



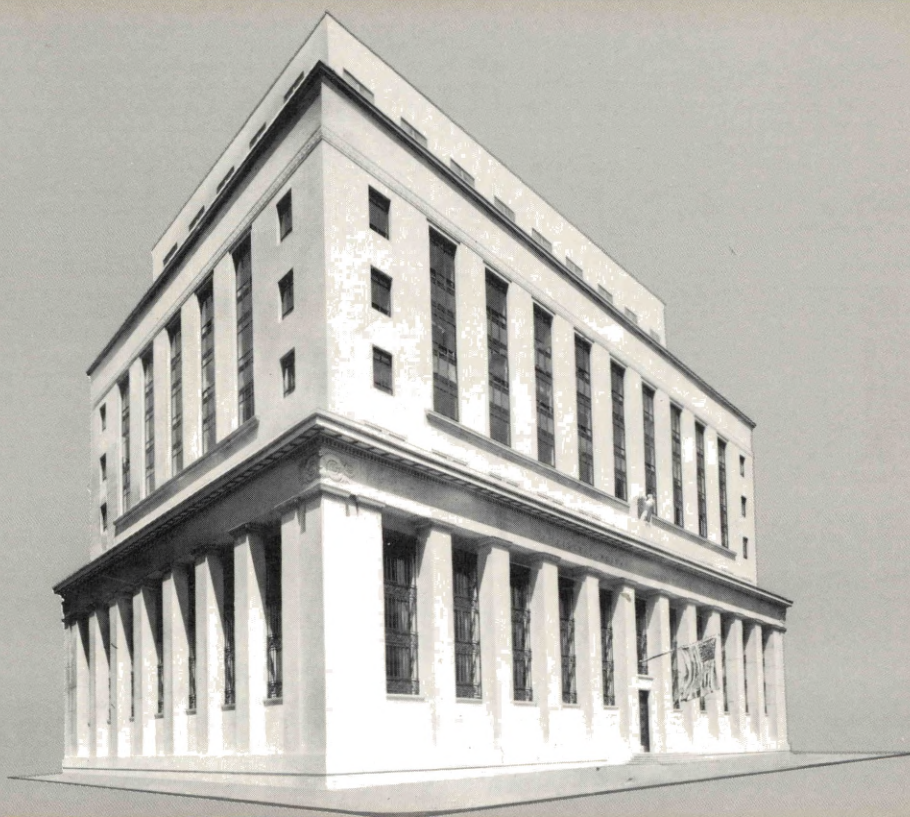
Speculative Markets: Valuable Institutions
Or Dens of Inequity?

Urban Living Costs: How Philadelphia
Family Budgets Stack Up

Bank Income in 1971: Year of the Jitters?

FEDERAL RESERVE BANK of PHILADELPHIA

business review



Speculative Markets:**Valuable Institutions or Dens of Inequity?**

. . . Far from being havens for "high rollers," speculative markets benefit society by smoothing seasonal price fluctuations, reducing the likelihood of shortages, and helping commodities reach the right place at the right time.

Urban Living Costs:**How Philadelphia Family Budgets Stack Up**

. . . Family expenses in the Quaker City compare favorably with those of other major northeastern cities, but are higher overall than the U. S. urban average.

Bank Income in 1971:**Year of the Jitters?**

. . . Although District bankers gained little cheer from their profit ledgers last year, 1972 looks like a significant rebound.

On our cover: Located at the northeast corner of Tenth and Chestnut streets is the Federal Reserve Bank of Philadelphia. Completed in 1935, the structure was designed by Paul Cret (1876-1945), also architect of the building of the Board of Governors of the Federal Reserve System.

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Speculative Markets: Valuable Institutions Or Dens of Inequity?

by
Jack Clark Francis

"Commodity Trading Booms—Public's Interest In Futures Soars"—*New York Times*, April 30, 1972

"Currency Speculation May Grow If Market In Chicago Is Successful"—*Wall Street Journal*, May 16, 1972

"Phenomenal Growth of Commodities Futures Trading"—*Commercial and Financial Chronicle*, March 23, 1972

"Diamond Futures Trading Opens Today"—*Wall Street Journal*, January 19, 1972

Since the Chicago Board of Trade began futures contracts in 1859, speculative markets in America have continued to grow. And as the above headlines indicate, their growth rate has accelerated recently.

Despite over a century of continued growth, speculative markets are still viewed with suspicion by many Americans, including legislators. Speculative markets are sometimes regarded as a rich man's roulette. For example, after several years of debate Congress passed a bill in 1959 prohibiting futures trading in onions. And, as recently as June 1972, the House Agriculture Com-

mittee approved a bill prohibiting futures trading in Irish potatoes. While these legislative actions may seem like "small potatoes," they could portend things to come.

Can it be that futures markets serve no useful function in society other than providing gambling casinos for high financial rollers? A close look at these markets shows they can benefit society in a number of ways. For example, Americans do not go through a feast-and-famine cycle from harvest time to mid-winter, in large part, because of price speculators. No governmental agency need plan our winter ration of wheat: Farmers and other speculators store some of the newly harvested crop to sell later when the price rises. Thus, the profit motives of these speculators are harnessed to allocate the supply of foodstuffs smoothly over time.

Some critics of speculative markets argue that whatever benefits society derives from its speculative markets are not without cost, namely, destabilized prices. Yet the services these markets render society appear to more than compensate for the risk of fluctuating prices.

WHY SPECULATION?

Speculation springs from the uncertainties of tomorrow. Spuds may be 33 cents today but their price next year will depend largely on the appetites of pests and people, the vagaries of the weather, and many other unknowns. Speculators make guestimates as to what the future holds and then back these forecasts by buying the right to some asset or commodity whose price they feel will change. When and if the price changes the speculator takes his profit or loss. This process is essentially different from investing. Investors tend to buy and hold assets over a period of years to obtain price appreciation or other income.

Although investing is considered a respectable practice by most persons, speculation may have undesirable connotations. People often equate speculation with gambling when in fact the two activities are basically different. The difference between gambling and speculation lies in the way the risks involved come about. Gambling—cards, dice, or some other form—involves *risk creation*. In contrast, speculation involves *no risk creation*—it is based on the price fluctuations which come about naturally. For example, grain prices tend to fall at harvest time when the supply for sale increases. Then, after the harvest, prices usually rise as consumption shrinks the supply. This is a natural process—no risks are created by the speculators. If speculation were discontinued altogether, these seasonal price fluctuations would not be any less.¹

¹Of course, there are some forms of speculation which are undesirable and as a result have been outlawed. For example, speculators may try to corner the market in some good by buying all that is for sale, thereby forcing its price to unnatural highs before selling. But in most speculative markets such activities are illegal. For example, the Commodity Exchange Authority, a branch of the Federal Government, checks regularly to insure that no commodity trader corners the market or otherwise manipulates prices. Other agencies also police speculative markets to keep them

The mainstay of most organized speculative markets is the futures contract. There is nothing evil or mysterious about these contracts. They are merely legal contracts (or promises) either to buy or sell a particular amount of a commodity at some stipulated price and date in the future. Futures contracts—not the commodities themselves—are traded every day on one of the dozen or so commodity exchanges around the United States. The price of a contract varies as the supply and demand forecasted for the commodity is revised. Commodities for which futures contracts are traded include (among many others) wheat, corn, oats, rye, soybeans, soybean oil, soybean meal, cottonseed oil, lard, grain, sorghums, beef carcasses, and plywood. Commodity exchanges make markets in commodity futures contracts in much the same way that stock exchanges make markets in stock certificates. The exchanges check to insure that the proper grades of the commodity are delivered at the proper time and place and that payment is made as stipulated in the future contract.

Commodity exchanges are not the only speculative markets active in America. Stock and bond markets can be used as speculative markets by people who sell short (see Box) or buy and sell frequently to profit from short-run price changes. Options markets, where puts and calls are traded, are also speculative (see Box). And, futures contracts on foreign exchange are traded in several different speculative markets. Many active speculators trade in items for which organized speculative markets don't even exist. For example, real estate and shopping center developers speculate on changes in the

competitive. Some people would argue that the cost to a nation of policing its speculative markets is more than compensated for by services to society provided by those markets. However, in markets where prices are not free to fluctuate to equate supply and demand (for example, pegged foreign exchange rates) no amount of policing can stop harmful speculation.

SHORT SELLING—A METHOD OF SPECULATING

When someone makes a short sale he essentially sells something he does not own. Short sellers make such sales because they believe the asset (namely, securities) which they sold short will fall in price. Then, after the price has fallen they hope to buy the shares at a lower price than they previously sold them to deliver against the short sale. That is, the short seller hopes to profit from a price drop in the security.

Most stockbrokers handle short sales of stocks and bonds regularly. Stockbrokers loan the short sellers other investors' securities which they are holding. Then, the short seller sells the borrowed securities as if they were his own. Later, the short seller hopes to buy securities at a lower price to replace the ones he borrowed. For example, a short seller may sell XYZ stock short at \$50 per share to Mr. Bullish, who expects XYZ's price to rise. The short seller's broker can immediately deliver shares borrowed from one of his other clients to Mr. Bullish. Then, the short seller hopefully waits for the price of XYZ to fall to, say, \$40 so he can buy and replace the borrowed shares. If the short seller can cover himself by buying at \$40 he has made a \$10 speculative profit (before commissions). But if the security which was sold short rises to, say, \$60, then the short seller must buy shares to replace the ones he borrowed at this higher price, and lose \$10 per share in the process.

Taking a short position in commodities is simpler than selling securities short. All that is necessary to go short in the commodity market is to sell a futures contract on some commodity for which the seller has no inventory. Later, when the futures contract comes due for delivery the short seller buys the actual physical commodity in the cash market—hopefully at a lower price—for the contracted delivery. Or, the short seller can just repurchase his own futures contract instead of making delivery on it.

OPTIONS MARKETS

Puts and calls are the two basic kinds of options. A *put* is a legal contract; it entitles the put buyer to sell (or put) 100 shares of a specific stock (or bond or some specified quantity of a commodity) anytime during a predetermined time period for a prespecified price called the contract price. The option buyer pays the option writer a premium for granting him this option. If the market price of the optioned commodity or stock drops below the contract price, the buyer of the put option can gain by buying the optioned asset on the market and selling it to the option writer at the contract price. If the put option is for 100 shares, the put writer loses the amount of the price drop on the 100 shares less the premium he was paid for writing the option. For example, if Mr. Bearish expects ABC stock's price to fall from \$100 to \$80 in six months, he can buy a six-month put option from most any stockbroker. The stockbroker will find someone to write the put option—this will cost the put buyer a broker's commission of about \$25 plus a premium of about \$120 for 100 shares. If ABC's price does drop from \$100 to \$80, the put buyer can buy 100 shares at \$80 and put them on the put writer at \$100 per share for a \$20 per share gain before commissions. But if the price of ABC rises, the put buyer loses his \$120 premium and cannot profit from the put option.

A *call* is an option contract which entitles the call buyer to purchase (that is, to call in) some security or commodity from the call writer at a predetermined contract price any time during a specified period—which is usually 30, 60, 90, or 190 days. The option buyer pays the option writer a premium to induce him to grant the option. If the market price of the optioned asset falls below the contract price, there is no incentive for the call buyer to call the stock. But, if the optioned stock's market price rises above its contract price, then the option buyer can profit by calling the stock at the contract price and then reselling it at the current market price.

The put and call market in securities is a decentralized market which is made up essentially of about two dozen put and call dealers in New York City. These put and call dealers sell options by newspaper ads and telephoning. When a client indicates a desire to buy a put or call the broker begins calling for someone to write the option immediately. The option contract is usually completed in less than an hour after the buyer indicated his wishes. The put and call market in commodities is much newer and smaller and its procedures are not so well-established.

value of their land developments. And many farmers often speculate on the price of their own harvest by storing it themselves for sale in the cash markets a few months later when they expect prices to be higher.

SPECULATION BENEFITS SOCIETY

On the surface it may appear that organized speculative markets or exchanges only benefit speculators. But speculators, by seeking to profit from changes in price, provide some essential services for society. A close look at futures trading in some commodity, say wheat, highlights these benefits.

Right Place, Right Time. Long before commodity exchanges existed, wheat prices would be driven down precipitously at harvest time when farmers sold their crops. As a result of its temporarily depressed value, some wheat was lost in reckless handling or carelessly stored and spoiled by insects or bacteria. Then, a few months after the harvest there were frequently shortages and wheat could hardly be purchased at any price. However, such feast-and-famine problems diminished as commodity exchanges developed.

When newly harvested wheat hits the market today, its price does not usually drop very much. Farmers and other speculators store much of the harvest in hopes of selling it later at a price increase. As a result, the new crop is stored carefully. Because of competition between the speculators, futures prices normally exceed current prices by only about the amount of carrying costs (that is, about four cents per bushel per month for most grain commodities). Millers and bakers who need wheat all year can buy futures contracts from speculators at any one of several competing commodity exchanges. In this way the speculators' own profit motives help smooth the fluctuation in wheat prices between harvests. And the amount of wheat supplied for consumption is allocated smoothly over time rather than being consumed recklessly at harvest time.

Speculators also help allocate resources to the geographical area where they are in the greatest demand by carrying inventories which they will sell to the highest bidder—wherever he may be. For example, if the entire wheat crop in Kansas is wiped out by locusts one season, bakers and millers in the Sunflower State can buy all they need at the Chicago Board of Trade, the Minnesota Grain Exchange, or anywhere else they wish. As a result, the price of wheat will be uniform from the East to the West Coast (if transportation costs are ignored). If there were no organized speculative markets it is probable that wheat and other resources would not be sent so expeditiously to the geographical areas where they are needed. In short, speculators benefit society by helping commodities and goods get to the right place at the right time.

“Free” Forecasts. Numerous daily newspapers publish the prices of commodity futures, stock options, and foreign exchange futures. These futures prices are provided free of charge to users who look them up in the newspaper.² These prices represent the consensus of the active speculators in the market about what the future holds.³ Such price forecasts are of interest to people who are planning or making commodity purchases or sales in the future—for example, silverware manufacturers, bakers, farmers, importers and exporters. Consider a hypothetical example of the formation of wheat futures prices.

² Since there is a cost to organizing markets, they are not provided free to society as a whole. Most of the costs of a speculative market are borne by those who pay commissions to buy and sell.

³ The statement that futures prices represent a consensus of forecasters does not necessarily imply that these prices are likely to equal the actual spot prices which will emerge in the future. New information about future conditions causes futures prices to be revised almost every day. Thus, any given futures price is only the best estimate of spot prices for the one day on which that futures price exists.

Suppose that in January 1980 the price of wheat futures for delivery in May is \$1.60 per bushel. This price is determined by the buying and selling of speculators, many of whom are professionals who have forecasted supply and demand for years. Now suppose that some of these wheat speculators obtain a forecast of a drought later that year. If they have confidence in the forecast, they will buy wheat futures in anticipation of the forecasted drought. This is because the speculators expect that the harvest will fall short of demand later in the year so that wheat prices will skyrocket. That is, in early 1980 speculators will estimate the size of the year's harvest and its price. Then, they will bid the May 1980 wheat futures price up to, say, \$1.90 per bushel in January. Anyone can see this \$1.90 price merely by looking in the newspaper. This "free" forecast should be the best one available; it reflects all up-to-the-minute decisions that are backed by the speculators' own dollars. Moreover, speculators who are poor forecasters tend to be driven from the market, for the greater their error the bigger their losses.

Prices Adjust More Efficiently. Prices in a competitive speculative market ought to adjust to the news more quickly and with few biases because of competition among profit-seeking speculators. To earn a profit a speculator must continuously do or buy research to keep abreast of the supply and demand factors that determine a market price. And, in a competitive speculative market, upon receiving new information speculators must beat their competitors to the punch by buying and/or selling immediately.

Say, for example, that a wheat speculator buys a forecast of a ruinous drought. He must decide immediately whether he wants to act on the forecast by buying wheat and bidding up the price of futures. If he waits, competitors may bid up wheat futures when

they learn of the forecasted drought, then it will be too late to profit. As a result of keen competition the prices in speculative markets should reflect all available information—usually long before it makes the news. This is desirable because it provides rewards for making good forecasts.

Reshuffling the Risks: Hedging. Futures markets are inhabited by speculators who earn their living taking risks, and by persons seeking to reduce their risks. This latter fact is contrary to the commonly held belief that speculative markets are some sort of gambling casinos peopled by wealthy playboys. Consider a hypothetical businessman who pays a speculator to assume his risk by buying a hedge.

Suppose the General Milling Company is owned by an expert miller who fears speculating on price changes. Now if General Milling gets a lucrative contract from XYZ Supermarket chain to deliver ten boxcars of baking flour six months in the future, how will this affect General's risk-averse owner? He will be worried that his raw material costs—namely, the price of wheat—will exceed the price at which he has contracted to deliver the ten boxcars of baking flour and thus cause him to lose money on the contract. To avoid this possible loss General's owner buys a six-month wheat futures contract. This contract guarantees him he will have the quantity and grade of wheat he needs delivered to him in six months at a fixed price which he knows in advance will allow him to earn a profit on the flour contract. This is called a seller's hedge. It frees General's owner from worrying about whether wheat prices will rise and allows him to concentrate on operating an efficient mill.

The seller's hedge not only protects General Milling from a possible loss if wheat prices rise, it also keeps him from increasing his profit if wheat prices fall. That is, hedges limit both losses and profits: They "lock the

hedged businessman" into a fixed price spread regardless of changing market prices. This is part of the price which businessmen pay to speculators to hedge their risks. But, those wishing to avoid risk knowingly forego these potential profits in order to hold down their losses. This form of speculation benefits society by permitting a reshuffling of risk to those who want to bear it (for a price) and frees others to concentrate their efforts on efficient production.

Equalizes Relative Bargaining Positions And Improves Liquidity. When two parties meet eyeball to eyeball to sell marketable assets, one party almost inevitably has more "bargaining power" than the other. The strong bargainer may be a financially flush buyer dealing with a nearly insolvent seller, a fast-talking seller bargaining with a naive or inexperienced buyer, or a huge buyer dealing with one of numerous tiny sellers. In these cases the party in the weaker bargaining position can insulate himself against pressure from the stronger bargainer by dealing through a medium such as a speculative market. In most types of speculative market transactions the buyer and seller usually never know each other's identity. And the sale is made at the competitively determined market price. For example, when the hypothetical General Milling Company is placing buy orders for its future raw material needs, it cannot coerce a tiny farmer into contracting to sell his next year's crop at a low price with veiled threats or other scare tactics. Small farmers with weak bargaining positions can sell their next year's crop at a competitively determined price by merely selling a futures contract on the commodity. So, the existence of orderly speculative markets can help protect the "little guy."

Another way speculative markets can aid businessmen is by increasing their liquidity. Just as an active market of any kind increases the liquidity of the assets traded there, so

active markets in commodities, stock options, foreign exchange and other items increase their liquidity. And, the more liquid a business's assets, the less resources it must devote to budgeting, paying interest on loans, and otherwise providing for the ability to meet bills on time.

For example, suppose the General Milling Company can buy the wheat it needs during the coming months at an unusually good price. But, also suppose that General Milling is short of cash. Chances are that most banks will loan General Milling over half the cost of the wheat bought in the cash market because a futures contract can be sold short to hedge a drop in its price. That way even if General Milling would go bankrupt and the price of wheat drops to zero, the bank can liquidate the long and short wheat positions and recover its loans. Or, maybe General Milling won't even need a loan to buy the wheat. Wheat futures can usually be bought for only a 10 percent down payment and the rest is not due until the wheat is delivered. Clearly, speculative markets help General Milling and other businesses finance their inventories and remain liquid. This lowers the cost of production and ought to lower prices for consumers.

DESTABILIZING PRICES?

Despite the benefits many people still think that speculation is "bad." Most of their charges are rash and untrue. But, one common accusation does contain some economic rationale: Speculation can destabilize prices, and there is little doubt that in certain circumstances it does.

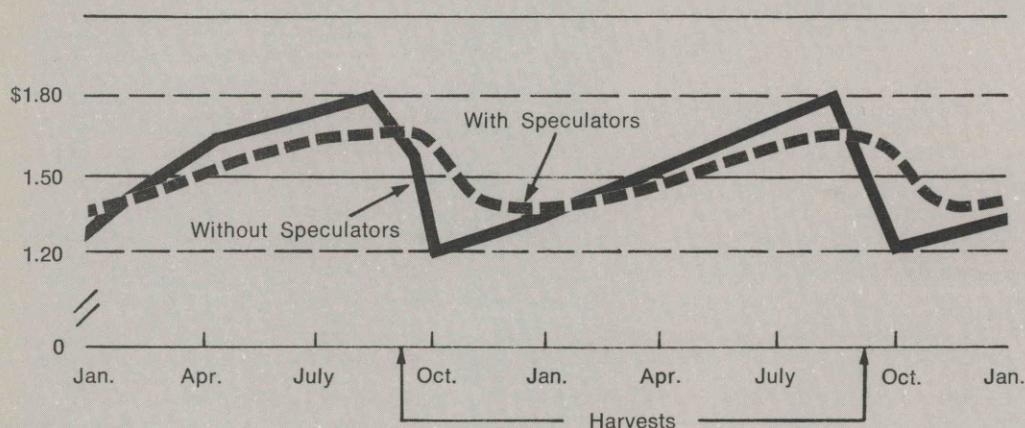
Persons believing that speculation frequently destabilizes prices usually hang this notion on some trading pattern which they think speculators follow. For example, if speculators trade so as to follow the trends in price movements, they might sell after prices have passed a peak and started to *move down*. Or, trend-following speculators might buy after prices passed a low

point and started to rise in hopes of profiting from further price increases. In either case, the speculators' trades will tend to magnify the price fluctuations and thereby destabilize prices unnecessarily.⁴

Those not buying this destabilizing argument note that speculators profit from "buying low and selling high." They reason that "buying low" keeps prices from falling as low as they otherwise would if the addi-

SPECULATORS SMOOTH SEASONAL PRICE FLUCTUATIONS OF WHEAT BY STORING AT HARVEST TIME FOR SALE LATER

Price per Bushel of Wheat



⁴There is a long-standing academic dispute about the destabilizing effects of price speculation. Milton Friedman, "In Defense of Destabilizing Speculation," Ralph W. Pfouts, ed., *Essays In Economics and Econometrics* (Chapel Hill: University of North Carolina Press, 1960), pp. 133-141; William J. Baumol, "Speculation, Profitability and Stability," *Review of Economics and Statistics* 39 (August 1957): 263-271; Lester G. Tesler, "A Theory of Speculation Relating Profitability and Stability," *Review of Economics and Statistics* 41 (August 1959): 295-301; W. J. Baumol, "Reply," *ibid.*; Jerome L. Stein, "Destabilizing Speculation Activity Can Be Profitable," *Review of Economics and Statistics* 43 (August 1961): 301-302; N. P. Obst, "Stability in Periodic Prices," *American Economic Review* 61 (September 1971): 638-648.

tional demand provided by the speculators didn't put upward pressure on low prices. Moreover, selling when prices are high increases the supply of goods for sale and keeps prices from rising as much as they would have if the speculators were not in the market. For example, a speculator might buy a grain commodity at harvest time when commodity prices were low and then sell his inventory months later when it became

⁵Armen Alchian and William R. Allen, *University Economics* (2nd ed.; Belmont, Calif.: Wadsworth Publishing Company, 1967), pp. 156-157.

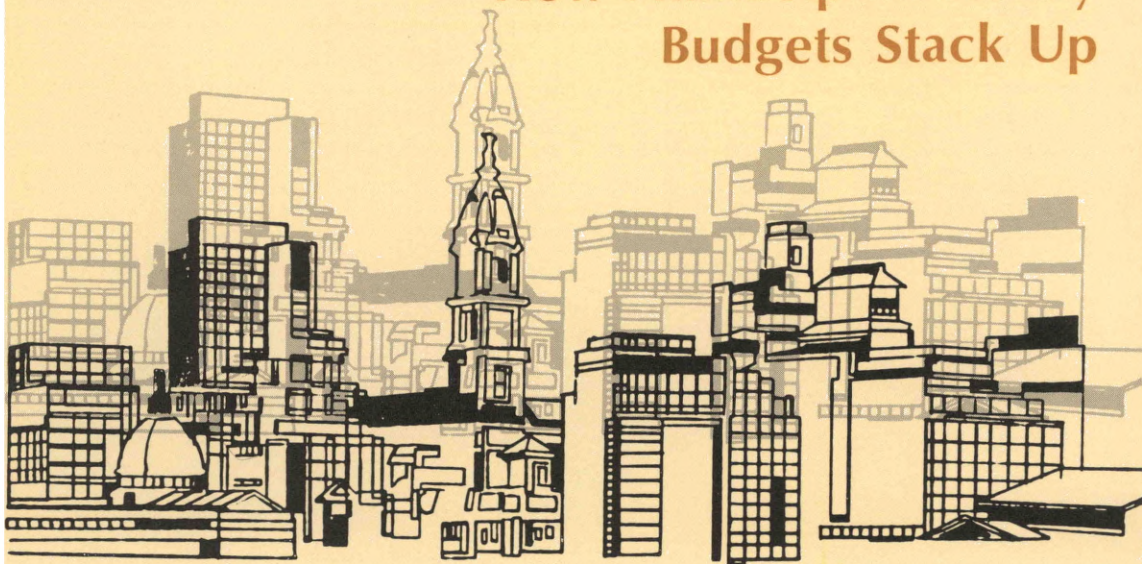
scarce and its price was higher. Thus, profitable speculators smooth out price fluctuations (see Graph).

In the final analysis it is difficult to say whether speculation is predominantly a stabilizing influence. There are cogent arguments for each side, but the stabilization argument does seem more convincing. For example, the cash prices of onions varied less between crops with open speculative markets than without.⁵ After all, speculators out to “make a killing” will stabilize prices by *buying at the troughs* and *selling at the peaks*, thus tending to smooth seasonal price fluctuations. In so doing they profit and expand thereby exerting greater influence on prices. The less-expert speculators will earn smaller profits because their trading strategy—such as following the trend—misses the peaks and troughs. As a result the largest and most powerful speculators will tend to be the ones that stabilize prices.

CONCLUSION—SPECULATIVE MARKETS ARE BENEFICIAL

It has been argued that the most undesirable aspect of speculation is that it may destabilize prices. However, this may be the price the country must pay to train new speculators who haven’t yet learned to buy at the troughs and sell at the peaks and thereby stabilize prices. In any event, the country does gain benefits from speculative markets which seem to outweigh the costs associated with possible erratic price fluctuations. These benefits are provided quickly and efficiently by the competing speculators. If the Federal Government established a bureau whose functions ranged from allocating commodity supplies smoothly over time to insuring against fluctuations in the prices of speculative assets, the price tag for these services would stagger the taxpayer. That’s just one more reason why competitive speculative markets are valuable economic institutions. ■

Urban Living Costs: How Philadelphia Family Budgets Stack Up



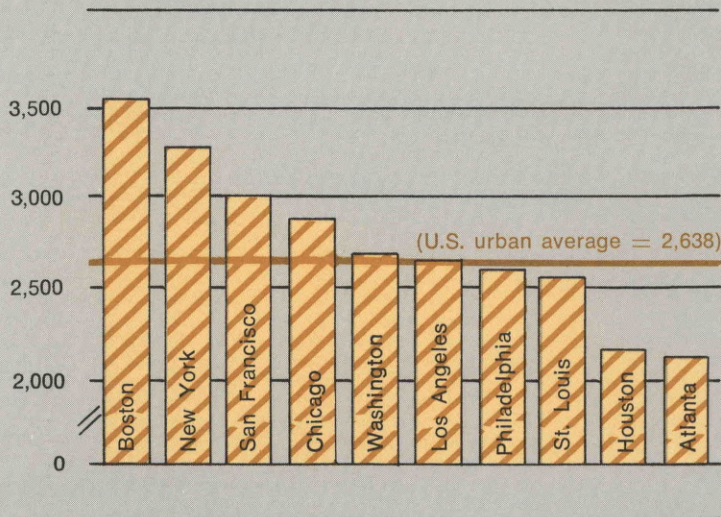
By Howard Keen, Jr.

CHART 1

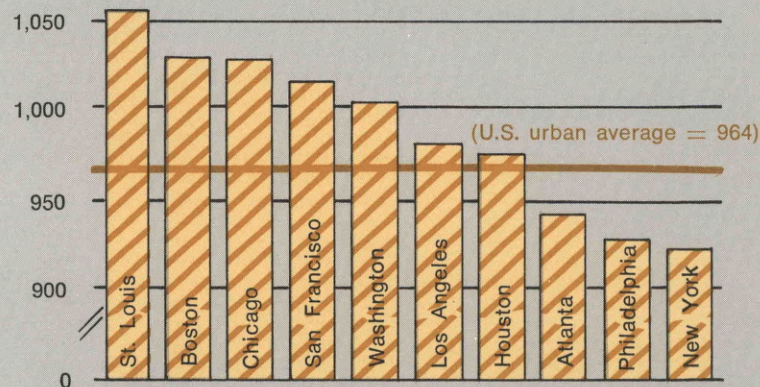
HELPING TO HOLD DOWN PHILADELPHIA FAMILY BUDGETS* ARE HOUSING AND TRANSPORTATION EXPENDITURES WHICH FALL BELOW THE NATIONAL URBAN AVERAGE.

HOUSING

Dollars



TRANSPORTATION



* The total family budget represents the estimated dollar cost required to maintain a family of four, consisting of an employed husband, age 38, a wife who was not employed outside the home, a boy 13, and a girl 8, at an intermediate standard of living.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

CHART 2

MOREOVER, MEDICAL, CLOTHING AND PERSONAL CARE EXPENSES EAT UP ABOUT THE SAME AMOUNT OF THE PHILADELPHIA FAMILY BUDGET AS THEY DO IN CITIES ACROSS THE NATION.

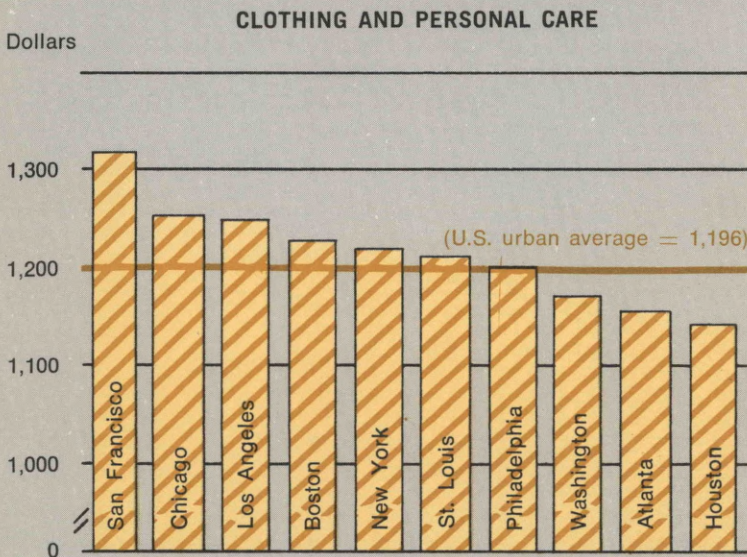
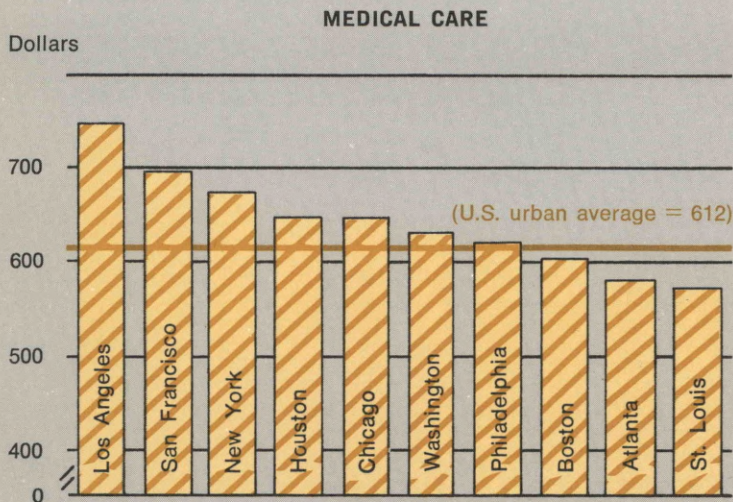


CHART 3

BUT FOOD EXPENDITURES IN PHILADELPHIA OFFSET THE BUDGETARY PLUSES, COSTING A FAMILY OVER \$200 MORE A YEAR THAN THE AVERAGE FOR OTHER URBAN AREAS.

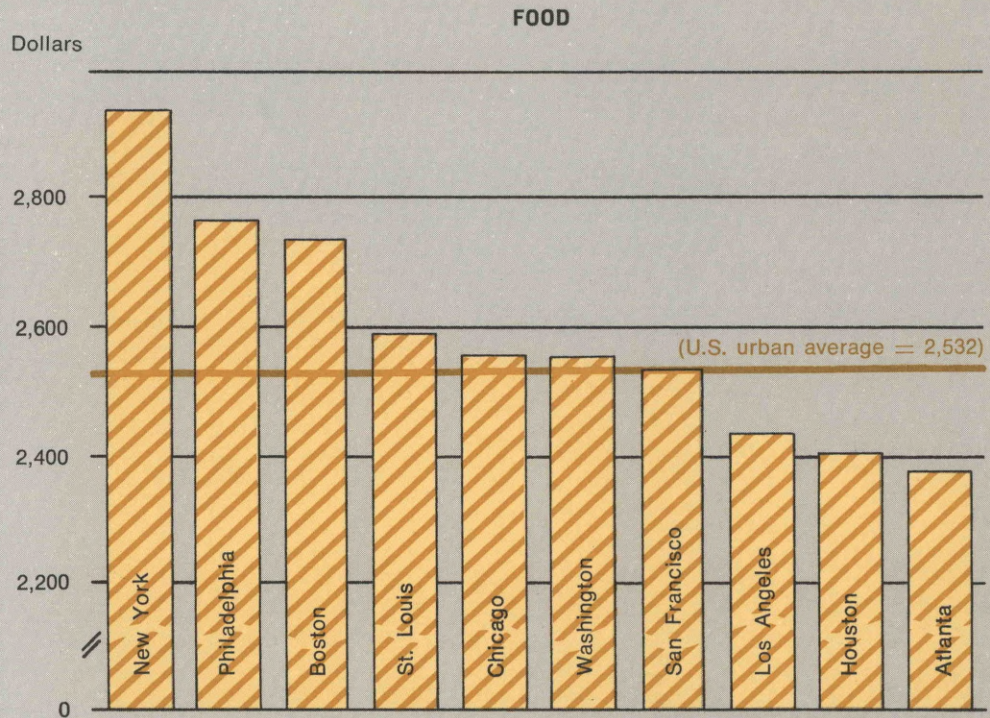
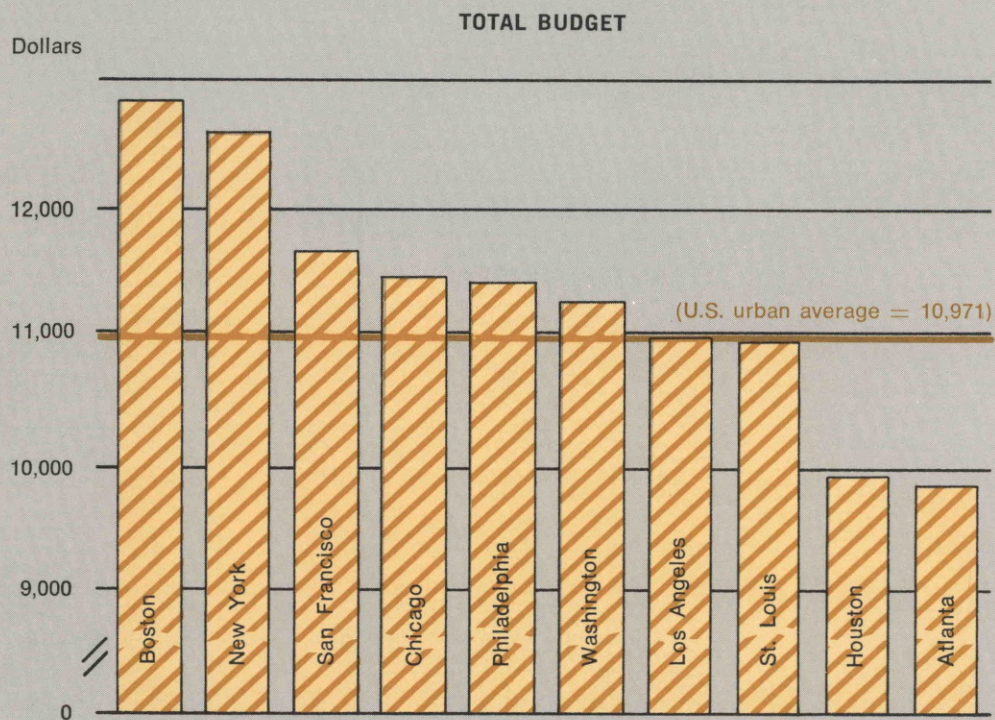


CHART 4

YET, THE OVERALL FAMILY BUDGET IN PHILADELPHIA COMPARES FAVORABLY WITH OTHER LARGE NORTHEASTERN CITIES THOUGH EXCEEDING THE U. S. URBAN AVERAGE.



Bank Income in 1971: Year of the Jitters?

Money doesn't bring happiness but it calms the nerves, or so an old proverb goes. If so, then 1971 might be dubbed the "year of the jitters" for Third District bankers as year-end profit gauges gave off conflicting signals. Several measures of bank earnings indicated declines from the previous year. Other profit yardsticks showed modest gains, providing some tonic for the jangled nerves of District bankers. This split in profit indicators also spread across different classes of Third District banks. Reserve city banks earned the distinction of coming out on the bottom *and* on top in the income-growth derby in 1971, depending on the profit measure chosen.

1971—LITTLE "RECOVERY" FOR BANK EARNINGS

Last year saw a mild business recovery, widely fluctuating interest rates, and continued aggravation of inflation and inflationary expectations. Four commonly used measures of bank income reflected this precarious situation. First, *income before taxes and securities gains and losses* or net operating

income declined from the previous year's level at Third District banks for the first time since 1961 (see Box for definition). Second, *net income*, while registering gains of almost 5½ percent still fell short of the 1970 gains of nearly 13 percent¹ (see Table 1). Finally, two measures of earnings relative to bank size—*return on assets* and *return on capital*—both declined in 1971 (see Chart). Thus, while bank managers could soothe their own distress and that of their stockholders by reporting some income gains, they still suffered the discomfort of knowing that by any of these standards 1971 fell short of the gains registered the year before.

¹ Third District member banks had net securities gains after taxes of nearly \$8 million in 1971, compared to net losses on securities of over \$3½ million in 1970. Another important factor accounting for the increase in *net income* in 1971 was a reduction in the percentage of applicable taxes to net operating income from 29½ to 19¼ percent. The reduction in the tax rate mainly reflected the elimination of the Federal surtax and larger holdings of tax-exempt state and local securities.

HOW SHOULD BANK EARNINGS BE MEASURED?

A perusal of a bank's year-end income statement indicates at least three different measures of income, including:

- (1) income before income taxes and securities gains and losses (formerly termed "net operating income");
- (2) income before securities gains and losses; and
- (3) net income (the "bottom line").

These measures are related in the following fashion:

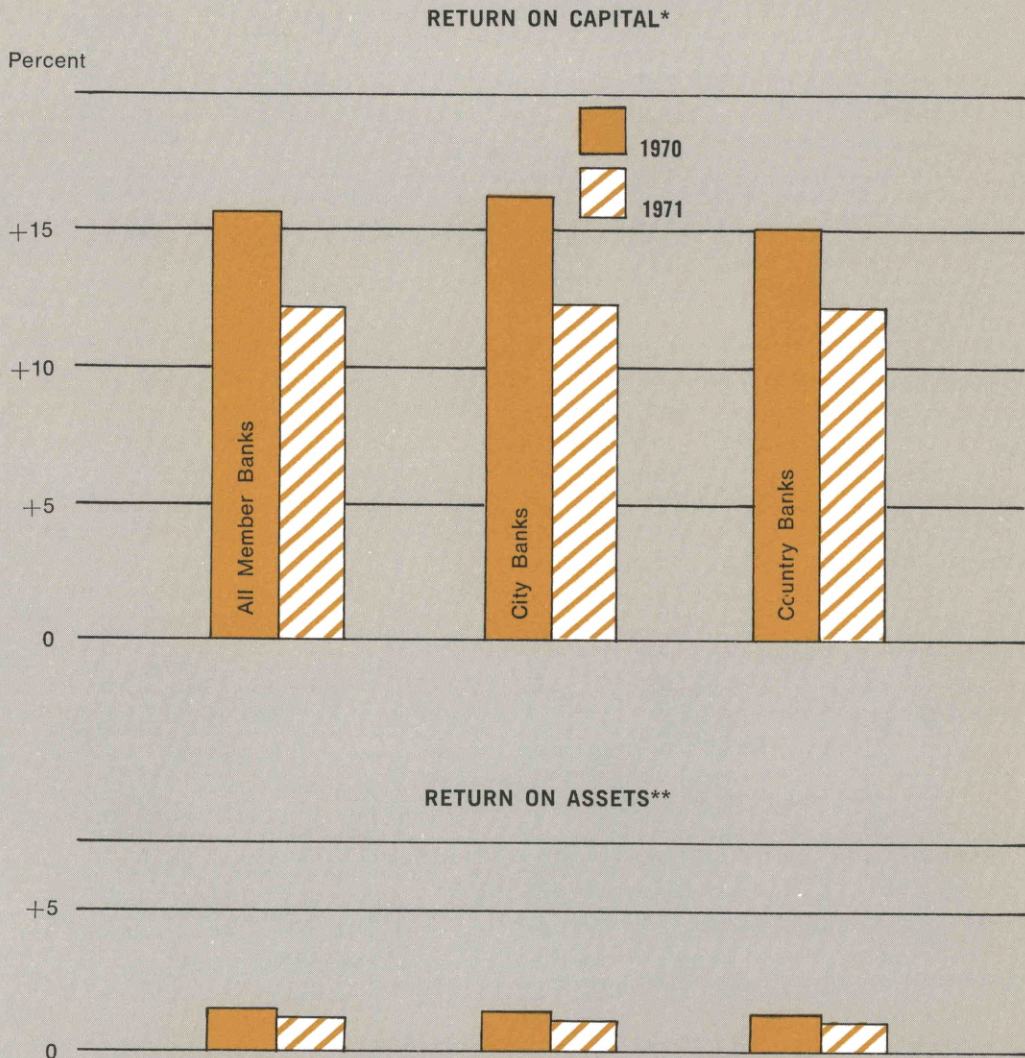
NET INCOME = NET OPERATING INCOME — APPLICABLE INCOME TAXES
— NET LOSSES ON SECURITIES AFTER TAXES (or plus net gains)
— EXTRAORDINARY CHARGES AFTER TAXES (or plus extraordinary gains).
— MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES

Not surprisingly, bankers, accountants, security analysts, and economists disagree over which is the best indicator of earnings performance. Actual and potential investors in commercial banks must also face the knotty problem of determining which income measure to use in evaluating a bank's profit performance. Bankers and most bank-stock analysts have traditionally emphasized net operating income as the best indicator of earnings ability. This measure is simply the difference between operating revenue (interest on investments, fees, service charges, etc.) and operating expenses (wages and benefits, interest on borrowed funds, occupancy and furniture expense, etc.). Bankers argue that concentration of gains and losses in *nonrecurring* elements of income (such as securities sales) tends to misrepresent the economic characteristics of the banking industry by converting a relatively stable earnings stream into a fluctuating one.

Economists point out, however, that changes in the capital value of the investment portfolio are a continuing part of investment income and should be considered in evaluating bank-management performance. Since 1969 net *realized* securities gains or losses have been reported in bank-income accounts. This method of reporting has been criticized, however, because it violates the standard accounting rule that revenues should be attributed to the period in which costs were incurred to produce them. A bank in any given year might add or subtract gains and losses realized on transactions undertaken several years in the past. Furthermore, this procedure gives no indication of *unrealized* capital changes in the investment portfolio. It thus becomes quite difficult to evaluate accurately *current* performance of a bank's portfolio management on the basis of published data.

Until income-reporting procedures are adjusted to include *accumulated* capital changes in portfolios, the debate over the "best" earnings indicator is likely to continue.

RETURNS ON CAPITAL AND ASSETS DECLINED IN 1971 AT THIRD DISTRICT BANKS



* $\text{Income before Taxes and Securities Gains and Losses} / \text{Total Capital Plus Reserves}$

** $\text{Income before Taxes and Securities Gains and Losses} / \text{Total Assets}$

TABLE 1

NET INCOME FLIPS, BUT CURRENT OPERATING INCOME FLOPS AT THIRD DISTRICT MEMBER BANKS IN 1971

Percentage Change in:	Reserve City Banks	Country Banks	All Member Banks
Income before Taxes and Securities Gains and Losses (net current operating income)	-14.4	-11.1	-12.6
Income before Securities Gains and Losses	1.5	- 1.2	0.0
Net Income	7.5	3.7	5.4

Source: These figures are calculated from aggregates of the annual REPORTS OF INCOME submitted to Federal supervisory authorities by individual member banks.

In addition, income gains and losses were distributed unevenly across different classes² of banks in 1971. While "reserve city" banks suffered larger declines in pretax operating income than their "country" cousins, these large Philadelphia banks chalked up bigger gains on the bottom line. This reversal stemmed mainly from the fact that city banks reduced their effective tax rate (applicable income taxes/net operating income) from 33 to 21 percent, while country banks achieved a more moderate drop from 26 to 18 percent.

Certainly the slow economic recovery of 1971 played an important role in the "jittery" profit performance among all classes of Third District banks. But rising operating costs and the cost of funds relative to loan

and investment yields were, in fact, the twin blades that scissored bank earnings.

YIELDS ON ASSETS DOWN, BUT COST OF DEPOSITS STEADY

Short-term money market rates fluctuated widely in 1971, bottoming out near the end of the first quarter, then increasing until the imposition of wage-price controls in August. By November and December, interest rate levels generally trailed those prevailing at the beginning of the year. Oscillating market rates enabled Third District banks to earn slightly higher yields on Federal securities than in '70, while rates on other securities (mainly state and local government obligations) declined a whit. The average rate of return on loans declined *substantially* at both city and country banks in '71 (see Table 2). One reason for the big dip in loan rates relative to other yields was that while banks quickly matched declines in market rates, they tarried in raising the prime rate when market yields were trending upward. For example, the prime was reduced six times in the first quarter when

² Those member banks in localities designated "reserve cities" by the Federal Reserve System which hold a large volume of balances for the accounts of other commercial banks (correspondent balances) are presently termed "reserve city banks." All other banks are "country banks." After September 1972, however, the "reserve city bank" designation will be determined solely on the basis of bank size.

market rates were falling. It rose only once, however, in the second quarter when market rates were increasing at about the same pace as the first quarter drop.³

To the dismay of bank managers and their stockholders, the cost of obtaining investment funds in the form of additional deposits failed to decline as much as portfolio yields. In fact the average rate on time and savings deposits actually *increased* at country banks in the Third District in 1971 (see Table 2). Some small bank managers expressed reluctance to reduce rates on pass-book-type deposits for fear that competitors, including mutual savings banks and savings

and loan associations, would attract their time deposit dollars. In addition, some lucrative demand deposit accounts might also be lost to competing commercial banks that maintained higher rates on time deposits.

All of this suggests that in 1971 the "profitability spread" — the difference between the yield on a bank's asset portfolio and the interest cost of obtaining investment funds—was being squeezed throughout the year. If we take the difference between the average portfolio yield and the average cost of time deposits as a measure of the "spread,"⁴ its magnitude declined from 2.21 percent in 1970 to 1.55 percent in 1971.

TABLE 2

DECLINING LOAN YIELDS MOST IMPORTANT PORTFOLIO DEVELOPMENT IN 1971 . . . BUT HIGH RATES ON DEPOSITS ALSO CUT THE PROFITABILITY SPREAD

Percent Return Earned on:	Reserve City Banks		Country Banks		All Member Banks	
	1970	1971	1970	1971	1970	1971
Loans	8.0	6.8	7.6	6.8	7.8	6.8
Treasury & Agency Securities	5.4	5.7	5.7	5.8	5.6	5.8
Other Securities	3.9	4.3	4.4	4.2	4.3	4.2
Percent Paid on:						
Time & Savings Deposits	5.2	4.7	4.5	4.6	4.7	4.6

³ During the first quarter of 1971 when market rates were declining, the bank prime rate exceeded the commercial paper rate by an average of 114 basis points (100 basis points equals 1 percent). But during the second quarter when market rates were on the upswing, the spread averaged only 38 basis points. While the fact that it takes time to recognize shifts in credit demand accounts for part of the lag in bank-rate changes behind market-rate changes, bankers also note that political factors restrain frequent prime-rate increases. This latter consideration was an important factor in the decision of several large banks in October 1971 to "tie" changes in their prime rates to changes in one or more money-market rates.

The inability of Third District banks to halt the deterioration of the "spread" helped bring on '71's earnings "crunch."

Keen-eyed bankers will typically respond

⁴ The weight corresponding to each asset yield reflects the percentage of that security in the total portfolio. Since it only considers the cost of time deposits, this procedure represents a crude means of measuring the interest spread. However, data limitations prevent the inclusion of the cost of borrowing through the Federal Reserve or the Federal funds market and the cost of acquiring additional dollars of demand deposits.

to changes in factors affecting this "profitability spread" by restructuring their investment portfolios. For instance, Third District bankers reacted to the decline in loan yields relative to other rates by reducing the proportion of loans in their portfolios from 59 to 56½ percent. This does not mean that Third District banks made fewer loans in 1971, however. They actually made 8 percent more in dollar terms than in 1970. Rather it reflects the fact that banks acquired other assets at a quicker pace than they added to the loan portion of their portfolios.

Likewise, when yields on bank liabilities such as demand and time deposits are changing, banks will rearrange their liabilities in order to achieve the most income for each additional dollar of deposits. In 1971, time deposits increased from 50 to 53 percent of total deposits at Third District banks. At first glance, this appears to be a large increase, considering the modest decline in time deposit rates. What is important, however, is the time deposit rate *relative* to the cost of additional demand deposits. Some economists have argued that although banks are forbidden by law to pay interest on "demand" or checking accounts, many banks offer "implicit" interest on these accounts. These payments take the form of low service charges, gifts for opening or making additions to accounts, and the like. Some of the increase in time deposits relative to demand deposits at Third District banks may represent a response to increased costs of dealing in checking accounts.⁵

It appears, then, that Third District bankers restructured their assets and liabilities in accord with changes in the relative profit-

ability of these various items. Nevertheless, managers could not offset the effect of a substantial decline in the profitability spread. In addition, the impact of inflation on operating costs was a major villain frustrating bankers' efforts to arrest the erosion of bank earnings.

INFLATION BLOCKS COST ECONOMIES, BUT INTERNATIONAL GAINS AID CITY BANKS

Continuing price level increases hampered Third District bankers' attempts to offset declining rates of revenue growth by restraining noninterest operating costs. Salaries, wages, and employee benefits rose 9 percent in 1971, less than the 14 percent increase of 1970, but still high by historical standards. Provisions for expected losses on loans rose over 26 percent in 1971, representing a 12-point decline from the 1970 figure. Other noninterest expenses, including occupancy costs and furniture and equipment, jumped 11.1 percent.

As in 1970, percentage changes in noninterest costs were fairly similar for city and country banks in the Third District. However, while noninterest revenues increased by over 20 percent at Philadelphia banks, country banks eked out a gain of slightly more than 6 percent. Continued expansion in international banking constituted the major source of these revenue gains for reserve city banks. Income from international operations conducted at home offices and at foreign branches increased over 70 percent in 1971, by far the largest percentage gain on the revenue side of the account for Philadelphia banks. Net earnings from foreign branches alone were nearly double the 1970 figure, reflecting continued growth of international trade in the world economy despite monetary disorders. For those several banks holding large inventories of foreign exchange, part of the 1971 earnings gain reflects profits on sales of foreign currencies which had appreciated in price following the dollar devaluation.

⁵ Unfortunately, evidence on the value of these implicit interest payments is difficult to obtain. One crude measure — the difference between service charges and the actual cost of servicing demand accounts per dollar of deposits—suggests that these payments increased every year from 1967 through 1970 in a sample of New England banks. Data for 1971 are not yet available.

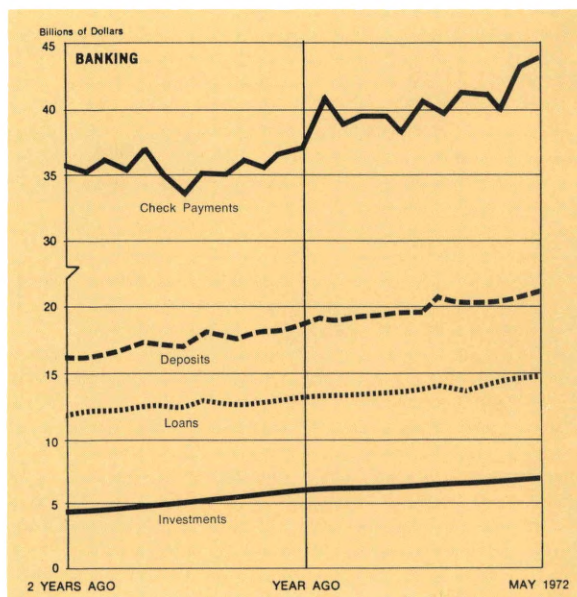
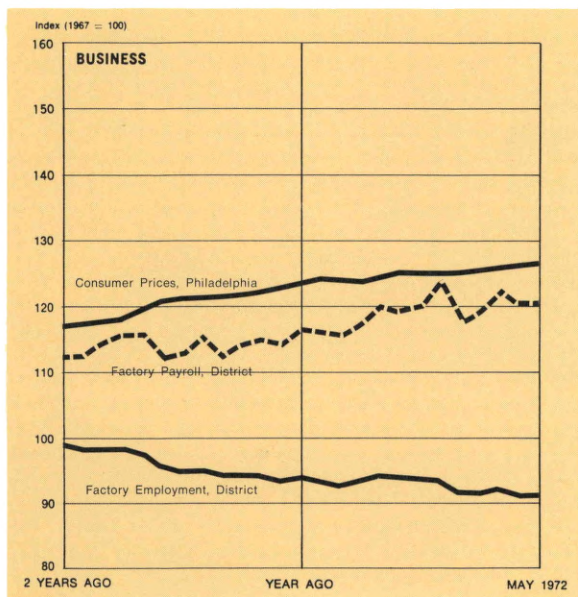
A CALMER '72?

Bank income should rebound from the doldrums of 1971 during the current year, but matching the spectacular gains of 1969 does not appear to be in the cards.⁶ Buoyed by the increased vigor of the economic expansion, loan demand and interest rates should continue to trend upward at a moderate pace. Consumers have apparently loosened their purse strings, and installment credit should hit a new high. At the same

time, the Phase II controls may help banks moderate increases in their noninterest costs. Banks expanding in the area permitted under holding-company legislation such as equipment leasing, factoring, mortgage banking, and the like, should also reap the benefits of higher levels of real economic activity. Nineteen seventy-two will prove what bankers who suffered earnings headaches in 1971 already knew: When your income statement has that blah look, nothing brings speedier relief than good, ol' economic expansion. They've tried it—they like it. ■

⁶ In 1969 net current operating income and net income grew about 23 and 18 percent respectively.

FOR THE RECORD...



SUMMARY	Third Federal Reserve District			United States		
	Percent change			Percent change		
	May 1972 from		5 mos. 1972 from	May 1972 from		5 mos. 1972 from
	mo. ago	year ago	year ago	mo. ago	year ago	year ago
MANUFACTURING						
Production.....	....	....	....	0	+ 5	+ 5
Electric power consumed.....	+ 4	+ 7	+ 4	....	....	....
Man-hours, total*.....	0	- 3	- 3	....	....	....
Employment, total.....	0	- 3	- 3	....	....	....
Wage income*.....	0	+ 3	+ 4	....	....	....
Other.....	-47	-55	-31	+12	+28	+18
CONSTRUCTION**.....	-14	- 5	- 1	0	- 4	- 7
COAL PRODUCTION.....						
BANKING (All member banks)						
Deposits.....	+ 3	+15	+14	+ 2	+13	+10
Loans.....	+ 2	+13	+12	+ 1	+13	+12
Investments.....	0	+13	+16	0	+11	+11
U.S. Govt. securities.....	0	- 1	+ 2	- 1	+ 4	+ 2
Other.....	0	+22	+24	+ 1	+15	+16
Check payments***.....	+ 2†	+18†	+15†	....	....	....
PRICES						
Wholesale.....	....	....	....	+ 1	+ 4	+ 4
Consumer.....	0‡	+ 2‡	+ 3‡	0	+ 3	+ 3

*Production workers only
 **Value of contracts
 ***Adjusted for seasonal variation

†15 SMSA's
 ‡Philadelphia

LOCAL CHANGES Standard Metropolitan Statistical Areas*	Manufacturing				Banking			
	Employment		Payrolls		Check Payments**		Total Deposits***	
	Percent change May 1972 from		Percent change May 1972 from		Percent change May 1972 from		Percent change May 1972 from	
	month ago	year ago	month ago	year ago	month ago	year ago	month ago	year ago
Wilmington.....	0	- 2	+ 1	- 1	+ 7	+21	+ 3	+11
Atlantic City.....	+ 4	- 1	+ 3	+14	- 1	+26	+ 3	+23
Bridgeton.....	+ 4	+ 2	—	—	N/A	N/A	+ 2	N/A
Trenton.....	0	- 3	- 1	+ 7	-18	+ 5	+ 4	+14
Altoona.....	+ 1	- 3	+ 2	+ 7	+ 5	+ 4	+ 1	+10
Harrisburg.....	- 1	0	0	+10	+ 6	+25	+ 4	+15
Johnstown.....	0	- 5	+ 1	+ 6	+ 3	+35	+ 2	+ 9
Lancaster.....	+ 1	+ 2	0	+14	+14	+18	+ 2	+13
Lehigh Valley.....	0	- 3	+ 1	+ 9	- 5	+11	+ 5	+17
Philadelphia.....	0	- 2	0	+ 4	+ 3	+19	+ 4	+17
Reading.....	0	- 2	- 1	+ 6	-14	- 6	+ 2	+10
Scranton.....	+ 1	+ 4	0	+ 8	+ 9	+ 6	+ 3	+13
Wilkes-Barre.....	0	- 1	0	+ 8	- 2	+33	+ 6	+25
Williamsport.....	—	—	—	—	+ 4	+ 4	+34	N/A
York.....	0	+ 3	0	+10	-13	+26	+ 1	+13

*Not restricted to corporate limits of cities but covers areas of one or more counties.
 **All commercial banks. Adjusted for seasonal variation.
 ***Member banks only. Last Wednesday of the month.