

an economic review by the Federal Reserve Bank of Chicago

Business Conditions

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**november
1974**

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Interbank lending— an essential function

The federal funds rate has become a closely watched indicator of changes in money market pressures. This rate, as published, is a weighted average of the interest rate paid on unsecured loans between banks for one day at a time. It tends to be at the low end of the spectrum of money market rates in periods of monetary ease and at the high end when authorities are trying to restrain monetary expansion. These swings over the interest rate cycle reflect changes in the willingness of the monetary authorities to supply the banking system with sufficient reserves to support the current pace of deposit growth. If deposits are growing faster than desired, the Federal Reserve slows down the rate at which it supplies reserves through open market operations so that the cost of reserves (federal funds rate) rises and discourages banks from expanding deposits and their holdings of assets (loans and investments).

With current analyses generally focusing on the trend of the federal funds rate as an indicator of the thrust of monetary policy, too little attention has been paid to some important economic functions the interbank loan market performs, whatever the policy posture. First, it contributes greatly to the efficiency of the banking system in serving both credit and deposit customers. Second, it enhances the precision with which monetary policy is implemented.

Every day several billion dollars are sold (loaned) by some banks and purchased (borrowed) by other banks in the federal funds market. Some transactions are arranged directly between the buyer and seller, but a large portion of total activity is

arranged through brokers. The great bulk of the dollar volume is in the form of transfers between deposit balances, also called "reserves," of member banks at the Federal Reserve. Such shifts are effected for immediate credit to the borrower by a telephone or wire order on the part of the lending bank. Nonmember banks also participate in the interbank loan market, through the reserve balances of their correspondents who are members.

There is no measure of the total amount of such interbank loans, but daily reports from about 50 major money market banks alone often show transactions aggregating more than \$15 billion, equal to nearly half of the total outstanding member bank reserves. Individual transactions range from less than \$100 thousand to more than \$100 million. What accounts for the demand and supply of very short-term funds on the part of banks?

The role of reserves

Reserves held by member banks at the Federal Reserve are working balances through which many transactions (such as check clearings) are channeled. A bank that has a greater value of checks written on its deposits than the value of checks deposited with it written on other banks pays the difference by drawing down its reserve account. Normal deposit flows between depositors of the thousands of commercial banks in the United States result in significant shifts in the distribution of reserves among individual member banks.

Besides the need to hold funds on

deposit with the Reserve banks to effect such payments, the Federal Reserve requires that member banks hold on average for each weekly reporting period (Thursday through Wednesday), an amount of reserves—"required reserves"—equal to a specified percentage of deposits. By setting the percentage of deposits that must be held as reserves (i.e., reserve requirements) and controlling the overall level of reserves in the banking system, the monetary authorities impose a ceiling on the quantity of deposits and credit that can be created by member banks. A member bank whose reserves just satisfy its reserve requirement is vulnerable to becoming deficient in reserves in the event of an unanticipated deposit outflow. This follows since every dollar of net deposit outflow lowers reserves by a dollar, while required reserves fall by only a fraction of a dollar.

Managing reserves

A member bank can meet a reserve deficiency in a number of ways. Normally, a bank will use whichever way it finds to be least expensive. The bank can replenish reserves by selling assets. While this approach will produce the necessary reserve adjustment, it is inefficient, both for the individual bank and the system. It means a great number of transactions, with all the costs involved in buying assets when deposits and reserves flow into the bank and selling assets when deposits and reserves flow out. This is a cumbersome way to make day-to-day adjustments, and involves the risk of loss due to changes in market values.

Another alternative is to borrow reserves from the Federal Reserve discount window at the administratively set discount rate. But the borrowing privilege is not freely available on a regular basis. Its purpose is to cover unusual and temporary needs, and administration of the window imposes an implicit cost in the form of sur-

veillance of member banks that use it over extended periods of time. Thus, today's borrowings tend to reduce the willingness of the Federal Reserve to accommodate future borrowings by the bank.

A third approach for meeting potential deposit outflows is for a bank to maintain reserves at a higher level than required reserves dictate. This involves a cost in that the bank foregoes the return it could have earned on the "excess" reserves if they were invested in assets.

The interbank loan market offers banks yet another method of adjusting to deposit inflows and outflows. These transactions, usually referred to as "federal funds," take advantage of the fact that an outflow of deposits and reserves at one bank is usually matched by an equal inflow of deposits and reserves at another bank. Thus, a loan equal to the deposit flow from the bank with the deposit inflow to the bank with the deposit outflow eliminates the disturbance to reserve positions at both banks. Since the interbank loan market serves as both a source and outlet for reserves, it increases the efficiency of reserve usage by permitting the banking system to operate with lower levels of excess reserves. This greater efficiency, in turn, tends to increase the earnings of depositors (either in the form of interest or services) and to lower bank interest charges to borrowers.

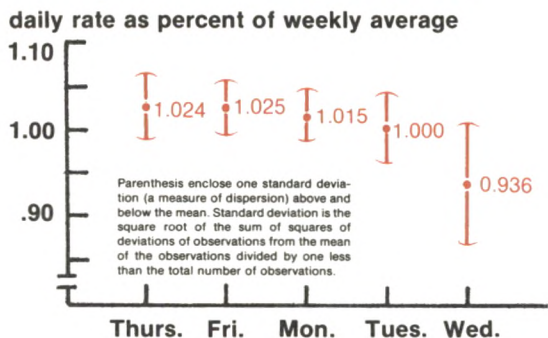
Market behavior

Since member banks must satisfy their reserve requirements over a weekly settlement period, the interbank loan market exhibits a distinct weekly pattern. Early in the settlement week (Thursday, Friday, and Monday), the federal funds rate tends to be fairly stable and slightly above the weekly average. On these days, the reserve positions of individual banks and the banking system as a whole are still relatively unclear and subject to change as

the week progresses, so that the interest rate on interbank loans tends to hover near the banking system's expected rate for the week. This expected rate is likely to be heavily influenced by the interbank loan rates in recent weeks.

Any deviation from the expected rate would cause banks to vary the relative use they make of the interbank loan market and the asset market and tend to eliminate the deviation. With a rate above the expected rate, the interbank loan market would attract sellers and discourage buyers of reserves. Conversely, an interbank loan rate below the expected rate would cause the asset markets to gain sellers and lose buyers of reserves. This is especially so since the earlier in the week a bank makes an asset adjustment, the longer the holding period and the smaller the volume of transactions necessary to offset a given absolute loss of reserves. Since transaction costs rise with the size and number of the transactions, the earlier in the week the adjustment is made, the lower the transactions cost. These shifts from interbank loans to asset adjustments do tend to spread any upward or downward pressures on the fed funds rate to other short-term debt markets.

The federal funds rate tends to be higher early in the week, declining as the week progresses.



Data from Federal Reserve Bank of New York, Daily Effective Federal Funds Rate, September 21, 1968-September 11, 1971.

Later in the week (Tuesday and Wednesday), the federal funds rate is more volatile and tends on average to decline from its level earlier in the week. The rate is more volatile because the relationship between reserves held and required reserves within the settlement week becomes clearer and the possibility of a reversal of deposit flows within the settlement week has diminished. In addition, individual banks are more willing to accept a federal funds rate that is sharply different from the longer-run expected average because the transactions cost of adjusting reserves through asset changes late in the week is relatively high. The closer the end of the settlement week, the larger the volume of asset changes required to offset a given reserve loss for that week.

Because the probabilities of deposit outflows decline as the end of the settlement week approaches, the need for a cushion of excess reserves declines and the federal funds rate tends to move down. Faced with accumulated excess reserves that approach worthlessness at week's end, the bank is willing to loan reserves at a lower rate. A bank waiting until the end of the settlement week to make up a reserve deficiency will, on average, get funds at a lower rate, but will be risking greater variance from the longer-run average rate.

The market and credit allocation

The interbank loan market also assists the banking system in achieving a more efficient distribution of credit. Banks serve an intermediary role in the allocation of credit—acquiring funds when deposits are made by the public, then using these funds to extend credit through loans or the purchase of securities. However, deposits are not likely to be distributed among banks in such a way that the best credit needs of the economy can be efficiently met by each bank individually at the local level, especially in a banking system with

many unit banks that operate in fairly small market areas.

Some banks are unable to satisfy relatively attractive credit requests out of their own deposits, while other banks have surplus funds after satisfying relatively less attractive credit requests. By enabling individual banks to be continuous lenders or borrowers of funds over sustained periods of time, the interbank loan market divorces the extension of credit from the ability of individual banks to attract deposits. Again, this increases the efficiency of the credit market, raising the return to deposit holders and lowering the cost of bank credit to borrowers.

Data available on federal funds transactions indicate that smaller banks in the aggregate are net lenders and larger banks are net borrowers, although the size and composition of these flows vary greatly in the short run in response to temporary deposit shifts. Small banks usually participate in the market through their larger correspondents, which, in turn, offset any undesired impact on their own positions in the national market.

Banks that are persistent net borrowers (buyers of federal funds) are financing part of their assets through the interbank loan market. Banks that are

continuous lenders (sellers of federal funds) are passing up the return on credits they could extend to other customers in favor of the return on interbank loans. This behavior is reasonable for both buyer and seller if the rate on interbank loans is below the rate of return available to the buying bank on its loans and investments, but above the rate available to the selling bank.

Lending or borrowing funds in the interbank loan market over sustained periods of time involves an element of interest rate risk when effected through a series of one-day loans. The decision to use the federal funds market as either a source of or outlet for funds over a sustained period incorporates expectations about the course of interest rates, by both borrower and lender. If the one-day loan rate rises above the lender's expected levels, then his return increases; a fall below his expected levels decreases his return. Conversely, a rise above the borrower's expected one-day rate lowers his return, while a fall below increases his return.

Reallocating funds to higher rates of return within the banking system could be accomplished without subjecting the banks involved to the risks of interest rate fluctuations by matching the maturity of the asset purchased, or foregone in the case of the lender, with an interbank loan of equal maturity. In recent years, the development of the market in so-called "term federal funds" has this potential. While involving transfers of immediately available reserves, these interbank loans may have maturities of as long as one year, but the rate of interest over the maturity of the loan is set at inception.

The market and monetary policy

The Federal Reserve usually implements monetary policy by buying or selling government securities in the open market. This alters the level of reserves in

Large banks tend to be net buyers of federal funds, while small banks are net sellers

Seventh Federal Reserve District Banks	Average total deposits: ¹ 1973 <i>(millions)</i>	Average daily net purchases of federal ² funds: 1973 <i>(millions)</i>
8 money market banks	3539.89	249.15
45 other weekly reporting banks	433.57	12.86
880 other district member banks	32.26	-1.08

¹ Data from June 1973 and December 1973 call reports.

² Data from Federal Reserve Bank of Chicago for 1973.

the banking system and thereby the quantity of bank deposits, bank credit, and the level of interest rates. The Federal Reserve pays for the securities it buys with a check drawn on itself. When the check is deposited by the seller of the securities, it increases reserves and generates an expansion in bank deposits, an increase in bank credit, and a lowering of interest rates. Similarly, a sale of government securities by the Federal Reserve is paid for by a check drawn on reserve balances so that bank reserves fall, lowering deposits and bank credit, and raising interest rates.

Because policy action has its first impact on bank reserves, because the federal funds market reflects the relationship of the supply and demand for these reserves, and because banks have choices between interbank loans and other money market instruments, this market tends to serve as a conduit through which the effects of policy are spread throughout the credit markets. The holding of excess reserves—reserves which are not used to full potential in supporting deposits—constitutes a slippage in the process of implementing policy. Unexpected fluctuations in the percentage of total reserves held as excess reserves hamper monetary policy by inducing fluctuations in the level of bank deposits, the quantity of bank credit extended, and the level of interest rates. By permitting banks to offset flows of funds within the banking system, the interbank loan market reduces fluctuations in excess reserves and thereby increases the precision of monetary policy.

The federal funds market also provides valuable information for the short-run implementation of monetary policy. The monetary authorities face a number of problems in determining what daily open market actions are appropriate to the achievement of money, credit, and

interest rate targets. Deposit changes, for example, are not known accurately for a week or two. And despite elaborate projections, the volume of reserves is not known precisely until the following day.

These uncertainties are important because open market operations are not the only factor causing changes in the reserves of the banking system. There are three principal sources of uncertainty in reserve fluctuations: (1) drains or inflows due to exchanges by the banks of vault cash for reserves at the Federal Reserve; (2) changes in the amount by which credits made to payee member bank reserve accounts in the check clearing process exceed funds not yet collected from paying banks (known as Federal Reserve float); (3) changes in the rate at which the Treasury's balance at Federal Reserve banks are disbursed to commercial banks. These outside factors, which often affect reserves by several hundred million dollars in a single day, produce changes in deposits and interest rates in precisely the same way as Federal Reserve operations.

In attempting to achieve desired monetary effects in its day-to-day actions, the Federal Reserve estimates the interbank loan rate that is consistent in the short run with the desired level of deposits and supporting reserves. Movements of the actual rate outside the targeted range provide clues that reserves are either insufficient or excessive, and consequently point to the need for policy actions.

Thus the rate on interbank loans performs as a two-directional transmitter. It signals temporary imbalances in the market that trigger day-to-day open market action. But over weeks or months, the trend of this rate reflects the monetary authorities' response to the strength of credit demands and monetary growth.

Robert D. Laurent

Dwindling world grain reserves

World grain consumption has expanded sharply in the Seventies in response to both population growth and rising world affluence. During the same period, however, adverse weather conditions have slowed the rate of increase in world grain production. As a result, world grain reserves—as measured by ending carryover stocks—are likely to fall below 87 million metric tons* by mid-1975. This level would be 54 percent below the record high level of the late Sixties, and equivalent to about 9 percent of the world's annual grain consumption.

The current tight grain reserve situation was a major reason for holding the recent World Food Conference in Rome. Although a number of issues were involved, the basic concerns of the conference centered on the necessity to stimulate world food production, the need for maintaining adequate food reserves, and the provision of food to areas where starvation conditions exist. The issues and the recommendations of the World Food Conference will likely be topical for a long time. This article is intended to provide a better understanding of the trends in production and consumption that led to the tight condition in world grain reserves.

*Statistical measures in this article are based on the metric system. The following equations can be used to convert metric figures into U.S. equivalents.
 1 hectare = 2.471 acres
 1 quintal = 220.4622 pounds
 1 quintal/hectare = 89.293 pounds/acre
 1 kilogram = 2.2046 pounds
 1 metric ton = 2,204.622 pounds

Less left over

World grain reserves have experienced two periods of significant tightening since the beginning of the Sixties. Total grain reserves—as measured by ending carryover stocks—amounted to 174 million metric tons in mid-1961, equivalent to about 27 percent of annual consumption. The level declined to a low of 113 million metric tons, or 15 percent of world consumption, by mid-1966, after two years of particularly sharp gains in consumption. With the aid of good weather and new seed varieties, production outpaced rising consumption during the latter part of the Sixties, boosting ending carryover grain stocks to a high of 187 million metric tons by mid-1969, equal to 24 percent of annual

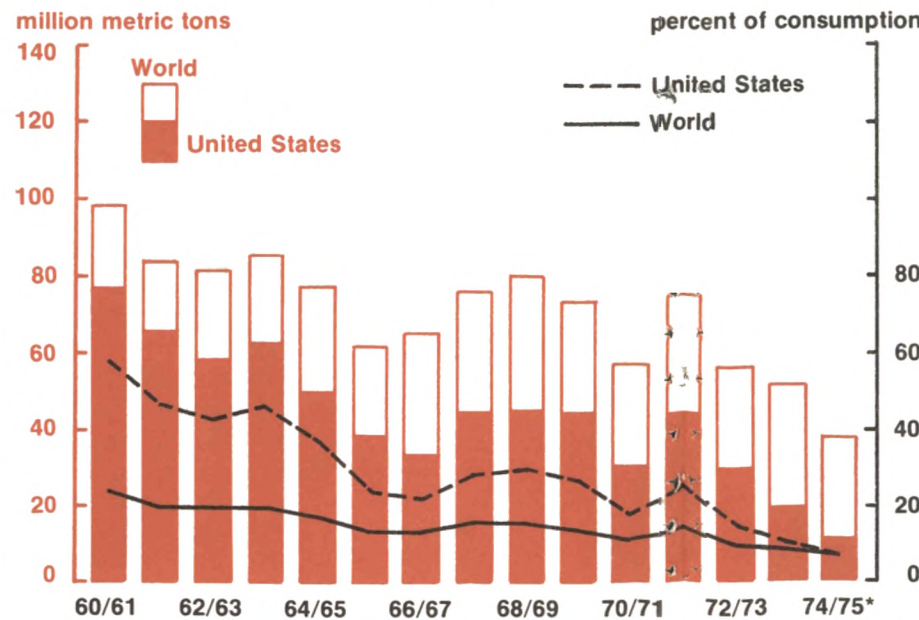
world consumption. The subsequent trend, however, has been decidedly downward as consumption has accelerated, while increases in production have been somewhat slowed by adverse weather conditions.

The continuing depletion of coarse grain (corn, sorghum, barley, oats, and rye) stocks and the absence of a significant recovery in wheat stocks have led to the recent tightness in world grain reserves. Current estimates indicate mid-1975 carryover stocks of coarse grains will be equivalent to less than 7 percent of annual world consumption. Wheat stocks will likely be equivalent to 14 percent of world consumption.

The reduction in grain reserves has

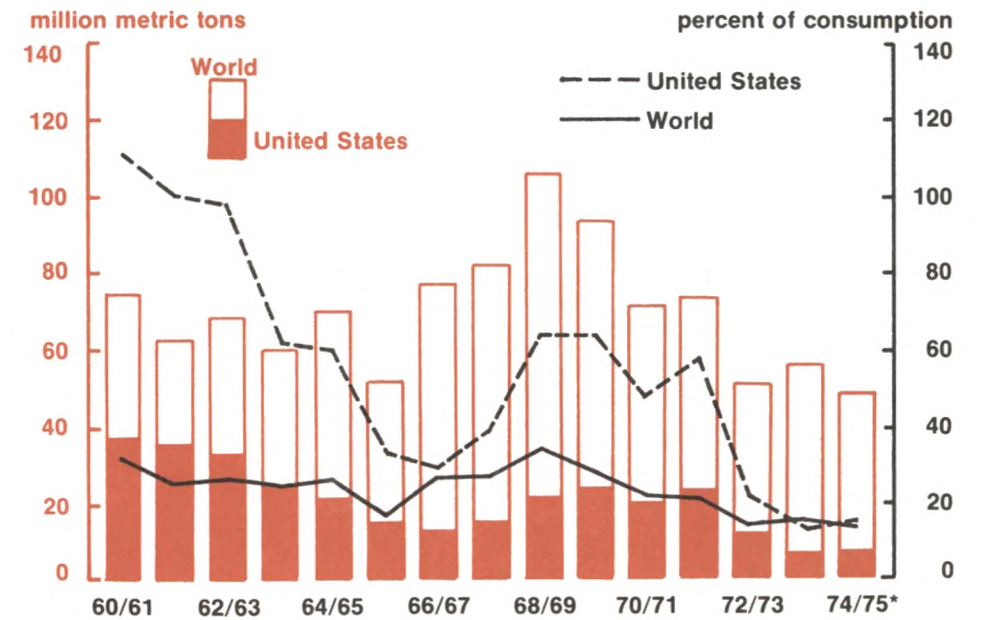
been particularly evident in the United States. In the early Sixties, U.S. carryover stocks of wheat consistently exceeded annual utilization (consumption plus exports) and were equivalent to roughly one-half of world stocks. Similarly, U.S. carryover stocks of coarse grain were equivalent to about one-half of annual utilization and around three-fourths of world reserves. The willingness and the ability of the United States to export grains during the “feed the world” campaigns of the mid-Sixties and early Seventies led to comparatively large declines in domestic grain stocks with respect to world stocks and to utilization from domestic supplies.

U.S. and world coarse grain reserves, by volume and as a percent of consumption



*USDA estimate.

U.S. and world wheat reserves, by volume and as a percent of consumption



*USDA estimate.

Production expands irregularly

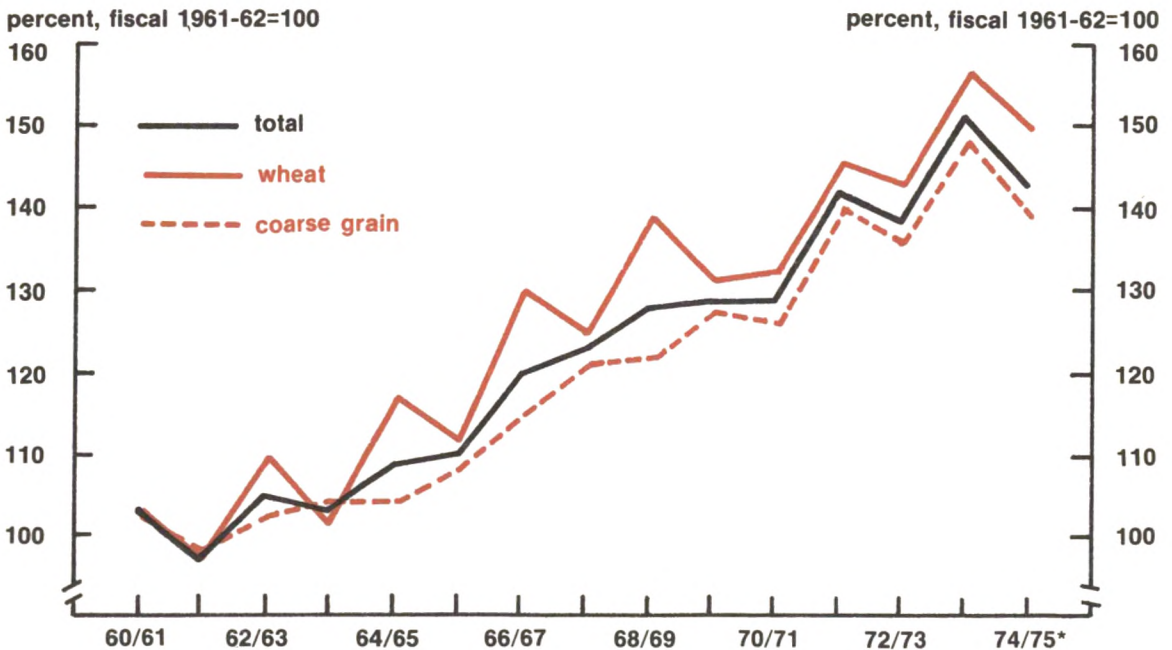
World grain production is expected to total 916 million metric tons in fiscal 1975, down nearly 6 percent from last year but 43 percent above the levels of the early Sixties. (Almost all of the U.S. grain harvest occurs in the first six months of a fiscal year.) Since the start of the Sixties, annual fluctuations in world grain production have ranged from an increase of nearly 11 percent (1971/72) to a decline of nearly 6 percent (1974/75). Year-to-year fluctuations in the Sixties resulted largely from consistent ups and downs in wheat production. More recently, production of both coarse grains and wheat has exhibited large swings.

Despite the ups and downs in world grain production, the overall trend has

been decidedly upward. Based on a two-year moving average (a technique that smoothes large annual changes and more accurately reflects the trend), increases have ranged from a low of 0.1 percent (1970/71) to a high of 5.7 percent (1967/68) and averaged 3.0 percent since the early Sixties. Since 1969, the average increase in world grain production has slowed fractionally to 2.8 percent as two years of sharp declines offset much of the increases recorded in two bumper crop years.

The overall uptrend in world grain production has been achieved largely through increased yields rather than in area harvested. The world's annual grain production came from an average of 473

World grain production



*USDA estimate

million hectares in the first half of the Sixties. The harvested area expanded slightly during the latter half of the Sixties then dipped in the early Seventies. However, significant increases occurred in both fiscal 1974 and 1975 when, according to current estimates, the area harvested might average 504 million hectares. Of this, the coarse grain harvest should account for 284 million hectares and the wheat harvest for 220 million hectares.

Yields per harvested hectare have registered significant increases since the early Sixties. During the past three fiscal years, world wheat yields have averaged 16.4 quintals per hectare, up from 11.8 in the early Sixties. Similarly, coarse grain

yields have averaged 20.9 quintals per hectare, up from 15.5 in the early Sixties. Wheat yields in the United States have averaged 22 quintals per hectare, and coarse grain yields have averaged 45.5 quintals per hectare in the past three fiscal years.

High yields are the major reason why the United States ranks number one in world grain production and exports. The United States typically accounts for about one-fourth of the world's grain production and for around one-half of world trade in grain. Interestingly, of the world's top six grain-producing areas, only the United States has been a consistent net exporter during the past two years.

Grain production and trade balances for the world's major producing areas: average for fiscal years 1973 and 1974

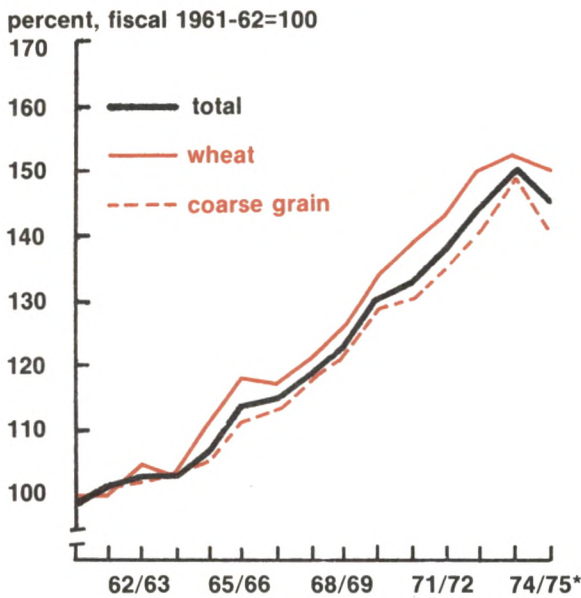
	Wheat		Coarse grains	
	Production	Trade balance*	Production	Trade balance*
	<i>(million metric tons)</i>			
United States	44.3	+31.4	184.4	+40.0
USSR	97.8	-7.5	83.5	-5.0
Western Europe	51.0	-0.5	81.4	-19.2
Eastern Europe	31.1	-3.8	54.8	-2.6
PRC	28.0	-5.6	31.4	-1.4
India	25.6	-2.3	15.9	-0.8
Canada	15.5	+13.6	18.6	+2.5
Argentina	6.7	+2.1	16.5	+6.4
Australia	9.2	+5.4	4.2	+1.8
South Africa	8.1	+0.2	8.2	+1.8
Other	34.7	{ +18.1 -51.1	79.2	{ +18.2 -41.7
World total	352.0	70.8 [†]	578.1	70.7 [†]

*A "+" indicates net exports while "-" indicates net imports. [†]Total world trade.

Consumption exceeds population gains

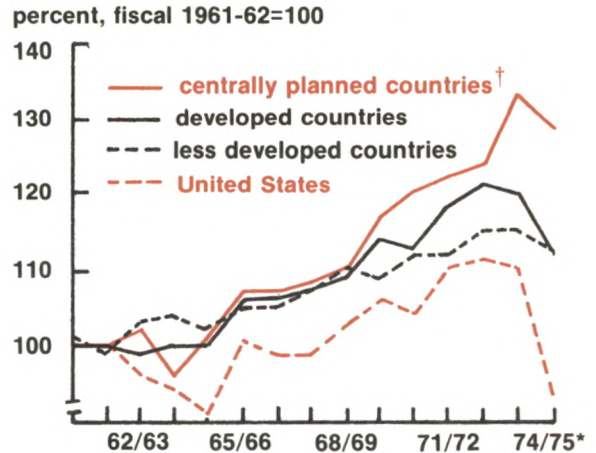
World grain consumption will decline in fiscal 1975—primarily through grain fed to livestock—as the result of a reduced harvest and low reserves. The decline will be in sharp contrast to the trend that has seen world grain consumption rise, or hold virtually unchanged, annually since the start of the Sixties. During this period, the annual rise in world grain consumption has averaged 3.2 percent, well above the 2 percent annual growth rate in world population. Moreover, the annual increase in consumption has surged to 4.1 percent during the past five-year period, due mainly to a rising affluence that permitted higher living standards throughout the world. This accelerated rate of increase is the most significant factor contributing to the tightening in world grain reserves.

World grain consumption



*USDA estimate.

Per capita grain consumption



†Centrally planned countries include USSR, Eastern Europe, PRC, North Korea, North Vietnam, and Mongolia.

*USDA estimate.

The rising standard of living has been most evident in developed countries and in centrally planned countries. But less developed countries also have experienced increasing per capita consumption of grain. During the past three years, per capita grain consumption in less developed countries averaged 103 kilograms, about 14 percent above the level of the early Sixties. In centrally planned countries, per capita grain consumption averaged 290 kilograms annually during the past three years, up 26 percent from the early Sixties. In developed countries, per capita grain consumption averaged 550 kilograms in recent years, a gain of 20 percent from the early Sixties. The higher level of consumption in centrally planned countries and in developed countries largely reflects a great per capita consumption of coarse grains.

Gary L. Benjamin

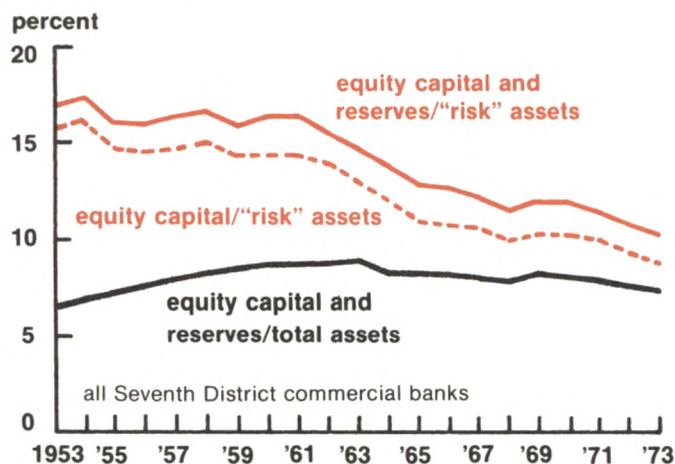
Banking developments

Bank capital ratios

Problems encountered by a few financial institutions in recent months have increased the concern of the public, the regulators, and bank management about the ability of individual banks to remain viable in the face of unusual losses or liquidity strains. This concern has been manifested in increased attention to bank capital.

Bank capital is often viewed as a cushion against losses and represents a hard core internal source of bank funds. It can be measured in relation to deposits, to total assets, to so-called risk assets, or to a number of other variables. Which ratio is most relevant depends largely on whether the observer is a depositor, some other creditor, or a stockholder.

Capital ratios in downtrend



Note: "Risk" assets, as calculated for use in this chart, are total assets less: cash assets, U.S. obligations, and federal funds sold and securities bought under resale agreements. Data are not completely comparable over time due to changes in available information.

Capital accounts include preferred and common stock, surplus, undivided profits, and certain contingency reserves. Besides equity capital, long-term indebtedness in the form of subordinated notes and debentures is often included in capital accounts. In addition, to the extent a capital ratio is used as an indication of the thickness of the loss cushion, reserves specifically designated to absorb losses on loans and declines in the value of securities should be counted as capital funds.

Regardless of how inclusive a definition of capital is used and regardless of whether the capital is related to total assets, risk assets, or deposits, aggregate capital ratios of commercial banks have declined over the past decade. This shrinkage occurred despite the fact that the dollar value of capital accounts has more than doubled because assets and deposits rose even faster.

While capital-to-risk-asset ratios attempt to relate the capital cushion to broad classes of assets that are most likely to entail losses, they are, at best, a very rough guide. Usually they are calculated on the basis of assets other than those considered to be riskless, such as cash and U.S. securities. The gradual liquidation of the huge quantities of U.S. securities acquired during World War II has resulted in a decline in these ratios throughout the postwar era except when overall growth slowed temporarily.

At the end of last year, equity capital plus loss reserves of district commercial banks, in the aggregate, amounted to 10 percent of domestic assets other than cash,

Treasury and federal agency securities, and short-term federal funds sales and security resale agreements—down from 15 percent ten years ago. (See chart.) Loss reserves alone have amounted to a fairly constant 1.5 to 2 percent of these assets. Because of bank-to-bank variations in quality and liquidity within loan and investment portfolios, however, such ratios are not very accurate representations of the capital cushion relative to actual risk, and can be especially misleading if used by themselves to compare individual banks.

A more general capital relationship measures the proportion of assets financed with internal funds—those supplied by owners of the bank in contrast to depositors and creditors. This ratio involves equity capital plus all reserves as a percent of total assets. Changes in the ratio indicate whether the capital base of a bank is keeping pace with its overall growth. A given ratio may or may not be “adequate” depending on the quality of the assets and of management generally.

For district commercial banks, the ratio of equity capital and reserves to total assets (based on domestic offices only) was about 7.5 percent at the end of last year—down from the near 9 percent level of the early Sixties but well above that prevailing in the early postwar years. The rise and fall of this ratio over the past two decades reflects two stages in the banking system’s methods of financing the needs of businesses, households, and local governments. Throughout the Fifties, a substantial portion of loanable funds were obtained through liquidating the Governments acquired during World War II. As this source was largely exhausted in the late Fifties, banks began to compete more aggressively for new deposits and other liabilities—so-called “liability management”—to support further loan expansion, greatly accelerating total asset growth in the process. But with the vast changes in the composition of assets, today’s capital ratio appears thinner, relative to potential needs, than a lower ratio was 20 years ago.

Individual bank ratios cover wide range around the district average

Equity capital and reserves as percent of total domestic assets	Size of total assets (<i>million dollars</i>)								Total
	5.0 & under	5.1-10.0	10.1-15.0	15.1-25.0	25.1-50.0	50.1-150.0	150.1-250.0	Over 250.0	
	<i>(number of banks)</i>								
5.00 and under	4	4	9	6	19	16	7	2	67
5.01–6.00	7	14	19	44	41	42	4	9	180
6.01–7.00	25	68	72	116	88	77	8	15	469
7.01–8.00	46	141	113	146	101	82	14	13	656
8.01–9.00	61	152	88	103	75	48	6	8	541
9.01–10.00	56	111	48	52	34	23	5	—	329
10.01–11.00	46	52	21	24	11	11	2	2	169
11.01–12.00	27	29	8	7	6	6	2	—	85
12.01–13.00	18	16	7	4	5	—	—	—	50
13.01–14.00	14	14	1	—	1	3	1	1	35
14.01–15.00	11	5	1	—	1	—	—	—	18
15.01–20.00	13	7	1	—	1	1	—	—	23
Over 20.00	33	1	1	—	1	—	—	—	36

Range of ratios

Condition report data as of mid-1974 showed that equity capital and reserves in relation to total assets decreased as bank size increased. Differences between groups of banks with total assets over \$10 million were relatively small, with little variation among district states. However, the inclusion of foreign assets would produce significantly lower ratios for some banks in the largest size group. Individual bank ratios show a substantial dispersion which, in turn, was greater within the smaller size groups. More than one-half of the district's 2,600 banks have assets of less than \$15 million. Of these, almost 25 percent report equity capital and reserves equal to 10 percent or more of those assets. However, these smallest categories include a number of fairly new banks whose ratios

The ratios of equity capital and reserves to total assets decline as bank size increases

Amount of bank assets on June 30, 1974	All Seventh District commercial banks, ¹ as of June 30, 1974					
	Ill.	Ind.	Iowa	Mich.	Wis.	District total
	<i>(equity capital and reserves as percent of total domestic assets)</i>					
5 and under	12.9	13.2	9.4	23.2	10.3	11.4
5.1-10.0	8.7	8.7	8.7	10.2	8.5	8.8
10.1-15.0	7.9	7.8	8.2	9.0	7.7	8.0
15.1-25.0	7.3	7.5	8.1	7.8	7.8	7.7
25.1-50.0	7.2	7.8	8.3	7.6	7.6	7.6
50.1-250.0	7.4	7.0	8.1	7.2	7.6	7.4
250.1 and over	6.9	6.6	7.8	7.0	6.3	6.9

¹Commercial banks excluding nondeposit trust companies.

might be expected to be abnormally high. At about one-fourth of all district banks, this capital and reserves-to-assets ratio was between 7 and 8 percent, and at nearly 30 percent it was less. ■

