# Eco 214 Sales tax (on consumption goods) impact on National savings.

$s$ = sales tax rate (7% = .07)

P = $1

Consumption expenditure : $CE = C + s \times C$

or $\boxed{CE = C(1+s)}$

Revenue collected by Government = $s \times C$

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- Will consumers spend more, less or the same ? → Determines $\Delta S^N$

Depends on elasticity: $\frac{\text{Perc. change C}}{\text{Perc change PRice}}$ (PRice elasticity)

↑s raises the price & Consumption ↓ (or stays same)

- WORST CASE Scenario (Price elasticity = 0)

Consumption (in units) does not change → Consumers spend $(s \times C)$ more.

$\Delta S^{PR}$ : → Without disposable income changing : $\Delta S^{PR} = -(s \times C)$

$\Delta S^{Pu}$ : → Government collects $s \times C$ $\Delta S^{Pu} = +(s \times C)$

$\Delta S^N = 0$

- Price elasticity = -1 → CE does not change : C ↓ (to $C_2$)

$\Delta S^{PR} = 0$

$\Delta S^{Pu} = s \times C_2$

$\Delta S^N = s \times C_2$ ∴ $S^N$ increase

- ( Price elasticity = $-\infty$ : Consumption (in units) falls to 0 )

$\Delta S^{PR} = +C$ : All income is saved, so

$\Delta S^{Pu} = s \times 0$

$\Delta S^N = +C$ $S^N$ increases.