible combinations of production situations are numerous. The process is further complicated by producers' adjustments over time to changes in production costs and market prices and by consumers' reactions to rising prices. Despite the complexities, the basic forces underlying any given situation can be identified and explained in general terms by an analysis of the interactions of the crude oil market and a single production unit.

In the U.S. market, domestic consumption of oil greatly exceeds domestic production, so the difference is supplied by foreign sources. Moreover, the leadership in oil pricing was taken over by the Organization of Petroleum Exporting Countries (OPEC) with the Arab oil embargo in November 1973, and its price decisions were made effective by controlling production.

Current market conditions are illustrated in Chart 2. The demand curve for crude oil (D) slopes downward to the right, indicating smaller quantities of oil will be consumed at higher prices. The supply curve for domestic crude (S_{domestic}) slopes upward, suggesting greater quantities of crude oil will be supplied as prices increase. Market price (P)—which for simplification can be considered a weighted average of domestic and foreign prices—is set by OPEC and maintained by adjusting production. The total supply curve (S_{total}) is abc . The quantity of domestic crude oil supplied (Q_{domestic}) is determined by P and S_{domestic} . The quantity of foreign oil supplied is the excess of demand D at price P , or total quantity (Q_{total}) less Q_{domestic} .

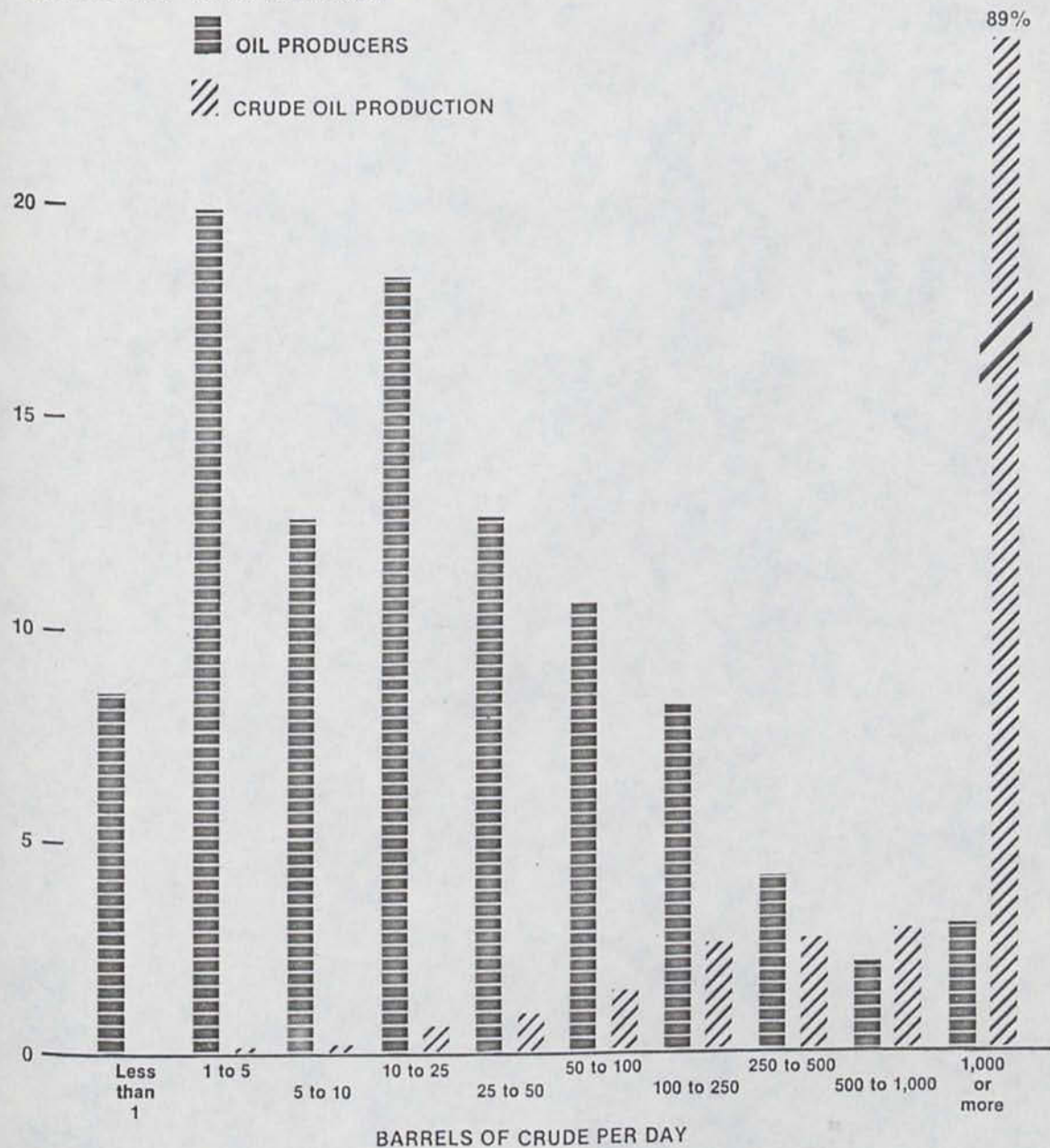
As the price of crude oil increases under the decontrol program and with further OPEC price hikes, two adjustments occur. First, consumers cut back on consumption as prices rise. Total demand for petroleum products declined 2.2 percent last year in response to the sharp rise in crude prices and is expected to fall 6.5 percent this year, aided in part by the current recession. Second, higher prices should stimulate crude production. The number of active drilling rigs is up over 40 percent from a year ago and is at a 24-year high. Unfortunately, the acceleration in drilling is not expected to significantly increase domestic oil supplies but may only slow the decline in crude output. Domestic crude production declined 2.0 percent last year and is expected only to rise 1.3 percent this year. Therefore, imports appear destined to continue to be a substantial share of total U.S. oil consumption.

Individual oil producers respond to changes in

CHART 3

About 160 of the more than 5,300 Texas oil producers account for 89 percent of the state's crude output

25 PERCENT OF TOTAL FOR TEXAS



SOURCES: *Oil Directory of Texas*.
Federal Reserve Bank of Dallas.

market conditions. Because of the large number of wells and producers and with no firm dominant, the production end of the oil industry approximates a purely competitive market. In Texas, for example, there are about 170,000 oil wells operated by more than 5,300 producers.² However, the average well produces less than 17 barrels a day, and 60 percent of all producers extract less than 25 barrels a day. About 160 producers—3 percent of all Texas producers—extract more than 1,000 barrels a day, but they account for nearly 90 percent of total crude production in the state. The three largest producers (Exxon Company, U.S.A.; Amoco Production Company; and Shell Oil Company) account for about 30 percent of total production in the state.

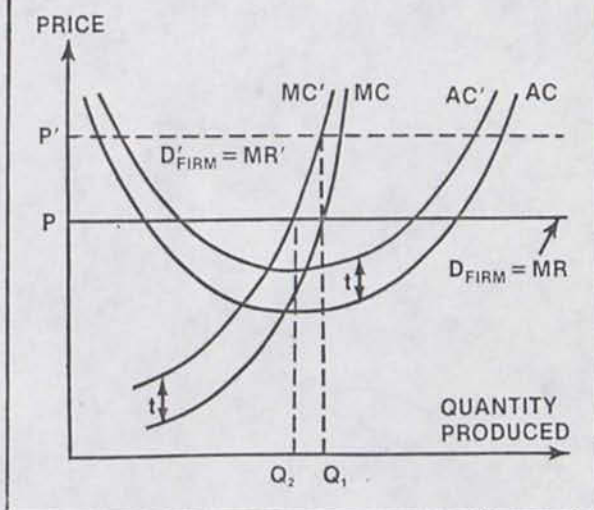
Profits at the producer level of production are maximized by increasing crude output of individual wells until the revenue derived from the sale of a barrel of oil is equal to the additional costs incurred to extract the oil. Because nearly half of U.S. oil consumption is supplied by foreign sources and domestic crude prices are set by regulation or OPEC, domestic producers—both large and small—face highly elastic demands for their output and are price takers rather than price makers.

Market conditions for an individual well, where marginal revenue (MR) is equal to the demand curve faced by producers (D_{firm}) and market price (P), are illustrated in Chart 4. The marginal cost (MC) rises as production is increased and represents also the producer supply curve. The quantity of output (Q_1) is determined where MR equals MC .

The windfall tax, because it is an excise tax, raises both the average cost (AC) and marginal cost of production by an amount equal to the tax (t). Imposition of the tax raises the marginal cost to, say, MC' and reduces production at all price levels. At price P , output would be reduced to Q_2 . If the market price does not rise enough (to P' or higher) to offset the tax, production would be reduced. The size of the reduction depends on how much marginal costs are raised with respect to marginal revenues. If the windfall tax increased marginal production costs of some wells above the market price, those wells would be shut down or production might be reduced to put the wells in the stripper category to be taxed at a lower rate.

CHART 4

Producer Demand and Cost Curves for Crude Oil



Imposition of the windfall tax, therefore, shifts the supply curve—marginal cost—of individual producers upward and to the left. Since the market supply curve is the sum of all firm supply curves, it too is shifted upward and to the left. But because prices of newly discovered oil are decontrolled and rising and additional production is coming on stream, the decrease in crude supply resulting from the tax is offset by higher prices increasing the quantity of output along the shifting market supply curve. The current scramble for available drilling rigs and the backlog of orders for new rigs indicate producers expect prices of newly discovered oil to offset much of the windfall tax.

Incidence of the windfall tax

Where the windfall tax finally comes to rest is subject to a large degree of uncertainty. With domestic prices decontrolled and OPEC setting prices by controlling production, a straightforward approach in determining who will shoulder the tax becomes a complex problem. However, the incidence of the windfall tax will be uneven because few taxpayers may be able to pass on a portion of their increased tax liability to consumers in

2. Oil Directory of Texas (Austin, Tex.: R. W. Byram & Company, 1979).

the form of higher prices. Taxpayers that are relatively small in size will likely bear a disproportionate amount of the tax. While they are numerous, they account for only a small portion of total domestic production. But even the ability of larger firms to raise prices may be constrained by the possibility of importing greater quantities of crude and refined products.

Royalty owners who sell mineral rights where wells are drilled cannot pass on the cost of the tax because they do not have title to production. They hold nonoperating mineral interests and are granted a fixed portion of production as payment for ownership. Most owners of mineral rights to oil wells producing prior to 1979 may have no alternative other than absorbing the tax, even though decontrol permits crude oil prices to increase. Also, some wells in Tier 1 production will drop into the stripper category and be taxed at a lower rate. Royalty owners of future production will not be taxed as heavily because newly discovered oil is taxed at the lowest rate and, presumably, domestic crude oil prices will continue to rise.

Oil producers bear unequal taxes under the windfall tax, depending on their size and the extent to which they are vertically integrated. Large oil companies with production, refining, and marketing capabilities have a better opportunity to reduce their tax burden because they have some flexibility in passing on the tax in the form of higher finished-product prices. Small producers have less flexibility and may be less able to institute and sustain price increases. The very smallest producers—like royalty owners—may have little or no choice, because of location, as to whom they sell their crude production and, therefore, may be unable to pass on to refiners the cost of the tax.

Distribution of windfall tax revenues

The purpose of phased decontrol of domestic oil prices is to allow crude prices to rise in order to discourage consumption and provide incentive for increased production. Originally, the windfall profit tax was intended to divert to special trust funds the unanticipated revenues from oil producers that resulted from decontrol. Those funds were to be used to finance development of alternative energy sources to reduce dependence on foreign oil supplies. Instead, Congress placed all windfall tax revenues in the general revenue fund and identified

three broad areas for their use. To date, only a small portion of the revenues have been committed by Congress to specific uses.

Less than \$30 billion has actually been allocated to specific uses. On June 30 the President signed a bill establishing the United States Synthetic Fuels Corporation, which can spend \$20 billion to promote a domestic synthetic fuels industry. Also enacted were a \$3.1 billion energy conservation and solar bank, a \$1.4 billion biomass-to-energy program to be run jointly by the Departments of Energy and Agriculture, and other incentives to use renewable sources of energy.

The purpose of phased decontrol of domestic oil prices is to allow crude prices to rise in order to discourage consumption and provide incentive for increased production.

About 15 percent, or \$34 billion, of the windfall tax revenues have been earmarked to fund energy development, largely indirectly. Consumers will receive \$600 million. Consumer tax credits are provided for the purchase and installation of solar and wind equipment. Homeowners in the Southwest could have higher than average participation because the southwestern climate favors these types of investments. Businesses will receive \$8.3 billion in tax credits to subsidize development of alternate sources of energy. Businesses are eligible for the same kinds of assistance as consumers plus additional tax credits for geothermal and ocean-derived energy and equipment using or producing coke, coke gas, or fuel from biomass.

One aspect of the energy tax credits risks a misallocation of economic resources if significant breakthroughs in reducing the costs of alternative energy supplies are not achieved. At present, commercial development of many alternative energy sources would be more expensive than developing additional domestic oil supplies. For example, some applications of solar or wind energy, priced on an oil-equivalent basis, cost about \$50 a barrel or more. At the same time, new oil and tertiary production, which many estimate can be accomplished more cheaply and in greater quantities, is subject to the windfall tax. That, however, does

not suggest the development of alternative sources of energy should not be undertaken, as domestic oil production is on the decline. But before huge investments are committed for commercial facilities, careful consideration should be given to deciding which alternatives are the most economical.

A quarter of the windfall tax revenues, \$57 billion, have been earmarked to help low-income families pay utility and heating bills, although Congress has not worked out the details of this part of the benefits program. It was estimated that about 20 million families, including 12 million that are below the poverty level, would be eligible for energy assistance. Most of those funds, however, will go to beneficiaries located in the Midwest and Northeast because oil is a major heating fuel in that section of the country. Nearly 80 percent of all residential heating oil is consumed there, compared with a miniscule one-tenth of 1 percent in the Eleventh Federal Reserve District. Natural gas, which is used to heat most homes in the Southwest, will not be subsidized. As a result, there will be disparities in the amount of assistance received. For example, Pennsylvania residents will receive an estimated \$197 million in 1981, compared with \$83 million for Texas, which has a greater population.

The allocation of the remaining 60-percent share, or \$137 billion, has yet to be laid out by Congress.

However, that share was earmarked to offset cuts in individual and corporate income taxes. All consumers could benefit from a slim reduction in tax payments as the windfall tax revenues are distributed. However, a reduction in personal income tax payments from current levels is not anticipated, since the revenues are only large enough to slow the rise in future tax liabilities for individuals. An average taxpayer may realize a "saving" of about \$80 a year over the decade from what he might otherwise have been expected to pay.

Phased decontrol of oil prices and enactment of the windfall profit tax, therefore, are changing the oil industry. It is moving from a market environment of price controls on domestic production without a significant excise tax to an environment of decontrolled prices with a substantial excise tax but where an effective domestic price ceiling is still established by actions of the OPEC nations. The recent proposal to tax imports was not approved by the Congress. With domestic decontrol, oil prices, profits, investment, and production will rise. All would have risen further with domestic decontrol without the windfall tax. Crude imports will not be reduced considerably in any event until alternative sources of fuel are developed in substantial volume, absent, of course, action by OPEC to further curtail production.

“Fed Quotes”

Brief Excerpts from Recent Federal Reserve Speeches, Statements, Publications, Etc.

“In recent years, the performance of productivity in our economy has been dismal. We do not know all the reasons why, and that will limit our ability to deal effectively with the problem. We do know, however, that a substantial increase in the share of national output will have to be devoted to capital formation if we are to have much hope of increasing the rate of productivity advance. Since the need for additional capital to deal with our nation’s energy and environmental problems will also be large, it will be critical to adopt tax and expenditure policies that free up resources—real resources as well as financial resources—to make that possible.

“The need for a higher rate of business capital formation is critical to the long-run health of our economy. Holding down the share GNP devoted to federal expenditures will contribute importantly to that effort. So also will the orientation of future tax cuts toward business investment incentives. But these efforts may go for naught if we do not control carefully the share of national resources absorbed by federal credit programs.”

“Some federal credit programs affect the economy much like direct federal expenditures. Loan guarantees for low-income housing and foreign military assistance are the most obvious examples. Others provide only marginally lower interest rates, or marginally better nonprice credit terms, to borrowers whose credit needs would otherwise probably have been met by the private financial market. These differing effects, moreover, do not bear any necessary relation to whether credit is supplied through direct loans or loan guarantees.”

“The proportion of total borrowing in financial markets that is federally assisted can be used as an indicator of credit resources whose direction is governed by federal lending programs. Similarly, the share of GNP accounted for by the total of federal expenditures plus credit activities is a rough measure of the proportion of real resources whose use is directed by the Federal government.”

Lyle E. Gramley, Member, Board of Governors of the Federal Reserve System (Before the Budget Committee’s Special Subcommittee on Control of Federal Credit, U.S. Senate, June 19, 1980)

"In sum, we may well be experiencing an unusual recession. Its sharp beginning may reflect an abrupt one-time shift of leads and lags in consumer spending patterns. But some components of expenditure could turn up fairly quickly. The chances of that outcome are improved by one key factor. The damages to the fabric of our financial markets and to the financial condition of business, damages which had been inflicted by worsening inflation, are now being repaired as a result of the declines in interest rates and the likely turn in price performance. This financial recuperation strengthens the underlying resiliency of the economy and it justifies some optimism that the recession may prove largely self-limiting both in depth and duration. To be sure, the ensuing recovery probably would be only moderate by historical standards. But it could lead into a balanced expansion more reasonably geared to the economy's growth potential.

"Frankly, many factors could spoil the prospects for an early but moderate recovery—for example, the failure to regain consumer confidence or some new shock to oil prices. But one mistake I would especially be concerned about would be the re-igniting of an inflationary psychology. An untimely move toward fiscal and monetary stimulus could be taken as signaling acquiescence to excessive rates of inflation, and price expectations could easily worsen again. The result could be a renewed weakening of the bond markets, higher long-term interest rates, the consequent postponing of a housing recovery, and greater caution towards business fixed investment. These are tangible costs, and it is important to avoid them. We have to be immensely careful we do not stunt the prospects for recovery, not by neglect, but by misplaced good intentions that have unwelcome side effects."

Anthony M. Solomon, President, Federal Reserve Bank of New York (Before the Fourth Annual International Conference of the National Association of Business Economists, New York, New York, June 24, 1980)

Less Meat, Higher Prices

By Don A. Riffe

National news stories this summer have graphically revealed the vulnerability of crops and livestock to the vagaries of weather. While reports of heat-related deaths of livestock in several states may have caused concern among consumers about prospective supplies and prices of meat, of greater significance are the indications as of midyear that hog and poultry producers have finally decided to reduce output.

Record supplies of pork and poultry helped to hold a lid on meat prices in late 1979 and in the first half of 1980. In fact, average retail meat prices in the second quarter of 1980 were below year-earlier levels. Consumers have been able to substitute meats successfully whenever the price of one rose relative to another, thereby imposing a degree of restraint on prices for all meats. This will be more difficult in the near future as supplies of pork and poultry begin to decline.

Producers react to cost-price squeeze . . .

Many livestock producers have been losing money on animals marketed since last fall. But production adjustments are not made quickly. Also, hog and poultry producers may have delayed cutting back output because they knew cattle numbers were cyclically low and that the reduced supply of beef would tend to hold up prices of pork and chicken. Whatever the reasons for their earlier reluctance about adjusting production plans, hog and poultry producers seem to have changed their minds during the second quarter of 1980.

Beef production registered a year-to-year gain in the second quarter for the first time in 14 quarters. This happened concurrently with record pork and poultry output and declining real consumer income, thus keeping livestock and meat prices

under downward pressure. Apparently, this was the last straw for many hog producers. A survey of hog producers by the U. S. Department of Agriculture as of June 1 indicated that hog numbers were at the peak for this production cycle. While there was a record number of hogs on farms in June, the number of hogs kept for breeding was down 8 percent from a year earlier, and producers indicated plans to farrow 8 percent fewer sows in June-November 1980.

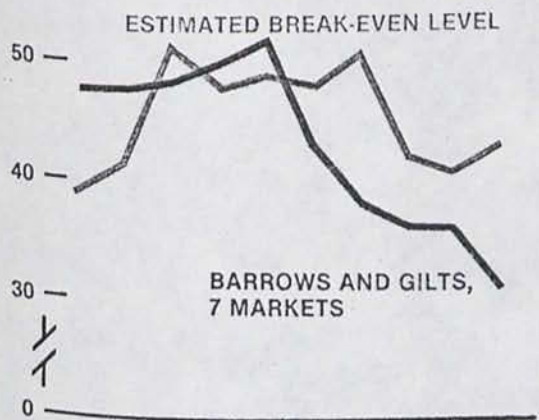
This means that pork will continue to be relatively plentiful for the rest of 1980 because of the large June 1 number of hogs on farms. However, if hog producers follow their June intentions, pork production would begin to decline from year-earlier levels toward the end of the year and would dip sharply in the first half of 1981.

Poultry producers have also moved toward reducing output. Broilers typically account for more than 75 percent of total poultry production, and in April the number of broiler chicks hatched fell below year-earlier levels for the first time in 32 months. Fewer broiler-type pullets were placed in hatchery supply flocks in the second quarter than in the same period last year, and on June 1 the number of broiler eggs in incubators was 4 percent below the level on that date in 1979. Broiler output is expected to be significantly lower in the last half of 1980, with fourth-quarter production falling as much as 4 or 5 percent from a year earlier.

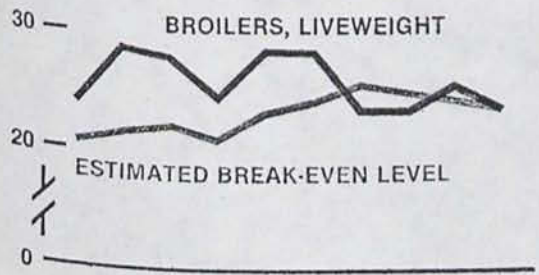
Cattlemen placed about 9 percent fewer cattle in feedlots in the second quarter than in the same three months of 1979. Fed beef production is expected to decline in the last half of 1980, but increased slaughter of nonfed cattle could keep total beef production very near the level of a year ago.

Livestock prices were generally below break-even costs through the first half of 1980

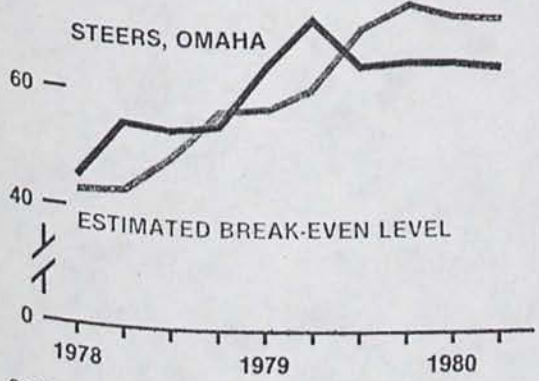
60 DOLLARS PER HUNDREDWEIGHT (QUARTERLY FIGURES)



40 CENTS PER POUND



80 DOLLARS PER HUNDREDWEIGHT



SOURCE: U.S. Department of Agriculture.

The second-quarter data suggest that the stage is being set for significantly lower supplies of pork and chicken by early 1981. The magnitude of any declines, and thus the impact on meat prices, will be determined by the extent to which producers hold to their indicated course of action.

... but recent price strength may temper reductions

Shortly after the U.S. Department of Agriculture's June 1 survey of hog producers, livestock prices generally began to improve. In fact, hog prices increased more than 30 percent between mid-June and mid-July as the number of hogs sold for slaughter declined markedly.

In July, livestock and poultry prices were once again approaching or exceeding break-even levels for many producers. This alone will not be enough to erase all plans for reduced output, but it could have some effect on the meat supply and price situation for early 1981. If livestock prices continue to average near or above break-even levels throughout the third quarter, producers will have less incentive to decrease output and the potential for sharply higher meat prices in 1981 will be reduced.

Heat wave exerts influence

It is too early to know how much meat production will be affected by the prolonged heat wave that began in June in the South Central United States. Heat-related animal deaths have been relatively insignificant on a national scale. However, the heat wave is influencing meat production in other ways.

In the near term, one effect of the hot, dry weather will be to provide a small boost to beef production. Beef production in the last half of 1980 is expected to be down slightly from a year ago. But it could be somewhat higher than anticipated, depending on how severely cattle herds have had to be reduced in several states to reach stocking levels that dry pastures and short supplies of hay could support.

For poultry, third-quarter output will be less than earlier expected not only because of death losses but also because of the marketing of birds at lower weights, owing to heat stress. Pork output may also be less than anticipated. Third-quarter production was expected to be about 6 percent higher than a year ago, but the number of hogs coming to market early in the quarter did

not meet expectations and average slaughter weights were running slightly below a year earlier. The heat has delayed hog marketings in some areas, as the animals have gained weight less rapidly in the hot weather. Thus, the near-term effects may be a "bunching" of hog marketings in September and October and slightly lower than anticipated pork production in the last half of the year as a result of reduced slaughter weights.

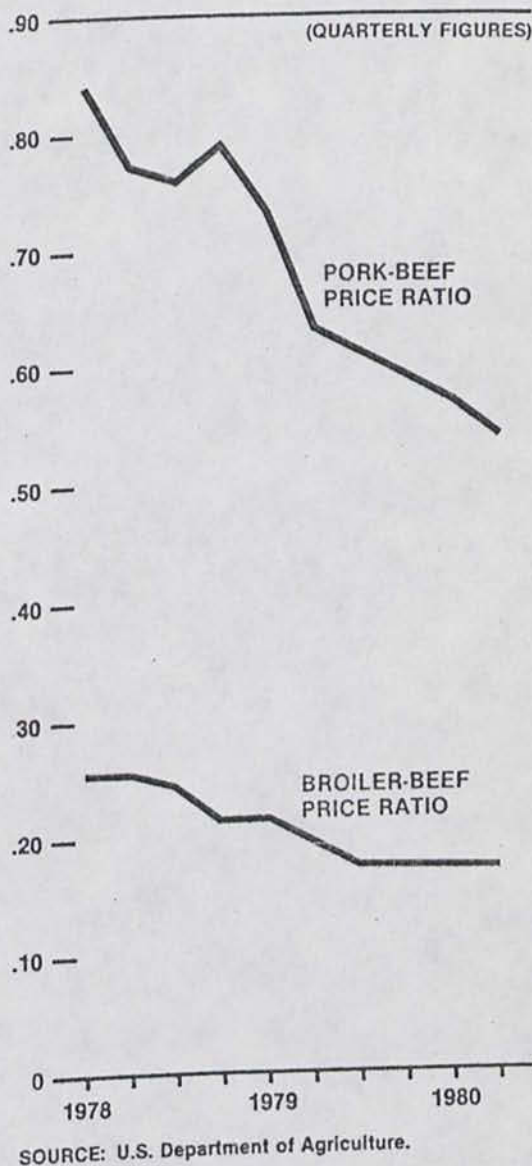
While the near-term effects of the heat wave will be somewhat mixed, the longer-term influence on meat production will be more negative. Although cattlemen have undoubtedly been reluctant to cull more cows than usual from their breeding herds, some in severely drought-stricken areas have had no choice. Many others may have retained the size of their breeding herds by selling calves earlier than usual and at lighter weights but will not be able to expand their herds as they might under more normal conditions. This will simply stretch the time required to rebuild the nation's cattle inventory from the current relatively low level. And the loss of some feed grain and forage crops can only put upward pressure on feed costs for all livestock producers, thus discouraging increased output. This tendency will be augmented by the recently announced increases in Government price supports for grains.

Strength of consumer demand is uncertain

The magnitude of any increases in meat prices in the near future will depend on the behavior of consumers at a time when purchasing power is likely to be declining. However, a downturn in the general economy does not usually have the same type of adverse effect on the demand for meat as on the demand for durable goods. One possible result of reduced consumer purchasing power in the next few months is a change in relative prices among meats. Chicken and pork have been priced very favorably relative to beef, and these price relationships may be in for a "correction" as consumers continue to look toward pork and chicken as substitutes for higher-priced beef in the face of declining supplies.

Meats and poultry account for about 20 percent of food expenditures in the calculation of the consumer price index. In the first half of 1980, retail meat prices were relatively stable and provided a moderating influence on food prices. Early in the third quarter, sharply higher livestock prices could not have been sustained unless retail meat prices

Pork and chicken prices have been low relative to beef prices



were also rising. Meat prices in the last half of 1980 are expected to be significantly higher than in the first half, and prices could show substantial year-to-year gains in the first quarter of 1981 if hog and poultry producers reduce output as anticipated.

Bank Loans in a Recession

By Mary G. Grandstaff

Loans outstanding at member banks in the Eleventh District increased 2 percent in the first half of 1980, about one-fifth the growth in the year-earlier period. Total loans declined 1.0 percent at all member banks in the District in the second quarter of 1980 and 2.9 percent at large weekly reporting banks. The weakness in loan growth this year has been due to record-high interest rates early in the year, a special restraint program, and recession.

Consumer loans fell sharply in the second quarter, reflecting a severe drop in automobile sales and institution of the Special Credit Restraint Program by the Federal Reserve. Business loans outstanding also fell substantially. The decline in these loans was due partially to more cautious inventory accumulation by businesses since the last recession. Real estate loans, however, have continued relatively strong at District banks this year, as demand for homes has remained substantial despite a significant tightening in the availability of mortgage funds (rates reached record highs, and lenders tightened their nonrate terms). The continued strength in the District economy and the flow of people into the region have contributed to the sustained demand for houses.

Interest rates have fallen substantially from their record levels, and the Special Credit Restraint Program has been phased out. Nevertheless, the recession is still here and apparently will remain for a while. As a result, District bank loans are

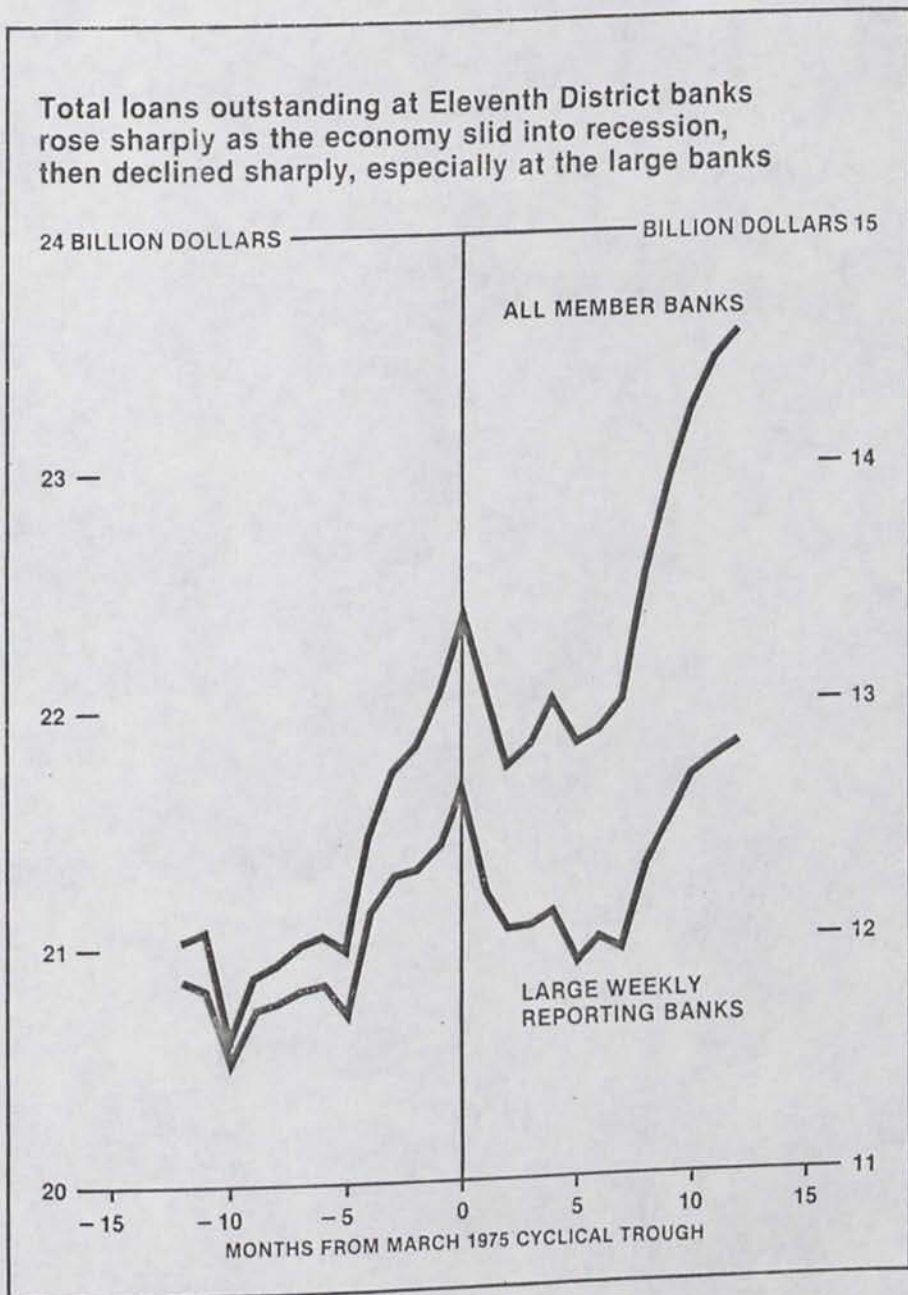
likely to be somewhat depressed until economic activity picks up.

Although loans at District banks have fallen earlier in the current economic downturn, a look backward at the behavior of Eleventh District bank loans during the last recession may have some relevance to the situation now. In the year ended March 1975 (the "trough" date of the prior recession, as designated by the National Bureau of Economic Research), total loans at member banks in the District increased 6.6 percent. Hence, loans outstanding continued to rise during the declining phase of the business cycle. In the early recovery period, however, loan growth was somewhat slower—5.1 percent in the year following the trough. And virtually all that growth occurred in the final five months; seven months after the trough, loans outstanding at District member banks were almost 2 percent below their March 1975 level.

At the large weekly reporting banks in the District, the growth in loans following the economic trough was even slower. Loans at these banks did not regain their March 1975 level until 11 months later.

Data for large weekly reporting banks also indicate diverse patterns of change for the major types of loans. Loans to businesses continued an irregular but moderate rising trend throughout the recession. Consumer and real estate loans, on the other

Total loans outstanding at Eleventh District banks rose sharply as the economy slid into recession, then declined sharply, especially at the large banks



Industrial production in the nation
fell markedly in the last quarter of 1974
and the first quarter of 1975

135 (1967 = 100)

130 —

125 —

120 —

115 —

110 —

| M | J | S | D | M | J | S | D | M |
1974 1975 1976

SOURCE: Board of Governors, Federal Reserve System.

hand, started to decline prior to the trough month, and both types of loans decreased appreciably thereafter.

Demand weakened . . .

In 1974 the United States suffered the worst inflation since the early post-World War II period. At the same time, the national economy moved into its longest and deepest recession of the postwar period.

Businesses cut both production and capital spending plans as orders were reduced or canceled as a result of weak demand. Nevertheless, the financing needs of businesses remained substantial since inventory-to-sales ratios rose to historical highs when final sales fell so sharply. (Businesses had accumulated inventories at a very rapid pace preceding the recession because of widespread concern over material shortages in several industries.) Despite extensive efforts to reduce inventories as the economy moved into recession, they stayed at abnormally high levels until well into 1975. The tighter inventory policies since the last recession may help to keep business loans from growing as rapidly in the current recession.

The contraction in loans to consumers during early 1975 partially reflected a relatively high level of debt liquidation by these borrowers. In addition, outlays for consumer goods—and, thus, consumer financing needs—slowed as real disposable income dropped sharply and consumer attitudes were adversely affected by continuing rapid inflation and growing unemployment.

Consumer loans could follow a similar pattern in the current economic downturn. The unemployment rate is expected to move significantly higher as the recession deepens. Disposable personal income may not keep pace with inflation, and consumers might well be hesitant to increase their already high level of short-term debt.

Demand for mortgage loans in late 1974 and 1975 weakened when residential construction declined markedly, as both single-family and multifamily housing starts were adversely affected by an oversupply of new units and by a growing tightening in the availability of mortgage funds. The depressed conditions in multifamily construction also reflected the difficulties owners were having in achieving rent levels sufficient to cover increasing costs of construction and operation.

Activity in single-family starts did begin to de-

rive some benefits in 1975 from Federal support programs that provided below-market interest rates for some home buyers and offered special income tax rebates to others on certain purchases made before 1976. In addition, the cost of mortgage credit for homes fell somewhat during 1975 when the availability of funds improved as savings inflows picked up.

Growth in real estate loans may be somewhat stronger in the current recession. Mortgage rates already have fallen and should decline further as other credit demands weaken. Vacancy rates are relatively low, and prospective homeowners may opt to acquire homes before inflation pushes prices higher. Moreover, real estate investment trusts, which were partially responsible for the weakness in real estate loans in 1974 and 1975, are not expected to be a major factor in the current downturn.

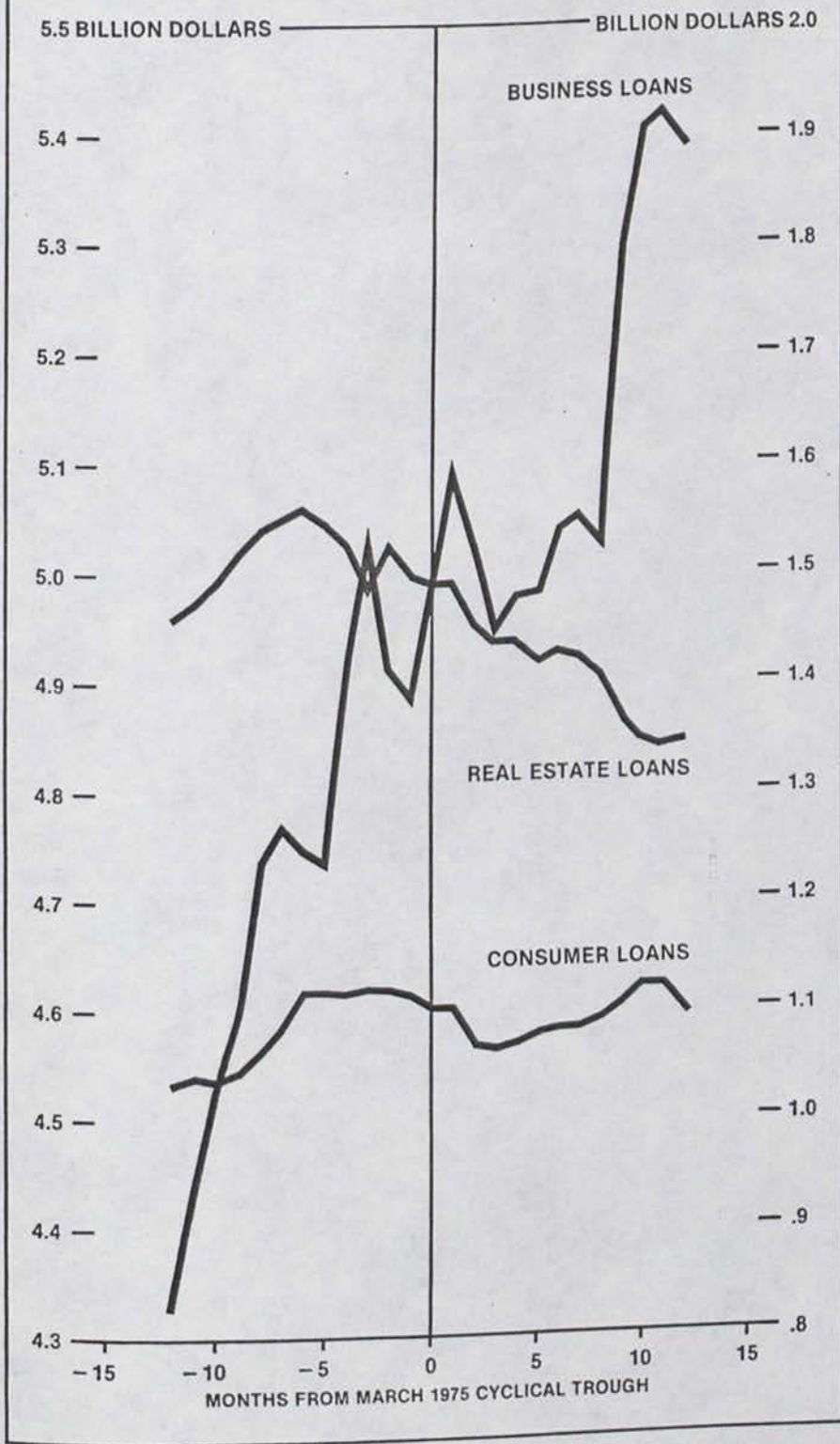
. . . and the availability of funds tightened

Business borrowing at banks was extremely heavy in the first half of 1974. By spring the demand for bank funds was advancing at a record pace. The prime rate had risen to 11¹/₄ percent, and banks were aggressively seeking funds in the money market, especially through certificates of deposit (in the CD market, the banks raised over \$10 billion just in April and May). Such intensive bidding for funds also caused yields in other credit markets to rise sharply.

Loans-to-deposit ratios at many banks rose to high levels in 1973 and 1974 as a result of inflation-induced borrowings by businesses and others. Bank liquidity had eroded seriously, and as banks became increasingly concerned about borrowing heavily to finance the growth in loans, they began to reduce their reliance on nondeposit sources of funds. The widespread news of the major liquidity difficulties confronting a sizable U.S. bank—and the failure of an important foreign bank soon thereafter—brought further shifts in borrowing and lending patterns. Many banks became considerably more cautious in the management of their liquidity positions and reduced the amount they would lend to individual borrowers.

Even though loans continued to increase sharply until the end of 1974, banks were trying to slow the growth through widespread tightening of both price and other lending terms. The tightening extended across all types of borrowers—business, consumer, and real estate.

Loans to businesses continued to trend upward at large District banks during most of the recession and rose faster than other loans after the trough



The prime rate had jumped to 12 percent by the summer of 1974. However, that was still below many market rates, so banks increased their compensating balance requirements and stiffened evaluations of loan applicants. Net business loan extensions leveled off for a while but turned sharply upward again in late 1975 after the demand for goods picked up substantially and bank liquidity positions had been rebuilt to more desirable levels. Nevertheless, the restrictive policies toward business lending were in effect throughout most of 1975. The prime rate dropped 3½ percentage points over the year to 7 percent, but it generally remained high relative to market alternatives.

With lower interest rates in money and capital markets in 1975 and early 1976 encouraging many businesses to refinance much of their recent short-term borrowing with longer-term debt, commercial banks began gradually to loosen their policies toward consumer and real estate loans. Demand for such loans, however, was slow to return. Mortgage rates remained high relative to historical levels, and consumers generally maintained a fairly hesitant attitude toward extending their outstanding debt until well after the cyclical trough.

As in the Eleventh District, loans outstanding at large weekly reporting banks in the nation were fairly strong until well into the recession. In the year preceding the trough, these loans rose more in the nation (6.2 percent) than in the District (5.3

percent). In the year after the trough, however, loans at large banks declined 6.4 percent in the nation but rose 1.1 percent in the District.

Virtually all of the greater strength in District loans during the first year of recovery reflected higher levels of borrowing by businesses; both consumer and real estate loans were depressed somewhat more in the District than in the nation at the end of a year. A large portion of the increase in business loans at District banks during that period resulted from significant borrowing by the large number of District firms engaged in the production of energy and energy-related products—areas of major strength during the 1974-75 recession.

The District economy—and, thus, financing requirements—should again be stronger than the national economy during the current recession. The more cyclically sensitive industries, such as automobiles and metals, which generally lead an economy into recessions and remain weak throughout, are not heavily concentrated in the Eleventh District.

The District economy is, instead, well diversified in a number of industries that should be less affected by the current cyclical downturn—most notably, perhaps, industries related to the production of energy. These industries expanded sharply in the 1974-75 recession and are expected to remain strong in the current downturn.

Regulatory Briefs and Announcements

Board Issues Policy Statement

The Board of Governors of the Federal Reserve System has determined that commercial paper obligations issued by bank holding companies should prominently indicate in bold type on their face (1) that they are not obligations of a bank and (2) that they are not insured by the Federal Deposit Insurance Corporation. The Board's purpose is to ensure that bank customers or investors not construe commercial paper issued by a bank holding company as being an insured bank obligation or deposit.

In cases where purchasers do not take physical possession of the instrument, they should be provided with a printed advice that states the holding company paper is not an obligation of a bank and is not insured by the FDIC. Further, employees engaged in the sale of such paper should also convey this information verbally to each purchaser, and any commercial banking subsidiary involved in the marketing of holding company commercial paper should separate the sale of such paper from the retail deposit-taking function. Similar procedures should also be followed for the issuance or sale of commercial paper of nonbank subsidiaries of bank holding companies where the nonbank subsidiary has a name similar to that of any of its affiliate banks or there is a possibility that investors may confuse the obligations of the nonbank subsidiary with those of the holding company or any of its subsidiary banks.

On March 14, 1980, the Board established interest rate limitations on debt instruments issued by a bank holding company in denominations of \$100,000 or less and with original maturities of four years or less. Similar action was taken by the FDIC. These limitations apply only to obligations required to be registered with the Securities and

Exchange Commission under the Securities Act of 1933; consequently, they do not apply to commercial paper issued by a parent bank holding company. In the Board's view, debt obligations issued by a bank holding company in denominations of less than \$10,000 ordinarily will not qualify for the commercial paper exemption from registration under the Securities Act of 1933. Accordingly, in the absence of any other exemption provision, such debt obligations will be subject to the interest rate limitations set forth in Section 217.7 of the Board's Regulation Q and Section 329.6 of the regulations of the FDIC.

Deregulation Committee Proposes Interest Rate Ceiling Changes

The Depository Institutions Deregulation Committee has issued for public comment several changes in interest rate ceilings on interest-bearing transaction accounts, which include negotiable order of withdrawal (NOW) accounts; savings accounts subject to automatic transfers, telephone transfers, and preauthorized nonnegotiable transfers; and savings accounts that permit payments to third parties by means of an automated teller machine, remote service unit, or other electronic device.

Specifically, the committee has proposed four options for the level of the ceiling rate on all interest-bearing transaction accounts at commercial banks, mutual savings banks, and savings and loan associations. Of the four options, the first three would establish a uniform ceiling rate on all transaction accounts at 5, 5¹/₄, or 5¹/₂ percent. The fourth alternative would set the ceiling rate higher than 5¹/₂ percent. The committee believes

that establishing a uniform ceiling rate on transaction accounts would provide competitive equality among depository institutions. To facilitate the conduct of monetary policy, the committee wants to encourage depositors to differentiate between active and inactive interest-bearing deposits by establishing a ceiling rate that is higher for nontransaction savings accounts than for savings accounts used as transaction accounts.

In addition to requesting public comment on the proposed interest rate ceilings on interest-bearing transaction accounts, the committee announced the following actions:

- Making the rules governing withdrawals from Individual Retirement Accounts (IRA's) and Keogh accounts the same for accounts held at savings and loan associations and accounts held at banks, effective July 2.
- Setting December 31, 1980, as the effective date for any action it might take to restrict or eliminate premiums or gifts offered depositors.
- Denying a request to make changes, at this time, in the six-month money market certificate, which would have given it some characteristics of a money market mutual fund share.

Credit Restraint Measures Phased Out

The Federal Reserve Board on July 3, 1980, announced plans to complete the phaseout of the credit restraint programs initiated on March 14 this year as an anti-inflation measure. The final phaseout included the following actions:

- Elimination of the remaining 5-percent marginal reserve requirement on managed liabilities of large banks and agencies and branches of foreign banks, effective July 24. At the same time, the 2-percent supplementary reserve requirement applicable to member banks on large time deposits was eliminated.
- Removal of the remaining 7¹/₂-percent special deposit requirement that applied to increases in covered consumer credit, effective July 24.
- Elimination of the remaining 7¹/₂-percent special deposit requirement that applied to increases in covered assets of money market mutual funds and other similar institutions, effective August 11.

- Phaseout of the Special Credit Restraint Program, effective July 28. Under this program, banking institutions and finance companies were asked to limit domestic loan growth to a range of 6 to 9 percent in 1980.

Even though the credit restraint programs have been phased out, the Board has emphasized that its general objective of achieving restrained growth in money and credit aggregates is unchanged.

Proposed Regulation D Extends Time for Identifying Exempt Deposits

The Federal Reserve Board has changed the date—from July 15 to September 1, 1980—on or after which depository institutions must have affixed to certain time deposits, those issued to natural persons in amounts less than \$100,000, a statement that the deposits are not transferable. This notice, in effect, makes such a deposit a "personal" time deposit and thereby exempts it from the reserve requirements applying to "nonpersonal" time deposits under the proposed revision of Regulation D, which will implement reserve requirement provisions of the Monetary Control Act of 1980.

Now Available

Recently issued Federal Reserve circulars, speeches, statements to Congress, publications, etc., may be obtained by contacting the Bank and Public Information Department, Federal Reserve Bank of Dallas, Station K, Dallas, Texas 75222, unless indicated otherwise.

Circulars

Financial Recordkeeping and Reporting of Currency and Foreign Transactions. 7 pp. Circular No. 80-130 (July 2, 1980).

Proposed Guidelines Concerning Required Reserve Balance Pass-Through Procedures. 7 pp. Circular No. 80-131 (July 3, 1980).

Regulation Y—Bank Holding Companies and Change in Bank Control: Notice of Proposed Rulemaking Relating to Nonbanking Activities. 5 pp. Circular No. 80-132 (July 7, 1980).

Amendment to Regulation T [Credit by Brokers and Dealers]. 10 pp. Circular No. 80-133 (July 10, 1980).

Phase-out of Credit Restraint Program. 14 pp. Circular No. 80-135 (July 10, 1980).

Policy Statement: Sale of Bank Holding Company Commercial Paper. 3 pp. Circular No. 80-139 (July 17, 1980).

Title 12—Chapter XII—Interest on Deposits: Proposed Interest Rate Ceiling on Interest-bearing Transaction Accounts; Withdrawals at Savings and Loans from IRA and Keogh Accounts; Change in Effective Date for Restrictions Regarding Premiums. 10 pp. Circular No. 80-140 (July 16, 1980).

Revision of Proposed Regulation D—Reserves of Depository Institutions (Including U.S. Branches and Agencies of Foreign Banks and Edge Act and Agreement Corporations That Have Transaction Accounts or Nonpersonal Time Deposits). 3 pp. Circular No. 80-141 (July 21, 1980).

Truth in Lending: Administrative Enforcement of Restitution. 9 pp. Circular No. 80-142 (July 23, 1980).

Questions and Answers Regarding the Phase-out of the Credit Restraint Program. 2 pp. Circular No. 80-143 (July 24, 1980).

Systemwide Implementation of Automatic Charge of Cash Processing for Matured Corporate and Municipal Coupons. 1 p. Circular No. 80-145 (August 4, 1980).

Amendment to Regulation Z [Truth in Lending]. 4 pp. Circular No. 80-148 (July 30, 1980).

Tentative Schedule for Implementing the Monetary Control Act of 1980. 4 pp. Circular No. 80-149 (July 31, 1980).

Speeches and Statements

Remarks by Henry C. Wallich ("The World Monetary System After Postponement of the Substitution Account") to the HWWA-Institut fuer Wirtschaftsforschung, Hamburg, Germany. 15 pp. June 12, 1980.

Statement by J. Charles Partee before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate. 15 pp., including Appendix. July 1, 1980.

Remarks by Lyle E. Gramley ("Monetary Policy and Inflation"), Denver, Colorado. 12 pp. July 17, 1980.

Statement by Paul A. Volcker before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate. 14 pp. July 22, 1980.

Statement by Nancy H. Teeters before the Subcommittee on Consumer Affairs of the Committee on Banking, Housing, and Urban Affairs, U.S. Senate. 3 pp. July 24, 1980.

Statement by Henry C. Wallich before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate. 7 pp. July 25, 1980.

Pamphlets, Brochures, and Reports

Midyear Monetary Policy Report to Congress Pursuant to the Full Employment and Balanced Growth Act of 1978. Prepared by the Board of Governors of the Federal Reserve System. 45 pp. July 22, 1980.