Policy Memorandum

FISCAL RESEARCH CENTER

GEORGIA STATE UNIVERSITY
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Subject: Analysis of Partial Income Tax Replacement with Increased State Sales Tax

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This analysis estimates state sales tax rates necessary to offset varying amounts of personal income tax marginal rate cuts on a static, revenue neutral basis.

The sales tax base is assumed to be the same as the existing base, with no extension of the sales tax to food or services not already subject to the state sales tax. Fiscal year 2012 state sales tax revenues as reported by the Department of Revenue are used in the analysis, and are adjusted to remove estimated revenues from sales taxes on motor vehicles and the 1% portion of the second motor fuels tax that is included in reported sales tax revenues. The adjusted FY2012 revenue is then used to estimate the tax base. Table 1 shows this estimate.

TABLE 1. STATE SALES TAX ($THOUSANDS)

FY 2012 Sales Tax Revenue	*$5,330,347*
Less:	
Motor Vehicle Sales Taxes	421,000
Motor Fuels 1% Sales Tax	190,882
Net Revenue	$4,718,465
Implied Base@ 4% Tax*	*$117,961,633*

*Excluding motor vehicles and fuels.
Sources: Department of Revenue Statistical Report FY2012 and FRC estimates from DOR data.

Personal income tax cuts of between ½ percentage point and 3 percentage points were simulated using tax year 2011 personal income tax data from the Department of Revenue. Two approaches were taken: First, reducing only the top marginal tax rate by ½ percentage point and 1 percentage point, and second, reducing all marginal rates in equal amounts (though not below zero) of ½, 1, 2, and 3 percentage points. No other income tax changes are assumed. The simulated percent reductions in total tax liabilities were then applied to FY2012 personal income tax revenues to estimate the revenue loss for each scenario. Table 2 presents the simulation results.

The final step was to estimate the sales tax rate required to just replace the estimated income tax revenue loss for each scenario if applied to the implied sales tax base figure in Table 1. Results are provided in Table 3.

TABLE 2. PERSONAL INCOME TAX ($THOUSANDS)

TY2011 Total Tax Liability	*$7,408,033*	
Simulated Effect of Top Marginal Rate Cuts:		
½ Point	(575,825)	-7.8%
1Point	(1,148,688)	-15.5%
Simulated Effect of Across the Board Rate Cuts:		
½ Point	(698,297)	-9.4%
1 Point	(1,392,819)	-18.8%
2Points	(2,769,528)	-37.4%
3Points	(4,120,279)	-55.6%
FY2012 PIT Revenue	*$8,142,692*	
Estimated Revenue Effect of Top Rate Cuts:		
½ Point	(632,930)	
1Point	(1,262,604)	
Estimated Revenue Effect of Across the Board Cuts:		
½ Point	(767.548)	
1 Point	(1,530,945)	
2Points	(3,044,184)	
3Points	(4,528,889)	

Sources: 1) FRC microsimulation model run on Department of Revenue Tax Year 2011 tax file and 2) Department of Revenue Statistical report FY2012.

TABLE 3. REVENUE NEUTRAL SALES TAX RATES (STATIC FY2012 BASIS)

Income Tax Cut	Required State Sales Tax Rate*
Top rate cuts:	
½ Point	4.54%
1 Point	5.07%
Across the board cuts:	
½ Point	4.65%
1 Point	5.30%
2 Points	6.58%
3 Points	7.84%

*applies to existing sales tax base, adjusted to exclude motor vehicles and the 1% sales tax on motor fuels.

These sales tax rate estimates, again, are on a static, revenue neutral basis for FY2012. No behavioral or dynamic effects are considered. Given the current sales tax base in Georgia, it is possible that raising the sales tax rate on that relatively narrow tax base, and thus changing relative prices of goods and services, would cause consumers to change their purchasing behavior, resulting in somewhat lower sales tax revenues than the static analysis suggests. In addition, it is possible that the marginal income tax rate cuts could have positive dynamic effects that, over time, could result in somewhat greater income and sales tax revenues than the static analysis suggests.

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