

REVENUE STABILITY SIMULATIONS

Description

The stability simulations are based on historic U.S. Census data for quarterly state and local government tax collections. The data are based on collections for the 12-month period ending in March, June, September and December of each year. The quarterly series begins in December 1988 and runs through March of 2008. The Base Case starts with the national tax source proportions in December 1988 and applies the historic growth rate to each source, in effect replicating history. Sims 2 through 5 alter the initial proportions (for example double sales tax and eliminate personal income tax) and then apply the historic growth rate to each of the tax sources. This allows for a comparison of the hypothetical tax combinations with the actual national averages in terms of average growth, standard deviation (a measure of stability) and the minimum and maximum quarterly change.

Simulations

Sim 1

Base Case (Based on actual December 1988 national data)

Personal Income Tax = 20.5%

Corporate Income Tax = 5.6%

Property Tax = 29.6%

General Sales Tax = 24.9%

Excise Taxes = 19.4%

Total Collections = 100%

Sim 2

Sales Tax/ No Personal Income Tax

Personal Income Tax = 0%

Corporate Income Tax = 5.6%

Property Tax = 29.6%

General Sales Tax = 45.4%

Excise Taxes = 19.4%

Total Collections = 100%

Sim 3

Personal Income Tax/ No Sales Tax

Personal Income Tax = 45.4%

Corporate Income Tax = 5.6%

Property Tax = 29.6%

General Sales Tax = 0%

Excise Taxes = 19.4%

Total Collections = 100%

Sim 4

No Residential Property/ Higher Sales Tax

Personal Income Tax = 20%

Corporate Income Tax = 5.6%

Property Tax = 15%

General Sales Tax = 40%

Excise Taxes = 19.4%

Total Collections = 100%

Sim 5

No Corporate Income Tax/ Higher Sales/Gross Receipts Tax

Personal Income Tax = 20%

Corporate Income Tax = 0%

Property Tax = 29.9%

General Sales Tax = 30.6%

Excise Taxes = 19.4%

Total Collections = 100%

Simulation Results

SUMMARY MEASURES	SIM 1	SIM 2	SIM3	SIM 4	SIM 5
AVERAGE QUARTERLY CHANGE	1.39%	1.3%	1.45%	1.37%	1.41%
STANDARD DEVIATION	0.78%	0.68%	1.06%	0.83%	0.74%
MAX	3.4%	2.8%	4.3%	3.5%	3.2%
MIN	-0.6%	-0.1%	-2.6%	-1.1%	-0.4%

SIM 1 = Base Case (Based on actual December 1988 national data)

SIM 2 = Sales Tax/ No Personal Income Tax

SIM 3 = Personal Income Tax/ No Sales Tax

SIM 4 = No Residential Property/ Higher Sales Tax

SIM 5 = No Corporate Income Tax/ Higher Sales/Gross Receipts Tax

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