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Indexing Inflation: Remedy or Malady?

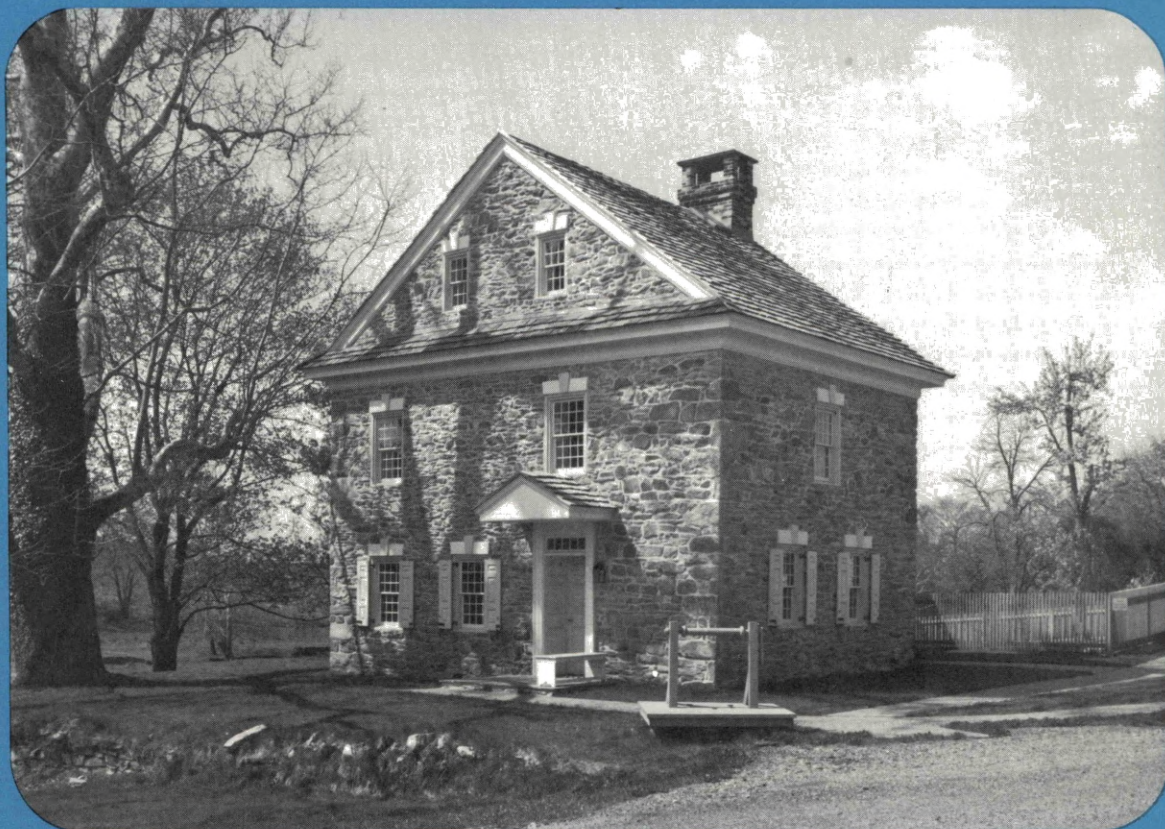
"Yields" on Checking Accounts Rise
In Recent Years

Regional Wrap-up '74: Doldrums
Descend on District Economy

The Fed in Print

FEDERAL RESERVE BANK of PHILADELPHIA

business review



IN THIS ISSUE . . .

Indexing Inflation: Remedy or Malady?

. . . Indexing is a much-discussed method of reducing the burden of inflation, but it can also affect society's decision about how vigorously to combat inflation.

"Yields" on Checking Accounts Rise in Recent Years

. . . Commercial banks are not permitted to pay interest on checking accounts, but the difference between the cost of generating demand deposits and of unit service charges can be viewed as an "implicit" interest payment.

Regional Wrap-up '74: Doldrums Descend on District Economy

. . . Although the Third District economy experienced a general economic downturn along with the nation, the situation in some spots was not as acute as elsewhere.

On our cover: Located on US 222, north of Goshen, Pennsylvania, stands the birthplace of Robert Fulton, pioneer steamship builder, artist, inventor, and engineer. The little stone house, situated in the rolling hills of the Conowingo countryside, stands as a memorial to American inventiveness and to the genius who was born within its shelter. (Photo by the Pennsylvania Historical and Museum Commission, Harrisburg, Pa.)

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Indexing Inflation: Remedy or Malady?

By Vincent A. Gennaro

When people could still talk about price increases lightly, inflation was sometimes referred to as “crab grass on the lawn of prosperity.” Since most people will tolerate a little crab grass and a little inflation, the analogy appeared apt. Unlike crab grass, however, inflation is not disdained because it is ugly or rapacious. The arbitrary and unpredictable redistributions of income and wealth that stem from unexpected inflation underlie its unpopularity. Some economists believe, however, that many of inflation’s ill effects can be softened or eliminated through a program known as “indexing” or “monetary correction.” They argue that an indexing program has the additional benefit of making it easier to wipe out the crab grass of inflation while preserving the lawn of prosperity.

Indexing is a method of linking various payments made under contract (wages, rent, and interest) to selected price indices by periodically

“adjusting” for price level changes. When prices go up, indexed payments go up, while price level declines mean lower payments. The idea is by no means new. Its origins date back as far as the 1700s. Under the name of “tabular standard” it was proposed in detail in the late nineteenth century by the English economist Alfred Marshall. Recently the idea has been employed extensively in Brazil, Chile, and Israel. The intention of indexing is to alleviate some of the ill effects of inflation or deflation.

Indexing exists in the United States as well to some extent (see Table 1). Nearly 5.1 million workers have cost-of-living escalator clauses in their contracts while another 13 million receive indexed food stamps. In all, nearly one out of every four persons has some income tied to the cost of living. Many would like to see still more comprehensive application of escalator clauses. A program of indexing, however, has its “costs.”

TABLE 1
ESCALATION AND THE CONSUMER PRICE INDEX

The number of people known to be receiving automatically escalated payments based on the Bureau of Labor Statistics' Consumer Price Index includes:

	Millions
Wage earners covered by union contracts	5.1
Social Security beneficiaries	28.9
Retired military and Federal Civil Service employees and survivors	1.9
Postal workers	0.6
Food stamp recipients	13.0
Total	49.5

Many other people receive automatically escalated payments although the exact number is not known. Among them:

- (1) State and local employees and retirees
- (2) Alimony and child care recipients
- (3) Lessors with CPI adjustments in leases
- (4) Royalty recipients covered by escalator clauses
- (5) Beneficiaries of certain insurance and annuity policies

SOURCE: *Morgan Guaranty Survey*, May 1974.

Whether or not indexing is acceptable to society depends on how its benefits stack up against its costs.

INFLATION'S ILL EFFECTS

Inflation has many "costs" which impinge on individual members of society. Perhaps the most distressing of these ill effects is the "surprise" decline in purchasing power which results from an unexpected rise in prices. The same market basket of goods and services purchased in the past takes more and more dollars from our wallets. For those individuals with few assets, standards of living must decline when their incomes fail to keep pace with inflation. Likewise, those

households that depend solely on fixed incomes in the form of pensions, insurance benefits, or interest on assets will be among the losers in terms of declining living standards. There will also be gainers—those whose incomes rise faster than prices and output in general—but the income redistributions which result may generate social as well as economic distress.¹

For example, even if wages increase to keep pace with prices, workers will find larger por-

¹For a more complete discussion of the effects of inflation, see W. Lee Hoskins, "Inflation: Gainers and Losers," *Business Review* of the Federal Reserve Bank of Philadelphia, February 1970, pp 23–30.

tions of their income being redistributed to the Government during inflationary periods. Because of the graduated tax system, the Internal Revenue Service claims a larger chunk of inflation-boosted earnings. A worker whose earned income is presently \$15,000 will be rapidly pushed into a higher tax bracket despite the fact that his annual pay raises of, say, 10 percent only about maintains his pretax purchasing power. At that rate, 20 years hence his annual salary will be \$100,912, putting him in a 50-percent bracket under the current Federal tax structure. In inflation-adjusted terms, he is considerably worse off *after taxes* even though his wages have kept pace with inflation. In this example, the Federal Government is a gainer and the wage earner is a loser as a result of inflation.

Redistribution in wealth, the value of accumulated savings, can also result when inflation is not accurately anticipated. If actual inflation is greater than expected, net borrowers (those who have borrowed more than they have loaned out) will gain as they repay "cheaper" dollars, and lenders will suffer. If actual inflation is less than expected, net lenders will gain as the dollars they are repaid are worth more in purchasing-power terms than lenders had expected. For example, suppose you lend a friend \$100 at 8 percent interest, *expecting* that prices will rise 5 percent before the loan is repaid. If prices actually rise only 2 percent, you are better off since your inflation-adjusted or real return is 6 percent, rather than the 3 percent you were anticipating. But if prices rise 7 percent, your real return is only 1 percent, and the borrower has gained at your expense. All of these unforeseen changes in wealth and income resulting from unexpected inflation could be greatly reduced if wage contracts or loans took account of unexpected as well as expected future price changes.

In sum, unexpected inflation exacts social costs in the form of arbitrary redistributions of income and wealth. Economic decision-makers, such as households and firms, will try to avoid these costs by devoting resources, including their own time and effort, to the task of protecting themselves from the redistributive impact of

inflation. In fact, the value of these resources in alternative uses should also be considered a cost of unanticipated inflation.

INDEXING'S BENEFITS

One method of removing the ill effects of inflation is to eliminate inflation itself. However, this solution is difficult to carry out and may take considerable time. In the interim, a policy of "indexing" can ease the burden inflation exacts on unwary economic decision-makers. Indexing would act as an "insurance policy," guarding against losses from *unexpected* price changes. If wages were indexed (by way of an escalator clause), they would increase when prices rise. Constant purchasing power would thus be maintained despite price increases.² Currently, inflation expectations are taken into consideration in wage contracts that are not indexed. If expectations prove to differ greatly from the actual rate, however, then workers or employers may suffer. If inflation is underestimated in the contract settlement, workers' real wages will fall during the contract period—that is, money wages will rise less than prices. If inflation is overestimated, workers will get real wage gains. Indexing in wage contracts eliminates such "surprises" about real wages. A contract with an escalator clause means that labor and management bargain over "real" wages rather than so-called money wages.

Interest payments can also be indexed, eliminating the need for borrowers and lenders to guess at the rate of inflation.³ For example, suppose the annual rate is 10 percent, the in-

²Wages could also be adjusted to account for productivity changes, so that purchasing power can actually rise or fall accordingly.

³Presently, these inflation expectations are built into many interest rates. If a lender, for example, desires a *real* (inflation-adjusted) rate of return of 3 percent and anticipates an annual rate of inflation of 5 percent over the contract period, he will require an 8-percent market interest rate. The 3 percent covers the risk and the opportunity cost of tying up his money, while the 5 percent will be to maintain his purchasing power (to stay even in real terms). If the actual rate of inflation turned out to be 9 percent, the lender would be

TABLE 2
ADJUSTING PRINCIPAL FOR 10 PERCENT INFLATION
ASSURES LENDER OF HIGHER GAINS TO OFFSET INFLATION

	Without Indexing	With Indexing
Principal	\$1,000	\$1,000
"Adjustment" Made to Principal for 10 Percent Inflation	0	+ 100
"Adjusted Principal"	1,000	1,100
Interest (5 Percent)	50	55
Balance (Principal and Interest)	1,050	1,155

terest rate paid annually on passbook savings accounts by a bank is 5 percent, and the balance (principal) in the account for the last year is \$1,000 (see Table 2). Without indexing, the holder of the passbook would have \$1,050 after one year. This amounts to a loss in real dollars or purchasing power of \$50, since one would need \$1,100 now to buy what he could with \$1,000 a year ago. If savings deposits were indexed, first the principal would be "corrected" for inflation, then the interest rate would be applied to the corrected principal. With indexing the new balance is \$1,155, compared to \$1,050 without indexing, and the 5-percent stated rate of interest represents the *real* rate of interest—the rate of return in terms of increased purchasing power. The asset side of a bank's balance sheet would likewise be indexed, of course.

Unlike wages and interest which require adjustments, aggregate profits (business revenues minus costs) will automatically keep pace with

price level changes. For the economy as a whole, the average percentage change in the price of business inputs—that is, labor, land, and capital—will equal the average percentage change in the price of business output—the goods produced and sold (see Table 3). In such a case, profits increase by the same percentage. This occurs with no forced adjustment on profits directly—rather, the input prices are escalated when output prices rise in general.

How would indexing originate in various business contracts? In a market-oriented economy, escalation of wages and interest payments in private contracts would be decided by the parties involved, not by a program imposed by the Federal Government. (In Brazil the program was imposed by government decree. See Box 1 for discussion.) The Government's role in indexing private payments would be to remove any barriers (such as interest rate ceilings) to an indexed agreement and provide the kind of price indices required to allow indexing to work equitably and efficiently.

Indexing of the Federal Government's own revenues and expenditures is a different matter, however, because these changes would require explicit legislation. Currently, social security payments and government pensions are tied to

losing money in real terms. Under indexing the interest rate could be stated at 3 percent. The interest payment would be tied to the price level and fluctuate accordingly, eliminating the need to bear the risk of price changes. It would also alleviate the unforeseen transfer of wealth during unexpected inflation. Neither the borrower nor lender would lose or gain because of unanticipated inflation or deflation.

TABLE 3
PROFITS INCREASE "AUTOMATICALLY" UNDER INDEXING
PROGRAM BY SAME PERCENTAGE AS PRICES IN GENERAL

Total Profits, No Inflation		Total Profits, Indexed for 10 Percent Inflation	
Revenues	\$300	Revenues	\$330
– Costs	<u>200</u>	– Costs	<u>220</u>
Profits	\$100	Profits	\$110
Percentage Change in Profits: $\frac{10}{100} = 10 \text{ Percent}$			

BOX 1**THE BRAZILIAN EXPERIENCE**

The final verdict is not yet in on indexing in Brazil. Many believe, however, that it has contributed to improved performance of the Brazilian economy over the last decade.

From 1959 to 1965 inflation in Brazil raged at an average annual rate of over 53 percent, while the economy grew, in real terms, at a rate of 5 to 6 percent annually. Even as far back as 1950 inflation proved to be very disruptive to the financial system. Since usury laws limited interest rates to 12 percent, banks began charging commission fees on top of the maximum rate. But lending rates still lagged far behind the inflation rate. Compounding the problem, banks could not offer high enough interest rates to depositors to attract or even maintain savings deposits. This resulted in banks limiting loans to terms of 120 days or less.

Consequently, housing markets suffered. However, consumers did not halt their borrowing. Anticipation of future price rises spurred consumers to buy now even if they had to borrow at "high" interest rates, which were considered a bargain in their inflationary economy. The nation was indeed troubled. In 1964 the Brazilians implemented their comprehensive system of indexing after the military overthrow of the Goulart government. The inflation rate has gone from 91.6 percent in 1963 to less than 20 percent in 1973, while the average annual real growth rate for the last five years has been roughly 10 percent.

This is not to say that indexing alone was responsible for this performance. It was accompanied by slashed budgetary deficits, a watchful regulatory eye on money supply growth, and various wage-price controls.

Not everyone benefited equally in the post-1964 Brazilian economy. Real wages of unskilled workers declined more than 30 percent while the real minimum wage declined 20 percent from 1964 to 1967. (However, since 1967 there has been a steady rise in the average real wage.) Indexing was responsible in part for this decline. It was used not as a device to help

labor keep pace with inflation, but as an instrument of anti-inflationary policy.* Wages were tied to a formula which had a built-in bias toward lower wage adjustments. The formula included an unrealistically low expected inflation rate and did not allow for retroactive correction of its inaccuracies.** The result was a decline in labor's relative share of national income.

It is possible, however, that this redistribution of wealth and income can be partly attributed to factors other than indexing. Brazil's fiscal policy is conducive to these inequities. There are liberal tax incentives to those who invest in the securities markets, favoring those with capital to invest and hardly beneficial to the "poor."

There have also been structural changes in the educational distribution of the Brazilian work force. Aside from the increase in the average level of education of the labor force from 1960 to 1970, the variation of the level of education increased greatly. Education did not grow uniformly throughout the labor force, leading to a decline in the income share of unskilled laborers.***

There are limitations in appraising indexing on the basis of the Brazilian experience. First, the effects of indexing cannot easily be isolated from the effects of any other economic policy of the same time, making the results difficult to evaluate. Also the degree of comparability between the United States and Brazil is dubious. Brazil has neither a strong union movement nor the sophisticated financial markets of the United States—not to mention the disparity of the rates of inflation between the two nations. In addition, the type of government in the two countries is different.

*Walter W. Heller and Albert Fishlow, "Painless Inflation through Indexing? Should We follow Brazil's Example?" *Bank Letter of National City Bank of Minneapolis*, June 20, 1974.

**Indexing in Brazil was not merely offered to workers as an alternative; it was imposed by government decree.

***Albert Fishlow, "Brazilian Size Distribution of Income," *American Economic Review* 62 (May 1972): 401.

the Consumer Price Index. However, items such as Federal income tax brackets, personal exemptions, and corporate and capital gains taxes can also be adjusted for inflation. Consequently, the taxes paid by individuals and businesses would be affected.

For example, indexing could alter the manner in which firms report their earnings, so that profits resulting purely from inflation would not be taxed. Companies would be permitted to revalue or index such balance sheet items as working capital and fixed assets (building and equipment) in accordance with the rate of inflation. As prices rise, the value of fixed assets on a firm's financial statements would be revalued upward to reflect the higher price the firm would have to pay to replace its equipment. This would au-

tomatically increase the depreciation expense—the amount the firm is allowed to charge as an expense against current income to cover the cost of worn-out buildings and machinery. Reported earnings would be lower than they would be in a nonindexed world, and firms would consequently pay lower taxes. The working capital adjustment has a similar effect, lowering both reported earnings and taxes. Aside from making the tax system more equitable by taxing real purchasing power instead of dollars, shareholders would benefit from more accurate information on a firm's performance. The distorting impact of inflation on reported profits would be sharply curtailed.

Aside from the effects on business taxation, indexing would also alter the personal income

tax considerably. The Federal Government would no longer receive higher real revenues as a by-product of inflation (see Box 2). During inflation, the ceilings on tax brackets could be escalated. If, for example, an income tax range were \$0–\$1,000 and a 10-percent inflation occurred, this bracket would be revised to \$0–\$1,100. Thus, a person who increased his dollar income from \$950 to \$1,045, leaving his real purchasing power unchanged, would not be pushed into a higher tax bracket as he would be in a nonindexed world. The personal exemption could be similarly adjusted, and the inflation component could be removed from capital gains before the tax rate is applied. All these tax adjustments would deprive the Federal Government of its “extra” tax gains accruing from inflation and prevent Uncle Sam from being one of inflation’s big winners.⁴

Indexing does not remove all the ill effects of inflation, however. In actual practice it is quite

difficult to link *all* payments to a price index. For example, it’s highly unlikely that the cash in people’s pockets would be protected against inflation. Thus, holders of money balances would continue to lose purchasing power during inflation. In addition, the fact that there may be time lags between periods of adjustments means some inequities will remain under indexing. Ideally, to eliminate lags between price changes and the compensation for such changes, the adjustments would be daily or even continuous. This, too, is impractical. These imperfections must be weighed in considering the merits of comprehensive indexing.

It remains true, however, that an indexing program will eliminate a good deal of the redistribution of income and wealth that results from unanticipated inflation. Most observers agree that such redistributions are “costly” both economically and politically and should be avoided. However, many feel that the bad “side effects” associated with an indexing “cure” rule it out as a viable means of reducing the social ills associated with inflation.

⁴The Federal Government also gains if inflation is unanticipated because it is the largest net debtor in our economy.

BOX 2

WITH NO INDEXING, INFLATION INCREASES INDIVIDUAL TAX BURDENS . . .

Table A—Tax Brackets Are Not Adjusted for Inflation

	(1)	(2)	(3)	(4)	(5)	(6)
Year	Inflation Rate	Real Value of Taxable Income	Taxable Income in Current Dollars	Effective Tax Rate	Taxes Paid*	Real Value of After-Tax Income
1	0%	\$10,000	\$10,000	20.9%	\$2,090	\$7,910
2	10	10,000	11,000	21.3	2,340	7,873
3	10	10,000	12,000	22.0	2,659	7,802
4	10	10,000	13,310	22.6	3,010	7,739
5	10	10,000	14,641	23.3	3,409	7,672
10	10	10,000	23,579	28.1	6,622	7,192

*Calculation of taxes paid was based on 1972 Federal Income Tax, Schedule X, Single Taxpayers.

BOX 2 (Continued)**BUT INDIVIDUALS STAY EVEN WHEN TAX BRACKETS ARE INDEXED.****Table B—Tax Brackets Are Adjusted for Inflation**

	(1)	(2)	(3)	(4)	(5)	(6)
Year	Inflation Rate	Real Value of Taxable Income	Taxable Income in Current Dollars	Effective Tax Rate	Taxes Paid*	Real Value of After-Tax Income
1	0%	\$10,000	\$10,000	20.9%	\$2,090	\$7,910
2	10	10,000	11,000	20.9	2,299	7,910
3	10	10,000	12,100	20.9	2,529	7,910
4	10	10,000	13,310	20.9	2,782	7,910
5	10	10,000	14,641	20.9	3,060	7,910
10	10	10,000	23,579	20.9	4,928	7,910

*For this calculation it was assumed that the income breakpoints in Schedule X were adjusted upward by the inflation rate (1).

Tables A and B show a hypothetical example of an individual's income tax payments. In both cases it is assumed that the inflation rate is 10 percent per year and that the person's real taxable income (2) is protected from inflation by indexing. His current dollar income (3) increases each year by a percentage equal to the inflation rate (1). The effective tax rate (4) represents the proportion of current dollar income going to taxes (5). Real after-tax income (6) (representing what the person could spend in terms of goods and services) shows the inflation-adjusted purchasing power remaining after taxes have been paid.

In Table A, although income is escalated, the tax brackets are not adjusted for inflation. Even though real taxable income (2) remains constant, after-tax income (6) falls. Since the tax rate is based on current dollar income (3), as income increases to keep pace with prices, the individual is forced into a higher tax bracket (4). Not only does the tax payment rise in dollars, but also as a percent of his earnings.

In Table B, not only is income escalated, but the tax brackets are also adjusted for inflation. The tax rate (4) is now based on real taxable income (2). As current dollar income increases with prices, the worker is not forced into a higher tax bracket and his real spendable income remains unchanged.

OBJECTIONS AND BARRIERS TO INDEXING

Perhaps the most popular objection to comprehensive indexing is the claim that such a program represents a “policy of despair”—throwing in the towel in the fight against inflation. Opponents argue that by making inflation more tolerable, indexing reduces the will to combat inflation. However, advocates of indexing make a strong argument that instead of weakening the fight against inflation, indexing actually makes it easier to combat inflation. Indexing, they say, reduces the burden—typically reflected in increasing unemployment—of an anti-inflation effort.

Policy makers are faced with a cruel dilemma. Reducing a demand-related inflation typically requires slowing the rate of increase in total spending. Slower growth in demand, however, usually results in higher unemployment. Consequently, decision-makers follow “gradualist” policies which attempt to reduce *slowly* the inflation so as to minimize the adverse employment effects. In an indexed economy, however, policy makers can act more vigorously in the anti-inflation effort because the increase in unemployment will be smaller than that which occurs in a nonindexed economy, say the proponents of indexing.

Firms’ decisions about how many workers to hire depend mainly on real wages—money wages adjusted for inflation.⁵ As real wages rise, other things equal, firms will hire fewer workers or begin furloughing some of their existing labor force. According to this argument, firms that include escalator clauses in their contracts bargain in terms of *real wages* and, consequently, know what real wages will be over the life of the contract. Other businesses which do not include indexing clauses in their wage agreements can only forecast what real wages will be over the contract horizon. If prices increase more slowly

than these firms had expected, real wages will increase. In a competitive economy, such a “surprise” increase in real wages will mean that firms will cut back on production and hire fewer workers. These unexpected increases in real wages are quite likely to occur during the initial phases of a restrictive anti-inflation policy since workers will be attempting to “compensate” for past inflation and hedge against future inflation by demanding higher wages. Thus, restrictive policies are generally accompanied by rising unemployment. If all wage bargains are indexed, however, there is no need to “compensate” for past inflation or build in hedges against unexpected future inflation in wage agreements. Thus, real wages will not increase as rapidly in a fully indexed economy during a restrictive monetary policy, and the rise in unemployment consequently will be smaller.⁶ With fewer unemployed laborers, it becomes politically easier to adhere to a dedicated anti-inflation program.

Indexing, then, according to this view, operates so as to change the terms of the cost-benefit calculation which underlies society’s decision about how much effort to devote to fighting inflation. Only if society decides that as a result of indexing the costs of fighting inflation have increased significantly relative to the benefits, will the “will to combat inflation” be weakened. It is by no means clear that this *must* be the result if comprehensive indexing is implemented, however. In fact, indexing’s supporters would argue that the cost of fighting inflation has been reduced and therefore the will to fight inflation may be increased.

Another objection to indexing is the contention that such a mechanism would “institutionalize” a wage-price inflationary spiral. According to this view, widespread indexing would alter the structure of the economy—that is, cause it to respond in a more inflationary way to irregularities

⁵For empirical evidence, see Robert E. Lucas, Jr. and Leonard A. Rapping, “Real Wages, Employment, and Inflation,” Edmund S. Phelps et al., eds., *Microeconomic Foundations of Employment and Inflation Theory* (New York: W. W. Norton and Company, 1970), pp. 257–305.

⁶Indexing is a two-sided coin, however. If the Government is pursuing expansionary policies, fewer jobs would be created for each dollar of stimulus provided by fiscal or monetary policies, since wage gains would proceed *more* rapidly than in a nonindexed economy.

ties such as a crop shortage or an increase in the price of crude oil. These unpredictable inflationary shocks would be expected to feed through the economy at a faster pace. The inflationary rise in the price of oil, for example, will quickly result in increased wages for workers in *all* industries. Those firms whose product prices had increased less than the average will find their profit margins squeezed since their wage costs increased by a greater percentage than their prices. Such firms are victims of "cost-push" pressure to raise their prices further to restore previous profit margins. Thus, indexing perpetuates inflation, or so the argument goes.

The argument doesn't go far enough, however, contend proponents of indexing. First, it ignores what happens to those firms whose prices had initially increased more than the average as a result of oil price rises. Even after the wages of their workers have been escalated, their profit margins will be fatter. If these firms are in competitive industries, swollen profit margins will attract new firms, thus stimulating additional production. This pressure of profits pulling new firms into an industry should reduce the rate at which an industry's profits are rising.⁷ Only if "cost-push" pressures for increases in the rate of price changes are greater than "profit-pull" pressures for reductions in the rate of price increases can inflation accelerate as a result of indexing.

The "cost-push" spiral argument also ignores development on the demand side of the economy. When the price level rises as a result of some external shock, more money is required to conduct the same amount of real economic activity. If the money supply is not increased enough to accommodate the price rise, the rate of increase in aggregate demand will eventually be slowed. A restrictive monetary policy will thus reduce pressures on prices, but at a cost in terms of higher unemployment. These unemployment costs in turn are higher *without indexing* than with it.

Another argument against indexing relates to the problem of measuring inflation. Suppose, after hearing the arguments about its relative merits, society should conclude that there is only a small risk that indexing will perpetuate inflation by institutionalizing a wage-price spiral or by reducing the public will to combat general price increases. Should contract forms be altered immediately to include escalator clauses? Not necessarily, for there still may be substantial costs to implementing a comprehensive program. In particular, the inherent inability of price indices to capture changes fully in the cost of living presents an obstacle.⁸ Because of their failure to adjust adequately for both quality changes and for behavior changes by the public when prices rise (for example, buying artificial sweeteners when sugar prices rise), all price indices currently available give biased measures of true changes in the cost of living, say opponents of indexing. The reply from supporters of indexing, however, is that the method of constructing price indices can be modified to attempt to measure changes in the cost of living more accurately. Such changes would be costly in terms of both money and time but could be done.

Another possible snag associated with implementing indexing would be the problem of escalating everyone's income with a single index that is based on one subgroup of the population. Suppose this price index rises more rapidly than the living costs of other subgroups of the population. If so, these other subgroups would receive escalated incomes in excess of what they would have received if their wages were escalated by their own "index." This would give them an unwarranted increase in income. Conversely, certain subgroups could receive a smaller escalator than warranted by increases in their cost of living. Thus, income shares could continue to shift under a program based on a

⁷In many cases, however, there are barriers to entry into an industry. Effective barriers may prevent "profit-pull" pressures from slowing the rate at which current prices are rising.

⁸For a more complete discussion on the reliability of price indices, see David B. Thomas, "How Reliable Are Those Price and Employment Measures?" *Business Review of the Federal Reserve Bank of Philadelphia*, April 1973, pp. 17–22.

single price index. However, proponents of indexing say that this problem can be circumscribed by using a number of price indices that would be more satisfactory from both an economic and a political view.


NOT A CURE-ALL

Indexing cannot by itself reduce the rate of inflation. Nor for that matter is that its intention. What does it offer, then?

- It can reduce inflation's arbitrary redistributive effects, especially as they affect the Federal Government.
- It could provide a less uncomfortable environment for anti-inflationary policies and cushion the otherwise harsh effects of bring-

ing a sky-high inflation rate down to earth.

- Or, negatively, it might possibly institutionalize inflation more into the fabric of society. However, this is not a necessary consequence of indexing as some have suggested.

Whatever its other merits or shortcomings, however, indexing will not reduce the importance of monetary and fiscal policies in combating inflation. Ultimately it will be these policies that will reduce the rate of inflation while indexing could play a supplementary role. That role could be quite useful, however, if indexing, like the best "pain killer," not only alleviates the "pain," but also facilitates the "cure" by assuring the cooperation of the "patient." 

RESEARCH PAPERS AVAILABLE

The Philadelphia Fed's Research Department occasionally publishes RESEARCH PAPERS dealing with a wide range of banking and economic issues. Most of these papers are of a highly technical nature and for the professional researcher.

- "Intradistrict Distribution of School Resources to the Disadvantaged: Evidence for the Courts," Philadelphia School Project, by Anita A. Summers and Barbara L. Wolfe
- "Branching Restrictions and Commercial Bank Costs," by Donald J. Mullineaux
- "Economies of Scale of Financial Institutions," by Donald J. Mullineaux
- "Required Reserve Ratios, Policy Instruments, and Money Stock Control," by Ira Kaminow
- "The Information Value of Demand Equation Residuals: A Further Analysis," by James M. O'Brien
- "Equality of Educational Opportunity Quantified: A Production Function Approach," Philadelphia School Project, by Anita A. Summers and Barbara L. Wolfe
- "Pennsylvania Bank Merger Survey: Summary of Results," by Cynthia A. Glassman

Copies of these are available from the Department of Research, Federal Reserve of Philadelphia, Philadelphia, PA 19105.

CHART 1

COMMERCIAL-BANK SERVICE CHARGES FOR CHECKING ACCOUNTS ARE LESS THAN THE COST OF PRODUCING DEMAND DEPOSITS.

**"Yields" on
Checking
Accounts
Rise in
Recent Years**

Millions of Dollars

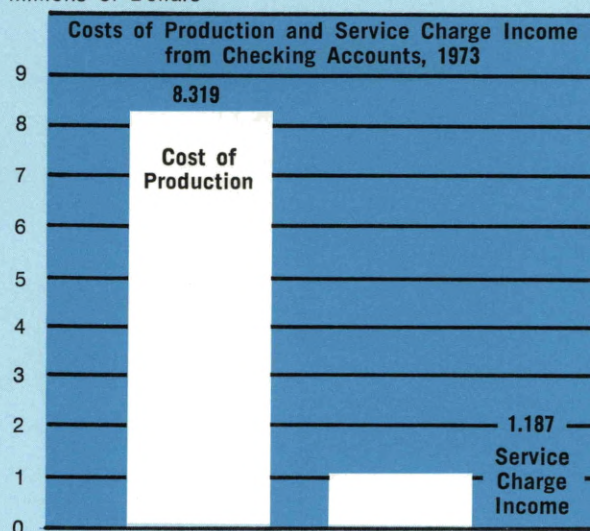
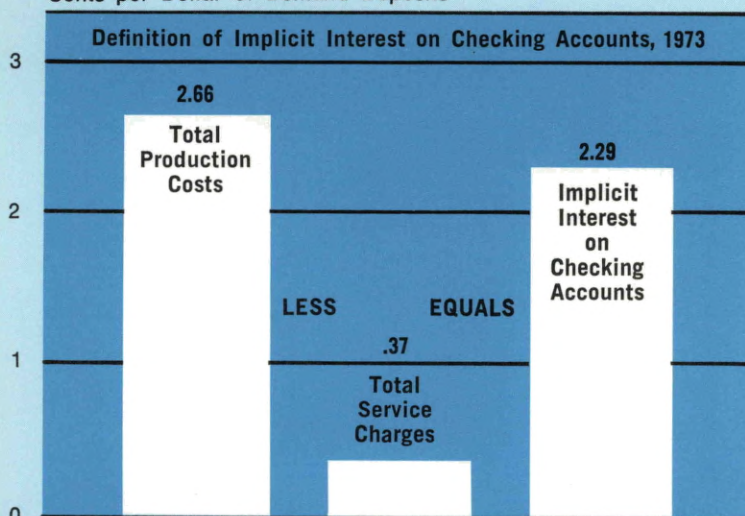


CHART 2

BANKS CANNOT PAY INTEREST ON CHECKING ACCOUNTS, BUT SOME ECONOMISTS CONSIDER THE DIFFERENCE BETWEEN PRODUCTION COSTS AND SERVICE CHARGES PER DOLLAR OF DEPOSIT AS AN "IMPLICIT" INTEREST PAYMENT ON CHECKING ACCOUNTS.

Cents per Dollar of Demand Deposits



SOURCE: *Functional Cost Analysis*, 1973 Average Banks, 942 Banks Participating (Federal Reserve System).

CHART 3 THIS "YIELD" ON CHECKING ACCOUNTS HAS MOVED UPWARDS
IN RECENT YEARS . . .

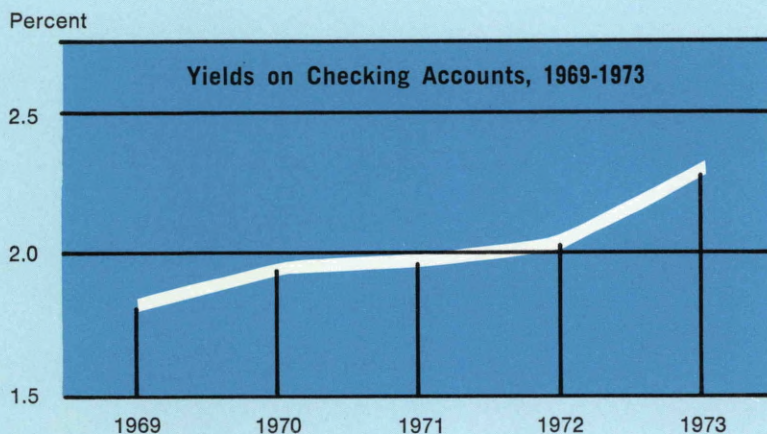
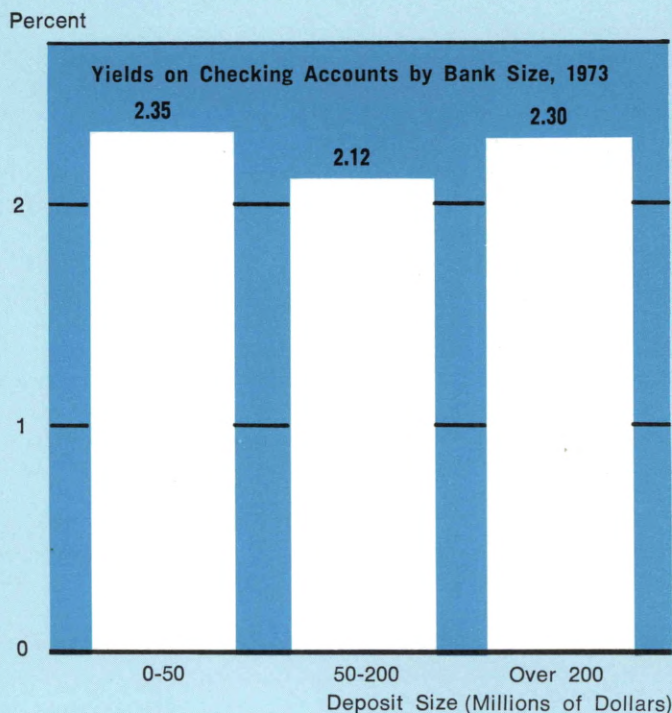


CHART 4 AND IS ABOUT THE SAME FOR BANKS OF ALL SIZES.



Regional Wrap-up '74: Doldrums Descend On District Economy

By Howard Keen, Jr.

Residents of the Third Federal Reserve District,¹ along with their counterparts in the U.S., had little economic news to cheer about in 1974. Prices were climbing at a near-record pace, and real output of goods and services was stalling. Despite this one-two punch, the region did have a few relative bright spots: The total number of jobs available increased and construction contracts awarded also rose. But inflation, high interest rates, and rising unemployment rates dampened overall business activity. By year-end, the District economy, like that of the nation, was in the doldrums.

PRICES HIGHER, REAL INCOMES LOWER

"Even higher" described prices in 1974. Consumers, still reeling from a pace of price increase

in 1973 that was about three times faster than in 1972, saw prices climbing even more rapidly in 1974.² Nationwide, prices were up a little over 12 percent while Third District consumers struggled with a rate of close to 13 percent.³

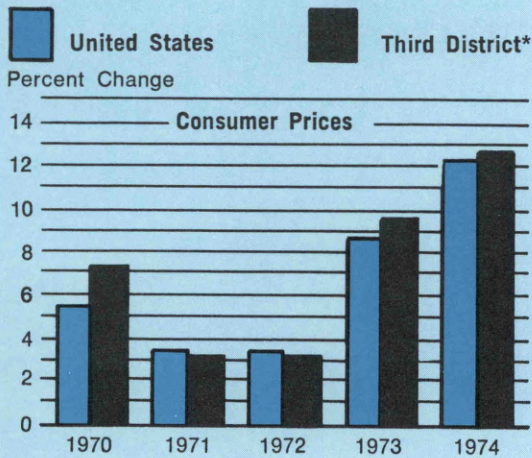
Both nationally and regionally, high interest rates along with shortfalls of oil and agricultural produce contributed to the bulge in the prices of housing, food, and transportation. The result: Bigger chunks out of consumers' pocketbooks, and a tough time in making ends meet in '74.

²Except where noted otherwise, growth rates for 1974 and other years represent December-to-December changes.

³The fact that prices rose faster in the region than nationwide doesn't mean that the *level* of prices in the District is above the average U.S. level. The consumer price index can be used to show *changes* in the level of prices but, not the levels themselves. Estimates of household budgets can provide interarea comparisons of price *levels*. See Jean Brackett, "Urban Family Budgets Updated to Autumn 1973," *Monthly Labor Review*, August 1974, pp. 57-62.

¹The Third Federal Reserve District covers the eastern two-thirds of Pennsylvania, the nine southern counties of New Jersey, and all of Delaware.

THE DISTRICT WAS AGAIN PARTICULARLY HARD-HIT BY INFLATION IN '74...



* The CPI for the Philadelphia SMSA is taken as representative of the Third District.

SOURCE: U. S. Department of Labor.

While price tags were ballooning, workers' purses didn't keep pace. Across the country, workers in manufacturing saw their average weekly earnings grow at a 6.7 percent clip. But the rapid rise in prices more than wiped out this gain in earnings so that real purchasing power fell almost 5 percent during 1974.

Laborers in the Third District fared even worse. While prices rose at a faster pace in the region than the U.S. average, manufacturing earnings climbed at a slower pace. Average weekly earnings in manufacturing were up less than 6 percent during the year. When weekly paychecks are adjusted for the effects of higher prices, District workers were left with over 7 percent less real income than in '73.

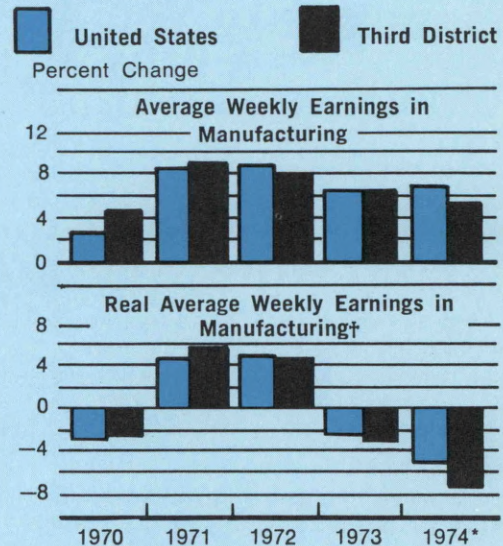
FALLING OUTPUT

While prices climbed, real output of goods and services fell. Real GNP declined in the U.S. throughout 1974 with the biggest drops occur-

ring in the first and fourth quarters of the year. For the year as a whole, real output declined 2.2 percent.

In the District, industrial activity also fell sharply in '74. A major yardstick of industrial activity in the region is the index of electric power consumption in manufacturing. In the first two quarters of the year, the index was down slightly from year-end '73. It appeared to be picking up somewhat in the third quarter, but took a sharp dip in November. Over the first 11 months of 1974 this measure of local industrial activity was down 3.2 percent.

AND DESPITE FATTER PAYCHECKS, REAL INCOME OF DISTRICT MANUFACTURING WORKERS FELL MORE THAN THE NATIONAL AVERAGE.



* Third District figures based on first 11 months.

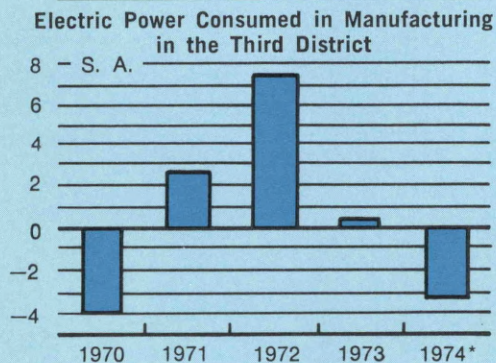
† U. S. figures deflated by CPI for U. S., and District figures deflated by CPI for Philadelphia SMSA.

SOURCE: U. S. Department of Labor.

Construction: Public Works Up, Housing Down. Thanks to a strong year in public works

IN LINE WITH THE U. S. TREND, INDUSTRIAL OUTPUT DECLINED.

Percent Change



* Annual rate based on first 11 months.

construction, the value of construction contracts in the Third District was almost 5 percent above last year. Although this was well below '73's increase of 19 percent (and less than the rise in prices in '74), it was a strong showing at a time when the value of total construction contracts was down more than 6 percent nationally.

In both the U.S. and the region, the residential sector was the softest in the construction industry. Very high interest rates on business and government borrowing drained funds from the thrift institutions that normally provide the bulk of the country's mortgage financing. As a result, mortgage money was scarce and the interest rates were high. There was some slight easing of this situation late in the year, but for most of 1974 it proved to be a heavy shackle on the construction of residential housing. Overall, the dollar volume of residential construction in the U.S. fell more than 20 percent in '74. Regionally, this component was off more than 25 percent from '73 levels.

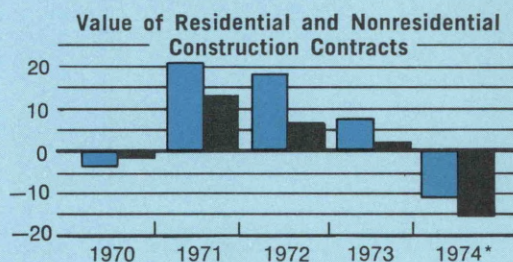
SLIMMER PICKINGS IN THE JOB MARKET

Despite the sluggish economy in '74, overall employment in the region was fairly strong.

PRIVATE CONSTRUCTION FELL FROM A YEAR AGO . . .

■ United States ■ Third District

Percent Change



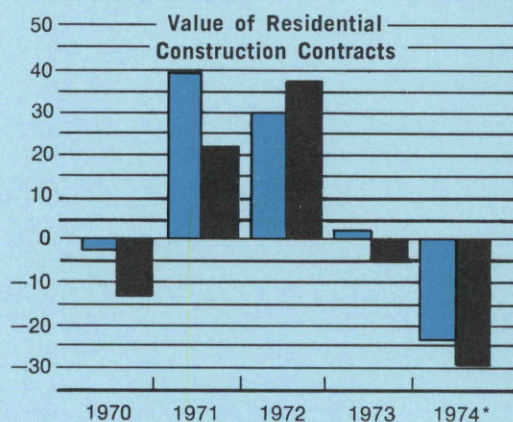
* Annual rate based on first 11 months.

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

LARGELY BECAUSE OF A BIG DROP IN RESIDENTIAL CONSTRUCTION . . .

■ United States ■ Third District

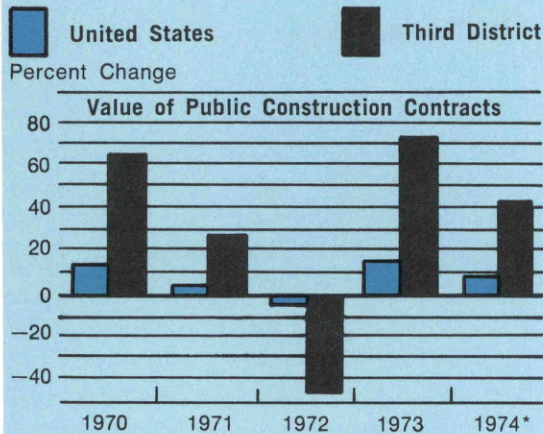
Percent Change



* Annual rate based on first 11 months.

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

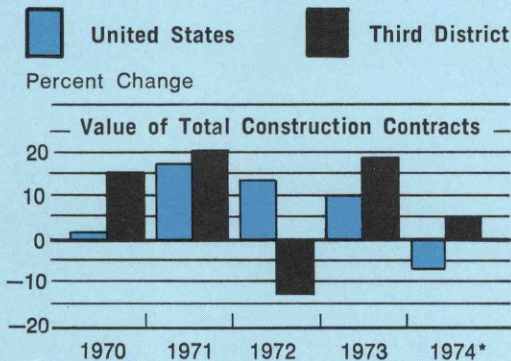
HOWEVER, PUBLIC CONSTRUCTION IN THE DISTRICT MADE A STRONG SHOWING . . .



* Annual rate based on first 11 months.

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

BOOSTING TOTAL CONSTRUCTION TO A MODERATE GAIN.

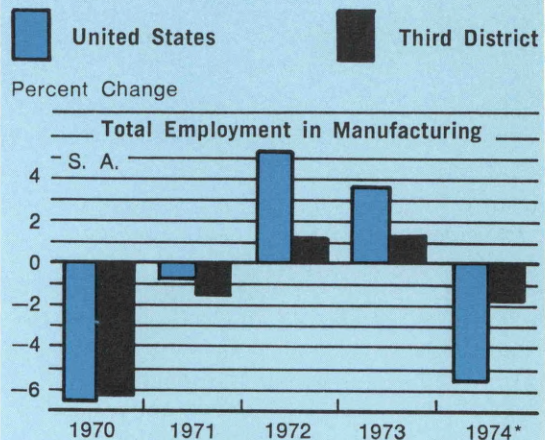


* Annual rate based on first 11 months.

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

While nationwide the total number of jobs fell slightly, the number employed in the District was up sharply in the beginning of the year over year-end '73. As the year unfolded, the total number of jobs in the region declined and the unemployment rate rose. Nevertheless, by year-end the index of total employment was still almost 2 percent above December '73. Across the nation, however, the total number of jobs actually fell 0.6 percent during 1974—the first year since 1970 that total employment declined.

JOBS AVAILABLE IN THE DISTRICT'S MANUFACTURING SECTOR FELL . . .



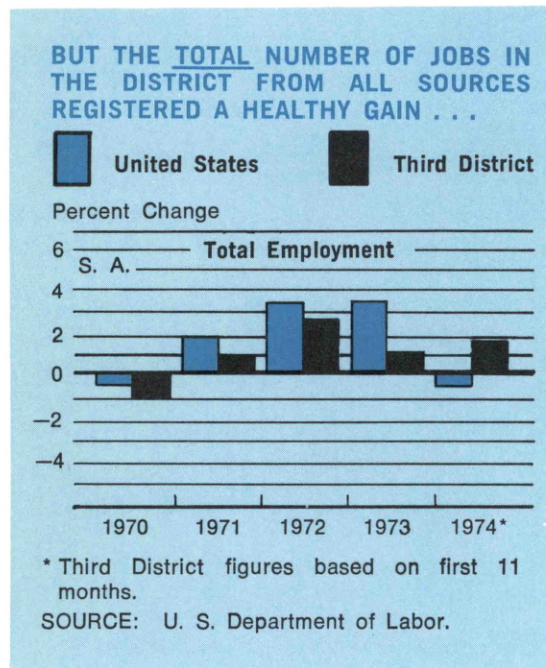
* Third District figures based on first 11 months.

SOURCE: U. S. Department of Labor.

The slight decline in total employment nationwide took place primarily in the last quarter of the year. Earlier in the year the number of jobholders increased, however. The unemployment rate, therefore, moved up only slightly—from 5.2 to 5.4 percent—through late summer. The small increase that did occur stemmed mostly from the inability of newcomers to the labor market to find jobs, rather than from layoffs.

All of this changed abruptly near year-end. Sluggish sales, rising inventories, the coal strike,

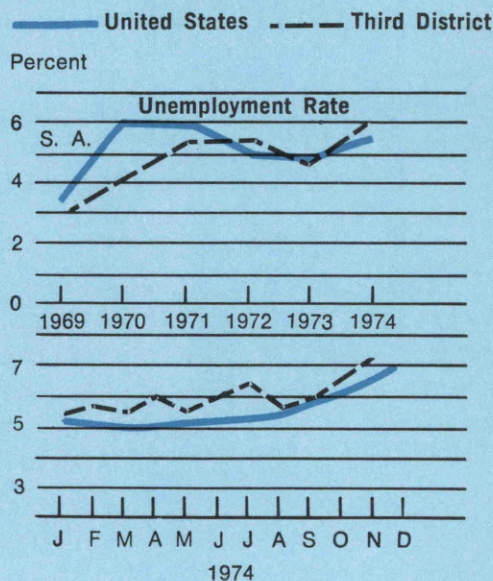
and the slump in the auto industry all combined to cast a gloomy shadow on the job market. Not only were new entrants into the labor force unable to find jobs, but many workers who had held jobs during the year were laid off. The result was a big jump in the unemployment rate to 7.1 percent in December nationwide—the highest in 13 years.



Along with the national trend, the District's unemployment rate moved upward only slowly for most of 1974. By the last quarter of the year, however, layoffs and lack of work for new job seekers took its toll. By November the regional rate had jumped to 7.3 percent.

The manufacturing sector was especially hard hit: In both the U.S. and the District, workers in these industries found themselves in unemployment lines instead of on assembly lines. But, as a whole, the plight of the region's manufacturing workers was not as gloomy as that of their nationwide counterparts. In the U.S., manufacturing employment fell 5.8 percent, while in the region it was off 1.7 percent from 1973.

NOT ENOUGH, HOWEVER, TO STOP THE UNEMPLOYMENT RATE FROM CLIMBING ABOVE THE U. S. RATE.



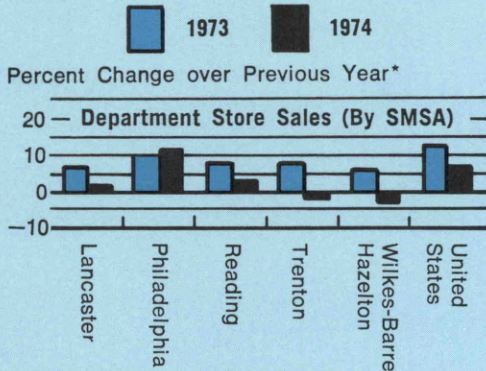
SOURCE: U. S. Department of Labor.

RETAILING: SALES ARE SLUGGISH

With real income down from 1973 and the unemployment rate on an upward trend, consumers were bound to keep a tighter grip on their pocketbooks. This sharper eye on spending was reflected in slower growth of retail sales at department stores.

Nationwide, department store sales were up 8 percent over 1973 levels—slower than in '73 when they registered a 13 percent gain over '72. In the District, however, 1974 was a lean year for the big store merchants. With the exception of Philadelphia, where increases ran slightly ahead of those in '73, sales rates were off in all other areas. In fact, some cities experienced a drop from last year's levels. After considering the effect of inflation in boosting the dollar volume of sales, it's clear that in most areas of the District unit sales were actually below 1973 levels.

THE RETAIL SECTOR FAILED TO PROVIDE A BOOST TO DISTRICT BUSINESS ACTIVITY.



* The first 10 months of the year compared to the same 10-month period of the previous year.

SOURCE: U. S. Department of Commerce.

LENDING LAGS

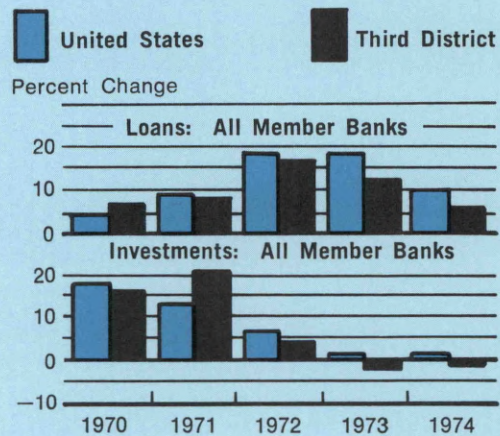
Despite a brighter overall job picture in the District than nationally, Third District business activity, like the U.S., was stalled in '74. And this slower growth in regional economic activity is mirrored in the lending by Third District banks.

For most of the year, credit market conditions restrained bank credit expansion and boosted interest rates all across the U.S. For example, the highly publicized "prime" rate charged by banks hit a high of 12 percent in August and September—twice its level in January 1973. Some easing in credit conditions near year-end did little to change the picture for '74.

Nationally, loans at member banks grew during '74 at a 9.7 percent pace. While this was a creditable showing, it was anemic when viewed against the 19 percent clip of the two previous years. Member bank loans in the region grew 5.6 percent during '74—less than the national rate and well below '72 and '73. This reduced rate of loan expansion was not entirely indicative of the demand for bank credit. To a large extent, it

reflected the attempt on the part of many banks in the District to retrench from tight liquidity positions. Closer scrutiny of loan requests and less aggressive loan expansion helped account for the slower pace in '74.

LIKE THE NATION, THE BANKING SECTOR IN THE DISTRICT REFLECTED THE SLOWER PACE OF BUSINESS ACTIVITY AS THE EXPANSION OF LOANS FELL BELOW THAT OF 1973.



Both in the nation and the region bank investments changed very little compared to 1973. Heavy loan demand and double-digit inflation provided incentives for banks to shift their funds from fixed-income securities to more profitable loans where the rate of return kept more in line with the rising price level. Member banks in the District reduced their investments by 1.3 percent—the second year in a row that investments fell.⁴

MORE ALIVE IN '75?

In brief, the past year was one of progressive

⁴Investments consist primarily of securities of the U. S. Treasury, other U. S. Government agencies and corporations, and obligations of states and subdivisions.

movement into the economic doldrums. Job growth in the District was brighter than the national picture, but fast-rising prices and slow-rising wages took a harsh toll on real income. Moreover, the fair showing in job growth wasn't enough to prevent the unemployment rate in the region from leading the national rate upward.

All of this combined to slow the ring of department store cash registers. Lower real incomes and fears of job loss have made consumers cautious. And consumers' reluctance to spend makes businessmen hesitant to get pro-

duction lines rolling and provide jobs. Will this scenario keep the regional economy in the doldrums or will business activity be more alive in '75? With general uncertainty and reluctance to spend in the air, a quick pickup in economic activity doesn't seem to be in the cards. This outlook for economic activity to emerge only slowly from the doldrums is consistent with the expectations of area businessmen who see high unemployment and inflation plaguing a sluggish regional economy through the first half of '75 (see Box), but with some pickup thereafter.

THIRD DISTRICT BUSINESSMEN SIZE UP '75

The Federal Reserve Bank of Philadelphia conducts a monthly business outlook survey. This survey is designed to gain insight into prospective economic conditions in the Third Federal Reserve District, an area that includes the eastern two-thirds of Pennsylvania, the southern half of New Jersey, and Delaware. Executives of manufacturing firms with 500 or more employees are polled regarding their readings of local business activity.

Since its inception at the request of the regional business community almost seven years ago, the Business Outlook Survey has become a useful source of economic intelligence both for business and public policymakers. Copies of the monthly summary of the Outlook Survey may be obtained by writing to Public Services, Federal Reserve Bank of Philadelphia, P. O. Box 66, Philadelphia, PA 19105.

OUTLOOK FOR 1975

Area executives expect some brightening in the region's economic skies in 1975. Close to half of the businessmen surveyed foresee a higher level of business activity six months down the road. In addition, about half of those polled anticipate higher sales and new orders for their firms in the coming months. Some clouds remain on the region's horizon, however. Roughly half of the large manufacturers expect to be paying, as well as receiving, higher prices by mid-year, and more than half plan no increases in their workforce. Consequently, with an expanding labor force, the regional economy can expect to be vexed by a high level of unemployment.

In a nutshell, Third District businessmen anticipate a pickup in regional economic activity, but no quick turnaround in unemployment and inflation.



The Fed in Print

Business Review Topics, Fourth Quarter 1974, Selected by Doris Zimmermann

Articles appearing in the Federal Reserve Bulletin and in the monthly reviews of the Federal Reserve banks during the fourth quarter of 1974 are included in this compilation. A cumulation of these entries covering the years 1970 to date is available upon request. If you wish to be put on the mailing list for the cumulation, write to the Publications Department, Federal Reserve Bank of Philadelphia.

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ALABAMA

National and world events soften the "Heart of Dixie"—
Atlanta Nov 74 p 172

BALANCE OF PAYMENTS

Oil and international payments—
Bost Nov 74 p 29
The U. S. balance of payments during 1974—
St Louis Dec 74 p 10

BANK CAPITAL

Bank capital ratios—
Chic Nov 74 p 13
Banking on debt for capital needs—
Phila Dec 74 p 17

BANK FAILURES

Franklin National Bank statement—
FR Bull Oct 74 p 740

BANK HOLDING COMPANIES

Regulation of interest rates on certain obligations October 29, 1974 (P. L. 93-501)—
FR Bull Dec 74 p 861

BANK LIABILITIES

A new emphasis on regulations affects liability management—
Dallas Nov 74 p 1
Bank liability management: For better or for worse?—
Phila Dec 74 p 3
Monetary restraint, Regulation Q, and bank liability management—
Phila Dec 74 p 13

BANK LOANS

"Sold" table revised—
FR Bull Oct 74 p 741

BANK LOANS—BUSINESS

Loans to manufacturers—
Atlanta Oct 74 p 160

BANK LOANS—FARM

Booming agricultural loans of commercial banks—
Atlanta Dec 74 p 182

BANK SIZE

Small bank survival: Is the wolf at the door?—
Phila Nov 74 p 16

BANK SUPERVISION

Bank supervision in a dynamic environment—
Bost Nov 74 p 24

BANKERS ACCEPTANCES

Limit to holdings of bankers acceptances increased to one billion dollars—
FR Bull Dec 74 p 885

BANKING—FOREIGN BRANCHES

International banking—structural aspects of regulation—
Chic Oct 74 p 3
Overseas branches of member banks assets and liabilities—
FR Bull Dec 74 p 884

BANKING—FOREIGN BRANCHES IN U. S.

- Data series on foreign-owned U. S. banks—
FR Bull Oct 74 p 741
- Proposed legislation re foreign banks—
FR Bull Dec 74 p 881

BANKING STRUCTURE

- Development in Texas changes in recent years—
Dallas Dec 74 p 1

BURNS, ARTHUR F.

- The conference on inflation—
FR Bull Oct 74 p 699
- Statement to Congress, September 25, 1974 (budget)—
FR Bull Oct 74 p 702
- Statement to Congress, October 10, 1974 (inflation and unemployment)—
FR Bull Oct 74 p 706
- Maintaining the soundness of our banking system—
NY Nov 74 p 263
- Statement to Congress, November 27, 1974 (petroleum industry)—
FR Bull Dec 74 p 830
- Statement to Congress, December 5, 1974 (gold)—
FR Bull Dec 74 p 835

BUSINESS FORECASTS AND REVIEWS

- Financial developments in the third quarter of 1974—
FR Bull Nov 74 p 745
- The economy in 1975—uncertainties cloud the outlook—
Kansas City Dec 74 p 3
- 1974—A year of inflation, production cut-backs, and oil-induced payments deficits—
St Louis Dec 74 p 2

BUSINESS INDICATORS

- How accurate are business forecasts?—
Bost Nov 74 p 2

COLDWELL, PHILIP E.

- Appointment to Board of Governors confirmed October 9, installed October 29, 1974—
FR Bull Nov 74 p 799

CONSUMER CREDIT

- Proposed revisions in data—
FR Bull Oct 74 p 742

CONSUMER EXPENDITURES

- Consumer demand for durable goods—
Kansas City Nov 74 p 3

CONSUMER PROTECTION

- President Ford signed P. L. 93-495 to protect credit transactions—
FR Bull Nov 74 p 800

CRIME

- Criminal behavior and the control of crime: An economic perspective—
Phila Nov 74 p 3

DISCOUNT OPERATIONS

- Emergency Home Purchase Act of 1974—
FR Bull Nov 74 p 771

DISCOUNT RATES

- Change in discount rate, December 9, 1974—
FR Bull Dec 74 p 885

ECONOMIC PLANNING

- An economic compact for the latter 70's (Eastburn)—
Phila Oct 74 p 3

ELECTRIC POWER INDUSTRY

- Electric power—problems and prospects—
Chic Dec 74 p 3

FARM OUTLOOK

- 1975 agricultural outlook: A year of continuing adjustment—
Kansas City Dec 74 p 12

FEDERAL FUNDS MARKET

- Interbank lending—an essential function—
Chic Nov 74 p 3
- Survey of borrowing—
FR Bull Dec 74 p 885

FEDERAL RESERVE BANKS—FINANCIAL STATEMENTS

- GLOSSARY available—
NY Oct 74 p 252

FEDERAL RESERVE BOARD

- Membership of the Board of Governors of the

FEDERAL RESERVE BOARD (Cont.)

- Federal Reserve System, 1913–74—
FR Bull Nov 74 p 755
- INTERPRETATIONS supplement no. 22
available—
FR Bull Dec 74 p 885

FEDERAL RESERVE—CREDIT CONTROL

- On Fed watching—
NY Oct 74 p 243

FEDERAL RESERVE—FOREIGN EXCHANGE

- Treasury and Federal Reserve foreign exchange operations interim report—
FR Bull Dec 74 p 828
- Treasury and foreign exchange operations interim report—
NY Dec 74 p 301

FEDERAL RESERVE SYSTEM

- THE FEDERAL RESERVE SYSTEM—PURPOSES AND FUNCTIONS *available* at \$1.00—

FR Bull Oct 74 p 740

- THE FEDERAL RESERVE SYSTEM—PURPOSES AND FUNCTIONS *available*

from Federal Reserve Board at \$1.00—
Rich Nov 74 p 22

FOOD PRICES

- Factors behind rising food costs—
Rich Sept 74 p 19

GEORGIA

- Slowdown in Georgia manufacturing:
A shift-share analysis—
Atlanta Nov 74 p 166

GOLD

- Participation in gold transactions—
FR Bull Dec 74 p 882

GRAIN

- Grain export quotas: The short view and the long—
St Louis Oct 74 p 12
- Dwindling world grain reserves—
Chic Nov 74 p 8

HOLLAND, ROBERT C.

- Saving: An old fashioned virtue in a new-

HOLLAND, ROBERT C. (Cont.)

- fangled world—
Bost Nov 74 p 20
- Statement to Congress,
December 12, 1974 (bank supervision)—
FR Bull Dec 74 p 838

INCOME, PERSONAL

- Faster gains in per capita income expected for the Southwest—
Dallas Oct 74 p 11

INDEXATION

- The case for and against indexation:
An attempt at perspective—
St Louis Oct 74 p 2
- The concept of indexation in the history of economic thought—
Rich Nov 74 p 3
- Indexation as a response to inflation: An examination—
Rich Nov 74 p 17

INDUSTRIAL PRODUCTION INDEX

- A revised manufacturing production index for the Southeast—
Atlanta Dec 74 p 190
- Industrial production—
FR Bull Dec 74 p 805

INFLATION

- Inflation and stagnation in major foreign industrial countries—
FR Bull Oct 74 p 683
- Philadelphia sings the inflation blues—
Phila Nov 74 p 10
- ECONOMICS OF INFLATION *available*—
Phila Nov 74 p 23
- Inflation, recession—what's a policy maker to do? (Francis)—
St Louis Nov 74 p 3

INTEREST RATES—DISCLOSURE

- Truth in Lending Act amendment October 28, 1974—
FR Bull Nov 74 p 800
- Act of Congress, October 28, 1974 (P. L. 93-495)—
FR Bull Dec 74 p 849

LIVESTOCK INDUSTRY

Cattle cycles—past and present—
Minn Nov 74 p 13

MOBILE HOMES

Cut-back in mobile home loans—
Atlanta Nov 74 p 176

MONETARY POLICY

SOME INSTITUTIONAL ASPECTS OF
MONETARY POLICY *available*—
Atlanta Dec 74 p 189

MONETARY STABILIZATION

The international monetary system (Hayes)—
NY Dec 74 p 286

MONEY DEFINITION

A time series analysis of income and several
definitions of money—
Kansas City Nov 74 p 9

MONEY SUPPLY

MONETARY AGGREGATES AND MONE-
TARY POLICY *available*—
NY Nov 74 p 277
Channels of monetary influence:
A survey—
St Louis Nov 74 p 8
Revision of money stock measures and
member bank reserves and deposits—
FR Bull Dec 74 p 817

MORTGAGES

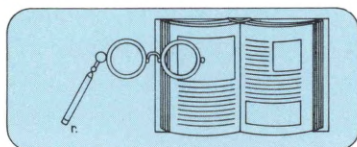
The residential mortgage market in recent
years—
Rich Sept 74 p 3

PETROLEUM INDUSTRY

Why America's oil supply depends on high-
priced foreign sources—
Phila Oct 74 p 7

PIPELINES

Pipeline industry responds to challenge of
declining reserves—
Dallas Oct 74 p 1

**PRODUCTIVITY**

A primer on productivity—
Atlanta Oct 74 p 150

RECESSIONS

Another recession, but different—
St Louis Dec 74 p 15

REGULATION A

Amendment September 25, 1974—
FR Bull Oct 74 p 723
Special rate for emergency loans—
FR Bull Oct 74 p 741
Amendment October 25, 1974—
FR Bull Nov 74 p 771

REGULATION D

Amendment September 5, 1974—
FR Bull Oct 74 p 723
Interpretation—
FR Bull Oct 74 p 724
Amendment November 28, 1974—
FR Bull Dec 74 p 861
Amendment November 27, 1974—
FR Bull Dec 74 p 862

REGULATION G

Amendment November 5, 1974—
FR Bull Dec 74 p 863

REGULATION H

Amendment September 22, 1974—
FR Bull Oct 74 p 725

REGULATION M

Amendment November 22, 1974—
FR Bull Dec 74 p 862

REGULATION Q

Amendment October 17, 1974—
FR Bull Nov 74 p 771
Amendment November 27, 1974—
FR Bull Dec 74 p 862
Amendments to Regulation Q
(government deposits)—
FR Bull Dec 74 p 883

REGULATION T

Amendment November 4, 1974—
FR Bull Nov 74 p 802
Amendment November 5, 1974—
FR Bull Dec 74 p 863

REGULATION U

Amendment November 5, 1974—
FR Bull Dec 74 p 863

REGULATION Y

Interpretation—
FR Bull Oct 74 p 725

RESERVE REQUIREMENTS

Restructured November 13, 1974—
FR Bull Nov 74 p 799
Effects of Regulation D changes—
Atlanta Dec 74 p 194

STRATEGIC MATERIALS

Shortages: A necessary evil of the future?—
Phila Oct 74 p 13

TENNESSEE

Economic slowdown hits Tennessee—

TENNESSEE (Cont.)

Atlanta Oct 74 p 155

TRANSFER OF FUNDS

National Commission on Electronic Funds
Transfers created October 28, 1974—
FR Bull Nov 74 p 800
National Commission on Electronic Fund
Transfers established October 28, 1974
(P. L. 93-495)—
FR Bull Dec 74 p 849
Electronic distribution of government pay-
ments—
FR Bull Dec 74 p 883

WALLICH, HENRY C.

Statement to Congress, October 16, 1974
(petroleum prices)—
FR Bull Nov 74 p 757

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Boston, Massachusetts 02106

Federal Reserve Bank of Chicago
Box 834
Chicago, Illinois 60690

Federal Reserve Bank of Cleveland
P.O. Box 6387
Cleveland, Ohio 44101

Federal Reserve Bank of Dallas
Station K
Dallas, Texas 75222

Federal Reserve Bank of Kansas City
Federal Reserve Station
Kansas City, Missouri 64198

Federal Reserve Bank of Minneapolis
Minneapolis, Minnesota 55440

Federal Reserve Bank of New York
Federal Reserve P.O. Station
New York, New York 10045

Federal Reserve Bank of Philadelphia
925 Chestnut Street
Philadelphia, Pennsylvania 19101

Federal Reserve Bank of Richmond
P.O. Box 27622
Richmond, Virginia 23261

Federal Reserve Bank of St. Louis
P.O. Box 442
St. Louis, Missouri 63166

Federal Reserve Bank of San Francisco
San Francisco, California 94120



**FEDERAL RESERVE BANK of PHILADELPHIA
PHILADELPHIA, PENNSYLVANIA 19105**

business review

**FEDERAL RESERVE BANK
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