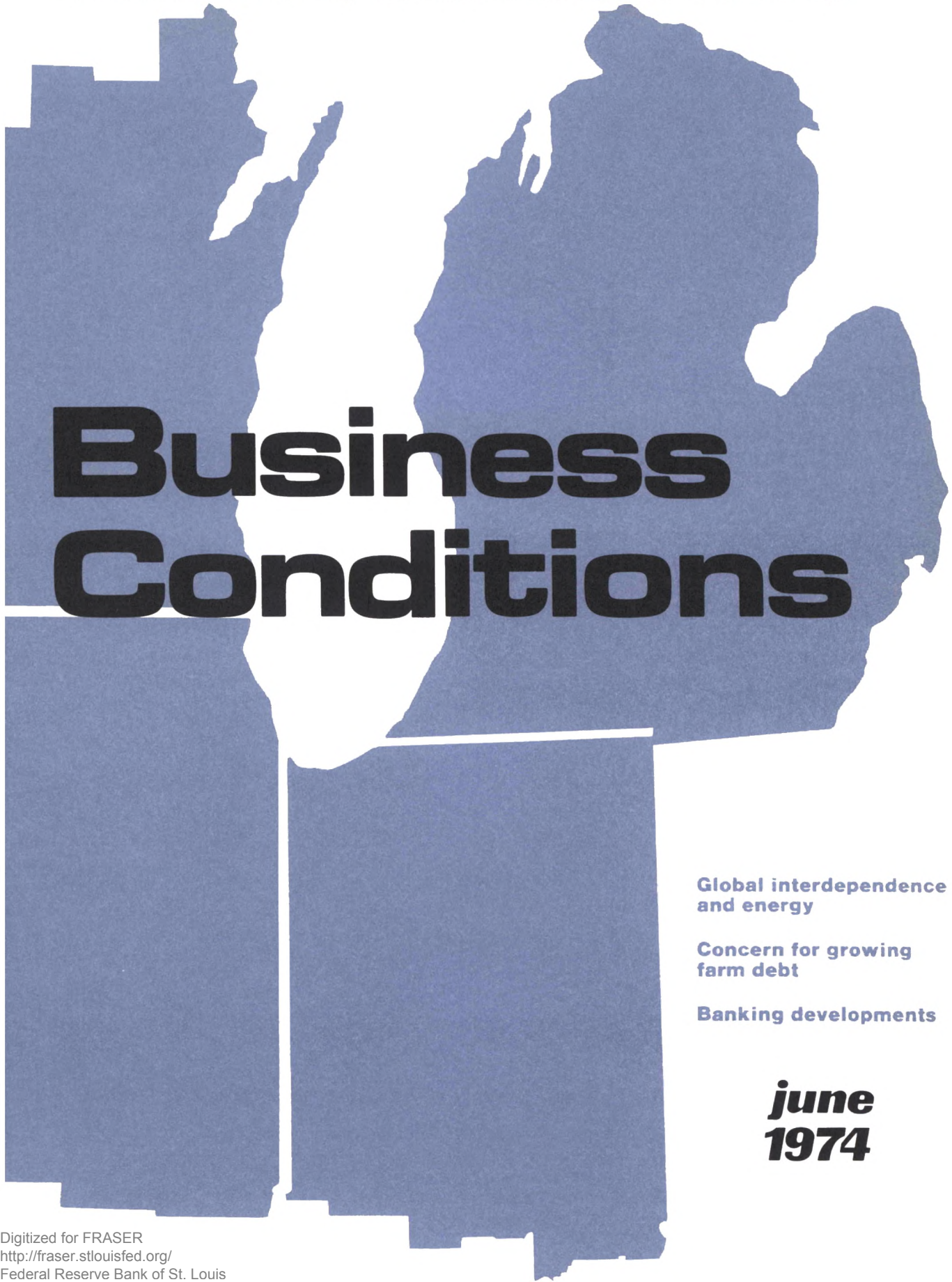
an economic review by the Federal Reserve Bank of Chicago



Business Conditions

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Global interdependence and energy

Despite the trauma of the energy crisis, the world economy in early 1974 continued to show vitality and vigor. The international flow of goods and capital continued to increase and the production of goods and services remained near record levels—an impressive demonstration of the resiliency of the world economy to the problems created by the energy crisis. However, not all problems have been resolved.

The oil embargo and the sharp rise in oil prices accentuated such chronic problems as worldwide inflation, and created new problems. This article focuses on some of these problems and on the way nations are preparing to deal with them.

The impact of the energy crisis

In early 1974, the balance-of-payments accounts of industrial countries reflected the impact of the increased cost of oil imports. The magnitude of the problem faced by oil-importing countries can perhaps best be appreciated by comparing the amounts paid for oil imports in previous years with the current estimates. In 1970, for example, oil-importing countries paid about $13 billion to oil exporters; in 1973, the bill rose to about $46 billion; the 1974 oil bill has been estimated at about $120 billion assuming that the volume of oil imports will be the same in 1974 as in 1973 and that the average prices in 1974 will be the same as present prices.

Value of oil imports to major industrial nations

	1973 Estimated	1974 Projected[1]	Increase 1974/1973
	(billion U.S. dollars, c.i.f.)		
Total	46.2	120.0	73.8
United States	9.3	25.0	15.7
Western Europe	22.2	55.5	33.3
Of which:			
West Germany	5.2	12.0	6.8
France	3.9	10.7	6.8
United Kingdom	3.8	9.5	5.7
Italy	3.4	9.1	5.7
Japan	6.6	18.0	11.4
Canada	1.3	4.0	2.7
Others	6.8	17.5	10.7

[1] Assuming that the volume of oil imports will be the same in 1974 as in 1973 and that average prices in 1974 will be the same as present prices.

Thus, in 1974, the oil-importing countries are collectively facing an import bill some $75 billion larger than they faced in 1973. Given the likelihood that the oil-exporting countries will not increase their imports from the rest of the world by a like amount, this means that virtually all oil-importing countries will experience a deterioration in their trade accounts. For some, this may mean sharply reduced surpluses; for others—for the great majority—it will mean deficits in their trade accounts.

The expected swing to deficits in the *trade accounts* of oil-importing countries will not mean that their *overall balance-of-payments* position will deteriorate proportionately. Indeed, for the importers as a group, no changes in the balance of payments will take place. This is simply because the balance-of-payments accounts (as opposed to the balance-of-trade accounts) measure both the flow of goods and services and of payments for these in what is essentially a double-entry accounting framework. In that context, international transactions are recorded both as debits and credits; a transfer of money is always the other side of the coin of a transfer of goods. Thus, just like a merchant who acquires a financial asset, say a commercial bank deposit that was previously held by the buyer of the goods, so the oil-exporting countries will acquire financial assets—deposits at commercial banks of oil

importers—in the precise amount of the oil exports. This, in the balance-of-payments sense, simply means that at the first stage of the transaction, the increased oil imports of consuming countries as a group will be precisely offset by "short-term capital inflow" i.e., acquisition of short-term financial assets by the oil exporters.

Does the unquestionable validity of this accounting proposition mean, then, that the "energy crisis" actually poses no problems for the oil-importing world? Unfortunately, several problems of a rather serious economic nature are implicit in this situation once we look beyond the very initial stage of the oil payments cycle. The oil exporters, just like an individual acquiring a short-term financial asset such as a demand deposit, will want to use their newly acquired wealth in a way that will maximize their own welfare: they will use it either to buy goods and services (largely from industrial nations), or invest it in the form of return-yielding assets. How the split will be made between consumption and investment, and further, what direction the investment will take, is of crucial importance to how severely the world economy will be affected by the "oil crisis" in the immediate future.

Consequences to world production

In the months to come, consumers in oil-importing countries will be diverting a larger proportion of their incomes to pay for oil. That portion of income (which otherwise would have been spent on purchases of other goods and services produced at home or in other countries) will be transferred to the oil producers in payment for oil. If the oil producers were to spend their entire new income on goods and services produced by the oil-consuming nations, the initial reduction in demand for—and production of—these goods and services by the residents of oil-importing countries would be exactly offset by the increase in demand by the oil importers. However, given the magnitude of the new income accruing to the oil producers, it will be virtually impossible for them to spend the entire sum on consumption. At least for the time being, most of it will be saved—held on deposit or invested in securities.

The inability of the oil exporters to use their oil revenue on consumption will create a gap between what is produced and what is going to be purchased in and from the industrial world. This gap in the circular flow of consumption and payments will have a definite contractionary effect on the world economy. For some countries already suffering from excessive inflation this effect might be welcome. Others, however, might find it necessary to develop policies to offset the contractionary effects to avoid a recession. Such policies, however, must be carefully developed so they do not impinge on other nations' efforts. For example, a policy to increase demand for domestic goods—and to engage domestic resources in production of such goods—by restricting imports would limit the ability of other nations to export. Similarly, policies designed to increase exports as a means of stimulating domestic production would not only entail increased imports elsewhere in the world but a reduction in production as well, other things equal. Retaliation against such measures could ensure a vicious circle of competitive actions with potentially disastrous consequences for the world economy.

Recycling oil investments

An important element in policies designed to offset the contractionary effects of the higher oil payments will be putting back into productive circulation oil revenues withheld as saving and investment by the oil producing countries. Clearly, there is no a priori reason why oil-exporting countries would invest the funds

they will not spend on consumption in each country from which the funds came as payments for oil. To the extent the oil exporters fail to invest "surplus" funds in the country of origin, that country will experience an immediate shortfall in its purchasing power, in its balance of payments, and a deterioration in its exchange rate. The shortfalls in the domestic purchasing power can be readily offset by expansionary domestic monetary and fiscal policies. However, the depressing shortfalls in the balance of payments cannot be so readily offset unless a country has sufficient international reserves, or unless a way is found to recycle investment inflows from countries that will receive such deposits to countries that will experience shortfalls. There are several channels through which such "recycling" can take place.

There are the commercial channels—the money and capital markets of the industrial world. In the "short end" of reflow, the receipts of the oil-producing countries will most likely be deposited with banking institutions in Europe and elsewhere as interest-bearing deposits until more permanent, long-term investment outlets are found. In this "short end" of the recycling process, the Eurodollar market will no doubt play an important role. This market, in which dollar-denominated deposits are received and dollar-denominated loans are made by banks in Europe and other areas of the world, has served for many years as an important channel of intermediation between short-term lenders and borrowers. In recent years, the market has grown to a size estimated at near $100 billion. The experience and efficiency of the institutions participating in the market, as well as its breadth and scope, provide assurance that a large volume of funds can be handled and channeled to creditworthy borrowers in response to interest rate incentives.

Parallel with the "money market" short-term investment function, the Eurodollar market has developed a longer-term investment instrument, so-called Eurobonds. This instrument, too, may be counted upon to perform an important role in the recycling of oil revenues. Of course, there are the capital markets of individual nations and the direct investment opportunities that individual economies offer. Purchases of stocks and bonds of the industrial countries will ultimately represent an important channel of recycling.

However, all these commercial channels have one common characteristic: the flow of funds through them takes place in response to commercial incentives—the interest rate or return potential that the underlying instruments offer the investors. In the recycling process, the needs of individual oil-consuming countries for funds may not coincide with their ability to qualify for access to the commercial market. This is particularly true of the developing countries whose ability to compete for investment funds is severely limited. But it is also true of some developed countries where interest rate levels necessary to attract funds may conflict with domestic economic policy objectives. Thus, it has become increasingly clear that to meet these problems, the facilities of existing international institutions must be strengthened and new facilities developed.

In the early months of 1974, there was some progress in meeting the anticipated challenges in both of these institutional areas. In the commercial markets area, the elimination or reduction of restrictions on international capital outflows by the United States and capital inflows by Germany, the Netherlands, Belgium, and France was an important step toward opening the channels through which private funds can move. As the first payments reflecting sharply higher oil prices were made to the oil producers in early April, the world money markets responded smoothly.

Anticipating shortfalls in the inflow of

funds, a number of governments tapped the commercial markets for loans early in 1974. The French floated a $1.5 billion Eurodollar loan with the bulk of the proceeds to be parceled out to the country's commercial banks to increase their dollar holdings, and with the balance added to the central bank's reserves. The British negotiated a $2.5 billion, ten-year Eurodollar loan underwritten by 25 commercial banks in the private markets and decided that the proceeds will be drawn upon by the government as needed to meet the shortfalls in fund inflows. The Italian government not only negotiated borrowing in the Eurodollar market but also made arrangements for official borrowing with the International Monetary Fund (IMF).

As concerns strengthening of international official institutional arrangements through which reflows of funds can be effected, the International Monetary Fund (IMF) has developed a plan that boosts the Fund's resources available for lending to member countries, both industrial and developing. Under the program, the oil-exporting countries will lend part of their oil revenues at 7 percent interest to the IMF, and the Fund, after due consultation, will make loans to oil-importing nations in proportion to the size of the adverse oil price impact for a maximum term of seven years. The International Bank for Reconstruction and Development (IBRD) has increased its efforts to float bonds in the oil-producing countries to obtain funds to boost its lending capability to developing countries. The Shah of Iran proposed the establishment of a new international institution that would loan funds received from oil producers and other nations, channeling between $2 and $3 billion annually to developing countries.

Other proposals that emerged in 1974 and are currently under consideration are an Islamic Development Bank with capitalization at $1.2 billion; an Arab Oil Fund for Africa capitalized at $200 million; OPEC Development Bank (between $1 and $2 billion); an Arab Bank for Agricultural and Industrial Development in Africa ($200 million); and other similar proposals designed to deal with the energy problems of the developing countries. To meet the possible needs of the developed countries for short-term credits on an ad hoc basis, the mutual currency swap lines (developed in the Sixties by the Federal Reserve System) stand ready to provide $20 billion in mutual assistance among 14 cooperating central banks. The swap limits of the Banks of England and of Italy were boosted earlier this year by $1 billion to $3 billion each to provide for anticipated contingencies.

All of these commercial, governmental, and central bank arrangements—bilateral and multilateral—should go a long way toward reducing the problems associated with deficits in the balance of payments of individual countries in the aftermath of the energy crisis. But it can hardly be expected that they will eliminate the problem completely. At best, they will postpone and spread over time the problem of real transfers, i.e., transfers in the form of goods and services from the oil-consuming to the oil-producing nations. Sooner or later, more basic adjustments must be made in the balance of payments of individual countries to effect the transfer. Moreover, despite the broad scope of the financial facilities that are available to handle the problem of recycling, some countries may be confronted with immediate payments problems that will require immediate adjustments.

The role of the monetary system

The IMF Nairobi meeting last year set July 31, 1974 as the target date for agreement in the negotiations for the reform of the international monetary system. In the words of former U. S. Treasury Secretary

George Shultz, the center of gravity of the exchange rate system would be a regime of stable but adjustable par values.

The energy crisis has radically altered the circumstances surrounding the negotiations. In principle, a fixed exchange rate system of stable but adjustable par values would possess the hoped-for stability only if the balance-of-payments positions of individual countries participating in the system are roughly in equilibrium. But, as pointed out, the unpredictability of distribution of investment reflows raises great uncertainties about the balance-of-payments positions of individual countries for months to come. Imbalances will necessarily emerge, and they will put pressure on the exchange rates. Under a regime of fixed exchange rates, this would no doubt precipitate speculative flows of funds that could prove very disruptive to the primary function of the international monetary system—to facilitate international commerce and productive investment flows.

Recognizing this problem, the Ministerial Committee of Twenty (C-20), charged with the responsibility of developing the blueprint for the reformed system, focused its attention away from a unified reform package and concentrated on individual components on the assumption that components could be put in place as circumstances permit. In an effort to work out agreements on various components, the C-20 settled on a code of conduct to be followed by individual countries in respect to the floating exchange rate system that, as has been generally agreed, best meets the needs of trading nations in the current period of uncertainty. The proposed code of conduct includes commitments that individual countries will intervene in order to maintain an orderly foreign exchange market, but will refrain from intervention that would: (1) accelerate movements in exchange rates; (2) prevent a small and gradual appreciation of its currency if a country holds large reserves; and (3) prevent a small and gradual depreciation of its currency if a country's reserves are low.

It is clear that orderly exchange rate movements within a loosely structured international monetary system, buttressed by a judicious use of official reserves, will play an important role in the adjustments to the balance-of-payments consequences of the energy crisis.

The outlook

The success with which the Organization of Petroleum Exporting Countries (OPEC) implemented price-raising arrangements in late 1973 has encouraged new or renewed cartelization attempts by producers of such commodities as copper, bauxite, iron ore, phosphate, coffee, and bananas. The developing countries have expressed their intention to organize "new OPECs," and a number of these countries have set up ministries of resources to pursue this end.

This is "resources diplomacy." It threatens to add to inflationary pressures and, in some cases, create bottlenecks in supplies. It highlights the dependence of the United States and other developed countries on primary product imports, and the associated need for stability in supplier relationships. To achieve this stability, the United States, in cooperation with other nations, is seeking to supplement existing international trading rules on access to markets for producing countries with new rules on access to supplies for consuming countries. Such a development would facilitate the international flow of goods that benefits producing and consuming countries alike.

Joseph G. Kvasnicka

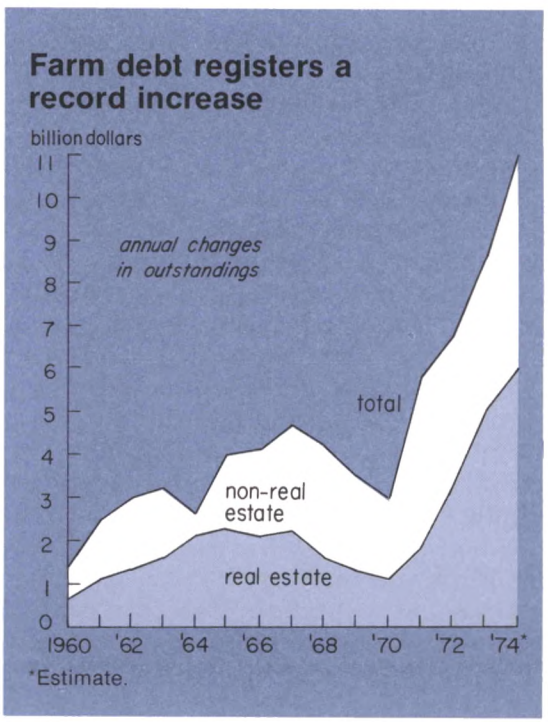
Concern for growing farm debt

Farm debt rose by record amounts during the past two years and another record increase is expected in 1974. Outstanding farm debt totaled $82 billion at the end of 1973, up nearly $9 billion from a year earlier and more than $15 billion above the ending 1971 level. In percentage terms, the growth in farm debt exceeded 23 percent during the past two years, the largest two-year gain since the early Fifties. The boom in farm debt continues unabated in the current year as reflected in the U.S. Department of Agriculture's projected increase of nearly $11 billion in 1974. Overall, the rise in farm debt during the past two years, plus the projected 1974 gain, would be twice as large as the 1969-71 increase in farm debt and equal to total outstandings in 1961.

Both real estate and non-real estate farm debt registered strong advances during the past two years. Outstanding real estate debt totaled $39.5 billion at the end of 1973, up $8.2 billion from two years earlier. Non-real estate debt (usually short- and intermediate-term credit), on the other hand, rose to $42.8 billion by the end of 1973, marking a two-year increase of $7.2 billion. Current projections of the Department of Agriculture portend increases of about $6 billion for real estate and $5 billion for non-real estate farm debt during the current year.

The expanding use of debt capital coincides with unparalleled prosperity in the farm sector that has also boosted equity capital. Net realized farm income rose to $17.6 billion in 1972, 35 percent above the year-earlier level and 3 percent over the previous record set a quarter of a century earlier. Last year, net farm income soared another 83 percent to $32.2 billion. Current forecasts of net farm income for 1974 vary widely due to a number of uncertainties. Nevertheless, most estimates indicate net farm income in 1974 will be well above all historical comparisons excepting perhaps for last year.

The surge in farm borrowing reflects shifts in a number of factors which affect both the demand for, and the supply of, loan funds. Factors inducing lenders to provide a larger volume of farm loan funds included a sharply higher level of loan repayments, more competitive yields on farm loans, lower risks on farm loans, strong deposit inflows, and an increase in bond and debenture sales. Factors boosting the demand for farm borrowing included a shift in agricultural policy toward all-out production, larger purchases of capital and operating inputs, higher prices paid for virtually all farm in-



puts, and renewed optimism for continued prosperity in agriculture.

Institutions pace increased lending

Holders of farm debt typically are classified as *institutional lenders, individuals and others,* and the *Commodity Credit Corporation (CCC).* Non-recourse CCC loans are available to farmers who participate in the various government farm programs. Such loans permit farmers to obtain low cost inventory financing if they prefer to store, rather than market, their harvested crops. The amount of CCC loans outstanding is comparatively small and has declined steadily since 1971.

Individuals and others represent a broad category of lenders who hold roughly two-fifths of all non-real estate and real estate farm debt outstanding.[1] The bulk of non-real estate debt held by individuals and others represents short-term credit extended by merchants and dealers of agricultural supplies, often in promotional efforts to boost sales. On the other hand, individual sellers account for the majority of farm real estate debt held by individuals and others. As of the end of 1973, non-real estate debt held by individuals and others totaled an estimated $15.9 billion, 3.5 percent above the year-earlier level and 16 percent greater than two years earlier. Farm mortgage debt held by individuals and others totaled about $16.9 billion, 15 percent above the ending 1972 level and 26 percent larger than two years earlier.

Institutional lenders have been the dominant source in accommodating the farm debt boom. In the farm mortgage market, the most significant strides have been registered by Federal Land Banks (FLBs) and commercial banks. In non-real estate lending, commercial banks and Production Credit Associations (PCAs) have paced the overall advance.

New mortgage money extended by FLBs jumped 46 percent above the year-earlier level in 1972 and another 47 percent in 1973. The unprecedented volume more than offset the sharply higher level of repayments. As a result, farm mortgage debt held by FLBs exceeded $10.9 billion at the end of 1973, up one-fifth from a year earlier and up nearly two-fifths from 1971. The rapid increase in FLB outstandings partially reflects new lending provisions established by the Farm Credit Act of 1971, and implemented in the spring of 1972. Prior to the act, FLB loans were restricted to 65 percent of the "agricultural value" of the supporting real estate collateral. The new act changed this restriction to 85 percent of the "market value" of the mortgaged real estate.

Farm mortgages held by commercial banks totaled $5.4 billion at the end of 1973, up 28 percent from the level two years earlier and equivalent to one-fourth of all institutional farm mortgages outstanding. Farm mortgages held by life insurance companies, which rank second in institutional holdings, totaled $6.1 billion at the end of 1973, up just 9 percent from two years earlier. The comparatively small increase by life insurance companies, which have been extremely slow to recover from the declines that occurred during and following the 1969-70 credit crunch, reflects increased emphasis on other investment alternatives and, to some extent, an increase in policy loans.

[1]The most reliable estimates of farm debt held by individuals and others are obtained only periodically which necessitates some method of interpolation in order to estimate annual changes in such debt outstanding. Since the method of interpolation is often highly arbitrary, annual estimates of farm debt held by individuals and others should be viewed with some caution. For several years prior to 1973, for example, annual changes in non-real estate debt held by individuals and others, were arbitrarily equated with the proportional change in outstandings registered by all institutional lenders. This method of interpolation was abandoned last year when it became apparent that widespread shortages and the increased costs of receivables financing had tightened the credit policies of merchants and dealers of agricultural supplies.

Commercial banks paced the surge in non-real estate farm loans during the last two years, a distinction long-held by PCAs. Non-real estate farm debt held by banks rose 39 percent during the two years ending in 1973, while such holdings by PCAs rose 29 percent. Nevertheless, the $7.9 billion in PCA outstandings at the end of 1973 marked a 3.7-fold increase from the level a decade earlier, while the $17.3 billion in bank holdings capped a 2.6-fold increase for the decade.

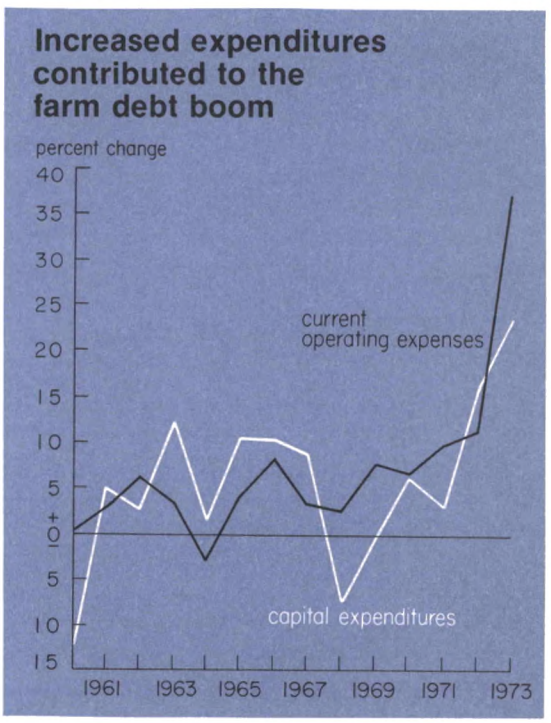
Heightened loan demand

The expanded volume of farm lending reflected an unusually strong demand for borrowing as well as the increased activities of institutional lenders. A number of factors were associated with the heightened farm loan demand, but most were related to the following.

- The reinstatement of investment tax credit in late 1971.
- The all-out production incentives provided by record-high farm prices and the government's release of some 60 million acres held in set-aside under the various farm programs.
- The more optimistic expectations for continued prosperity as a result of record income levels achieved by farmers and the surge in foreign demand for U. S. agricultural products.

The strong farm loan demand partially resulted from the financial arrangements necessary to support the boom in capital expenditures. In 1973, higher prices and increased purchases boosted capital expenditures by farmers to $9.4 billion, nearly one-fourth above the year-earlier level and more than two-fifths larger than in 1971. The increases in capital expenditures were the largest since the late Forties and included purchases of a wide range of assets that will enhance the productive capacity of agriculture for a number of years. Shortages of fuels and fertilizers coupled with transportation snarls encouraged many farmers to boost on-farm drying capacities and to expand storage facilities for both inputs and harvested crops. Record-high farm level prices and incomes encouraged farmers to boost expenditures on drainage tile, terraces, and irrigation. Such capital expenditures were no doubt largely directed toward the some 40 million acres of land that came into production following the elimination of set-aside requirements from the various government farm programs.

The surge in capital expenditures is perhaps best reflected in unit sales of farm tractors and machinery. The weather-plagued and untimely fall harvest in 1972, the availability of investment tax credit, and the expanded production incentives have encouraged farmers to substantially upgrade their machinery and equipment. In 1973, unit retail sales of farm tractors soared 25 percent above a year earlier and 50 percent above the 1971 level. Unit sales of combines, balers, and many other large



items also scored impressive gains.

In addition to financing capital expenditures, farm loan demand was bolstered by higher prices for, and increased purchases of, operating inputs. By late 1973, the index of prices paid by farmers for production inputs was 21 percent above a year earlier and 33 percent above the ending 1971 level. Livestock producers were particularly hard hit with higher prices for feed and feeder stock, while crop farmers experienced particularly large increases in prices paid for seed, fuel, fertilizer, and chemicals. Higher prices combined with larger purchases boosted 1973 operating expenses to $48 billion, 50 percent above the 1971 level.

The vigorous farm loan demand coincided with a general upward movement in interest rates starting in the last half of 1973. Although the expansion in farm debt was acquired at historically high interest costs, interest rates during most of the period were favorable compared both to earlier highs during the 1969-70 credit crunch and to other market interest rates. Interest rates on farm loans tended to decline throughout 1971 before bottoming out in the first half of 1972. From mid-1972 to mid-1973, interest rates held steady, but have since turned sharply upward and now exceed 1970 highs.

Some reasons for concern

American agriculture has experienced recurring cycles of the "cost-price squeeze" throughout its history. The cost-price squeeze defines a situation in which the prices of farm commodities are low relative to the costs of production inputs. As a result, cash receipts from farm marketings are largely absorbed by cash outflows, leaving only small operating margins to compensate the farmer-operator for his equity capital, labor, and management skills. In view of the rapidly rising farm costs and the likelihood that prices of agricultural commodities may trend lower because of expanded production, another cycle of the cost-price squeeze appears to be in the offing. Should this occur, and depending upon the severity, many farmers may be hard pressed to meet their rapidly rising debt repayment obligations.

Discussions of the debt repayment ability of farmers typically center on the debt-to-asset ratio of the farm sector and the maturity distribution of outstanding farm debt. The debt-to-asset ratio of the farm sector has trended upward from a low of 7.2 in 1947 to 19.6 in 1972.[2] Since the current ratio is somewhat below earlier highs—due to large increases in farmland values during the past two years—and well below that for most other industries, many observers contend there is little reason for concern over the ability of farmers to meet debt repayment schedules.

The debt-to-asset measure, however, may be a misleading indicator of farmers' debt repayment capacity. On the one hand, the ratio values assets at current market prices rather than cost. (If assets were valued in terms of 1967 prices, for example, the debt-to-asset ratio would be 12 percentage points higher than the present level.) Moreover, the debt-to-asset ratio is a poor indicator of farmers' abilities to retire debt since a high proportion of farm operators are debt-free. Preliminary indications from a 1970 survey indicate the proportion of debt-free operators may approach one-half. These results suggest that farm debt is highly concentrated, that those with farm debt have substantially higher debt-to-asset ratios than the industry average, and that the bulk of the expansion in farm debt over the past few years probably reflects borrowings by operators who had existing debt rather than by debt-free operators.

[2]It is interesting to note that the debt-to-asset ratio exceeded 19 in the early Forties, just prior to the last time farm debt declined for an extended period.

A high portion of short-term debt

Concern over farmers' abilities to retire debt, in conjunction with a possible cost-price squeeze, is perhaps most evident in the maturity distribution of farm debt. Although only scattered evidence is available, there are several indications that a high proportion of the farm debt matures each year and that the scheduled annual cash outflows for principal and interest repayments are equivalent to an extremely high proportion of cash receipts.

The bulk of the annual debt repayments reflects the short-term nature of non-real estate farm debt. Although PCAs can extend loans with maturities of up to seven years, the amount of new loans made annually by PCAs consistently exceeds average annual outstandings. Moreover, the amount of PCA loans renewed annually is equivalent to one-half of average annual outstandings. These measures indicate that the average maturity of PCA loans is substantially less than one year.

Other evidence suggests the maturity of non-real estate farm loans provided by other lenders also averages less than one year. For example, a 1966 survey found that nearly two-fifths of the dollar volume of farm loans made by commercial banks—including real estate loans—had maturities of six months or less, while nearly three-fourths had maturities of 12 months or less. If real estate debt could be subtracted out of these figures, the maturity of non-real estate farm loans made by commercial banks might average six months or less. The large volume of non-real estate loans extended by individuals and others, no doubt, also carries relatively short-term maturities. In particular, a large proportion of the credit extended by merchants and dealers probably matures within periods of 30 to 90 days.

Overall, it is probably reasonable to assume that the maturity of non-real estate credit extended to farmers averages less than nine months. This would imply that the annual scheduled repayment of non-real estate farm debt might total $58 billion in 1974 based on the amount of such debt outstanding at the start of this year and adjusting for loans obtained and repaid during the year.

The cash outflow for debt retirement would be boosted further by principal and interest repayments on real estate debt. Although only scattered evidence is available, the average maturity on such debt is probably close to ten years.[3] Based on the present level of farm real estate debt outstanding, and assuming an average annual interest rate of 6 percent, this implies a scheduled annual cash outflow of $6 billion for principal and interest payments on real estate debt in 1974.

Overall, the analysis suggests that the scheduled cash outflow for farm debt retirement may range from $60 to $65 billion in 1974. For 1975, the scheduled principal and interest repayments might exceed $70 billion if this year's projected increase in farm debt materializes.

Cash outflows of these magnitudes for debt retirement are startling when compared to cash receipts from farm marketings. In 1970 and 1971, cash receipts from farm marketings averaged less than $52 billion. In conjunction with the sharply higher farm-level prices of the past two years, cash receipts from marketings jumped to $61 billion in 1972 and $83 billion in 1973.[4] Even if cash receipts stay

[3]The portfolio of farm real estate debt held by FLBs probably has as high an average maturity as any of the major holders of farm real estate debt. Nevertheless, based on the past five years, the ratio of annual repayments to outstandings at the beginning of the year implies an average maturity of 14 years for FLBs. The average maturity of such debt held by banks and by individuals and others is probably less.

[4]A more realistic comparison of farm debt repayment with cash receipts from farm marketings would deduct cash receipts received by debt-free operators. While there are little data to compute the appropriate deduction, a reasonable estimate might be 15 percent.

at the sharply higher level for the next few years, the likelihood of further increases in the scheduled annual debt repayment leaves only a small margin for other cash outflows. Moreover, and despite the trend of cash receipts to rise over time, there would seem to be a reasonable probability that cash receipts from farm marketings could decline from recent high levels, a development that would intensify what already appears to be a narrow margin between cash inflows and outflows.

Some offsetting factors

There are a number of factors that partially offset the concern over the ability of farmers to meet scheduled debt repayments. The implications of the comparatively high proportion of short-term debt is partially alleviated by the fact that many of the assets acquired by debt financing provide a sufficient cash inflow, in a sufficiently short period, so that servicing the debt is not an undue burden. Crops are produced and marketed within 5 to 12 months, generating the receipts necessary to repay debt incurred to finance operating expenses. Similarly, cattle typically are marketed four to six months after being placed into feedlots. The receipts from the marketings can most logically be used to repay the financing needed to acquire and feed the cattle. As long as the repayment of short-term debt is geared to the cash inflows produced by the assets financed, the comparatively high proportion of short-term debt normally would not be particularly burdensome to agriculture. Nevertheless, during periods of a severe cost-price squeeze—such as that experienced by livestock producers for the past several months—receipts may fall far short of the scheduled loan repayments.

Another mitigating factor is that renewals or extensions of farm loans appear to be very common occurrences. Data on PCAs suggest that the volume of renewals is equal to over one-half of repayments every year. A 1966 survey of commercial bank loans to farmers indicated that nearly one-third of the amount outstanding at the time of the survey had been renewed, and that the bulk of the renewals had been planned. These indications suggest that agricultural lenders normally are willing to renew loans. But their willingness to do so could be reduced if a cost-price squeeze threatens the repayment capacity of the borrower.

The importance of nonfarm earnings as a source of income to the farm sector is another factor that dilutes the concern for debt repayment. For a number of years, nonfarm incomes of the farm population have been equivalent to around three-fourths of the net farm income of farm operators. Should a cost-price squeeze threaten the debt repayment capacity of farmers, nonfarm earnings can be used to subsidize the debt servicing capacity of farm income. Although such a relationship would be economically unstable over the long run, it could delay the impact of a cost-price squeeze on debt repayments.

While the arguments for and against concern over the repayment capacity of agriculture may be at a stand-off, there is little doubt that there will be individual farm operators who will have difficulty repaying the financing obligations entered into during the current boom in farm debt. This could accelerate the continuing shift in the structure and control of agriculture. This is not to say that farm debt will decline or even that its growth will necessarily slow from the rapid pace of recent years. But it does suggest the possibility that those remaining in farming will be fewer in number, control a more extensive level of assets, and be the most efficient and competitive users of debt capital.

Gary L. Benjamin

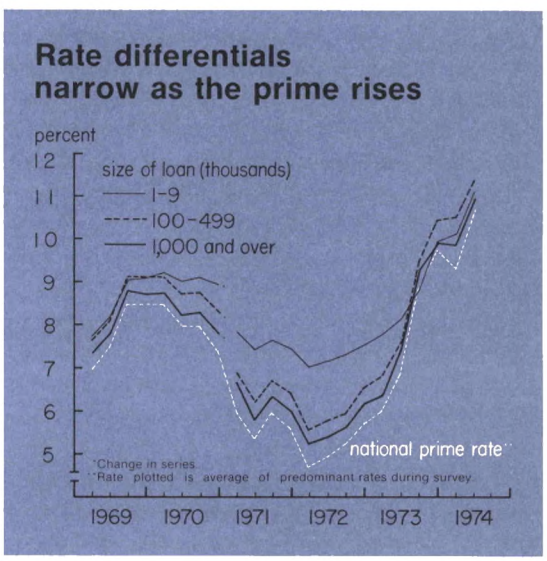
Banking developments

Bank loan charges

A normal relationship is gradually being restored between the interest rates paid on short-term bank loans by large and small businesses. This relationship was altered as a result of the "two-tier prime" concept generally adopted in the spring of 1973 at the suggestion of the Committee on Interest and Dividends (CID). The purpose of the two-tier prime rate was to hold down the cost of credit to small borrowers while allowing the banks to increase rates charged big borrowers in line with rising money market interest rates.

Information on the structure of bank lending rates is very limited. One source of information is a Federal Reserve quarterly survey of rates charged on new loans made during a seven-business-day period. The survey covers a panel of 15 district banks that account for a large portion of the dollar volume of outstanding commercial and industrial loans. Average loan rates calculated from the survey responses show that, historically, rates on small loans (presumed to reflect credits to small business) have been higher than those on large loans, reflecting a greater element of risk. This differential changes over the interest rate cycle, however, with the spread widening as the "prime" rate declines and narrowing as the prime rises. (The prime is the rate at which major banks lend to their most creditworthy customers—principally large national corporations.) In August of 1973, for the first time in the history of the survey, small loans were cheaper, on average, than very large ones. The weighted average rate charged by district respondents on loans under $10,000 was 8.8 percent—one half of 1 percent below the rate on loans of $1 million and over. But by November, this negative spread was eliminated, and in May 1974 the structure of rates was very similar to that prevailing in the latter part of 1969.

Throughout the period of economic controls that began with the New Economic Program in the summer of 1971 a major function of the CID was to hold down the price of credit. But as rising credit demands, combined with efforts to reduce the rate of monetary growth, drove market interest rates higher in early 1973, the banks were flooded with demands for loans because bank loans were cheaper than the cost of obtaining funds in the commercial paper market. The CID guidelines accompanying the two-tier system allowed adjustments in the rate charged large businesses with access to national money and capital markets. (Nevertheless, it was not until fall that a fairly normal relationship was restored between the prime and commercial paper rates.) However, the guidelines insisted that increases in other



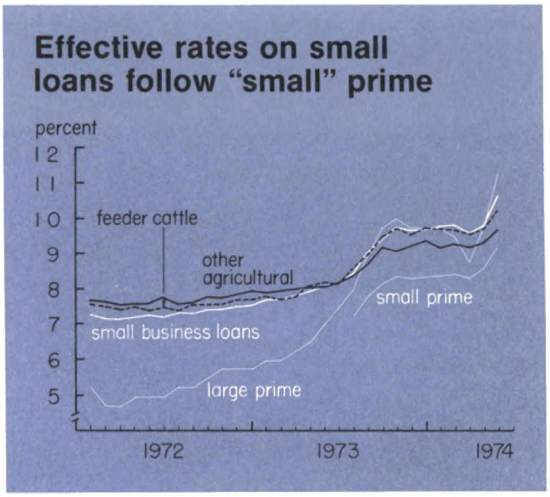
loan rates had to be justified by increases in costs and could not be as large or as frequent as those involving large firms.

The May 1973 quarterly survey was conducted shortly after the "two-tier" criteria were established. Reflecting some adjustment in the large-business prime, the average rate on loans of $1 million and over was 113 basis points higher than in the February survey, while the rate for loans under $10,000 was up only 34 basis points, reducing the spread to 65 basis points. By the August survey, the average rate on the largest loans was 9.29 percent, an increase of 181 basis points over May, whereas the rate on the smallest loans increased only 67 basis points to 8.80 percent, producing the reverse spread noted above.

While the "large business prime" in August was 8.75 percent and 9 percent (a ¼ percent increase occurred within the survey period), major district banks reported rates of 8.50 percent and below on more than half of the dollar volume of loans of less than $10,000 and on 31 percent of those in the $10,000 to $100,000 loan size.

The lag in rate adjustments on small loans was not a development unique to the period of the CID guidelines. For instance, of the loans reported in the August 1969 survey, when the prime was at its peak for the last interest rate cycle, 24 percent and 9 percent of loan volume in the two smallest loan categories, respectively, were made at rates below prime. The differential in average rates between the smallest and largest loans was 26 basis points, compared with 13 points in May 1974. At the bottom of the rate cycle in early 1972, with the prime as low as 4.50 percent at some banks, that differential reached a maximum 178 basis points.

The earlier experience indicates that practices under the guidelines were not greatly different from what might have been expected without them. In a period of rapidly rising rates, small loan charges tend to be sticky. However, the relatively small increase in average charges on small loans, weighted by the amount loaned, may also reflect restrictive lending policies that screen out some high-risk borrowers who would normally have to pay a bigger premium over prime for credit.



Another indication of loan rate behavior under the CID guidelines is provided by monthly reports of a sample of commercial banks of various sizes. This information is collected jointly by the Federal Reserve System and the Federal Deposit Insurance Corporation. Simple averages of the "most common" effective annual rates reported by these banks on selected types of loans have been published monthly since January 1972. The small business prime, first reported in July 1973, is defined as the rate charged by a bank to its most creditworthy local business and agricultural loan customers. According to this evidence, the small prime was a full 2 percentage points below the big prime in May 1974 due to the very rapid increases in the latter. However, effective rates most commonly charged on short-term business loans under $25,000 have exceeded the average small prime, which is not converted to an effective rate basis, by 100 to 150 basis points since mid-1973. These rates have followed the trend of the big prime but with smaller swings. ■