Income, Tax and Spending

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Monday 7 July 2003

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the purposes of government

- “According to the system of national liberty, the sovereign has only three things to attend to… first, the duty of protecting the society from the violence and invasion of other independent societies… secondly, the duty of protecting … every member of the society from the injustice or oppression of every other member… and thirdly, the duty of erecting and maintaining certain public works and certain public institutions, which it can never be in the interest of any individual to erect and maintain”, Adam Smith, 1776.

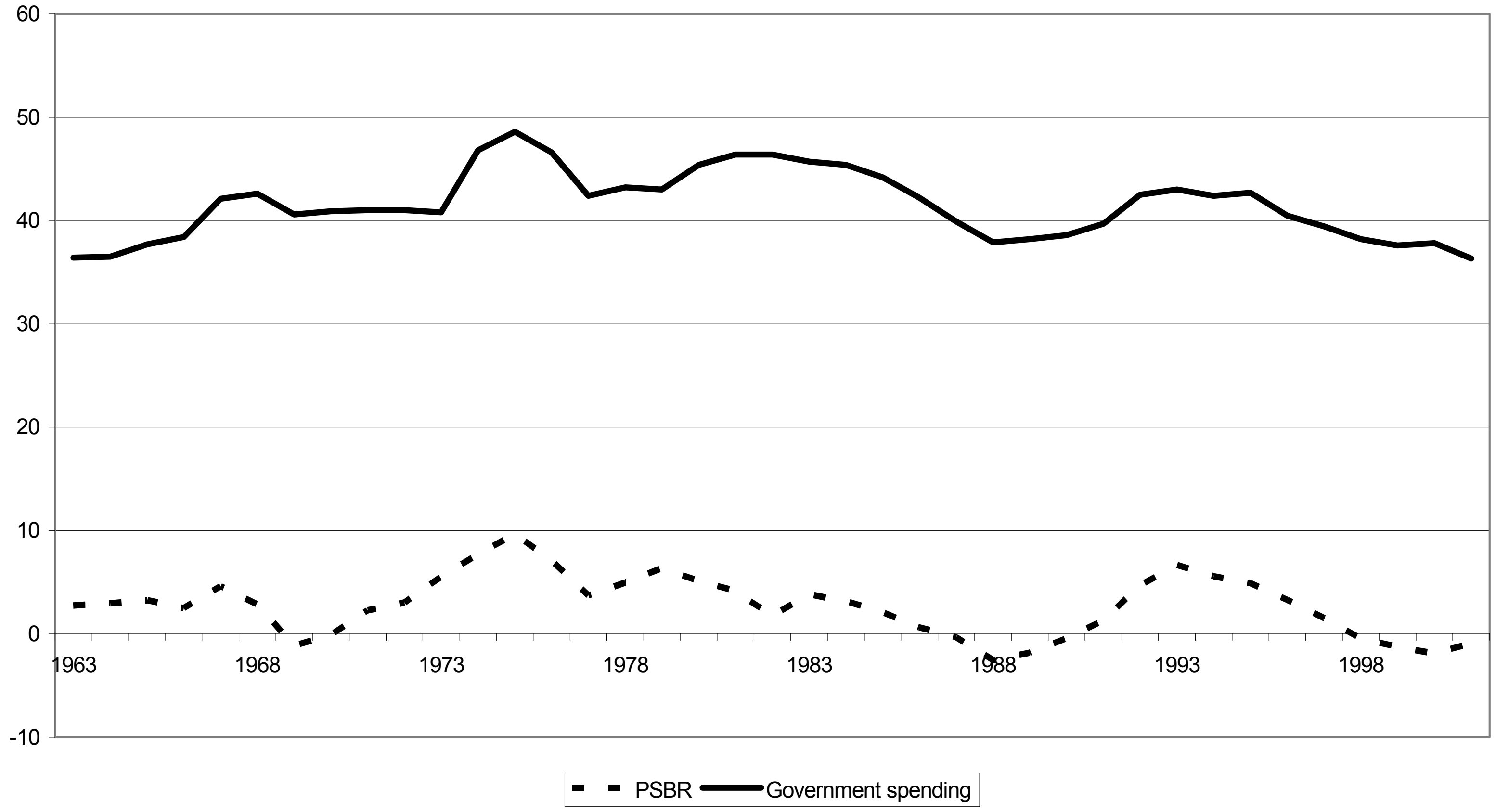
the principles of taxation

- "The subject of every State ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the State."
- "The tax each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, and the quantity to be paid, ought all to be clear and plain to the contributor, and to ever other person."
- "Every tax ought to be levied at the time, or in the manner in which it is most likely to be convenient for the contributor to pay it."
- "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury of the State," Adam Smith, 1776.

the wisdom of Peter Hain

- "We face a situation where the top rate of tax - the 40% band - now catches far too many middle income employees including teachers and police officers."
- "This presents us with hard choices, how can we ensure that hard working middle income families and the low paid get a better deal except by those at the top of the pay scale contributing more?"
- "Yet at the same time how do we reward initiative, risk-taking and enterprise, all of which are crucial to generating wealth and economic success."

UK Government Spending and PSBR as % of GDP
1963 to 2001



percentile points for total income

- To be in the top 10% of UK taxpayers, you earn:
  - £35k
  - £70k
  - £105k

- The median taxpayer (50th percentile) earns:

- To be in the top 1% of taxpayers, you earn:

shares of income tax liability

- Top 1% in UK 2002-3?
  - 1%
  - 5%
  - 10%

- Top 10% in UK 2002-3?
  - 10%
  - 20%
  - 40%

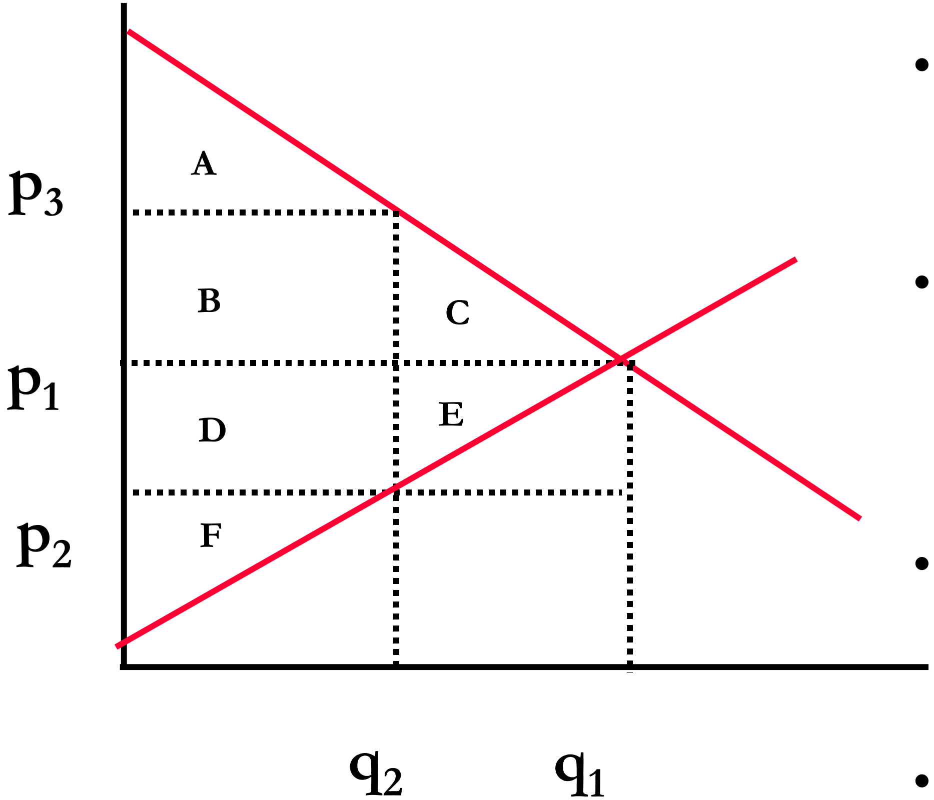
quintile groups of all households

	Bottom	2nd	3rd	4th	Top	All	Ratio
Original Income	3460	9060	19490	32200	62860	25420	18.2
plus cash benefits	5530	5650	3950	2230	1150	3700	0.2
Gross Income	8980	14710	23430	34400	64010	29120	7.1
less direct taxes and NICs	1040	1980	4220	7300	15270	5960	14.7
Disposable income	7950	12730	19210	27140	48740	23150	6.1
less indirect taxes	2710	2920	4150	5220	6630	4330	2.4
Post-tax income	5240	9800	15060	21920	42110	18830	8.0
plus benefits in kind	5290	4480	4070	3640	2670	4030	0.5
Final income	10530	14280	19140	25550	44780	22860	4.3
Individuals per household							
Adults	1.7	1.7	1.9	2.0	1.9	1.8	1.1
Children	0.6	0.5	0.6	0.5	0.4	0.5	0.7
People in full-time education	0.7	0.5	0.5	0.4	0.3	0.5	0.4
Economically active people	0.6	0.8	1.3	1.7	1.7	1.2	2.8
Retired people	0.6	0.7	0.4	0.3	0.1	0.4	0.2
Houshold type (%)							
Retired	40	44	25	13	7	26	0.2
1 adult	14	11	13	15	20	15	1.4
1 adult with children	11	6	5	3	1	5	0.1
2 adults with children	15	18	24	23	20	20	1.3

tax incidence

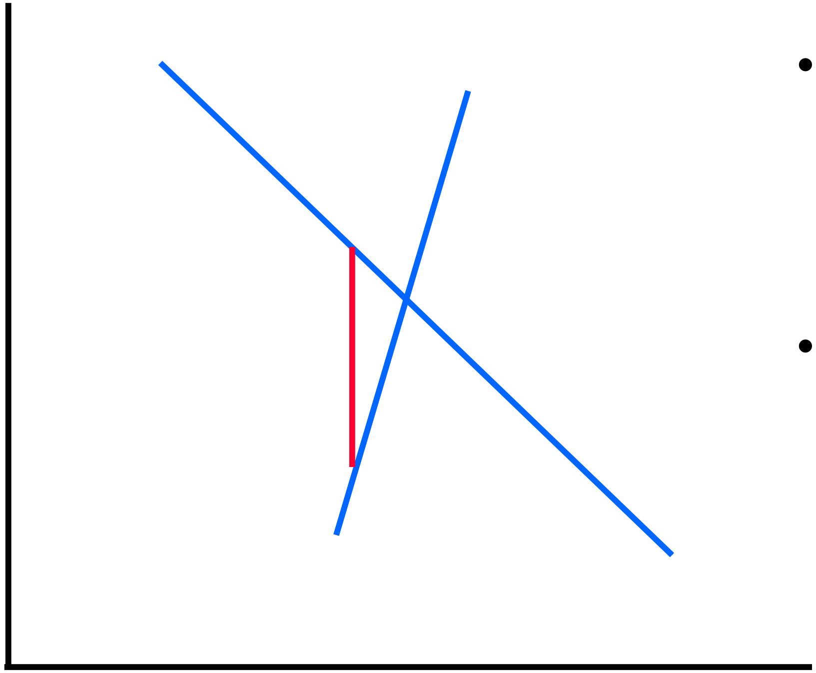
- It doesn't matter whether a tax is levied upon buyers or sellers… the price paid by buyers rises, and the price received by sellers falls.
- Economic incidence is not the same as administrative incidence.
- The tax places a wedge between the price paid by buyers and that received by sellers.
- Because of this wedge, the quantity sold falls below the level that would be sold before the tax.
- The size of the market shrinks, and there is a deadweight loss (a fall in value added due to the distortion of the market).

the effects of a tax



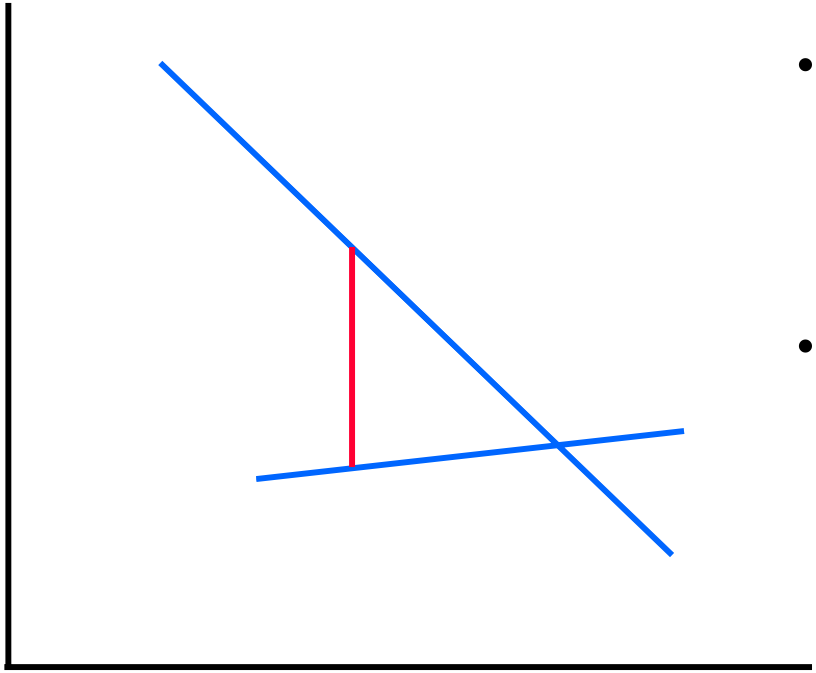
- Before the tax, the market clears at p1, q1.
- After the tax, demand falls to q2, consumers now pay p3 and producers receive p2.
- The government receives the area B+D as revenue.
- Deadweight loss is C+E

tax when supply is inelastic



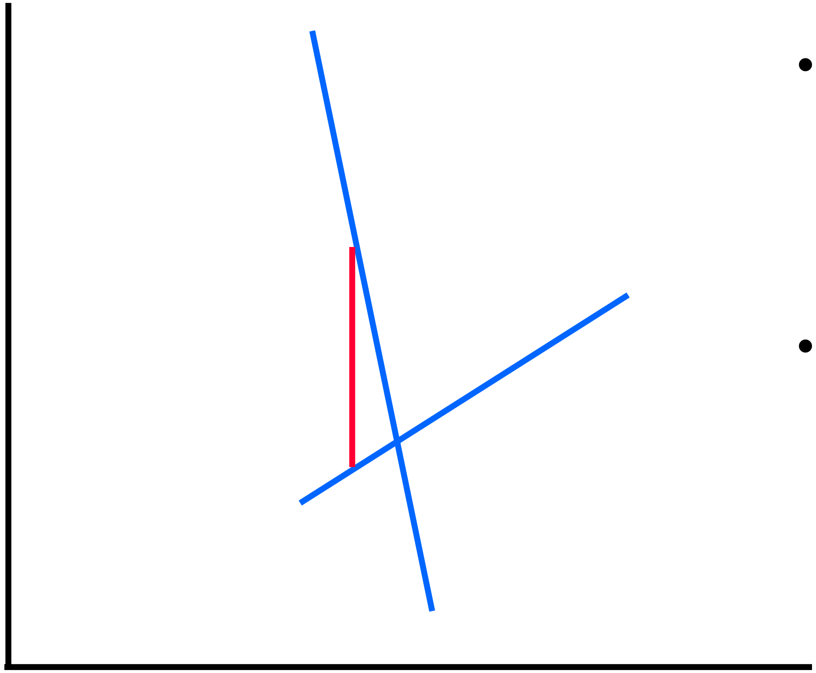
- When supply is relatively inelastic, the deadweight loss of a tax is small.
- The producer pays most of the tax.

tax when supply is elastic



- When supply is relatively elastic, the deadweight loss of a tax is large.
- The consumer pays most of the tax.

tax when demand is inelastic



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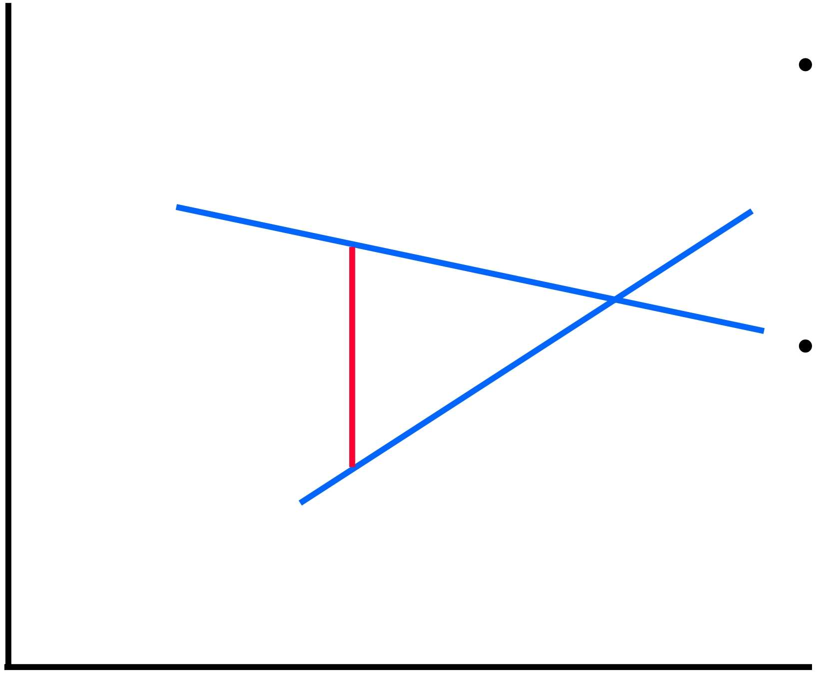
tax when demand is elastic



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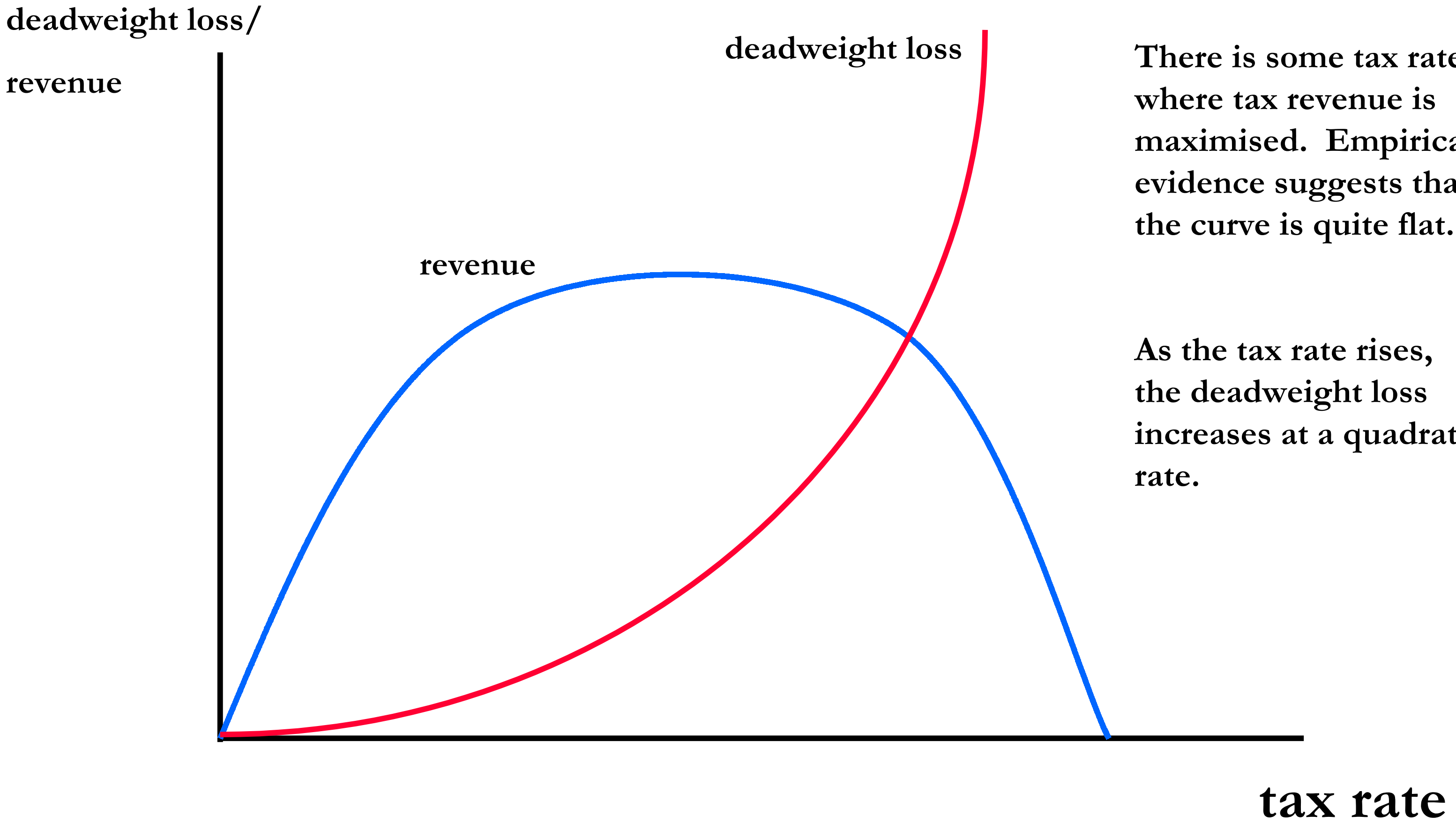
the Laffer curve & deadweight loss



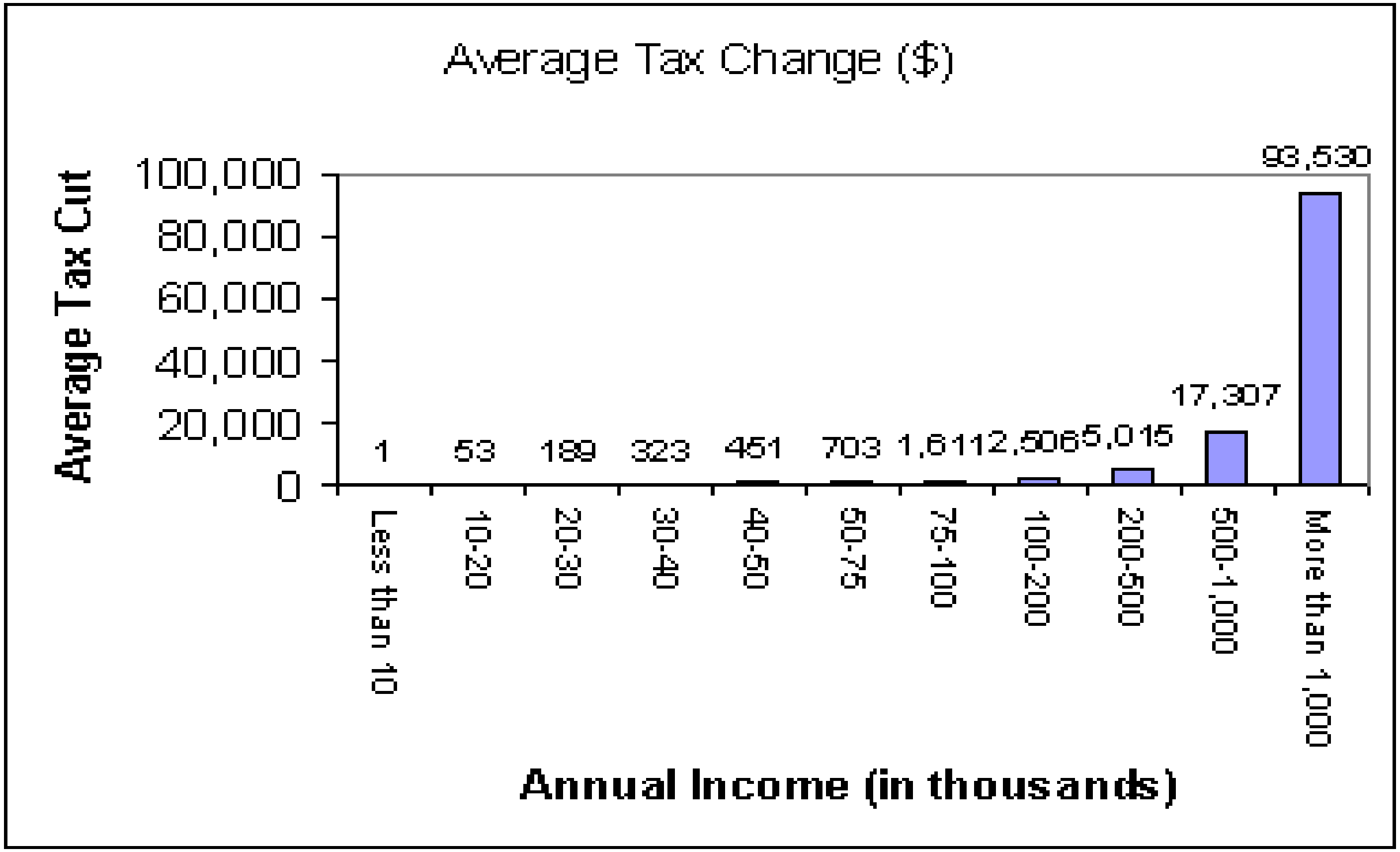
There is some tax rate where tax revenue is maximised. Empirical evidence suggests that the curve is quite flat.

As the tax rate rises, the deadweight loss increases at a quadratic rate.

how big are deadweight losses?

- Many economists believe that labour supply is fairly inelastic, so that the deadweight loss of labour taxation is fairly low.
- Since capital is highly mobile, it might also be that labour/consumers will tend to bear the economic incidence of most taxes.
- However,
  - Many workers can adjust their hours worked, by taking overtime for example;
  - Some families have second earners, whose supply is elastic;
  - Many elderly people can choose when to retire (and more!);
  - The underground economy may provide an alternative income.

a sensible tax policy?



questions

- "If the government taxes land, wealthy landowners will pass the tax on to their poorer renters"
- "If the government taxes apartment buildings, wealthy landowners will pass the tax on to their poorer renters"

- "A tax that has no deadweight loss cannot raise any revenue for the government"
- "A tax that raises no revenue for the cannot have any deadweight loss"

- "The only way to solve the pensions crisis is for businesses to pay more into their pension schemes"
- "The only way to solve the pensions crisis is for workers to pay more into their pension schemes"

summary

- A somewhat progressive tax band system, combined with a very unequal distribution of pre-tax income, produces a rather progressive income tax system.
- Taxation drives a wedge into the tax system.
- One big tax is twice as bad as two small ones.
- The impact and incidence of a tax depends upon the elasticity of supply and demand.
- In the long-run, taxes fall mainly on consumers.