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IN THIS ISSUE . . .

On our cover: East of Reading, Pennsylvania, off U. S. 422 at Baumstown, stands the Daniel Boone Homestead. Boone (1734-1820), though identified with settlement to the west, was born and raised on an eastern frontier. The Homestead, a museum of the famous pioneer, tells not only the story of the Boone family, who settled and lived there, but also the story of the persistence and hard work which extended Pennsylvania's early settlement. (Photo by the Pennsylvania Historical and Museum Commission, Harrisburg, Pa.)

BUSINESS REVIEW is produced in the Department of Research. The authors will be glad to receive comments on their articles.

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Capital Gains: Perennial Subject For Tax Reform Debate

By Gary P. Gillum

Death and taxes are said to be the only certainties in life. Only slightly less certain, however, is that heated controversy will surround every proposal for tax reform. The reason is that the costs and benefits of a tax reform usually are not evenly distributed among competing economic groups. Each group not only seems to have its own axe to grind but harbors suspicions about the motives of other groups. Little wonder then that many affluent cynics regard tax reformers as self-serving sorts who only want to increase taxes on others' incomes. Among the reformers' favorite targets are such tax preferences as capital gains provisions, oil and mineral depletion allowances, and tax-free municipal securities. Defenders of these preferences contend that they're essential for a smooth-running economy. Reformers retort that preferences are simply loopholes by which certain individuals avoid paying their "fair share" of taxes. And so the debate goes.

Perhaps this atmosphere of suspicion, charge, and countercharge can be dispelled by carefully laying out and evaluating the issues involved. A look at one area of dispute—the capital gains provisions of the Federal individual income tax—illustrates the wide range of issues that must be investigated before an appropriate tax policy can be settled on.

CAPITAL GAINS: THEIR SPECIAL TAX STATUS

A "realized capital gain" or loss is usually thought of as arising out of the sale or exchange of a capital asset. Let's say Mr. Smith bought 100 shares of common stock of XYZ

Corporation in January 1970 for $1,000. Later, in June 1972 the 100 shares were sold for $1,200. The $200 difference between the sale price and the purchase price is a realized capital gain. Had the owner not sold his shares in June, he would have had a "paper profit" or "unrealized" capital gain of $200 at that time.

A diamond ring, a Rolls-Royce, some beach property and a Renoir are other examples of capital assets. Realized capital gains also have been defined for Federal income tax purposes to include patent and literary royalties, profits from the sale of livestock and timber, and iron and coal royalties.

Federal Tax Treatment. Capital gains have already been classified as unrealized or realized. For Federal tax purposes a second classification, as long- or short-term gains, is necessary. Long-term capital gains result when the sale of a capital asset occurs at least six months and a day after the asset was bought. If this holding period requirement is not met, then the gain is a short-term one.

Under Federal laws only realized capital gains are taxed. Short-term gains are treated as ordinary income, the same as wages and salaries, while long-term gains are accorded preferential tax treatment. Suppose Mr. Smith's taxable income from all other sources in 1972 was $10,000. Half his $200 long-term gain would be counted as income for tax purposes so that his total taxable income would be $10,100. If the $200 gain had been a short-term one, then his total taxable income would have been $10,200.

Not taxing capital gains until they are realized is an additional form of preferential treatment. Capital gains are income in the year in which they accrue. Each year's postponement of payment of tax on the accrued gain is, in effect, an interest-free loan in the amount of the tax by the Federal Government to the asset owner. The subsidy implied by such a loan means that the actual tax rate on long-term gains is lower than the stated one.[1]

Why the Preferential Treatment? One of the earliest arguments in favor of preferential tax treatment maintained that capital gains are simply not part of an individual's income. Today, however, economists generally agree that capital gains satisfy such definitions of income as "the money value of the net accretion to one's economic power between two points of time."[2] More recently, though, reduced tax rates on capital gains have been viewed both as a means of offsetting the impact of inflation and as a stimulus to investment spending.

The first argument is that part of capital gains is not income but the product of inflation. Suppose that ten years ago Mr. Smith had bought five acres of unimproved land for $20,000 and that he sold it today for, say, $25,000. Mr. Smith would have a $5,000 realized long-term capital gain for tax purposes. Yet should any of this gain be considered income? In terms of the dollar's purchasing power, his $25,000 today is worth less than the $20,000 was a decade ago. In this case, Mr. Smith's "gain" is really a loss and he clearly should not have to pay a *tax* on it. The suggested remedies for this "inflation" of capital gains are either an adjustment to take out the artificial gains or a reduced tax rate, like we presently have, for all capital gains.

The second contention is that preferential tax treatment provides a stimulus to investment. Proponents argue that new investment opportunities, from the point of view of society as a whole, generally have a higher rate

[1] Federal tax provisions with respect to capital gains (and losses) are much more complicated than indicated by this discussion. Some slight additional detail regarding these provisions is given in Table 1.

[2] Robert Murray Haig, "The Concept of Income—Economic and Legal Aspects," Robert Murray Haig, ed., *The Federal Income Tax* (New York: Columbia University Press, 1921), p. 7.

of return or a lower level of risk than is perceived by investors. In either case, too low a level of investment in new opportunities will result. Reduced tax rates on capital gains purportedly increase the amount of investment in new opportunities by upping the expected after-tax return on such expenditures.

Current Proposals for Change. The arguments in support of preferential tax treatment of capital gains have apparently been very persuasive to legislators around the world, as Table 1 shows. Ironically, even though the United States appears to be among the stiffest in its tax treatment of capital gains, it's here that the question of such taxation arouses the most controversy.

In the present national mood for tax reform countless proposals for revamping capital gains taxation have been made, ranging from significant easing to a significant tightening in tax treatment. Most tax reformers want to abolish the preferential treatment accorded capital gains and treat all gains as ordinary income. They charge that present capital-gains tax treatment is a loophole benefiting primarily the rich.

THE CHALLENGE TO PREFERENTIAL TREATMENT

In declaring their opposition to preferential treatment for capital gains, reformers claim: (1) that present treatment decreases the

TABLE 1

MANY COUNTRIES GIVE CAPITAL GAINS PREFERENTIAL TAX TREATMENT

Canada	50 percent of gain included in income. No holding period requirement.
France	Not taxed.
West Germany	Not taxed. Taxed at reduced rate if stock of controlled corporation.
Italy	Taxed at municipal level at 9 to 15 percent.
Japan	Gains from occasional transfer of shares not taxed. Transfers are not occasional if trades in year exceed 50 transactions or 200,000 shares.
Netherlands	Not taxed. Taxed at maximum rate of 20 percent if stock of controlled corporation.
United Kingdom	50 percent of full rate on first £5,000 of annual gains and full rate applied to gains in excess of £5,000; or alternative rate of 30 percent. No holding period requirement.
United States	50 percent of full rate; or alternative rate of 25 percent on first $50,000. Half of gains subject to possible minimum tax of 10 percent. Six-month holding period requirement.

Source: Statement by B. Kenneth Sanden to House Ways and Means Committee, February 6, 1973; printed in *Taxation and Finance*, No. 25, February 6, 1973 (Washington: The Bureau of National Affairs, Inc.), p. J-1.

progressivity of the individual income tax; (2) that it creates inequity among taxpayers in the same income class; and (3) that large amounts of time and energy are "wasted" in the attempt to convert ordinary income into capital gains.

Well-to-Do Benefit Most. There are two parts to the argument that the progressiveness of the individual income tax, as measured by the nominal tax rates, is lessened by the favorable treatment accorded capital gains. First, preferential treatment of long-term capital gains lowers the effective tax rates of individuals whose incomes consist at least partially of capital gains.[3] Of course, those with incomes made up largely of long-term gains benefit the most. Suppose that Mr. Jones and Mr. Brown each had incomes in 1972 of $20,000, but that $10,000 of Mr. Jones's income was in the form of long-term capital gains. Let the rest of Mr. Jones's and all of Mr. Brown's income be in the form of salaries. Then Mr. Jones's taxable income will be only $15,000 ($10,000 in salary plus half the $10,000 in capital gains) while Mr. Brown's taxable income is $20,000. If Messrs. Jones and Brown have identical amounts of tax deductions and exemptions, Mr. Jones will pay less tax than Mr. Brown. Since they have identical incomes, Mr. Jones therefore has a lower effective rate than Mr. Brown. Second, because capital gains are largely concentrated in the incomes of the well-to-do, their effective tax rates are lowered the most. Thus, as Table 2 shows, present capital gains tax preferences have a negligible impact on the effective tax rates of the two lowest income classes but greatly affect the rate of the highest class (almost cutting the effective rate in half).

Horizontal Inequity: Same Incomes, Different Tax Bites. Reformers charge that the second by-product of the capital-gains loophole is an inequity within income classes. The generally accepted principle of horizontal equity states that taxpayers with equal incomes should pay the same amount of tax. In the previous example of Messrs. Jones and Brown, it has already been demonstrated how present capital gains provisions can cause horizontal inequity. The two men had the same income but clearly paid different amounts of tax.

Table 3 illustrates the significance of horizontal inequity in the Federal individual income tax. In each income class the effective tax rate is at least a quarter lower for families whose major income source is property.

Costs of Tax Avoidance. Finally, reformers argue that the differential in tax treatment between ordinary income and capital gains serves as a powerful incentive to transform ordinary income into capital gains. Lawyers, accountants, and corporate management spend much time and labor at this. Sometimes the "transformation" is accomplished through special-interest tax legislation or the discovery of unintended loopholes in the tax code. Regardless of how it's accomplished, there clearly is a difficult task in constructing the tax code so that only "genuine" capital gains get preferential treatment. Large parts of the present code, representing the efforts of skilled experts, are devoted to this task yet the results often are regarded as unsatisfactory.

Thus, society bears two kinds of tax-avoidance costs. First, some amount of ordinary income escapes taxation at full rates. Second, the efforts of some of our most skilled people are "wasted" in attempts to avoid taxation at full rates and in efforts to prevent this tax avoidance. These bids to avoid taxation of

[3] An individual's tax rate can be defined in several ways. When a person says that he is in such-and-such an income tax bracket, he is usually referring to his marginal tax rate, which is the highest rate at which any portion of his income is taxed. When a person says that he paid a certain percentage of his income as income tax, that's his effective tax rate. Finally, an individual's nominal tax rate is the one he would pay if there were no exemptions or deductions and all forms of income were fully taxable.

TABLE 2

IF CAPITAL GAINS LOST THEIR PREFERENTIAL TAX STATUS, THE WEALTHY WOULD BE HIT THE HARDEST

1972 Expanded Adjusted Gross Income ($1,000s)	Effective Tax Rate: Under Present Law	Effective Tax Rate: With Full Taxation of Capital Gains
	(Percent)	(Percent)
Under 3	0.5	0.5
3 to 5	1.7	1.7
5 to 10	5.3	5.4
10 to 15	8.7	8.9
15 to 20	10.7	11.0
20 to 25	12.1	12.6
25 to 50	14.5	16.2
50 to 100	23.5	29.3
100 to 500	29.5	43.1
500 to 1,000	30.4	53.1
1,000 and over	32.1	59.1

Source: Statement by Harvey E. Brazer to House Ways and Means Committee, February 6, 1973; printed in *Taxation and Finance,* No. 25, February 6, 1973 (Washington: The Bureau of National Affairs, Inc.), p. J-6.

income at full rates serve no social purpose and must be counted as net costs to society. Likewise, efforts by tax experts to close the loopholes are net social costs since they are necessary only because of private attempts to avoid taxation at full rates. These social costs, while difficult to quantify, are claimed to be substantial and must be weighed accordingly in assessing the debate over preferential treatment.

SIFTING THE ARGUMENTS

The Pros . . . Those favoring preferential treatment of capital gains rest their case primarily on two points: that part of capital gains is not income but the product of inflation, and that a stimulus to investment is needed. There is some truth to the contention that part of capital gains represents inflation, at least for the postwar period. However, the fraction of capital gains accounted for by inflation varies with the time period being considered. For instance, in the late 1950s and early 1960s the inflation rate was very low, and capital gains earned during this period were almost all genuine. Yet, despite this historical variability in the fraction of capital gains which is really income, the fraction which is counted as income for tax purposes is not varied in an appropriately compensatory manner. Thus,

TABLE 3

THE FEDERAL INDIVIDUAL INCOME TAX GIVES PROPERTY OWNERS A BIG BREAK

1966 Adjusted Family Income ($1,000s)	Effective tax rates, where major income source is: Property	Earnings
	(Percent)	(Percent)
Under 5	0.7	3.8
5 to 10	2.4	6.3
10 to 15	5.3	7.8
15 to 20	6.4	9.0
20 to 25	5.6	9.7
25 to 50	8.0	11.7
50 to 100	13.2	18.3
100 to 500	16.7	23.5
500 to 1,000	19.3	31.4
1,000 and over	18.1	46.6

Source: Joseph A. Pechman, "Distribution of Federal and State Income Taxes by Income Classes," *Journal of Finance* 27(1972): 185.

even though an inflation adjustment of capital gains is necessary, the present tax treatment is not a very satisfactory way of accomplishing it.[4]

The argument that preferential tax treatment of capital gains is a desirable investment stimulus is, at best, a foggy one. Proponents have not adequately spelled out how stimulating investment in new opportunities benefits society. Nor is there much evidence that preferential treatment has significantly boosted such investment. Until these weak points in the argument are removed, preferential treatment receives little support from this source.[5]

In short, the case for preferential treatment of capital gains seems to be very weak. However, there are some important costs to a simple elimination of preferential treatment which are sometimes overlooked by those who oppose it.

. . . and the Cons. Opponents of preferential treatment stress the lessened progressivity in the individual income tax that results from present treatment. Yet, how valid is this argument? Any tax exemption, deduction, or credit is likely to have the effect of altering the progressivity of the nominal income tax rates. But that usually is incidental to the desirability of the exemption, deduction, or credit since the progressiveness of the entire

[4] Unfortunately, a proper procedure for inflation adjustment would be rather complicated and therefore difficult to implement. Further, certain other capital assets which are not thought of as yielding capital gains, such as savings accounts, should also receive the benefit of inflation adjustment if an adjustment is thought appropriate for capital gains.

[5] For more detailed discussion of this issue, see Martin David, *Alternative Approaches to Capital Gains Taxation* (Washington: The Brookings Institution, 1968), pp. 194-97; and Richard Goode, *The Individual Income Tax* (Washington: The Brookings Institution, 1964), pp. 204-7.

TABLE 4

ADD IN CORPORATE INCOME TAXES AND THAT BIG BREAK VANISHES

1966 Adjusted Family Income ($1,000s)	Effective tax rates, where major income source is: Property	Earnings
	(Percent)	(Percent)
Under 5	5.0	4.9
5 to 10	11.9	7.4
10 to 15	18.9	9.4
15 to 20	20.5	11.2
20 to 25	19.0	13.0
25 to 50	23.5	16.3
50 to 100	30.1	25.5
100 to 500	37.7	33.2
500 to 1,000	41.7	41.4
1,000 and over	41.7	55.4

Source: Joseph A. Pechman, "Distribution of Federal and State Income Taxes by Income Classes," *Journal of Finance* 27(1972): 188.

tax structure (measured by effective tax rates) can be adjusted by appropriately changing the nominal tax rates. Thus, the effect of capital gains tax provisions upon the progressivity of the income tax cannot be used to argue for or against those provisions.

Another opposing argument is that horizontal inequity is created by preferential treatment of capital gains. The facts, as presented in Table 3, appear to support this argument. A simple elimination of the capital gains provisions would not erase the problem of horizontal inequity, however. The reason is that the figures in Table 3 overlook the impact of another tax burden shouldered by individuals—the corporate income tax. The effects of this tax must be included if the impact of Federal income taxation is to be pictured fairly. Corporations are owned by their shareholders and the income of corporations is therefore part of the income of those same shareholders.[6] Corporate income and income taxes must therefore be allocated among shareholders before the thorny question of horizontal equity can be resolved (see Box).

Estimates of the combined effects of the individual and corporate income taxes levied by Federal, state, and local governments are given in Table 4.[7] Note that in contrast to

[6] For Federal individual income tax purposes, only the portion of corporate income paid out as dividends is counted as part of shareholders' income.

[7] Estimates of the impact of Federal taxation alone are not available, but the exclusion of state and local taxes would not affect the results very much. Of much more importance is what is assumed about the shift in the

WHO REALLY BEARS THE CORPORATE INCOME TAX?

The corporate income tax is levied upon the net profits of corporations. A tax rate of 22 percent is applied to the first $25,000 of profits and a rate of 48 percent is applied to any excess. As with the individual income tax, there are a great many additional provisions of the corporate income tax which we need not consider except to note that, as a result of their presence, the effective corporate tax rate of approximately 38 percent is substantially lower than the nominal tax rate of slightly under 48 percent.

While there is no doubt about who pays the corporate income tax, much controversy surrounds the question of who bears the burden of the tax. That is, whose after-tax income is altered? If the after-tax profits of corporations are lowered by the full amount of the tax, then shareholders of corporations bear the tax. If corporations maintain their after-tax profits through increases in the prices of the products they sell or decreases in the wages they pay, then the tax burden has been shifted to their customers or to their employees.

A shift in the burden of a tax away from those who pay it probably occurs under virtually any tax. For most income taxes, it is assumed that the amount of the burden shifted is so small as to be negligible. However, most observers think that the burden of the corporate income tax is substantially shifted even though they cannot agree on the amount of the burden shifted or to whom it is shifted. The author of the estimates in Table 4 made an educated guess that half the amount of the tax is borne by shareholders while the other half is borne by owners of capital generally.

Table 3 the effective tax rates are higher for families whose major source of income is property (with the sole exception of the highest income class). The horizontal inequity pictured in Table 3 has been almost completely reversed. Accordingly, a simple elimination of capital gains under the present tax system would mean that society would have to bear the costs of *more* inequity across income classes.[8] Indeed, it would appear that the capital gains "loophole" would have to be widened somewhat if horizontal equity were desired for the majority of income classes.[9]

burden of the corporate income tax. As noted in the Box, the estimates in Table 4 are based on the assumption that a major shift in the tax burden has taken place. If it were assumed that the burden is not shifted at all, then a revised Table 4 would show a lighter tax burden on families whose major source of income is earnings. This would come, of course, at the expense of families whose major source of income is property. For a more extended discussion of some of the problems behind the tax-rate estimates, see Joseph A. Pechman, "Distribution of Federal and State Income Taxes by Income Classes," *Journal of Finance* 27(1972): 179-91.

[8] Several qualifications must be appended to this conclusion. First, the tax rate estimates in Table 4 are subject to error. Second, there are several other forms of income which receive preferential tax treatment. As a result, the tax rate estimates of Table 4 are probably biased in one direction or the other. Third, the issues of horizontal equity and of tax progressivity ought to be discussed in the context of the whole U. S. tax system, not just the Federal individual and corporate income taxes. Fourth, the broad income-source classes used here quite probably conceal numerous examples of horizontal inequity. These qualifications, though important to note, are not likely to affect substantially the conclusions reached.

[9] A reduction in the corporate income tax rate would, of course, serve the same end.

Opponents of preferential treatment score heavily with their final argument. Even those favoring it have to agree that large amounts of time and energy are wasted in trying to convert ordinary income into capital gains. There is just too much evidence that this is indeed the case. Thus, society appears to face an unfortunate dilemma. It must either put up with these tax-avoidance costs, or it can eliminate preferential treatment and suffer the costs of more horizontal inequity. By considering a more comprehensive tax reform, however, society may be able to have the best of both worlds.

A WAY OUT OF THE PRESENT DILEMMA

The basic element of such a comprehensive tax reform would be the simultaneous elimination of a separate corporate income tax and of the distinction between ordinary income and capital gains. Naturally, any such reform would have to cope with many troublesome questions—among them, lock-in effects, the tax treatment of capital gains transferred by gift and death, and income averaging and capital loss provisions. There are many ways, however, in which reform might be carried out. The most detailed proposal along these lines so far was set out by the Canadian Royal Commission on Taxation in 1966 as part of an envisioned general tax reform.[10] Essentially, the Commission's recommendations would mean eliminating the separate corporation income tax and the gift and estate taxes. Included in ordinary income would be each shareholder's portion of corporate retained earnings and all realized capital gains. Realized capital gains would include all gains transferred by gift or death but not those attributable to past corporate retained earnings. Income averaging and capital loss provisions would be greatly liberalized.

Regardless of the details of such a tax reform, the general outline proposed would appear to resolve the dilemma of having to suffer more horizontal inequity to reduce tax-avoidance costs. Since the discriminatory corporate income tax would be ended, the preferential tax treatment of capital gains could be ended also. And, the simplified tax code would eliminate most of the incentives to transform ordinary income into capital gains. Undoubtedly, some new problems would arise and some old ones would remain, but there can be little doubt that reform would yield desirable results for society as a whole. ■

[10] The proposals of the Carter Commission, as it is popularly called, were not adopted even though they were widely praised by economists and lawyers. For a sampling of views on the proposals, see the set of articles in *National Tax Journal* 22(1969).

NOW AVAILABLE
TECHNICAL STUDIES ON PENNSYLVANIA'S BANK BRANCHING LAWS

In the December 1972 issue of the *Business Review* the Federal Reserve Bank of Philadelphia published an economic analysis of the impact of liberalization of Pennsylvania's branch banking laws. This is a consensus of the findings of several technical studies conducted by economists in the Department of Research. The studies, ranging from descriptive papers on banking in the Keystone State to technical econometric pieces, support the conclusions of that study.

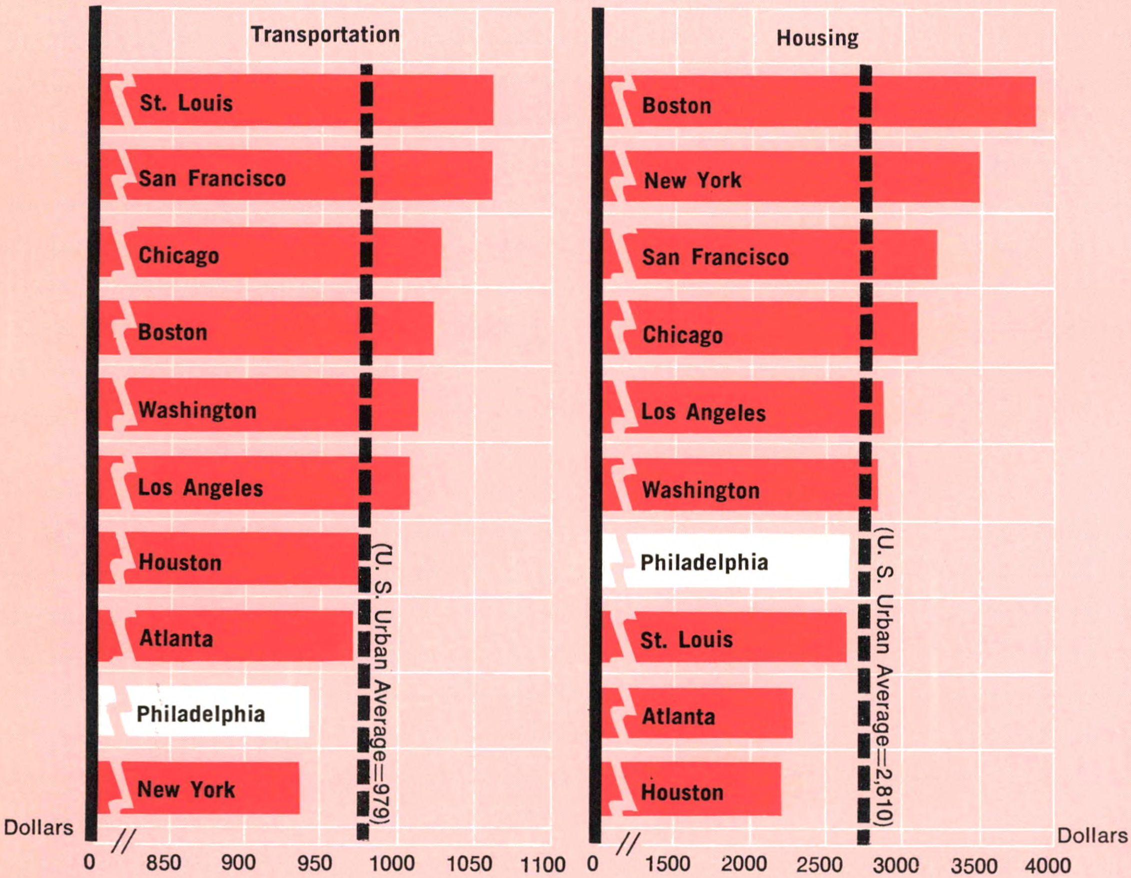
Copies of these studies are available upon request. Please address requests to the Department of Research, Federal Reserve Bank of Philadelphia, 925 Chestnut Street, Philadelphia, Pennsylvania 19101.

Urban Family Budgets: The Philadelphia Scene

By
Howard Keen, Jr.

CHART 1

PHILADELPHIA FAMILY BUDGETS* ARE RELIEVED BY TRANSPORTATION AND HOUSING EXPENDITURES WHICH ARE BELOW THE NATIONAL URBAN AVERAGE



* 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 for Autumn 1972.

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

CHART 2

MOREOVER, EXPENDITURES ON MEDICAL CARE AND CLOTHING HELP KEEP THE PHILADELPHIA FAMILY BUDGET IN LINE WITH THOSE IN OTHER MAJOR CITIES

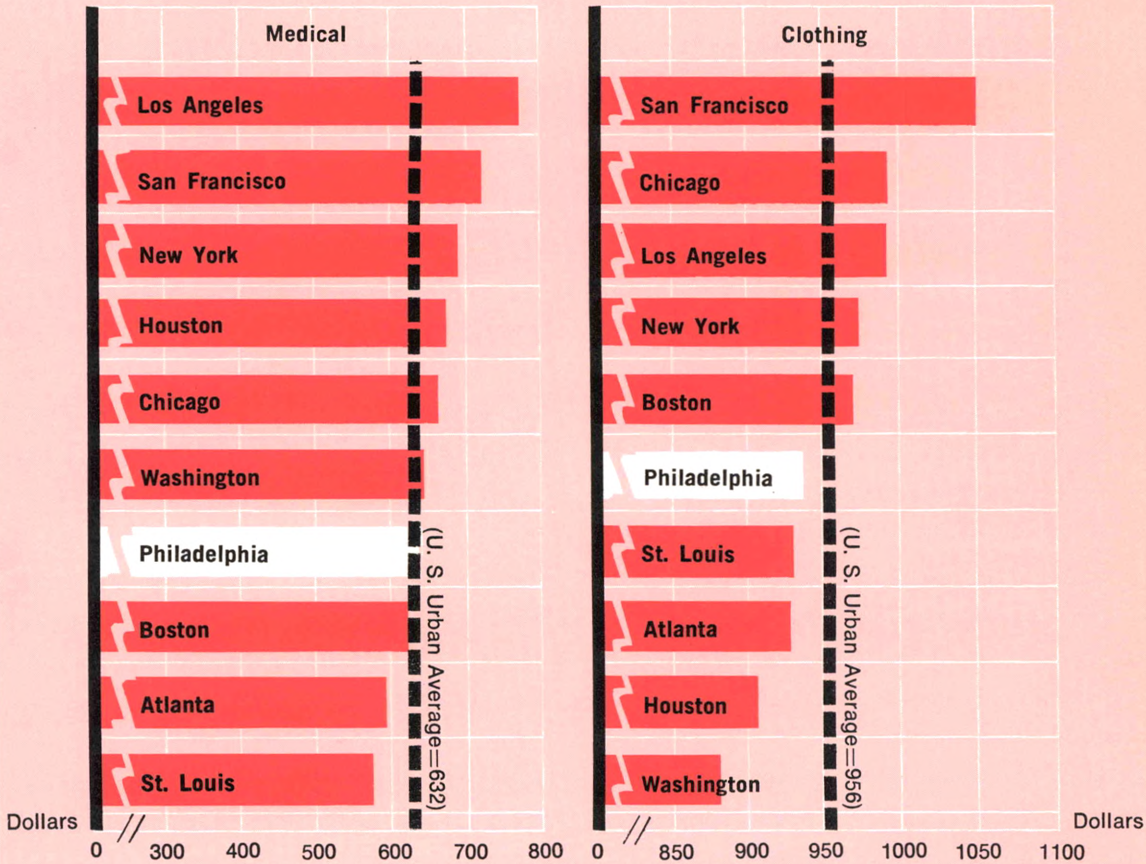


CHART 3

OFFSETTING THESE BUDGETARY SAVINGS ARE OUTLAYS FOR PERSONAL INCOME TAXES AND FOOD WHICH TOGETHER COST THE PHILADELPHIA FAMILY ALMOST $550 MORE A YEAR THAN THE AVERAGE FOR OTHER URBAN AREAS

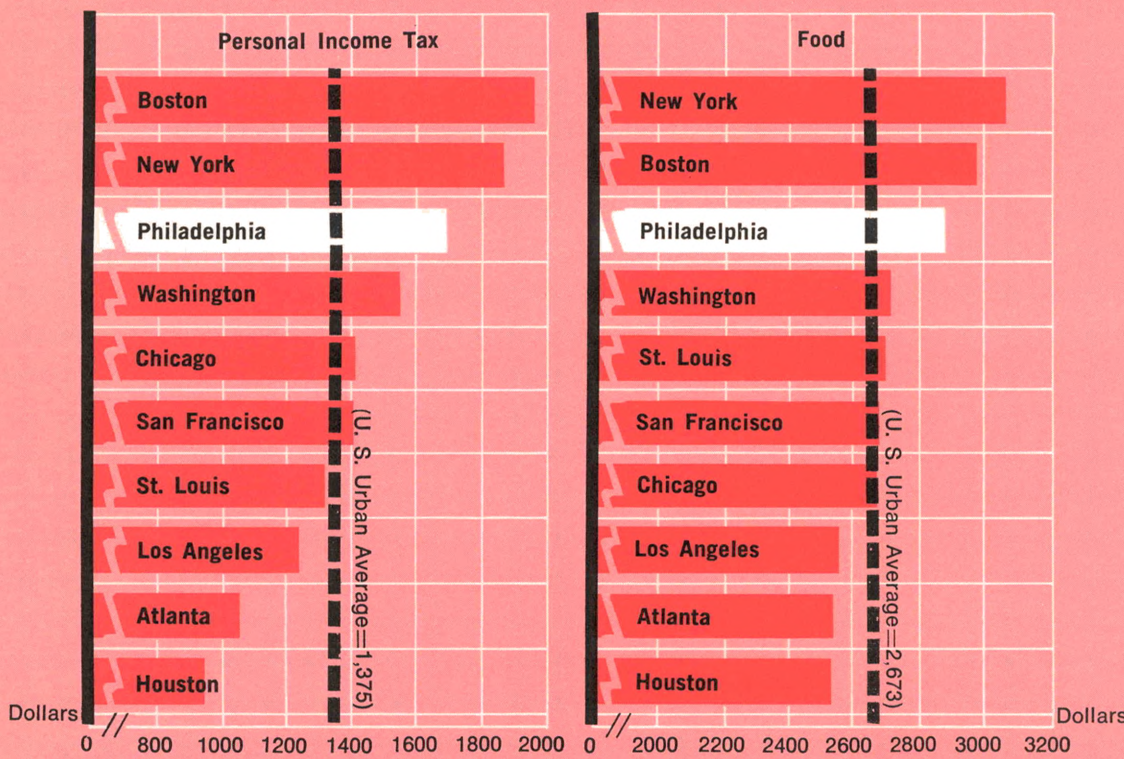


CHART 4

YET, WHILE EXCEEDING THE NATIONAL URBAN AVERAGE, THE TOTAL FAMILY BUDGET FOR PHILADELPHIA COMPARES FAVORABLY WITH OTHER LARGE NORTHEASTERN CITIES

Inflation and the Distribution of Income and Wealth: Are the Poor Really Hurt?

By Richard M. Young

For the past three years the Federal Government's economic artillery has been directed against what now appears to be a perennial enemy—price inflation. Strategies against it have ranged from the predictable to the precedent-shattering. There is no doubt that these actions were motivated by both public and governmental concern over rising prices. But if the costs of living with inflation and the costs of suppressing it are clearly drawn, which will the man in the street choose?

The choice, of course, depends on how burdensome these costs are. There's wide disagreement about the costs of inflation, but most allegations fall into four general categories. One is the adverse effect that inflation can have on the trade balance of a country with fixed exchange rates. Another is the notion that inflation leads to inefficient resource allocation—for example, people spending time and resources trying to shield themselves from its effects. A related view is that inflation induces imbalances in expenditure patterns, particularly excessive inventory and consumer durables purchases, which may interfere with the attainment of stable growth. And, finally, it's often argued that inflation introduces a significant, arbitrary redistribution of income and wealth which hurts the poor.

This last cost is frequently cited when strong measures are demanded in the battle against inflation. Most of the media, the public, and political groups subscribe to the old saw that "inflation is the cruelest tax of all." However, recent studies contradict this popular belief that the burden of inflation weighs heaviest on the poor. *Periods of inflation, triggered by unexpected increases in the demand for goods and services and accompanied by falling unemployment, do not seem to make the poor worse off either absolutely or relative to the nonpoor.* In some ways the poor appear to be demonstrably better off. This doesn't mean policymakers should toss in the towel in their fight against inflation. Rather, when fashioning an anti-inflationary policy, they must consider not only the total cost to society but also the distribution of the cost.

DISTRIBUTIONAL EFFECTS COUNT

Consumers fret because today's dollar buys less than it did ten years ago or even ten weeks ago. They're upset because income from their new job or their latest raise doesn't stretch as far as anticipated. Their reaction, though natural, ignores the possible interdependence between that new job, or that raise, and the increase in prices. Quite possibly, without the inflation no new jobs or raises would have materialized. There is a tendency to ignore the relationship between increases in prices and increases in income. For example, if the price of artichokes goes up, the income of the grocer who sells them may rise. And, if not the grocer, the income of the farmer who grows artichokes, the trucker who delivers them, or the Government that taxes them may rise. During a period of general inflation, however, the income increases to a particular individual will not always offset the increases in prices he pays. Thus, inflation benefits some and harms others.

It is, of course, also true that attempts to suppress inflation have similar effects on the distribution of income. Moreover, the immediate causes of an inflation and the weapons selected to restrain prices play major roles in determining which sectors of society benefit and which lose.

If the inflation is sparked by an unexpected increase in the demand for goods and services, the benefits may include the chance to land a better job, to get off the unemployment roll, or to pay off debts in "cheaper" dollars (a reduction in the real value of the debt). This type of inflation also produces costs. Some people will find that increases in their income don't cover the increases in prices. For every person who finds that the real value of his debt has declined there will be another who finds that the real value of his assets has dropped by the same amount.

However, an inflation may not come as a surprise. Some or all of the population may foresee the inflation and take steps to protect their income and assets. Individuals and businesses can adjust their buying and selling plans as well as their hiring and production goals in an attempt to minimize the effects of the inflation. The employment and output effects accompanying this type of inflation will be much different—as will the distributional impact.

The use of alternative methods of combating price rises will have a similar range of effects. For example, suppressing inflation with policies designed to curtail increases in demand has costs and benefits which differ substantially from those associated with direct controls.

Changes in the distribution of society's income and wealth that are caused by unanticipated inflation (precipitated by an

Box 1

THE POOR AND THEIR INCOME

In a rapidly changing society no universally accepted standard for deciding who's poor is available. Not surprisingly, the official definitions are both crude and arbitrary.* While they provide a useful starting point, limitations of data and concern with persons beyond this official coverage will lead to the use of other definitions.

The poor as a group derive their income from several sources. This Table shows the percentage of total income which came from various sources for a sample of family units below the official poverty line. Almost half the income received came

INCOME SOURCES OF THE POOR AS A PERCENTAGE OF THE AVERAGE MONEY INCOME BEFORE PERSONAL TAXES

Income Source	Average Percent of Income
Wages and salaries	44.3
Self-employment	3.8
Rents, roomers	1.9
Interest, dividends and profits	1.0
Social security and public employment	25.8
Private pensions and trust funds	.6
Military allotments and pensions	3.2
Public social assistance and private relief	14.1
Other money income	5.3

Source: U. S. Department of Labor, Bureau of Labor Statistics, *Survey of Consumer Expenditures, 1960-61*.

from wages and salaries, an additional quarter from social security and public employment, and nearly 15 percent from various forms of public and private assistance. An examination of inflation's effect on wages and transfer payments covers about 85 percent of the income of those who are officially designated as poor. As the definition of "poor" is expanded to include those just above the poverty line as well, the percentage of income accounted for by wages and transfers declines slightly but still covers more than 70 percent of total income of this group.

* For a description of the poverty lines and their rationale, see Mollie Orshansky, "Counting the Poor: Another Look at the Poverty Profile," *Social Security Bulletin*, January 1965. In 1971 the poverty line for a nonfarm family of four was $4,137. It is estimated that in that year some 25.6 million persons or 12 percent of the population fell below official poverty levels. See *Characteristics of the Low Income Population, 1971*. Bureau of the Census, Current Population Reports.

unexpected increase in demand) are almost the *opposite* of those caused by the traditional government efforts to combat inflation by curbing total demand. Evaluating the distributional effects of this type of inflation also indicates what some of the benefits and costs of suppressing inflation by slowing demand growth may be.[1] Of particular concern is the impact of inflation on those who can least afford to bear any additional economic burden—the poor (see Box 1).

INFLATION, THE POOR, AND CHANGES IN EMPLOYMENT AND WAGE RATES

Inflation, accompanied by rising output and employment, affects both the relative employment rates and the relative wages of the poor and the nonpoor. Changes in employment and wages determine what happens to the relative wage shares of the two groups. The record on inflation, unemployment, and shares of personal income would certainly challenge any contention that the poor gain less than proportionally during periods of inflation and labor market tightness. For example, the Chart (see page 20) shows that the periods of high inflation and low unemployment rates in the late '50s and the post-1965 period roughly coincide with the periods when the income share of the lowest fifth in the income distribution reaches relative peaks.[2] The income share of the second lowest fifth exhibits a similar pattern. This indicates that the relative income gains of the lowest group come from the top 60 percent of income groups rather than from those immediately above them. The bottom fifth does contain families whose income is above the official poverty level. However, in 1972 the bottom 18.5 percent of the income distribution still had household income which was at most $5,000.[3] Shifts of income in the direction of this group would probably be deemed socially desirable.

Employment Effects. While little information is available on unemployment rates by income class, there seems to be a definite relationship between the unemployment rate of poor people and the overall unemployment rate. One rule of thumb is that the unemployment rate among the urban poor is roughly twice the overall rate.[4] If this proportion remains roughly constant during an inflation accompanied by an economic upswing, then the percentage of poor who become employed increases by a greater amount than the percentage of nonpoor who gain employment. For example, suppose the unemployment rate for the poor is twice the total unemployment rate and that the poor represent 10 percent of the labor force. If the *total* unemployment rate is 5 percent, the unemployment rates for the poor and nonpoor are 10 percent and 4.5 percent respectively. A dip in the total unemployment rate from 5 to 4 percent

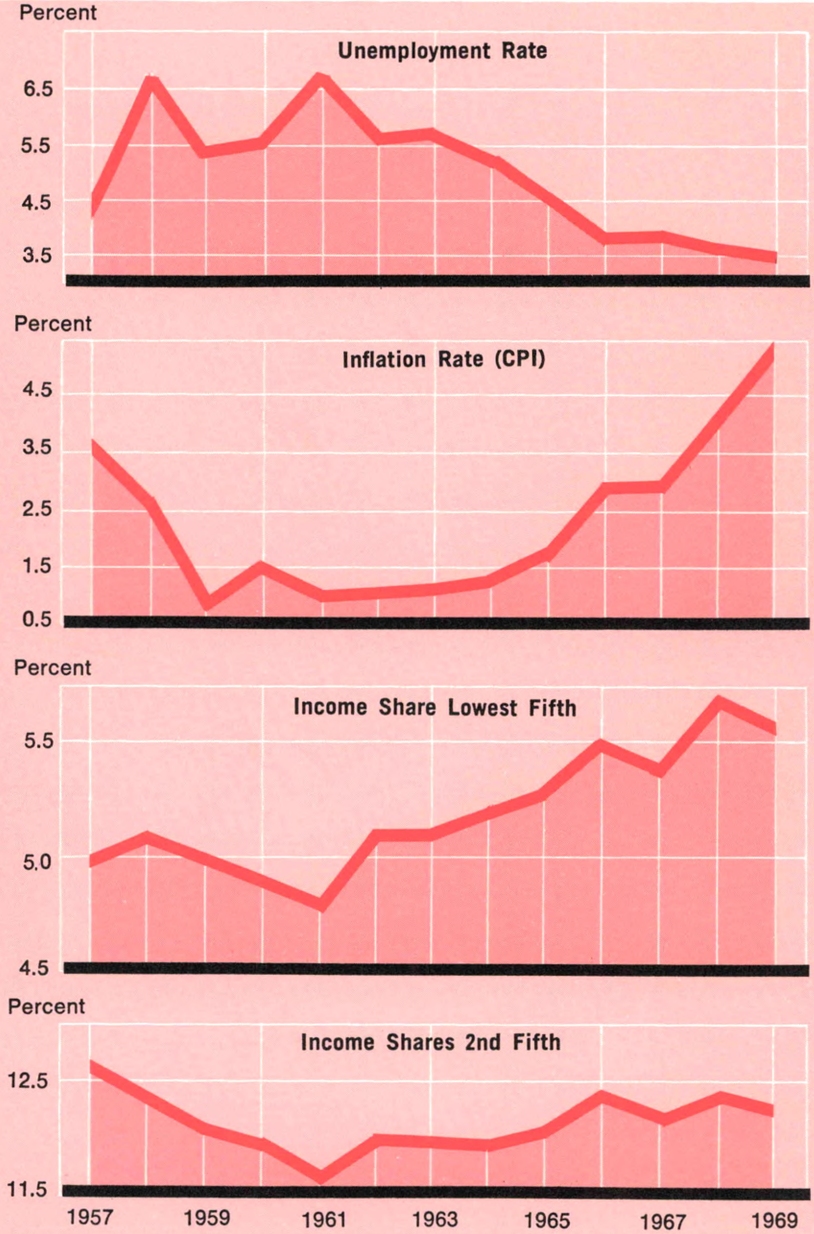
[1] Discussion of the effects of inflation throughout this article is confined to the effects of a short-run, *unanticipated* inflation initiated by an unexpected increase in aggregate demand and not accounted for in the pricing and investment decisions of each sector of the economy. To some extent, all inflation is unanticipated, in that we can't adjust for it perfectly in our buying and investing decisions. While economists generally agree on the broad outline of wage-price-employment dynamics in this situation, the long-run aspects remain highly debatable. For a discussion of this, see James M. O'Brien, "Inflation and Unemployment: The Great Debate," *Business Review* of the Federal Reserve Bank of Philadelphia, January 1973, pp. 13-18.

[2] An extensive study of the relationship between inflation and poverty recently found that the income share of the lowest fifth of the income distribution tends to rise when the inflation rate increases and to fall when the unemployment rate increases. See R. G. Hollister and J. L. Palmer, "The Impact of Inflation on the Poor," Institute for Research on Poverty, University of Wisconsin, April 1969.

[3] U. S. Bureau of the Census, *Current Population Reports, Money Income in 1971 of Families and Persons in the United States*, p. 23.

[4] For example, one economist observes that a national unemployment rate of 4 percent implies an unemployment rate of 8 percent for blacks. Since blacks constitute a large portion of the urban poor, the ratio of 2 to 1 may be a rough guideline for the unemployment rate of poor versus nonpoor. Its weakness is that it leaves out the rural poor. See L. Thurow, *Poverty and Discrimination* (Washington: The Brookings Institution, 1969), p. 183.

THE SHARE OF INCOME GOING TO THE LOWER-INCOME GROUPS RECEIVES A BOOST FROM INFLATION



Source: U. S. Department of Commerce, Bureau of the Census, *Current Population Reports, Consumer Income*, 1969.

Box 2

THE BUSINESS CYCLE AND WAGES: A THEORY

In theory, the demand of business firms for the relatively unskilled labor of the poor is expected to be more sensitive to the ups and downs of the business cycle than their demand for the more skilled labor of the nonpoor. A larger portion of the poor will find employment in areas tied closely to production. The nonpoor as a group will have a smaller portion of production workers because they will include overhead workers such as accountants and administrators. Since the labor of the poor is more vulnerable to production cutbacks and their limited skills more plentiful in the labor markets, the wages of the poor should be less "sticky" than those of the nonpoor. It is unlikely that the wage levels of the poor would drop unless the economy were experiencing a severe downturn. However, the rate of increase in their wages seems likely to exhibit more fluctuation with changes in the economy than the rate of increase in skilled wages.

This process is made even more likely if firms try to *hoard* their skilled workers during periods of slack demand. They may do this to avoid the costs of hiring these same skills back or retraining workers to fit the company's specific needs when business returns to normal. Some firms may do this by keeping skilled workers on the payroll even if they cannot be fully employed. As business picks up, the demand for additional skilled workers is held down by simply increasing the utilization of those already on the payroll. Dishoarding understates the expansion of skilled jobs and reduces the wage pressures in skilled areas during the early stages of an upswing.

Furthermore, the differences in ability to increase the supplies of skilled and unskilled labor may contribute to greater cyclical volatility in the wages of the poor. When labor markets tighten, some jobs requiring skilled workers can be filled by lowering hiring standards and substituting less skilled for more skilled labor. This procedure cannot be used to increase the supply of the unskilled. Faced with a limitation on the supply of unskilled labor, the competition for labor during an expansion can lead to proportionately larger wage increases for the unskilled than the skilled.*

* See M. W. Reder, "A Theory of Occupational Wage Differentials," *American Economic Review* 45 (1955): 833-52.

means that the unemployment rate among the poor has dropped from 10 to 8 percent while the rate among the nonpoor has fallen less than 1 percent (from 4.5 to 3.6 percent). With this proportionally greater increase in employment of poor persons (if relative wage rates are constant), the poor as a group can be said to be relatively better off with respect to wage income.

Similar effects can be expected to make the poor relatively worse off if the unemployment rate rises. As a larger proportion of the poor lose jobs, their income as a group will fall relative to that of the nonpoor.

Wage Rate Gains. It must be remembered, however, that these income effects resulting from changes in employment rates can either be offset or reinforced by changes in relative wages. If the wage rate of the poor increases faster than that of the nonpoor during an inflation, the gain in income share will

INCREASE IN EARNINGS OF SKILLED AND UNSKILLED WORKERS

	Index of Average Hourly Earnings	
	Percent Change 1960-64	Percent Change 1964-68
Unskilled*	14.0	16.7
Skilled**	12.7	16.6

* Includes janitors, porters, cleaners, laborers, and material handling.

** Includes carpenters, electricians, machinists, mechanics, mechanics automotive, painters, pipefitters and tool and die makers.

Source: U. S. Department of Labor, Bureau of Labor Statistics, *Handbook of Labor Statistics,* 1969.

be larger than that dictated by changes in relative employment rates. However, it's possible that the relative gains in income evident in the Chart might show up *solely* as a result of employment gains if the wages of the poor don't rise as fast as those of the nonpoor. Neither theory nor the available evidence supports this view.

In theory, business is expected to try harder to retain the services of its skilled labor force than those of its unskilled workers during the ups and downs of business cycles. The unskilled are generally easier to train and replace if business picks up. If skilled workers are primarily nonpoor and unskilled workers primarily poor, the employment prospects of the poor seem to be more vulnerable to business cycle fluctuations than those of the nonpoor. These wide swings in the demand for unskilled workers also tend to make their wages more variable than those of skilled labor. This creates a tendency for wages of the unskilled to rise faster than those of the skilled in a business upswing and to lose ground in a downturn (see Box 2).

In practice, there's little information on the behavior of the average wage rate of the poor relative to that of the nonpoor. However, it's possible to compare the rate of increase of wages in certain skilled and unskilled categories for the 1960s. If the unskilled are representative of the poor, then the wages of the poor rose more rapidly than their nonpoor counterparts during the early part of the decade and at about the same rate in the latter part, according to the above Table. While no significant closing of wage differentials occurred during the period when inflation was higher and labor markets were at their tightest, the poor may still have made some gains. For example, they may have improved their position through upgrading from the unskilled category. This source of relative gain would not be reflected in the Table.

In short, available evidence, though inconclusive, suggests that during past periods of inflation the income shares, employment rates, and wages of the poor have all tended upward relative to the nonpoor. Such events would make the poor at least relatively better off. Conversely, Government actions to curb growth in aggregate demand in order to ameliorate inflation are likely to make the poor worse off relative to other wage earners.

Box 3

HOW THE POOR CAN BE BETTER OFF RELATIVE TO OTHER WAGE EARNERS BUT ABSOLUTELY WORSE OFF

In Brotslavia the entire work force is engaged in making brots.* Because of certain technical factors they make exactly a million brots a year. Now in one year the poor, who account for 20 percent of the work force of Brotslavia, see their wages rise 10 percent while those of the nonpoor rise only 5 percent. (The proportion of poor and nonpoor in the work force and the relative increases in wage rates imply a 6 percent increase in total wage payments.) But while this was happening the price of brots rose 20 percent. While the poor find that their position has improved relative to that of the nonpoor wage earners, both groups are worse off because the price of brots has risen faster than their incomes. The difference between the 6 percent increase in total wages and the 20 percent increase in the price of brots represents an increase in the share of total income going to profits, interest, and rents. These sectors have gained at the expense of wage earners.

* Brots are an all-purpose good combining the qualities of bread, steak, wine, automobiles, and brot-making machines.

THE POOR: HOLDING THEIR OWN WITH CAPITAL

Suppose as the result of inflation the poor are better off relative to other wage earners. For them to be *absolutely* better off they must hold their own not only against the wage and employment gains of other classes of wage earners but also against increases in the other components of income—profits, interest, and rents. It is possible for the poor to gain a bigger share of the income paid as wages and simultaneously to receive a lower share of the total national income (see Box 3). This situation could arise if prices increase faster than wages. Both poor and nonpoor wage earners may find themselves absolutely worse off because the owners of capital (the plants, stores, and equipment) have taken a share of income large enough to reduce the purchasing power of the share going to wages. This can happen even though money wages have risen. Several decades ago this view of inflation found wide acceptance among economists. Keynes even went so far as to assert that inflationary periods were associated with cultural achievements because they freed the upper classes from economic cares.[5]

However, recent studies suggest that capital has not received greater benefits than wage earners during the inflationary periods of the postwar American economy. One study finds that real wage rates and employment have tended to peak at the same time.[6] This finding is the opposite of what would be

[5] John Maynard Keynes, *Treatise on Money* (London: Macmillan, 1934), 2:154.

[6] R. G. Bodkin, "Real Wages and Cyclical Variations in Employment," *Canadian Journal of Economics* 2 (1969): 353; C. D. Long, "The Illusion of Wage Rigidity: Long and Short Cycles in Wages and Labor Costs," *Review of Economics and Statistics*, May 1960, p. 140.

predicted by those who believe that prices would advance more rapidly than wages during inflation.[7]

More recent data indicate that while the rate of increase in real wages has slowed in the vicinity of peaks in postwar business cycles, wages have increased rapidly enough to cause the percentage of the Gross National Product received by employees to peak at the same time as the business cycle. There appears to be no factual indication that inflation appreciably increases the share of income going to capital. Consequently, the poor seem unlikely to be either relatively or absolutely worse off as a result of inflation's effect on wages and employment.

EFFECTS ON THE VALUE OF ASSETS AND DEBTS

One possible source of hardship which might offset any income gains the poor derive from the inflationary process is a loss in their wealth position. Inflation cannot lead to loss of wealth for society as a whole since it does not lead to a destruction of real assets such as buildings, machinery, and automobiles. It can, however, lead to a significant redistribution of wealth by reducing the real value of debts and assets which are denominated in money terms.[8]

For example, suppose Mr. Adams borrows $50 from Mr. Brown when the price index is 100. Now suppose the index rises to 150. The $50 IOU that Mr. Brown holds is worth only two-thirds as much in terms of what he can now buy with it as when he made the loan. He has suffered a real loss. However, his loss is exactly offset by Mr. Adams's gain since the real value of his debt has declined by a third.

The question of whether the poor or the nonpoor gain or lose in this type of redistribution depends on the relative amounts of each group's monetary assets and debt. If, in the example, both Mr. Adams and Mr. Brown are poor, then the poor as a group have neither gained nor lost. Only if the two men are in different income classes does one group become better off relative to the other.

At first glance, it might appear that the poor would be net debtors with respect to the nonpoor and would gain from wealth redistribution effects. This neglects the possibility that the poor may hold a high proportion of their meager assets in cash and deposits of various sorts. While it's difficult to determine exactly what the relative loss or gain might be, one recent study has estimated that an unexpected rate of inflation of 5 percent would result in less than a quarter of 1 percent loss in the real value of the annual income of the median poor family.[9]

A comparable figure for the nonpoor is not readily available. However, there is evidence that the demand for liquid assets rises more than proportionately when income rises. Moreover, the poor seem to hold a smaller percentage of their total assets in monetary form. This suggests that

[7] It is, of course, not necessary for prices to increase at a faster rate than wages but only at a rate greater than the increase in wages less the increase in productivity.

[8] Inflation can lead to a real loss to the private sector by reducing the real value of the stock of currency. While this is considered, any loss to the private sector caused by the debtor position of the Government is assumed to be offset by a reduction in the present discounted value of the stream of taxes and abstracts from distribution effects generated by the progressive income tax structure. These effects would seem to be concentrated among the nonpoor since that group contains both the primary holders of Government debt, either directly or indirectly, and the higher-bracket taxpayers.

[9] Hollister and Palmer, op. cit., p. 42.

most of any real loss will be suffered by the nonpoor.[10]

It seems unlikely that either the relative or absolute income and wealth position of the poor will be affected substantially through this channel of inflation.

UNCLE SAM'S INTEREST IN THE DISTRIBUTION

For the poor to retain or improve their income and wealth share in the face of inflation, the Government must be willing to maintain the purchasing power of transfer payments like social security or welfare. Public transfer payments are second only to wages and salaries as a source of income for the poor. Even if the poor benefit from the effects of inflation on income and wealth (before taxes and transfers), it may be argued that the failure of legislators to preserve the purchasing power of transfers could offset these benefits.

A recent study of the growth of public transfers of various types suggests that this problem is not a serious one.[11] Although increases in a particular type of payment may lag behind price changes in particular years, these lags seem to be much less widespread and long-lasting than is generally believed. Furthermore, these periods are offset by ones during which payment levels rise considerably more than the price level.

There is also some evidence that legislators think about money transfers in real or purchasing power terms.[12] Thus, even if the recipients of transfer payments lose some value of their income because of unexpected inflation this loss is not gone forever. Legislators seem likely to make up some or all of the loss with future increases that exceed what otherwise would be granted. Additionally, legislators, in an attempt to avoid the effects of inflation on a welfare or social security recipient's income, may take steps to keep money payments in line with the changing price level. Indeed, the revisions of social security in 1972 specified that both benefits and contributions should increase with the cost of living.

INFLATION VERSUS INCOME REDISTRIBUTION

The evidence currently available indicates that the poor are probably not the victims of inflation they're often portrayed to be. In fact, they may be the beneficiaries of an inflationary process that boosts their income and employment position relative to that of the nonpoor. Conversely, a slowdown in inflation caused by recession and unemployment seems to make the poor relatively worse off. If total demand slackens and the inflationary pressures begin to ebb, the same economic processes that lead the poor to benefit more than proportionately on the upswing force them to absorb more than a proportionate share of the economic costs of the downside of the cycle.

The conflict between the suppression of inflation and income redistribution is a small piece in a very complicated puzzle that economic policymakers must fit together. But when tallying the pluses and minuses of any anti-inflationary policy they should be interested not only in *how much* society pays but *who* in society pays the bill for slowing inflation. ■

[10] For the first point, see J. Crockett and I. Friend, "Consumer Investment Behavior," in *Determinants of Investment Behavior* (New York: Columbia University Press, for the National Bureau of Economic Research, 1967), pp. 50-52; and for the second, see G. L. Bach and A. Ando, "The Redistributional Effects of Inflation," *Review of Economics and Statistics,* February 1957.

[11] Hollister and Palmer, op. cit., p. 34. It is also concluded in this study that in many cases the average payment grows rapidly enough to raise the relative income position of the recipient.

[12] N. W. Swan, "Inflation and the Distribution of Income," Ph.D. thesis, University of Pennsylvania, 1969.

The Fed in Print

Business Review Topics, Second Quarter 1973, Selected by Doris Zimmermann

Articles appearing in the Federal Reserve Bulletin *and in the monthly reviews of the Federal Reserve banks during the second quarter of 1973 are included in this compilation. A cumulation of these entries covering the years 1969 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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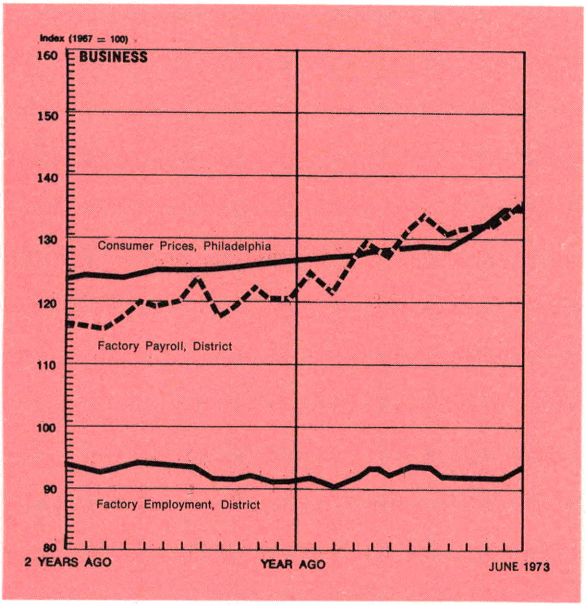

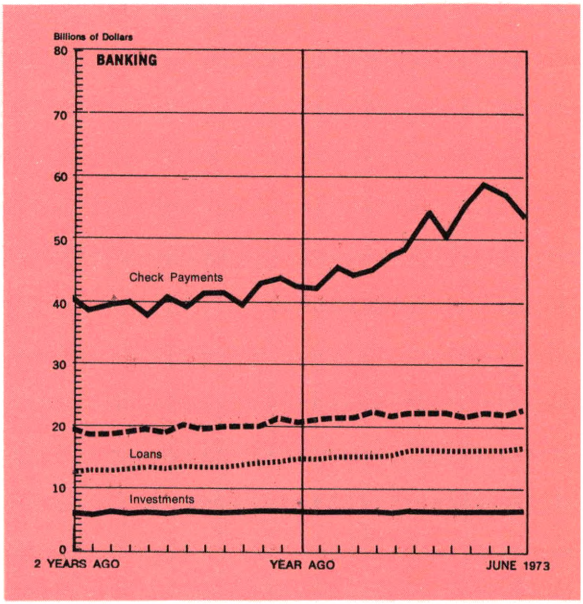

SUMMARY	Third Federal Reserve District — Percent change — July 1973 from mo. ago	Third Federal Reserve District — July 1973 from year ago	Third Federal Reserve District — 6 mos. 1973 from year ago	United States — Percent change — July 1973 from mo. ago	United States — July 1973 from year ago	United States — 6 mos. 1973 from year ago
MANUFACTURING						
Production	...	...	...	+ 3	+10	− 5
Electric power consumed	+ 1	+ 8	+ 7	...	...	...
Man-hours, total*	+ 1	+ 2	+ 3	+ 2	+ 6	+ 7
Employment, total	+ 1	+ 2	+ 2	+ 2	+ 5	+ 5
Wage income*	+ 2	+ 9	+11	+ 3	+13	+14
CONSTRUCTION**	+66	+64	+ 6	+ 5	+19	+14
COAL PRODUCTION	N/A	N/A	N/A	− 3	− 3	− 4
BANKING (All member banks)						
Deposits	− 1	+ 7	+ 8	0	+12	+12
Loans	+ 1	+12	+15	+ 2	+22	+22
Investments	0	− 1	+ 1	0	+ 1	− 4
U.S. Govt. securities	− 1	− 7	− 4	− 1	− 6	+15
Other	0	+ 2	+ 3	0	+ 5	+ 6
Check payments***	− 6†	+25†	+31†	+ 1	+25	+23
PRICES						
Wholesale	...	...	...	+ 2	+15	+11
Consumer	0‡	+ 6‡	+ 5‡	+ 1	+ 6	+ 5

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

†15 SMSAs
‡Philadelphia

LOCAL CHANGES — Standard Metropolitan Statistical Areas*	Manufacturing — Employment — Percent change July 1973 from month ago	Employment — year ago	Payrolls — Percent change July 1973 from month ago	Payrolls — year ago	Banking — Check Payments** — Percent change July 1973 from month ago	Check Payments** — year ago	Total Deposits*** — Percent change July 1973 from month ago	Total Deposits*** — year ago
Wilmington	+ 1	+ 4	+ 2	+14	−20	+ 1	− 1	−88
Atlantic City	+ 4	+ 9	+ 5	+14	− 1	+ 8	+ 2	+16
Bridgeton	+ 3	− 1	N/A	N/A	N/A	N/A	− 1	+15
Trenton	0	+ 2	− 1	+ 6	−15	+108	− 2	+ 3
Altoona	+ 2	− 3	− 4	+ 2	− 4	+ 16	0	+16
Harrisburg	+ 2	+ 6	+ 3	+28	− 5	+ 17	0	+17
Johnstown	0	+ 2	− 1	+12	+ 2	+ 9	0	+15
Lancaster	+ 2	+ 6	+ 1	+10	+ 3	+ 78	0	+16
Lehigh Valley	+ 2	+ 4	+ 2	+12	− 6	+ 19	0	+14
Philadelphia	+ 1	+ 1	+ 1	+ 7	− 3	+ 26	− 2	+ 9
Reading	+ 1	+ 2	− 1	+11	− 1	+ 9	0	+15
Scranton	+ 2	− 2	+ 1	+ 8	+ 4	+ 7	+ 1	+12
Wilkes-Barre	+ 3	0	+ 3	+ 6	+ 5	+ 37	0	+27
Williamsport	+ 2	+ 1	+ 1	+ 6	−13	+ 38	+ 1	+26
York	+ 3	+ 2	+ 3	+11	+ 6	+ 39	− 1	+13

*Not restricted to corporate limits of cities but covers areas of one or more counties.
**All commercial banks. Adjusted for seasonal variation.
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