

# Introduction to taxation: tax system and tax incidence

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April 18, 2018, Public Finance

# Where we are

Date	Topic	Chapters <sup>1</sup>	Lecturer
February 21, 2018	<b>Introduction</b>	1, 2	Miroslav Palanský
February 28, 2018	<b>Economic rationale for the government</b>	3, 4, 5	Miroslav Palanský
March 7, 2018	<b>Public goods, cost-benefit analysis</b>	6, 11	Miroslav Palanský
March 14, 2018	<b>Public choice theory, political economy</b>	7, 8	Miroslav Palanský
March 21, 2018	<b>Externalities and the environment</b>	9	Miroslav Palanský
March 28, 2018	<b>Vicious circles, expenditure programs, decentralization</b>	10, 26, 27	Miroslav Palanský
April 4, 2018	<b>Public procurement</b> <i>Announcement of Home Assignment 1</i>	10	Miroslav Palanský Jiří Skuhrovec
April 11, 2018	<b>The welfare state</b> <i>Deadline for Home Assignment 1</i>	12, 13, 14, 16	Miroslav Palanský
April 18, 2018	<b>Introduction to taxation, tax incidence</b>	17, 18	Petr Janský
April 25, 2018	<b>Optimal taxation, personal income taxation</b> <i>Announcement of Home Assignment 2</i>	19, 20, 22	Miroslav Palanský
May 2, 2018	<b>Corporate income taxation, tax avoidance and evasion</b> <i>Deadline for Home Assignment 2</i> <i>Partial deadline for Wiki edits</i>	23, 24	Petr Janský
May 9, 2018	<b>Capital taxation, inequality</b>	21, 25	Petr Janský
May 15, 2018	<b>Exam 1: 14:00, room O109</b>	---	---
May 16, 2018	<b>Rector's day - no lecture</b>	---	---
May 18, 2018	<i>Final deadline for Wiki edits</i>	---	---
May / June / September 2018	<i>Final Exams 2, 3, 4 – exact dates TBA</i>	---	---

# Today's lecture

Introduction

Principles of Taxation

Tax incidence



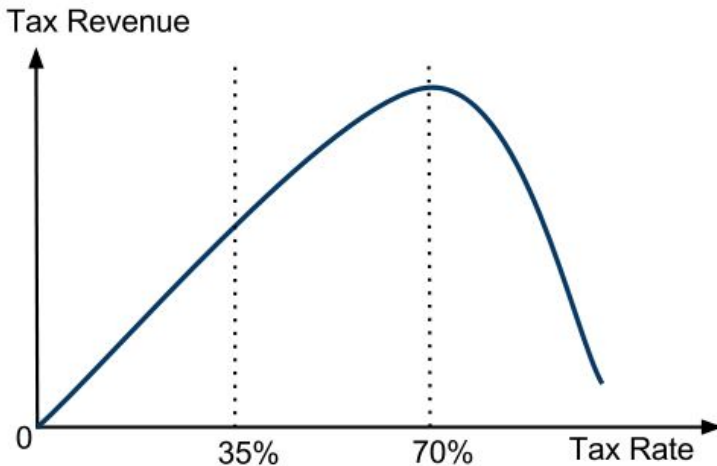
# Introductory questions

- ▶ What is taxation good for?
- ▶ What are the effects of taxation and its reforms?

# Principles of taxation in a few graphs

- ▶ Different taxes
  - ▶ Personal income (labour and other)
  - ▶ Corporate income
  - ▶ Wealth
  - ▶ Consumption (value added, excise, sales)
- ▶ Tax = tax base \* tax rate
- ▶ The effects of tax (on a good)
  - ▶ Price, quantity
  - ▶ Tax burden sharing
  - ▶ Deadweight loss
    - ▶ Size of the tax
    - ▶ Revenue
    - ▶ Laffer curve (and the empirical evidence)

## Laffer curve - 2011 estimates

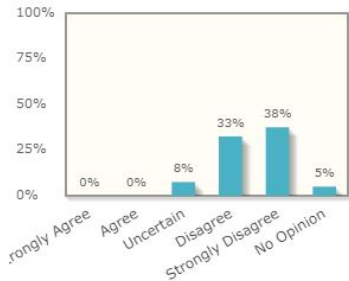


Source: Trabandt and Uhlig (2011)

## Laffer curve - 2012 survey of top US economists

**Question B: A cut in federal income tax rates in the US right now would raise taxable income enough so that the annual total tax revenue would be higher within five years than without the tax cut.**

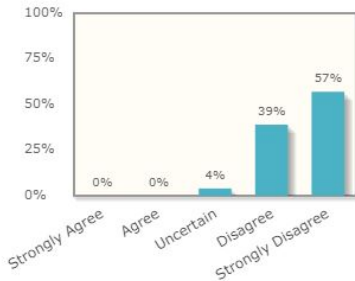
### Responses



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Source: IGM Economic Experts Panel  
[www.igmchicago.org/igm-economic-experts-panel](http://www.igmchicago.org/igm-economic-experts-panel)

### Responses weighted by each expert's confidence



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Source: IGM Economic Experts Panel  
[www.igmchicago.org/igm-economic-experts-panel](http://www.igmchicago.org/igm-economic-experts-panel)

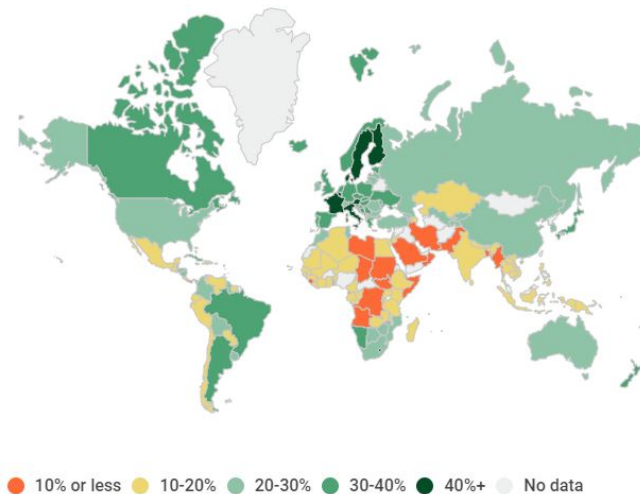
Source: <http://www.igmchicago.org/surveys/laffer-curve>

# Principles of taxation in a few words

- ▶ Government needs
- ▶ Principles: Efficiency, fairness, administrative costs, flexibility, transparency
- ▶ Indicators
  - ▶ Tax revenue/GDP
  - ▶ Average tax rate
  - ▶ Marginal tax rate
- ▶ Equity
  - ▶ Benefits principle versus ability-to-pay principle
  - ▶ Vertical equity versus horizontal equity
  - ▶ Proportional, regressive or progressive tax

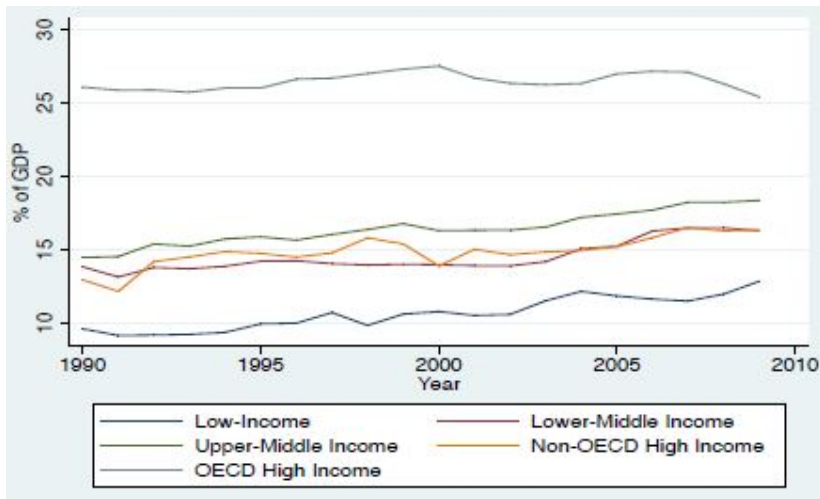


## Tax/GDP



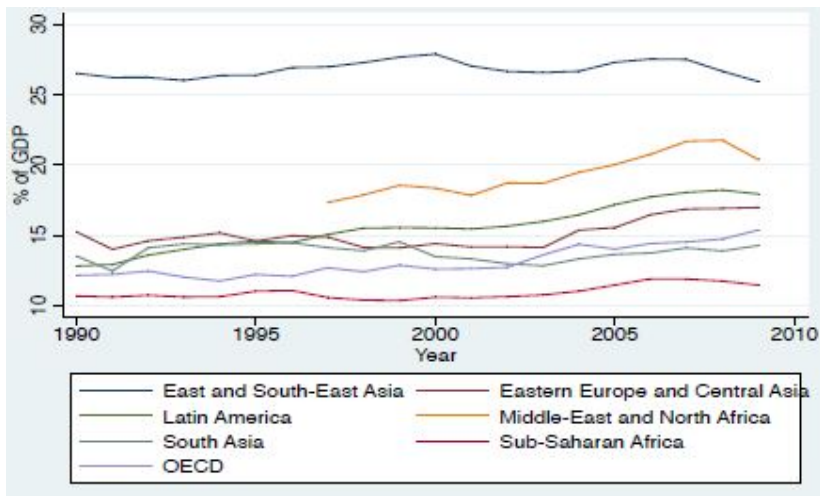
Source: Government Revenue Dataset

## Tax/GDP



Source: Government Revenue Dataset

## Tax/GDP

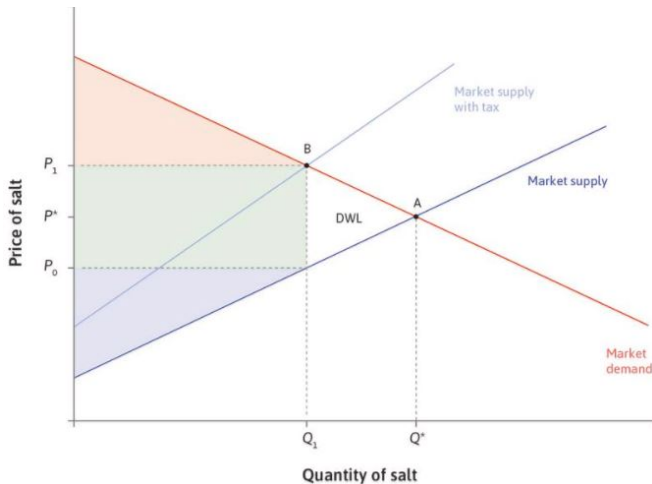


Source: Government Revenue Dataset

# Tax incidence - principles

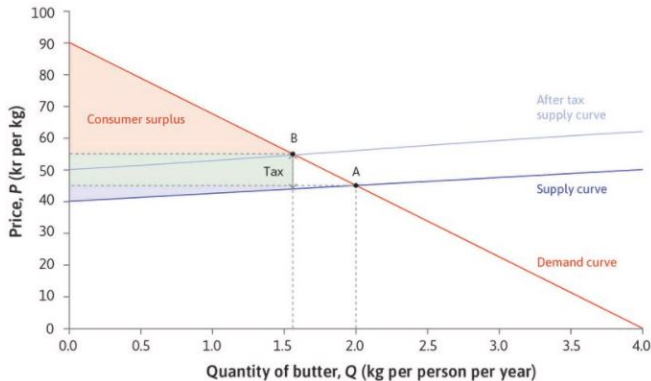
- ▶ Who actually bears the burden of a tax
- ▶ How is the shared between buyers and sellers
- ▶ Incidence depends on elasticities of supply and demand
- ▶ Incidence versus efficiency
- ▶ Economic versus statutory incidence

## Tax revenue and deadweight loss of a 30% tax on salt



Source: The Economy, CORE

# The effect of a fat tax



Source: The Economy, CORE

# Tax incidence - theory

- ▶ An example of positive analysis
- ▶ Used in policy evaluation and welfare analysis
- ▶ Theory informative about signs, but not magnitudes
- ▶ An example: capital income taxation and general equilibrium effects
- ▶ Rather than individuals, groups of economic agents
  - ▶ Producer, consumer
  - ▶ Source of income - labour, income
  - ▶ Income level - rich, poor
  - ▶ Region, country (taxation of multinationals)
  - ▶ Across generations (pension reform)
  - ▶ Producer versus consumer

# Corporate tax incidence - theory

Major Open Economy Driver	Share Falling on Capital	Share Falling on Labor
High international capital mobility	↓	↑
High international product substitution	↓	↑
Large country	↑	↓
Higher factor substitution	↑	↓
Taxed sector more capital intensive	↓	↑

Source: Gravelle (2013)



# Corporate tax incidence - empirics

Study	Scope	Share falling on capital	Share falling on labour
Gravelle (2013)	Meta-analysis	60%	40%
Suarez Serrato and Zidar (2016)	US	65-70%	30-35%
Fuest et al. (2018)	Germany	50%	50%

# Thank you!

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# References

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