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SUPPLEMENT

CURRENT ECONOMIC AND FINANCIAL CONDITIONS

Prepared for the
Federal Open Market Committee

November 17, 1972

By the Staff
Board of Governors
of the Federal Reserve System

The Domestic Economy

GNP Revisions. Third quarter current dollar GNP rose $24.6 billion according to revised Commerce Department estimates. Real GNP increased at an annual rate of 6.3 per cent--up slightly from the preliminary estimate of 5.9 per cent; the implicit price deflator rise of 2.4 per cent was also up a bit from the preliminary indication. The private product fixed weight deflator is now estimated to have risen at a 2.9 per cent annual rate.

Major elements in the $1.8 billion upward revision in current dollar GNP were nonfarm business inventories now estimated to have been accumulated at a $7.9 billion annual rate rather than the earlier indicated $5.3 billion rate and personal consumption expenditures which revised upward by $0.5 billion. On the minus side, Federal nondefense purchases were revised down by $0.8 billion and total Federal purchases are now estimated to have declined by $2.7 billion in the quarter.

Preliminary figures are now available for third quarter corporate profits and the Federal budget surplus on an N.I.A. basis. These show that before tax profits rose at a $4.2 billion annual rate from the second quarter. The Federal, N.I.A., budget was in deficit by $11.6 billion in the third quarter as compared with $21.6 billion, annual rate, in the second quarter. The improved deficit position reflected both a substantial decline in expenditures and an increase in revenues.

GROSS NATIONAL PRODUCT AND RELATED ITEMS

	1972 I	1972 II	1972-III Prel. 10/17/72	1972-III Rev. 11/15/72	Change from 72-II Prel.	Change from 72-II Rev.
	(Billions of Dollars) ----------Seasonally Adjusted Annual Rates----------					
Gross National Product	1109.1	1139.4	1162.2	1164.0	22.8	24.6
Final purchases	1108.6	1134.4	1156.6	1156.0	22.2	21.6
Private	859.2	880.3	900.0	900.4	19.7	20.1
Excluding net exports	863.8	885.5	903.4	903.8	17.9	18.3
Personal consumption expenditures	696.1	713.4	728.1	728.6	14.7	15.2
Durable goods	111.0	113.9	118.4	118.6	4.5	4.7
Nondurable goods	288.3	297.2	301.4	302.0	4.2	4.8
Services	296.7	302.4	308.3	308.0	5.9	5.6
Gross private domestic investment	168.1	177.0	181.0	183.2	4.0	6.2
Residential construction	51.6	52.8	54.2	54.4	1.4	1.6
Business fixed investment	116.1	119.2	121.1	120.7	1.9	1.5
Change in business inventories	0.4	5.0	5.7	8.0	0.7	3.0
Nonfarm	0.1	4.3	5.3	7.9	1.0	3.6
Net exports of goods & services	-4.6	-5.2	-3.4	-3.4	1.8	1.8
Exports	70.7	70.0	75.0	74.4	5.0	4.4
Imports	75.3	75.2	78.4	77.8	3.2	2.6
Gov't. purchases of goods & serv.	249.4	254.1	256.6	255.6	2.5	1.5
Federal	105.7	108.1	106.2	105.4	-1.9	-2.7
Defense	76.7	78.6	75.2	75.1	-3.4	-3.5
Other	28.9	29.6	31.0	30.2	1.4	0.6
State and local	143.7	146.0	150.4	150.2	4.4	4.2
Gross National Product in constant (1958) dollars	766.5	783.9	795.3	796.1	11.4	12.2
GNP implicit deflator (1958=100)	144.7	145.3	146.1	146.2	--	--
Personal income	907.0	922.1	939.5	939.9	17.4	17.8
Wage and salary disbursements	608.0	620.5	630.4	630.8	9.9	10.3
Disposable personal income	770.5	782.6	798.7	798.8	16.1	16.2
Personal saving	55.7	50.1	51.3	50.8	1.2	0.7
Saving rate (%)	7.2	6.4	6.4	6.4	--	--
Corporate profits before tax	88.2	91.6	97.3 1/	95.8	5.7	4.2
Corp. cash flow, net of dividends	85.9	90.8	93.7 1/	93.0	2.9	2.2
Federal gov't. receipts and expenditures (N.I.A. basis)						
Receipts	221.4	224.9	230.2 1/	230.0	5.3	5.1
Expenditures	236.3	246.5	243.1	241.6	-3.4	-4.9
Surplus or deficit (-)	-14.8	-21.6	-12.9 1/	-11.6	8.7	10.0
	--Per Cent Per Year Change from Preceding Period 2/--					
Gross National Product						
Current dollars	12.0	11.4	8.3	8.9	--	--
Constant dollars	6.5	9.4	5.9	6.3	--	--
Implicit price deflator	5.1	1.8	2.2	2.4	--	--
Fixed wieght price index 3/	6.1	3.0	2.9	3.1	--	--
Private product	4.5	2.5	2.7	2.9	--	--

1/ Preliminary Commerce figures not available; 11/15/72 staff projection.

2/ Figures for quarter are at compound rates.

3/ Using 1967 expenditures as weights.

Housing starts. Seasonally adjusted private housing starts rose 2 per cent in October to an annual rate of 2,410 thousand units. Although single-family structures declined 6 per cent from the advanced September rate, multifamily starts increased by more than a tenth to the highest rate since February. Starts rose in all regions except the West where they dropped 5 per cent. Unlike starts, seasonally adjusted building permits edged off 2 per cent in October from the peak September rate, primarily reflecting a 15 per cent drop in 5-or-more family permits.

PRIVATE HOUSING STARTS AND PERMITS

	October 1972 (Thousands of Units) 1/	Per cent change from:	
		September 1972	October 1971
Starts 2/	2,410	+ 2	+ 18
1-family	1,288	- 6	+ 12
2-or-more-family	1,122	+13	+ 27
Northeast	368	+ 7	+ 52
North Central	483	+ 1	+ 11
South	1,096	+ 4	+ 22
West	463	- 5	--
Permits	2,218	- 2	+ 12
1-family	1,071	+10	+18
2-or-more-family	1,147	-11	+ 7

1/ Seasonally adjusted annual rates; preliminary.
2/ Not included in starts are mobile home shipments for domestic use, which in September--the latest month for which data are available--were at a seasonally adjusted annual rate of 502 thousand units--6 per cent below the August rate, and 8 per cent below the year earlier level.

The Domestic Financial Situation

Corporate profits. According to preliminary estimates released on Friday, November 17, by the Bureau of Economic Analysis aggregate corporate profits before tax increased by $4.2 billion in the third quarter to a level 15 per cent over a year ago. While earnings of financial institutions and of investments abroad were up somewhat over both the year and the preceding quarter, most of the dollar increase represented improved earnings of domestic nonfinancial business, whose earnings were 16 per cent greater than a year ago. Comparisons with the second quarter are somewhat misleading, since additional capital consumption charges from the floods of almost $2 billion reduced profits by a corresponding amount. If second quarter earnings had not been reduced for this accidental damage to fixed capital, a comparison of quarterly rates of change would indicate a deceleration in the quarterly rate of growth of earnings.

Repatriated earnings of foreign subsidiaries and dividends on portfolio investments abroad amounted to $5 billion, up 16 per cent from a year ago. Earnings of private financial institutions were $15 billion, up ten per cent from a year ago; earnings of the Federal Reserve were at $3.4 billion, unchanged from a year ago.

Within manufacturing, preliminary data from the Federal Trade Commission indicate substantial increases in both profits and in profit margins for primary metals manufacturers. Although the steel strike did not materialize in July of 1971, anticipatory stockpiling reduced demand in the latter part of the year. Both motor vehicles and petroleum experienced reduced earnings and lower margins profit in comparison with last year. Indeed the reduced earnings of General Motors depressed durable manufacturing as well as total manufacturing.

Evidence is scanty for non-manufacturing. The earnings of regulated industries appear to be recovering less rapidly than those of other sectors. Reported increases in the earnings of trade, services, and construction probably containing substantial amounts of inventory profits.

In the aggregate, the rate of increase in earnings is almost a full percentage point higher when account is taken of the inventory valuation adjustment. For manufacturing in particular the inventory component of 1971's third quarter profits was larger both in relative and in absolute terms than it was this year. Taxes and dividends have not risen as fast as have profits, though the tax rate seems to have stopped its long decline. Retained earnings and cash flow have, therefore, increased more rapidly than profits.

CORPORATE PROFITS: PRELIMINARY

	All corporations 1/			Domestic nonfinancial corporations		
	1972-III $Billion SAAR	Percentage change from 1971-III	Percentage change from 1972-II	1972-III $Billion SAAR	Percentage change from 1971-III	Percentage change from 1972-II
Profits before tax and inventory valuation adjustment	89.7	14.6	4.2	65.6	16.5	4.5
Profits before tax	95.8	13.9	4.6	71.7	15.5	4.8
Profits tax liability	42.0	12.0	4.7	33.7	14.2	5.0
Profits after tax	53.7	15.2	4.3	37.9	16.3	4.4
Dividends	26.5	3.9	1.2	20.5	2.5	1.0
Undistributed profits	27.2	29.5	7.5	17.4	38.1	8.8
Cash flow 2/	95.6	16.3	2.5	82.9	16.1	2.0
Effective tax rate (per cent) 3/	43.8	-1.8	.0	47.0	-1.1	.2
Payout rate (per cent) 4/	49.4	-9.7	-3.0	54.1	-11.9	-3.2

1/ Includes both foreign and domestic profits.
2/ Capital consumption allowances plus undistributed profits.
3/ Profits tax liability/profits before tax.
4/ Dividends/profits after tax.

Corporate security issues. Because of a shift in the scheduling of a $500 million debt offering by AT&T, the staff estimates of November and December public bond volume have been revised to $1.3 billion and $500 million, respectively. This revision affects only the timing, not the total volume of corporate securities offerings during the last 2 months of 1972.

INTEREST RATES

	1972 Highs	Lows	Oct. 16	Nov. 16
Short-Term Rates				
Federal funds (wkly. avg.)	5.25 (11/8)	3.18 (3/1)	5.09 (10/11)	4.89 (11/15)
3-month				
Treasury bills (bid)	4.84 (10/13)	2.99 (2/11)	4.80	4.76
Comm. paper (90-119 day)	5.25 (10/26)	3.75 (2/29)	5.25	5.13
Bankers' acceptances	5.50 (11/2)	3.75 (2/23)	5.50	5.38
Euro-dollars	6.12 (10/10)	4.62 (3/8)	6.00	5.81
CD's (prime NYC)				
Most often quoted new	5.38 (10/25)	3.50 (2/23)	5.38 (10/11)	5.12 (11/15)
6-month				
Treasury bills (bid)	5.26 (9/25)	3.35 (1/10)	5.13	5.08
Comm. paper (4-6 mo.)	5.38 (10/25)	3.88 (3/3)	5.25	5.25
Federal agencies	5.51 (9/25)	3.79 (2/17)	5.44	5.24
CD's (prime NYC)				
Most often quoted new	5.50 (10/25)	3.88 (2/23)	5.50 (10/11)	5.38 (11/15)
1-year				
Treasury bills (bid)	5.55 (9/22)	3.57 (1/8)	5.40	5.17
Federal agencies	5.80 (10/16)	4.32 (1/17)	5.80	5.57
CD's (prime NYC)				
Most often quoted new	5.75 (11/15)	4.62 (1/19)	5.75 (10/11)	5.75 (11/15)
Prime municipals	3.20 (9/14)	2.35 (1/12)	3.15 (10/12)	2.90
Intermediate and Long-Term				
Treasury coupon issues				
5-years	6.32 (9/14)	5.47 (1/13)	6.17	6.08
20-years	6.22 (4/14)	5.71 (11/15)	6.01	5.73
Corporate				
Seasoned Aaa	7.37 (4/24)	7.12 (11/16)	7.22	7.12
Baa	8.29 (1/3)	8.01 (11/16)	8.06	8.01
New Issue Aaa Utility	7.60 (4/21)	7.08 (3/10)	7.48 (10/12)	7.12
Municipal				
Bond Buyer Index	5.54 (4/13)	4.99 (1/13)	5.16 (10/12)	5.01
Mortgage--implicit yield in FNMA auction 1/	7.72 (10/30)	7.54 (3/20)	7.72	7.71 (11/13)

1/ Yield on short-term forward commitment after allowance for commitment fee and required purchase and holding of FNMA stock. Assumes discount on 30-year loan amortized over 15 years.

APPENDIX A: THE STATE AND LOCAL GOVERNMENT SECTOR*

Since World War II, State and local government purchases of goods and services have increased at a 50 per cent faster rate than GNP as a whole. Education, welfare and health services, public safety, sanitation, recreation and the environment have been matters of continuing public concern and these functions have traditionally been provided by State and local government, and their growth has been assisted by increasing Federal financial grants-in-aid.

Demand for most of these services has been little affected by cyclical considerations. In fact, growth in the State and local government sector has contributed an important element of stability during recessive periods in the rest of the economy. Thus, during the latest recession, the State and local government sector registered an increase in purchases in real terms between the fourth quarter of 1969 and the fourth quarter of 1970 but in the private sector only residential construction expenditures moved ahead--even personal consumption expenditures registered hardly any real gain.

Although growth of State and local outlays has continued to be a stimulating factor in the past several years, its performance has been less spectacular than in the past. In constant dollars, after 1968, the rate of growth of State and local government outlays has been below the longer term trend and since the end of 1970 its growth has even failed to match that of the economy as a whole.

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* Prepared by Peter Wagner, Senior Economist, National Income, Labor Force and Trade Section, Division of Research and Statistics.

TABLE 1

STATE AND LOCAL GOVERNMENT EXPENDITURES,
1950-1972-QIII (SELECTED YEARS)

	Total purchases	Expenditures for structures	Total purchases as a per cent of gross national product
	----------Billions of 1958 Dollars----------		
1950	27.5	7.0	7.7
1955	34.4	10.4	7.9
1960	43.5	12.4	8.9
1965	56.8	16.1	9.2
1966	61.1	16.8	9.3
1967	65.5	17.6	9.7
1968	69.6	18.4	9.8
1969	72.4	17.4	10.0
1970	74.3	16.0	10.3
1971	76.8	15.4	10.4
1972:I	79.4	14.8	10.4
II	80.3	14.3	10.2
IIIp	81.9	14.2	10.3

Structures

The principal factor in the recent sluggishness of State and local expenditures has been the decline in construction outlays despite the substantial easing of money market conditions. In the first two quarters of this year, such outlays in constant dollars have run about 9 per cent below the corresponding period of 1970 when the economy was approaching its cyclical trough. Several factors may be responsible: in education, school construction needs have become less urgent because of the declining number of children of elementary school age, and these outlays have still not regained their 1970 levels. Perhaps even more surprising has been the lack of strength in highway expenditures which are also still slightly below their 1970 levels in real terms. Such expenditures have apparently been restrained by the tight controls exercised by the Federal Highway Administration over releases from the Highway Trust

Fund. The failure of most other types of public construction to show increases has in part been due to conservative spending limits imposed by many states and localities. However, it is anticipated that expenditures on structures may be a principal beneficiary after the receipt of recently enacted revenue-sharing payments from the Federal government.

TABLE 2

EXPENDITURES FOR STATE AND LOCAL GOVERNMENTS
FOR NEW CONSTRUCTION IN MILLIONS OF 1967 DOLLARS

	Total	Highways	Education	Water supply and sewerage	Other
1969 (1st half)	9,818	3,169	2,450	1,232	2,967
1970 (1st half)	8,681	3,063	2,129	927	2,562
1971 (1st half)	8,773	3,243	1,923	999	2,608
1972 (1st half)	7,887	3,038	1,697	929	2,223

PERCENTAGE DISTRIBUTION OF STATE
AND LOCAL GOVERNMENT PURCHASES
(Quarterly figures at annual rates)

<table>
<tr><th></th><th>1950</th><th>1955</th><th>1960</th><th>1965</th><th>1967</th><th>1969</th><th>1970</th><th>1971</th><th>1972-II</th></tr>
<tr><td>Total purchases of goods & services</td><td>100.0</td><td>100.0</td><td>100.0</td><td>100.0</td><td>100.0</td><td>100.0</td><td>100.0</td><td>100.0</td><td>100.0</td></tr>
<tr><td>Compensation</td><td>51.8</td><td>52.5</td><td>55.5</td><td>56.7</td><td>55.0</td><td>55.4</td><td>56.7</td><td>57.2</td><td>57.5</td></tr>
<tr><td>Structures</td><td>27.2</td><td>30.2</td><td>26.9</td><td>26.4</td><td>25.0</td><td>22.5</td><td>20.5</td><td>19.4</td><td>17.6</td></tr>
<tr><td>Medical vendor payments</td><td rowspan="2">21.0</td><td rowspan="2">17.3</td><td rowspan="2">17.6</td><td rowspan="2">17.3</td><td>2.7</td><td>4.2</td><td>4.6</td><td>5.2</td><td>5.7</td></tr>
<tr><td>Other purchases</td><td>17.3</td><td>17.9</td><td>18.2</td><td>18.2</td><td>19.2</td></tr>
<tr><td>Exhibit:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Transfer payments to persons as per cent of total purchases and transfer payments</td><td>15.2</td><td>10.9</td><td>10.0</td><td>9.1</td><td>8.9</td><td>9.4</td><td>10.3</td><td>10.9</td><td>11.0</td></tr>
</table>

Employment and Compensation

State and local governments have provided a consistent source of expanding employment for the last 20 years and today one-seventh of all employees work for these governments whereas in 1950 the proportion only amounted to one-eleventh. During these two decades employment in this sector has been growing at an average annual rate of 4.7 per cent as compared to an increase in total employment of 2.0 per cent annually. Growth slowed somewhat following the recent peak rate in 1966 but has picked up sharply during the last year. In the year ending with the third quarter of 1972, State and local government employment increased by about half a million workers (see Table 4). This compares with average annual gains of about 380,000 between 1967 and 1970 and approximates the higher rates of increase which ruled during the mid-sixties. However, to some extent the recent gain is exceptional, in that about one-third of the increase consists of persons working under the Public Employment Program, which was established to provide jobs for unemployed workers unable to find work elsewhere. This program is not permanent and almost entirely funded by the Federal government.

Employee compensation accounts for close to 60 per cent of all State and local government purchases, (see Table 3) and slightly more than half of all compensation is spent in the field of education. Despite the considerable employment growth, the increase in wage and salary payments has been dampened during the last 12 months by the success of anti-inflationary policies in moderating per capita salary increases to around 5-1/2 per cent compared to a rate of 7-1/2 per cent in the corresponding 1970-71 period. However, inclusion of generally lower-paid employees hired under the Public Service Employment Program may have contributed to the slower rate of increase.

TABLE 4

INCREASES IN NON-AGRICULTURAL PAYROLL EMPLOYMENT
AND STATE-LOCAL GOVERNMENT EMPLOYMENT
1950-1972-III Selected Years

	Increase from previous year		
	Total employment (000)	State-local employment	State-local government employment as a per cent of total employment
1950	1,444	150	9.1
1955	1,653	164	9.3
1960	921	233	11.2
1965	2,484	448	12.7
1966	3,140	531	12.9
1967	1,902	452	13.2
1968	2,058	430	13.4
1969	2,369	335	13.4
1970	309	386	13.9
1971	52	361	14.4
1972:I	1,470	390	14.6
II	1,953	406	14.6
IIIp	2,313	513	14.9

Other Purchases

Among other expenditures, shown in table 3, medical vendor payments (mostly Medicaid) have shown some extraordinary increases and now represent close to 6 per cent of the value of all purchases. Other miscellaneous purchases have also gained in relative importance and currently account for nearly 20 per cent of total.

Transfer Payments

Transfer payments to persons, comprising pension-related outlays as well as expenditures for a multiplicity of relief and welfare programs continue to show a rising trend. However, they still account for only about 11 per cent of total State and local government outlays (see Table 3) and are in large part financed from Federal grants-in-aid.

The Fiscal Position

Despite steadily rising expenditures, the fiscal position of most State and local governments has become a good deal more comfortable during the last two years. Receipts from their own tax and other revenues have been rising, reflecting a generally improving economy and the imposition of higher tax rates or entirely new taxes and other imposts in a large number of jurisdictions. Such revenues have risen by about 25 per cent between the second quarter of 1970 and the second quarter of 1972. Personal tax and other receipts, corporation profits taxes and indirect business tax and other receipts as well as contributions for social insurance all showed substantial increases. In addition to their own efforts, State and local governments have continued to benefit from increasing amounts of Federal grants. Second quarter 1972 receipts from this source were distorted by an advance receipt of about $4 billion in Federal grant payment, but after adjustment, total Federal grants-in-aid were still up around 40 per cent from the corresponding quarter of 1970. The adjusted level of Federal grants accounted for about 20 per cent of all State and local government receipts, and this proportion is bound to rise with the revenue-sharing funds which will add over $5 billion annually to Federal cash distributions to State and local governments.

This combination of favorable factors on the receipts side and some slowing in the rate of increase of purchases has resulted in a steadily improving fiscal position which has yielded small but increasing surpluses ever since 1968. Even after deducting the requirements of pension fund surpluses which cannot be used for other purposes, income and outgo of all State and local jurisdictions were almost in balance during the first quarter of this year and recorded a substantial surplus during the second quarter although this was largely due to special factors.

State and local governments have also improved their liquid position considerably during the last two years through record amounts of bond financing in addition to their improving revenue position. In the light of current fiscal prospects, their demand for additional loan funds may be expected to moderate somewhat from the near-record amounts floated through the second quarter of 1972.

Of course, the overall figures conceal wide differences in the experience of individual governments. A number of states are running sizable surpluses whereas other states and many central cities are in a less enviable financial position. However, all State and local governments will have considerably more flexibility in their future fiscal and financial planning as a result of these recent developments.

TABLE 5

STATE AND LOCAL GOVERNMENT FINANCES
($ billion at seasonally adjusted annual rates)

	1968	1969	1970	1971	1972-I	1972-II
"Overall" surplus	-0.3	0.7	2.8	4.8	7.1	14.8
Surplus social insurance funds	5.0	5.7	6.5	7.5	8.1	8.4
All other State and local funds	-5.3	-5.0	-3.7	-2.7	-1.0	6.4

TABLE 6

LIQUID ASSETS OF STATE AND LOCAL GOVERNMENTS
on June 30, 1970, 1971, 1972
$ Billion

	June 30, 1970	June 30, 1971	June 30, 1972
Demand deposits and currency	9.5	10.6	10.8
Time deposits in Commercial banks	17.1	26.2	33.3
Short-term U.S. government securities	17.8	22.6	26.3
Total	44.4	59.4	70.4

TABLE 7

STATE AND LOCAL GOVERNMENTS
LONG-TERM BOND OFFERINGS AND CHANGES IN NET INDEBTEDNESS
(Quarterly 1970-72-II)
$ Billion

	1970				1971				1972		
	I	II	III	IV	I	II	III	IV	I	II	III
Gross long-term bond offerings	4.1	3.7	4.5	5.9	6.8	6.1	6.0	6.1	6.0	6.3	5.4E
Net new debt (unadjusted)	2.6	4.0	2.4	4.9	6.4	5.4	4.6	3.9	4.5	3.8	

Appendix B: PROVISIONS OF TITLE I OF THE NEW REVENUE SHARING LAW*

Revenue sharing is a major new undertaking by the Federal Government.1/ Previous Federal aid to State and local governments has been limited to specific programs, but this new program provides aid with very few restrictions on how State and local governments use the funds. Payments are retroactive to January 1, 1972 and are appropriated through 1976. Total appropriations in each period are as follows:

Period	Appropriation (billion $)
Jan. 1 - June 30, 1972	2.652
July 1 - Dec. 31, 1972	2.652
Jan. 1 - June 30, 1973	2.990
Fiscal 1974	6.055
Fiscal 1975	6.205
Fiscal 1976	6.355
July 1 - Dec. 31, 1976	3.327

Thus, the total for calendar year 1972 is $5.3 billion; the amount increases steadily to $6.4 billion by 1976, an increase of 20 per cent over a five year period. The payments are scheduled to start before the end of 1972.

The original proposals for revenue sharing did not provide restrictions on the ways in which the funds could be spent. The law as passed, however, does restrict State and local governments to use the money on "priority expenditures." These include current and operating expenditures for:

1. public safety
2. environmental protection (includes sewage, and sanitation)

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* Prepared by Albert Teplin, Economist, Division of Research and Statistics.

1/ The new law has three parts. Title I is concerned with revenue sharing appropriations and allocations to the States. Title II sets out provisions for the Federal Government collection of State income taxes. Title III amends the Social Security Act in order to place a $2.5 billion limitation on Federal matching grants for social services. The discussion here is restricted to Title I, which has the official title "State and Local Fiscal Assistance Act of 1972."

3. public transportation (includes road maintenance)
4. health
5. recreation
6. libraries
7. social services for poor and aged
8. financial administration.

The law also allows the funds to be used for all capital expenditures. It is clear, therefore, that the bill allows the funds to be spent on almost all the traditional functions of State and local governments.

The category most noticeably left out of the priority expenditure list is education.2/ At present education accounts for over 40 per cent of local expenditures and over 30 per cent of State expenditures. It will be interesting to see if this restriction in the revenue sharing law results in a lowering of these percentages or just a reshuffling of funds such that the States and local governments do not change their own priorities.

States are restricted from decreasing the State tax revenues they return to local governments. If the dollar value of State aid to localities falls below the fiscal 1972 amount then the State's revenue sharing funds are reduced. This does not apply if the States grant new taxing authority to the local governments.

The law also provides that a Treasury trust fund be set up for distribution of the funds on a quarterly (or more often) basis. Each State is to create a special fund for its shared revenues and this fund is subject to Treasury audit.

Allocation formulas

Different formulas were developed in the Senate and House for allocating funds to the States. The Conference Committee did not change these formulas but instead decided that the formula giving the highest amount to each State would be used for that State. The allocations are then scaled proportionately to the appropriation total. After the allocations to the States are determined the funds are again divided. One third of each State's allocation goes directly to the State government. The remaining two-thirds of each State allocation is divided (again by a formula) among the local governments within the States.

For example the State of Maryland will receive $107 million in calendar 1972. Of this $35.7 million (or one-third) will go directly to the State to be used for the "high priority" expenditures

2/ It is not clear what capital expenditures dealing with education will be allowed. Final regulations on this issue have not been completed.

described above. Two-thirds or $71.3 million will go directly from the Federal government to the localities such as the City of Baltimore and Montgomery County. The way this local share is divided between each locality is based on a formula that is similar to the Senate formula (described below). The difference between using the Senate formula to find the local share instead of the full State allocation is that local shares are determined by comparing the different demographic and economic characteristics of the localities within the State. State allocations are determined by comparing each State to the rest of the U.S. States may vary the local share formula within certain bounds, but always two-thirds of the State allocation is sent directly to the local governments.

Thus each year the Federal government will first make 51 calculations (D.C. is treated as a State) for the State allocations. Then based on the State's desires and within the limits of the formula in the law, the Treasury will calculate the local shares. In all more than 38,000 Revenue Sharing checks will be sent to either a State or a local government officer.

The Senate formula (or "three-factor" formula) for finding the State allocations uses three measures--population of the State, a tax effort factor (own revenues divided by personal income) and a relative income factor (per capita national income divided by the State's per capita income). First a calculation for each State is made using these three factors:

(1A) $P_i = N_i \cdot \frac{R_i}{Y_i} \cdot \frac{y}{y_i}$ where P_i, N_i, R_i, Y_i, y_i are the

product, population, own revenues, personal income, and per capita income of the i^{th} State. The y is per capita national income. Own revenues include all taxes collected by the State and its local governments. Thus, a reduction in State or local taxes without a reduction in personal income would result in a lower product, P_i. Note, too, that per capita national income appears in the numerator of the third factor. In this way the States with per capita incomes lower than the national figure have a higher P_i.

Once each State's product is found the appropriation to any individual State is simply the ratio of the State's product to the sum of all States' products times the total congressional appropriation:

(1B) $S_i = A \cdot \frac{P_i}{\Sigma_i P_i}$ where S_i is the States share, A is the

Congressional appropriation and ΣP_i represents the sum of the products of each State.

Again using Maryland as an example,[3/] we can find its product by multiplying its population (3.922 million) times the ratio of its State and local revenues to its personal income (\$1.9 billion ÷ \$16.8 billion) times the ratio of the national per capita income to its own per capita income (\$3698 ÷ 3965). This gives a product of 408.9. The sum of such products for all States and the District of Columbia is about 22860.4. Thus the ratio of Maryland's product to the national sum is about .018. Maryland, therefore, would receive about 1.8 per cent of the revenue sharing funds under this formula, which would amount to \$95.4 million for calendar year 1972.

The House formula (or "five factor" formula) is additive. The total appropriation is first split such that approximately 2/3 is allocated on the basis of a State's total population, urban population, and per capita income. The remaining 1/3 is allocated on the basis of the relationship between total State and local income tax collections within the State and the national total and a measure of the State's

3/ The figures used here are approximate and not necessarily those used by the Treasury.

general tax effort. The five factors are defined as[4/]

F_1: Proportion of State's population to national population

F_2: Proportion of State's urban population to the national urban population.

F_3: A measure of relative per capita income in the State compared to the national per capita income.

F_4: Proportion of State and local income taxes to all State and local income taxes raised nationally.

F_5: A measure of total tax effort that relates the State's ratio of its total revenues to personal income to the national sum of the ratios of State and local revenues to total personal income.

4/ The mathematical formulation of these factors can be written as follows.

(1) $F_{1i} = \frac{N_i}{N}$ (proportion of State population to national)

(2) $F_{2i} = \frac{U_i}{U}$ (proportion of urban population to national)

(3) $F_{3i} = \frac{N_i \frac{y}{y_i}}{\Sigma_i N_i \frac{(y)}{y_i}}$ (relative per capita income measure)

(4) $F_{4i} = \frac{I_i}{I}$ (proportion of State and local income taxes to national total)

(5) $F_{5i} = \frac{E_i \cdot R_i}{\Sigma_i (E_i R_i)}$ (tax effort measure)

where N_i, U_i, y_i, I_i, E_i, R_i are populations, urban population, per capita income, state income taxes, tax effort (defined above in the Senate formula) and own revenues for State i. N, U, y, and I are the corresponding national total for population, urban population, per capita income and State income taxes.

The above five factors are combined to give the State allocation (S_i) from the total appropriation (A) in the following way:

$$(2)\ S_i = \frac{2}{3} A \left[\frac{1}{3} F_{1i} + \frac{1}{3} F_{2i} + \frac{1}{3} F_{3i} \right] + \frac{1}{3} A \left[\frac{1}{2} F_{4i} + \frac{1}{2} F_{5i} \right]$$

This formula gives Maryland 2.2 per cent of the revenue sharing appropriations--a somewhat higher percentage than provided by the Senate version.

The reason Maryland is favored under the House formula helps explain the difference between the two approaches. Maryland is an urbanized State and it has a State and local income tax. In the House formula, these factors are given separate weights. They do not enter into the Senate formula. A rural State that does not raise any of its own revenues with an income tax would be favored under the Senate formula.

Obviously if every State was to receive its share under the most favorable formula the shares would exceed the total appropriation of $5.3 billion. To scale the total appropriation down the procedure is to first find each State's most favorable share under the two formulas and sum them for a national total. In the case of Maryland this would be $117.5 billion under the House formula and the total for all States would be $5.821 billion. Maryland's share of this total is about 2 per cent. Thus Maryland receives 2 per cent of the $5.3 billion appropriated for calendar 1972, or $107 million.

A popular misconception of the revenue sharing bill is that it will allow States to lower their taxes. However, if a State lowers its taxes and the other States do not it will receive less in shared funds. The debate on revenue sharing made it clear that the intent was not to reduce State and local taxes, although the new law may slow the growth of these taxes.

Table 1 below gives the State and local government shares for the 1972 calendar year. It shows that 45 per cent of the funds are concentrated in seven States. California and New York together receive over twenty per cent of the money. However, the character of the redistribution is clearer from Table 2. There the per cent of revenue sharing funds going to each State is compared to its per cent of 1970 population and 1969 Federal individual income taxes.

The difference between the per cent of shared funds and per cent of population is largest for New York (2.18) and smallest for Ohio (-1.34). Texas, too, has a small number (-.91), but the rest of the states seem to be between -.40 and .40.

TABLE 1--DISTRIBUTION OF FUNDS TO THE STATES FOR CALENDAR YEAR 1972
(In millions of dollars)

State	Total	State share 2/	Local share 2/
United States, Total . .	5,303.9	1,767.8	3,536.1
Alabama	116.1	38.7	77.4
Alaska.	6.3 1/	2.1	4.2
Arizona	50.2	16.7	33.5
Arkansas.	55.0	18.3	36.7
California.	556.1	185.4	370.7
Colorado.	54.6	18.2	36.4
Connecticut	66.2	22.1	44.1
Delaware.	15.8	5.3	10.5
District of Columbia.	23.6	7.9	15.7
Florida	146.0	48.7	97.3
Georgia	109.9	36.6	73.3
Hawaii.	23.8 1/	7.9	15.9
Idaho	19.9	6.7	13.2
Illinois.	274.4	91.5	183.2
Indiana	104.3	34.8	69.5
Iowa.	77.0	25.6	51.4
Kansas.	52.8	17.6	35.2
Kentucky.	87.3	29.1	58.2
Louisiana	113.6	37.9	75.7
Maine	31.1	10.3	20.8
Maryland.	107.0	35.7	71.3
Massachusetts	163.0	54.3	108.7
Michigan.	221.9	74.0	147.9
Minnesota	103.9	34.6	69.3
Mississippi	90.7	30.2	60.5

1/ After adjustment for noncontiguous States.
2/ 1/2 to State governments and 2/3 to local governments.

Continued on next page.

TABLE 1--DISTRIBUTION OF FUNDS TO THE STATES FOR CALENDAR YEAR 1972
(continued) (In millions of dollars)

State	Total	State share 2/	Local share 2/
Missouri	98.8	33.0	65.8
Montana.	20.6	6.9	13.7
Nebraska	42.9	14.3	28.6
Nevada	11.1	3.7	7.4
New Hampshire.	15.2	5.1	10.1
New Jersey	163.6	54.5	109.1
New Mexico	33.2	11.0	22.2
New York	591.4	197.1	394.3
North Carolina	135.5	45.2	90.3
North Dakota	19.7	6.5	13.2
Ohio	207.0	69.0	138.0
Oklahoma	59.4	19.8	39.6
Oregon	56.2	18.7	37.5
Pennsylvania	274.0	91.3	182.7
Rhode Island	23.6	7.9	15.7
South Carolina	81.5	27.2	54.3
South Dakota	25.1	8.4	16.7
Tennessee.	98.4	32.8	65.6
Texas.	244.5	81.5	163.0
Utah	31.4	10.5	20.9
Vermont.	14.8	4.9	9.9
Virginia	105.2	35.0	70.2
Washington	84.1	28.1	56.0
West Virginia.	52.3	17.4	34.9
Wisconsin.	133.9	44.6	89.3
Wyoming.	9.7	3.2	6.5

1/ After adjustment for noncontiguous States.
2/ 1/2 to State governments and 2/3 to local governments.

TABLE 2: REDISTRIBUTION MEASURES

	Per cent of 1972 revenue sharing funds	Per cent of population (1970)	Per cent of Federal personal income taxes (1969)	Per cent of funds less per cent population (1) - (2)	Per cent of funds less per cent of taxes (1)-(3)	Revenue sharing funds as a per cent of taxes (1) ÷ (3) *100
	(1)	(2)	(3)	(4)	(5)	(6)
Ala.	2.18	1.69	1.04	.49	1.14	12.9
Alas.	0.11	0.14	0.17	-.03	- .06	4.2
Ariz.	0.94	0.87	0.72	.07	.22	8.0
Ark.	1.03	0.94	0.52	.0	.51	12.2
Cal.	10.48	9.81	10.83	.67	- .35	5.9
Colo.	1.02	1.08	0.96	-.06	.06	6.6
Conn.	1.24	1.49	2.37	-.25	-1.13	3.2
Del.	0.29	0.26	0.34	.03	- .05	5.4
D. C.	0.45	0.37	0.44	.08	.04	6.2
Fla.	2.75	3.34	3.05	-.59	- .30	5.5
Geo.	2.07	2.25	1.77	-.18	.30	7.2
Ha.	0.44	0.37	0.40	.07	.04	6.8
Id.	0.37	0.35	0.22	.02	.15	10.3
Ill.	5.17	5.46	7.07	-.30	-1.90	4.5
Ind.	1.96	2.55	2.51	-.59	- .55	4.8
Ia.	1.45	1.39	1.14	.06	.31	7.8
Kan.	0.99	1.10	0.92	-.11	.07	6.6
Ky.	1.64	1.58	1.07	.06	.57	9.4
La.	2.14	1.79	1.21	.35	.93	10.9
Me.	0.58	0.48	0.36	.10	.22	9.7
Md.	2.01	1.93	2.35	.08	- .34	5.3
Mass.	3.07	2.79	3.27	.28	- .20	5.8
Mich.	4.18	4.36	5.02	-.18	- .84	5.1
Minn.	1.98	1.87	1.64	.08	.31	7.3
Miss.	1.71	1.09	0.46	.62	1.25	22.5
Mo.	1.86	2.30	2.13	-.44	- .27	5.4
Mont.	0.38	0.34	0.25	.04	.13	9.3
Neb.	0.80	0.72	0.61	.08	.19	8.1
Nev.	0.20	0.24	0.34	-.04	.14	3.7
N. H.	0.28	0.36	0.32	-.08	- .04	5.4
N. J.	3.08	3.52	4.49	-.44	-1.41	4.2
N. M.	0.62	0.49	0.31	.13	.31	12.1
N. Y.	11.15	8.97	11.33	2.18	- .18	6.0
N. C.	2.55	2.50	1.73	.05	.82	9.1

Continued on next page.

TABLE 2: CONTINUED

	Per cent of 1972 revenue sharing funds	Per cent of population (1970)	Per cent of Federal personal income taxes (1969)	Per cent of funds less per cent population (1) - (2)	Per cent of funds less per cent of taxes (1)-(3)	Revenue sharing funds as a per cent of taxes (1) (3) *100
	(1)	(2)	(3)	(4)	(5)	(6)
N. Dak.	0.37	0.30	0.18	.07	.19	12.7
Ohio	3.90	5.25	5.74	-1.34	-1.84	4.2
Okla.	1.11	1.25	0.93	- .14	.18	7.4
Ore.	1.05	1.02	0.94	.03	.11	6.9
Pa.	5.16	5.80	5.98	- .64	- .82	5.3
R. I.	0.44	0.46	0.44	- .02	.00	6.1
S. C.	1.53	1.27	0.75	.26	.78	12.4
S. Dak.	0.47	0.32	0.18	.15	.29	15.5
Tenn.	1.85	1.93	1.41	- .08	.44	8.1
Tex.	4.60	5.51	4.79	- .09	- .19	5.9
Ut.	0.59	0.52	0.34	.07	.25	10.5
Vt.	0.27	0.21	0.17	.06	.10	9.9
Va.	1.98	2.28	2.08	- .30	- .10	5.9
Wash.	1.58	1.67	1.78	- .09	- .20	5.5
W. Va.	0.98	0.85	0.61	.13	.37	9.9
Wis.	2.52	2.17	1.96	.35	.56	7.9
Wy.	0.18	0.16	0.13	.02	.05	8.2

Sources:
(1) Congressional Record, Oct. 13, 1972, p. S 18016.
(2) U. S. Bureau of the Census, Statistical Abstract of the U. S., 1971 pp. 12-13.
(3) I.R.S., Statistics of Income 1969: Individual Income Tax Returns, Table 5.3, Col. (8), p. 250.

TABLE 3

STATES RANKED BY PER CENT OF 1969 FEDERAL INDIVIDUAL INCOME TAXES RETURNED THROUGH REVENUE SHARING

Top third (22.5%-8.2%)	Middle third (8.1%-5.9%)	Lower third (5.9%-3.7%)
1. Mississippi	18. Tennessee	35. California
2. South Dakota	19. Nebraska	36. Massachusetts
3. Alabama	20. Arizona	37. Florida
4. North Dakota	21. Wisconsin	38. Washington
5. South Carolina	22. Iowa	39. Delaware
6. Arkansas	23. Oklahoma	40. New Hampshire
7. New Mexico	24. Minnesota	41. Missouri
8. Louisiana	25. Georgia	42. Maryland
9. Utah	26. Oregon	43. Pennsylvania
10. Idaho	27. Hawaii	44. Michigan
11. Vermont	28. Kansas	45. Indiana
12. West Virginia	29. Colorado	46. Illinois
13. Maine	30. District of Columbia	47. New Jersey
14. Kentucky	31. Rhode Island	48. Ohio
15. Montana	32. New York	49. Alaska
16. North Carolina	33. Texas	50. Connecticut
17. Wyoming	34. Virginia	51. Nevada

Average per cent returned is 7.8.

An interesting pattern emerges when we subtract the per cent of personal income taxes from the per cent of revenue sharing funds. Money will be flowing to the South from the rest of the U.S. Alabama (1.14), Arkansas (.51), Mississippi (1.25), North Carolina (.82), and South Carolina (.78) are the chief gainers in the South. Whereas Connecticut (-1.13), Illinois (-1.90), Michigan (-.84), New Jersey (-1.41) and Ohio (-1.84) rank higher in per cent of taxes than in revenue shared funds.

One final measure shows revenue sharing as a per cent of 1969 federal individual income taxes. Mississippi has the highest figure of 22.5 per cent. Several other Southern states as well as small states outside the South seem to have a higher percentage relative to the rest of the country. In Table 3 the states are ranked by this last measure. On the average 7.8 per cent of the 1969 taxes are returned. It is clear from this table also, that funds are going to be redistributed to the smaller rural states from the larger urban states. Furthermore, it is not totally a regional redistribution since the first column of Table 3 has states from all regions of the U.S. just as the third column does.

Effects on State and local Finance

Revenue sharing may prevent some tax increases, but it probably will not result in actual decreases in state and local taxes. There are three reasons why lower tax rates are not likely. The first is that, as mentioned above, a reduction in tax effort (either in rates or type of taxes) on the part of a State or local government may result in less funds in the future. Secondly, the budget surpluses for the State and local sector reported in the national income accounts are in large part due to surpluses in social insurance funds. Third, it should be remembered that Title III of this Act reduces the social service grants-in-aid program. In turn a restriction in Title I for using revenue sharing funds for social services was lifted in the conference report. Thus, there will be some substitution of revenue sharing funds for the lost categorical grants which State and local governments had already budgeted.

It is important to note that block grants (such as revenue sharing) probably are less stimulative to State and local spending than other forms of Federal aid to lower level governments. Edward Gramlich and others 2/ have suggested that a dollar of block grants usually leads to an equal amount of State and local expenditure. The funds are just transfered from one level of government to another. This has not been true of conditional grants (such as highway funds).

2/ Most of these studies are listed and discussed in Edward Gramlich, "The effects of Federal Grants on State-Local Expenditures: A Review of the Econometric Literature," Papers and Proceedings of the National Tax Association, 1970, pp. 569-592.

For this type of aid the matching formula induces the State or local government to spend more than the Federal appropriation.

Finally it should be pointed out that revenue sharing will raise the per cent of State and local revenues from the Federal government. In 1950, 10 per cent of State and local revenues came from the Federal level. In fiscal 1970 the per cent was about 18 per cent and with revenue sharing it will climb to about 20 per cent.