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Economic Impact of Various Budgetary Policy Options for the State of Michigan to Resolve its Budget Deficit for FY 2004

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The State of Michigan is facing a \$925 million budget deficit in Fiscal Year 2004 which began in October 2003. This research brief summarizes the findings of an analysis of the potential economic impacts to the state's economy of the following three budgetary policy options:

1. Eliminate the deficit by cutting state spending by \$925 million.
2. Raise sufficient revenues to balance the state's budget by increasing the state's personal income tax rate to an estimated 4.7 percent.
3. Delay for one year the scheduled roll back of the state's personal income tax rate from 4.0 percent to 3.9 percent. Such an action would generate an estimated \$115 million in additional revenues, which could be used to reduce cuts in state aid to public elementary and secondary schools. The rest of the deficit would be eliminated by cutting state spending by \$810 million.

These three options are analyzed with respect to their impact on the number of jobs in Michigan and the size of the state economy, using a regional econometric model of Michigan's economy.

Economic Impact of Cutting GF by \$583 Million and SAF by \$342 Million

The baseline in our analysis is to maintain current state spending and tax policies, which implicitly means accepting a budget deficit for fiscal year 2004 of \$925 million. Compared to this baseline, what would be the impact on the state economy if the state balances its FY 2004 budget by cutting \$925 million from its General Fund expenditures and School Aid Fund expenditures? According to our regional econometric model, compared to the deficit spending baseline, this budget cut alternative would eliminate 23,820 jobs statewide. In this analysis, it is estimated that \$583 million would be cut from General Fund expenditures and an additional \$342 million would be eliminated from the state's School Aid Fund in FY 2004. Approximately 54 percent of the jobs lost, 13,100 jobs, would be eliminated from the state's public education sector and from state government. Another 10,720 jobs would be lost in the state's private sector. These private sector job reductions result from a reduction in consumer spending by laid off government employees, the cancellation of government procurement orders to suppliers, and the ensuing second and third rounds of decreased expenditures.

In terms of the state's Gross Regional Product, which is the value of all goods and services produced in the state during 2004, the proposed state budget would reduce state output by \$1.2 billion (1996 fixed dollars) in 2004. The state's personal income would decline by \$863 million dollars.

The Economic Impact of Raising the State's Personal Income Tax Rates to Eliminate the State Budget Deficit

To eliminate the expected \$925 million revenue short fall in FY 2004 by raising the state's personal income tax rate, the state would be required to increase the state's personal income tax rate to approximately 4.7 percent.¹ This would have a negative impact on the state's economy due to the resulting reduction in consumer spending caused by the decline in disposable income. Compared to the baseline of running a budget deficit of \$925 million, an estimated 15,800 private sector jobs would be eliminated. Moreover, 410 public sector jobs would be lost due to the reduction in economic activity in the state.

However, compared to the alternative of cutting state spending, raising taxes by \$925 million to keep state spending at current levels would save 13,100 state and public education jobs and save 10,720 private sector jobs. Again, the private sector jobs would be created through the consumer expenditures of retained state and local government and school employers and by the retained procurement orders from state and local governments and schools for business services and supplies.

On net, if the state decided to balance its FY 2004 budget by increasing personal income taxes, instead of by cutting state spending, the net impact on state employment would be an increase of 7,610 jobs and an increase in state personal income of \$309 million.² It should be noted that although total employment in the state would increase by 7,610 jobs, private-sector employment would be down by 5,080 jobs.

¹ While probably not politically plausible, this comparative analysis is useful by highlighting the difference in economic impact between a pure policy of spending cuts versus a pure policy of tax increases. As illustrated later in this memo, the same general pattern of effects, to a lesser extent, applies to policies that would substitute tax increases for spending cuts to a lesser extent.

² The seemingly contradictory finding that a higher personal income tax would generate more state personal income is only possible if the resulting state revenues are used to pay for employees' salaries.

Economic Impact of \$925 million in Adjustments to the Michigan State Budget FY2004

| | Cutting \$925 Million from State Budget (1) | Raising Taxes to Keep \$925 Million (2) | Net Impact (3)=(2)-(1) |
|----------------------------------|---|--|---------------------------|
| Employment Impact | | | |
| Private, Goods Producing | -4,010 | -3,010 | 1,000 |
| Private, Service Producing | -6,710 | -12,790 | -6,080 |
| Government | -13,100 | -410 | 12,690 |
| Total Nonfarm Employment | -23,820 | -16,210 | 7,610 |
| Income Impact | | | |
| Total Personal Income | -\$863,200,000 | -\$554,400,000 | 308,800,000 |
| Gross State Product (\$96 fixed) | -\$1,194,000,000 | -\$840,500,000 | 353,500,000 |

Note: Impacts in columns (1) and (2) are compared to alternative of doing nothing, i.e. not making budget adjustments needed to balance the state budget. Column (3) shows the net effect of balancing the budget by tax increases, versus the alternative of balancing the budget by spending cuts, and is equal to the difference between columns (2) and (1).

Economic Impact of Postponing the Scheduled 0.1 Percent Reduction in the State's Personal Income Tax

If the state postponed the scheduled 0.1 percent reduction in the state's personal income tax from 4.0% to 3.9% for one year, state revenues would increase by an estimated \$115 million in 2004. If these additional revenues were dispensed to the state's local schools it would save an estimated 1,370 public education jobs and have a modest, positive net impact on statewide employment of 710 jobs.

Keeping the state's tax rate at 4.0% would reduce consumer spending which would result in an elimination of 1,940 jobs in the state's private sector. The decline in economic activity would also eliminate 50 state and local government jobs throughout the state.

On the plus column, maintaining the current state income tax rate would allow 1,370 public education employees to stay on the job. Their retained paychecks and the continuation of the schools' procurement expenditures for business services and goods would support 1,330 private sector jobs in the state.

In short, delaying the scheduled personal income tax cut would retain 710 jobs in the state and generate \$30.6 million in total personal income.

Economic Impact of Delaying the Scheduled Personal Income Tax Cut

| | Proceeding With Tax Cut (Loss of \$115 Mil from Budget) (1) | Delaying Tax Cut to Maintain \$115 Million in Budget (2) | Net Impact (3)=(2)-(1) |
|----------------------------------|--|---|-------------------------------|
| Employment Impact | | | |
| Private, Goods Producing | -120 | -120 | 0 |
| Private, Service Producing | -1,210 | -1,820 | -610 |
| Government | -1,370 | -50 | 1,320 |
| Total Nonfarm Employment | -2,700 | -1,990 | 710 |
| Income Impact | | | |
| Total Personal Income | -\$99,490,000 | -\$68,910,000 | \$30,580,000 |
| Gross State Product (\$96 fixed) | -\$138,300,000 | -\$104,500,000 | \$33,800,000 |

Note: Impacts in columns (1) and (2) are compared to alternative of not making the last \$115 million in budget adjustments needed to balance the state budget. Column (3) shows the net effect of balancing the budget by delaying the proposed tax rollback, compared to the alternative of spending cuts, and is equal to the difference between columns (2) and (1).

Methodology and Assumption

This analysis was conducted by using the W.E. Upjohn Institute’s Regional Economic Models Incorporated (REMI) multi-regional model for the state of Michigan. REMI models are used throughout the nation to measure the economic impact of changes in public and private sector activity. The model includes a regionalized input-output component that estimated the flow of goods and services between industries in the state, and a relative cost model that estimates the economic impact of changes in taxes and production costs on statewide activity. The model has been reviewed numerous times in academic journals and is well regarded by regional economists.

This analysis only examines the short-term impact of the State of Michigan cutting its GF and SAF expenditures, or raising taxes. In short, it measures the loss of economic activity that would be supported by state and local governmental expenditures in 2004, or the loss of economic activity from tax increases in 2004 due to effects on demand for goods and services. It does not address, for example, the long-term issues associated with cutting state education spending on the quality of the state’s future workforce. Nor does it address the long-term effects on business location decisions of various combinations of tax increases and public service cuts.

In conducting the analysis the following assumptions were used:

1. All tax increases would be limited to changes in personal income taxes. Potential changes in user/license fees, the Single Business Tax, tuition payments or any other revenue enhancing strategies were not considered.
2. The change in state expenditures was allocated to general state government expenditures (GF) and elementary and secondary school expenditures, based on statewide average expenditure patterns. This necessary simplifying

assumption could create errors if the actual changes in GF expenditures are targeted to certain activities, for example, higher education. Without more detailed information regarding where the expenditure cuts could occur, we were limited to using the statewide average.

This analysis was prepared by Timothy Bartik, Senior Economist, and George Erickcek, Senior Regional Analyst at the W.E. Upjohn Institute. The views expressed in this paper are solely those of the authors and do not necessarily reflect the views of the Institute or its Board of Trustees. The W.E. Upjohn Institute for Employment Research is an independent, nonprofit research organization located in Kalamazoo, Michigan. The Institute's mission is to conduct research into the causes and effects of unemployment and measures for the alleviation of unemployment.