CONSUMPTION TAXATION

Chapter 19

Zach lives two periods, earning $31,500 in the first and nothing in the second. The rate of return on savings is 8 percent. Zach faces a sales tax rate of 5 percent and a tax rate on interest income of 20 percent. His pre-tax consumption level in the first period is $16,000. The rest of his earnings are used to pay the sales tax and to save for the second period. Determine how much Zach saves and how much he consumes in the second period. Determine how much Zach pays in sales taxes in each period and how much he pays in interest income tax.

③ Sale tax paid in 1st period = 5% × 16,000 = 800

Saving = 31500 - 16000 - 800 = 14700

interest = 14700 × 0.08 = 1176

⑤ income tax = 1176 × 20% = 235.2

① total saving in 2nd period = 14700 + 1176 - 235.2
$$= 15640.8$$

④ sales tax in 2nd = 15640.8 × 0.05 = 782.04

② 15640.8 - 782.04 = 14858.76.

In the table below, with a GST rate of 5 percent, how much does each producer (a) collect in GST; (b) receive as a GST credit; and (c) remit to the government?

	Sale by producer X to producer Y	Sale by producer Y to producer Z	Sale by producer Z to consumer
Sale value	$200.00	$600.00	$1,600.00
GST collected	200×0.05=10	600×0.05=30	1600×0.05=80
GST credit	0	10	30
GST remitted	10−0	30−10=20	80−30=50

In the table below, with a GST rate of 5 percent, how much does each producer (a) collect in GST; (b) receive as a GST credit; and (c) remit to the government?

	Sale by producer X to producer Y	Sale by producer Y to producer Z	Sale by producer Z to consumer
Sale value	$200.00	$600.00	$1,600.00
GST collected	$10	$30	$80
GST credit	$0	$10	$30
GST remitted	$10	$20	$50

Amy and Shirley both live two periods. Both have earnings of $1,000 in the present and zero in the future. The interest rate is 8 percent. Suppose that they are each subject to an income tax, and Amy's first period consumption is $200 while Shirley's is $300. Who has the higher lifetime tax burden? Under a proportional consumption tax, how would their lifetime tax burdens compare?

Hint: Try the case where the tax rate is 20% (t=0.2)