Political Economy: Definitions

Politicians neither love nor hate, interest, not sentiment, governs them.

Earl of Chesterfield

Political science has studied man’s behavior in the public arena; economics has studied man in the marketplace. Political science has often assumed that political man pursues the public interest. Economics has assumed that all men pursue their private interests. (…) But is this dichotomy valid?

Dennis Muller
Over its long lifetime, the phrase ‘political economy’ has had many meanings. For Adam Smith, political economy was the science of managing a nation’s resource as to generate wealth. For Marx, it was how the ownership of the means of production influenced historical processes.

Weingast and Wittman

A general definition is that political is the study of the interaction of politics and economics.

Political economy begins with the nature of political decision-making and is concerned with how politics will affect economic choice in a society.

Political economy begins with the observation that actual policies are often quite different from optimal policies.

Allen Drazen
Political economy is a term used for studying production and trade, and their relations with law, custom, and government, as well as with the distribution of national income and wealth.

A rapidly growing mainstream literature from the 1970s has expanded beyond the model of economic policy in which planners maximize utility of a representative individual toward examining how political forces affect the choice of economic policies, especially as to distributional conflicts and political institutions.

Wikipedia
Actors and Preferences 1: Voters
Prospective Voting

„To ignore the future when deciding how to vote [...] would obviously be irrational, since the purpose of voting is to select a future government.” (Downs 1957: 40)

Retrospective Voting

„The patterns of flow of the major streams of shifting voters graphically reflect the electorate in its great, and perhaps principal, role as an appraiser of past events, past performance, and past actions. It judges retrospectively; it commands prospectively only insofar as it expresses either approval or disapproval of what has happened before.” (Key 1966: 61)
A Critique of Prospective Voting

Time Inconsistency

Elected governments are not bound to their manifesto.

A Critique of Retrospective Voting

Past performance does not need to be a predictor of the future. Economic cycles can only mildly be influenced by the government. Pure retrospective voting creates huge incentives for a manipulation of the business cycle.
Evidence

Electoral outcomes are relatively stable over time – more stable than the business cycle.

BUT:

There is plenty evidence for the existence of political business cycles – especially in the 1970s and 1980s and when elections are expected to be close.
Economic Voting

Mary Stegmaier, Michael S. Lewis-Beck

Theories

A sociological approach may see the voter as driven by class connections. A psychological approach may view voters as susceptible to appeals to authority. A historical approach may count on voters acting pretty much the way people in the district always have. An institutional approach might pay special attention to the political barriers to voting at all. A geographic approach may see the voter appreciating the special eco-systems in which voters find themselves. A communications approach may focus on voter links to media and how they are swayed. A social psychological approach may stress that political groups, especially political parties, are key attractors for voters. An issues-based approach may stress the idea of a reasoning voter, who weighs the pluses and minuses of candidate platforms before voting.
Mechanism

Voters pick candidates on the basis of their economic influence. In particular, incumbents who have presided over economic prosperity are rewarded at the polls, while those who are deemed responsible for decline are punished.
Paradox of Voting

The paradox of voting, also called Downs paradox, is that for a rational, self-interested voter, the costs of voting will normally exceed the expected benefits. Because the chance of exercising the pivotal vote (i.e., in an otherwise tied election) is minuscule compared to any realistic estimate of the private individual benefits of the different possible outcomes, the expected benefits of voting are less than the costs.

Why do voters vote at all, if the costs of voting exceed the gains from voting?

The probability of being pivotal are tiny, the differences between parties for each voter tend to be small, and voting takes time.
Dennis Muller: “The probability of being run over by a car going to or returning from the polls is similar to the probability of casting the decisive vote.” (p. 305)

Not sure what Muller computes here...

Accidents with injuries in Vienna per day: 150.

Citizens of Vienna: 1,800,000

Prob: 0.0083 percent
Solutions to the Paradox of Voting from the Literature

A taste for voting...

...voting itself increases the voters’ utility

... minimum regret
(Ferejohn and Fiorina)

Abstention by all voters is NOT an equilibrium.
Global voter turnout by region, 1945–2015

Voter turnout = \[
\frac{\text{Total vote}}{\text{Registered voters}} \times 100\%
\]

Source: Voter Turnout Database, www.idea.int/data-tools/data/voter-turnout

Notes: Data is for Legislative (Lower House) Elections that took place across the globe since 1945 and covers 1,833 elections in total.
Wahlbeteiligung nach Altersgruppen

In Prozent der Wahlberechtigten, Bundestagswahlen 1953 bis 2009

Quelle: Statistisches Bundesamt: Repräsentative Wahlergebnisse

Zitate: Creative Commons by-nc-nd 3.0 de

Difference in Electoral Participation between Citizens > 55 y and Citizens 16-35 y
Trend in strength of party identification in Britain, 1964-2005

Regression Line

R2 = .90
Evidence for an Economic Theory of Voting

Turnout declines when it rains.
Fraga, B. L., & Hersh, E. (2010). Voting costs and voter turnout in competitive elections.

And the propensity of turnout for individual voters declines more the poorer they are.

Turnout increases when the race is expected to be close.

Turnout is lower when less is at stake.
My two (or three?) pennies on the Paradox of Voting

1.) Voters do not know how close the race is. They (some of them at least) have (implicit) probability density functions about their expected electoral outcome. This may generate a relatively large expected probability of being pivot – much larger than the ‘true’ closeness usually is.

2.) Not all voters have preferences over parties. Many voters in countries with proportional electoral rules have preferences over coalitions. This makes a race closer.

3.) Opposition parties do not have no influence on political outcomes. This makes voting for ‘losers’ more attractive – and it explains why voters do not like voting for parties to fail at the 5 percent (or similar) hurdle.

However, note that if we increase the influence on the opposition on policy outcomes, the ‘gap’ between parties declines. This should also reduce the incentives to vote.
Bayern Landtagswahl

What has happened and what does it tell us?

1. Participation/Abstention
2. Results
3. Coalition Formation
4. Repercussions?
1. Participation (72.4%) is up compared to 2013 (63.6%) – up compared to the previous three elections in fact (2003: 57.1%)

2. However: participation was higher between 1950 and 1982.

3. Theories:

- Does polarization increase participation?

- Does protest voting increase participation?

- Does voting uncertainty (say the aggregate difference in vote shares to previous elections) increase participation?

- Does unhappiness with the federal government increase participation?
Results

Landtagswahl Bayern 2018[1]

Endergebnis
(72.4 % Wahlbeteiligung – 1.0 % ungültige Stimmen)

Gewinne und Verluste
im Vergleich zu 2013
What happened?

Was a vote for liberal immigration policies?

A vote against the establishment?

Another step towards Weimarer Verhaeltnisse?

Fragmentation? Polarization?
Questions

- Anti-Immigration Preferences and Electoral Outcome

- Do unconditional preferences lead to electoral support?

Coalitions

- preferences over parties / coalitions / implemented policies / effects of implemented policies?

- minimum winning coalition versus oversized coalition?

- Riker: minimize coalition size
- Shepsle: minimize ideological distance between parties in government (minimize concessions)
- formateur theories: maximize the vote share between the largest and the smallest possible party in gov

- oversized coalitions?
- minority government?
Voter Mobility

Where did the AFD votes come from?
What did first time voters do?
Where did all the Social Democrats go?
Was it a protest election?
### Nichtwähler

<table>
<thead>
<tr>
<th>Partei</th>
<th>Stimmen</th>
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<tbody>
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<td>340.000</td>
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<tr>
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<td>Wegzogene</td>
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<tr>
<td>AfD/Grüne</td>
<td>180.000</td>
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<tr>
<td>Grüne</td>
<td>140.000</td>
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<tr>
<td>Sonstige</td>
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<tr>
<td>Freie Wähler</td>
<td>110.000</td>
</tr>
<tr>
<td>FDP/SPD</td>
<td>50.000</td>
</tr>
<tr>
<td><strong>INSGESAMT</strong></td>
<td><strong>1.390.000</strong></td>
</tr>
</tbody>
</table>
Actors and Preferences 2: Parties

Katja Suding

Unser Mann für Hamburg.

Hamburg gibt die Richtung vor. FDP Hamburg
The Politics of Partisanship and Opportunism

Governments are partisan, when the policies they implement stay close to the platform of the parties in power.

Governments are opportunistic, when the policies they implement try to match the preferences of the majority of voters (or the median voter).

‘Real’ parties and governments tend to be both, partisan and opportunistic: the more relevant a policy area is for the vote choice of voters, the more likely parties in government implement opportunistic policies.
The Phillips Curve shows an inverse relationship between inflation and unemployment. It suggested that if governments wanted to reduce unemployment it had to accept higher inflation as a trade-off.

Money illusion – wage rates rising but individuals not factoring in inflation on real wage rates.
Helmut Schmidt: “I’d rather have five percent inflation than five percent unemployed.”

Note that the Phillips curve is an empirical regularity.

Is it also a model of choice???
The Missing Political Link of the Argument

Version 1:
When unemployment is low, workers (unions) can demand relatively high wage increases. This pushes inflation upwards since corporations have to increase prices.
When unemployment is high, workers (unions) have less bargaining power and thus cannot push through high wage increases (regardless whether prices rise or not).

Version 2:
If inflation increases, because the government prints more money or cuts interest-rates, wages do not necessarily decline (that is what Keynes thought), nor does demand increase (that is what Phillips thought).
HENCE: the Phillips curve describes a purely functional logic, that cannot be exploited strategically.
Opportunistic Government with Adaptive Voters

A1: Phillips curve

A2: Inflation expectations are adaptive

A3: Politicians are purely opportunistic

A4: Two Parties

A5: Voters prefer low unemployment and low inflation.

A6: Policymakers can stimulate demand, thereby reducing unemployment.

A7: Timing of elections is fixed.
Results:

One period before elections, the incumbent stimulates the economy. Unemployment declines.

In the period after the election, inflation rises and so does unemployment.
Adjustment under the NAIRU

Period 1

The Phillips Curve

The Nairu
The Phillips Curve

The Nairu
Accordingly, governments in the short run reduce unemployment, but in the long run unemployment returns to the NAIRU, while inflation is higher.
A Rational Expectations Model of the Phillips Curve

Opportunistic Government with Rational Voters

A1: Phillips curve
A2: Inflation expectations are rational
A3: Politicians are purely opportunistic AND differ in skill
A4: Voters prefer skillful governments.
A5: Two Parties
A6: Voters prefer low unemployment and low inflation.

A6: Policymakers can stimulate demand, thereby reducing unemployment and rising inflation.
A7: Timing of elections is fixed.
A8: Skillful governments have no effect on long-term inflation, less skilled governments increase inflation
Results:

One period before elections, the incumbent stimulates the economy. Unemployment declines.

In the period after the election, inflation rises and so does unemployment.
The Phillips Curve

Wage growth % (Inflation)

The Nairu

Unemployment (%)

PC1
The Skilled Government

The Phillips Curve

Wage growth % (Inflation)

Unemployment (%)

1.5%
6%
4%
2.5%

The Nairu

PC1

Unemployment (%)
Partisan Theory

right parties favor low inflation

left parties favor low unemployment

partisan cycles
Majoritarian versus Proportional Systems
How does the logic of parliaments vary according to the electoral system?
Duverger’s Law

[T]he simple majority single ballot system favours the two party system

Maurice Duverger (1954: 217)

In political science, Duverger's law holds that plurality-rule elections (such as first past the post) structured within single-member districts tend to favor a two-party system, whereas "the double ballot majority system and proportional representation tend to favor multipartism".

The discovery of this tendency is attributed to Maurice Duverger, a French sociologist who observed the effect and recorded it in several papers published in the 1950s and 1960s. In the course of further research, other political scientists began calling the effect a "law" or principle.

Duverger's law draws from a model of causality from electoral system to a party system. A proportional representation (PR) system creates electoral conditions that foster development of many parties, whereas a plurality system marginalizes smaller political parties, generally resulting in a two-party system.
Empirical Evidence

Most countries with plurality voting have more than two parties. While the United States is very much a two-party system, the United Kingdom, Canada and India have consistently had multiparty parliaments.

Eric Dickson and Ken Scheve argue that there is a counter force to Duverger's law, that on the national level a plurality system encourages two parties, but in the individual constituencies supermajorities will lead to the vote fracturing.

Steven R. Reed has shown Duverger's law to work in Japan and Italy; the "extension of Duverger's law into Japanese case", as Gary W. Cox notes, resulting in Reed's identification of the M + 1 equilibrium.
More Evidence


**Final Verdict**

Duverger's law, as we will call it also, remains the canonical statement of why electoral systems matter. It is also a “law” that seems to be more notable for its exceptions than its application. As we show in this volume the validity of the law can be all too readily overstated. Indeed, there seems to exist only one example of a truly two-party Duvergian equilibrium – that of the USA. The other major democracies we discuss—Britain, Canada, and India— all have persistent third or fourth parties that call into question the predicted equilibrium of two parties. The persistence of these parties—Britain's Liberal Democrats, the Canadian NDP, and the Communist Party of India—cannot be regarded as temporary, since they have all lasted for decades and—hence—have been squeezed through the mangle of incentives in multiple electoral cycles.
Duverger’s Law is Working in Japan

Steven R. Reed

abstract: The electoral reform adopted by Japan in 1994 features single-member districts, though it also includes a proportional representation (PR) tier. Many hoped, based on one of political science’s most reliable generalizations, Duverger’s Law, that the new system would foster a two-party system. I argue that it has indeed done so. Using many different indicators of the existence of a two-party system, I find that the Japanese party system has gotten closer to bipolarity at each successive election, and now surpasses the archetypical two-party system, Great Britain, on some indicators. Interestingly, the PR tier, far from reducing the power of Duverger’s Law, seems to have enhanced its operation. I also speculate about the future and the possibility of an alternation in power.

However, there is a trick: Reed does not study the number of parties in parliament but the ‘effective choice’ voters in a district have...
Seats

242 (House of Councillors)
465 (House of Representatives)

Government (150)
- LDP-PJK (125)
- Kōmeitō (25)

Opposition (92)
- DPFP (24)
- CDP (23)
- JCP (14)
- Ishin (11)
- SDP-LP (5)
- Kibo (3)
- Energize (2)
- Okinawa
- Whirlwind (2)
  - Kokumin no Koe (2)
  - Independents (5)

House of Representatives political groups

Government (112)
- LDP (283)
- Kōmeitō (29)

Opposition (133)
- CDP (65)
- DPFP (39)
- Grp of Inds. (13)
- JCP (12)
- Nippon Ishin (11)
- SDP (2)
- Liberal (2)
- Kibo (2)
- Independents (17)
How does the logic of Multi-Party-ism vary between proportional and majoritarian electoral systems?
Other Questions

Why does the number of parties in most parliaments increase?

What is the difference between opportunistic government and populistic government?

Why are members of parliament in majoritarian systems more likely to vote against the party line? (Why is party discipline lower?)

How do party systems maximize party discipline?
Before Olson:

Everyone thought that agents which have identical interests and preferences, have no problem to organize their cooperation.

For instance, if workers have identical interests (higher wages), they will eventually join or establish a union, which then demands higher wages.

But that’s wrong.

Olson has shown that cooperation is not self-enforcing even if agents have identical interests, since

public good provision is costly
each individual is better off if the other individuals provide the public good.
Mechanism that ensure cooperation in the presence of collective action problems

1. Combine public goods with almost private goods
   i.e. automobile clubs organize free technical help for members
   (technical help is an insurance, hence not in any strict sense a public good, but rather a ‘club good’)

2. Punish free-riders
   here is where the ‘state’ comes in...

3. Try to transfer public goods into club goods (by regulating access)

4. Collect contributions and pay someone for the provision of the public good
   cooperation becomes more visible, and thus free-riding is more easily to detect
   for instance, charity organizations give stickers to those who gave some money
Redistribution by the Production of Public Goods

‘Winners’ of Public Good Production

actors that heavily use public goods

actors that contribute moderately to its provision (that pay little taxes)

‘Loser’ of Public Good Production

actors that rarely use public goods

actors that contribute a lot to its provision
Lobbying and Redistribution

The standard model of lobbying for special interests is by Grossman and Helpman.

They assume opportunistic governments, voters with mean interest $v$ and interest groups with interest $c$.

In the absence of organized special-interests, the government would implement a policy according to the mean (median) voters’ interest. With organized interests, the interest group might pull the government away from this policy.

In doing so, the interest group commands over two instruments:

it can transfer ‘resources’ and ‘information’ to the government.

The equilibrium of the game depends on the reaction function of the voters, the heterogeneity of interests among organized interests, and the resources/information over which the interest-group commands.
Redistribution and Inequality

Austria
How do Governments Redistribute Income?

-- tax policy

-- subsidies

-- social transfers

-- monetary policy

-- regulations

-- trade policy

Is there any policy that does not redistribute income?

NO.
Why do governments redistribute income?

-- to achieve an optimal level of income inequality
   (optimal might mean: growth maximizing, vote share maximizing, ...)

-- to reduce poverty

-- to provide benefits for important groups of voters
   (swing voters, median-voters)

-- to achieve second order goals, such as environmental protection, promotion of culture

-- else?
What Do We Know about the Change in Income Inequality Across the OECD?
On Tax Progression in Germany

Assume the Median Income Household pays 100 Euro in taxes and social security contribution.

How much should the top-10 percent income household pay?

Now, note that the 10th highest income household earns 2.2 times the median income.
## Redistribution to the Government

<table>
<thead>
<tr>
<th>Quantile</th>
<th>Haushalts-brutto-äquivalenz-einkommen Untergrenze (€/Monat)</th>
<th>Haushalts-brutto-einkommen</th>
<th>Einkommen- und Unternehmenssteuern</th>
<th>Verbrauchsteuern</th>
<th>Steuern gesamt</th>
<th>Sozialbeiträge</th>
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<td>2,4</td>
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<td>2. Dezil</td>
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<td>3. Dezil</td>
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Aus Wikipedia
Government Revenue: Where Does it Come From?
The Change in Post-Tax Income Inequality 2007-2016
GINI

Cumulative share of people from lowest to highest incomes

Line of Equality (45 Degree)

Lorenz Curve

A

B

Cumulative share of income earned

100%

100%
Post-Tax Income Inequality

has increased in:
USA, SWE, NOR, DNK, ITA

has declined in:
ISL, BEL, AUT, NDL, PRT
What About Pre-Tax Income Inequality?
Pre-Tax Income Inequality Depends on:

- sectoral change
- economic growth
- skill premia
- unemployment
The Overgeneralized Case: Income Inequality in the USA

(also an example on how to lie with statistics)
Figure 2: Mean Incomes of Population Quintiles, 1954-86
Both functions grow with a rate of 3%, and thus income inequality stays constant.
Did Income Inequality Increase in the USA?

**Table 2: Effects of transfers, taxes, and government spending on top 1% income shares**

<table>
<thead>
<tr>
<th>Adjustments</th>
<th>Top 1% income shares</th>
<th>Top 1% share changes</th>
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</thead>
<tbody>
<tr>
<td>Pre-tax income</td>
<td>11.4 10.1 10.0 11.2 14.2</td>
<td>--- --- --- --- ---</td>
</tr>
<tr>
<td><strong>Pre-tax/after-transfer Income, Add transfers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Security benefits</td>
<td>11.2 9.7 9.5 10.7 13.5</td>
<td>-0.2 -0.4 -0.4 -0.5 -0.7</td>
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<tr>
<td>Unemployment benefits</td>
<td>11.1 9.6 9.5 10.7 13.5</td>
<td>* * * * *</td>
</tr>
<tr>
<td>Other cash transfers</td>
<td>10.9 9.5 9.4 10.6 13.2</td>
<td>-0.2 -0.1 -0.1 -0.1 -0.2</td>
</tr>
<tr>
<td>Medicare</td>
<td>---- 9.4 9.3 10.4 12.8</td>
<td>---- -0.1 -0.1 -0.2 -0.4</td>
</tr>
<tr>
<td>Other non-cash transfers</td>
<td>10.9 9.2 9.1 10.2 12.3</td>
<td>* -0.2 -0.2 -0.2 -0.5</td>
</tr>
<tr>
<td><strong>Pre-tax/after-transfer income &amp; total changes</strong></td>
<td>10.9 9.2 9.1 10.2 12.3</td>
<td>-0.5 -0.8 -0.9 -1.0 -1.9</td>
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<tr>
<td><strong>After-tax Income, Remove taxes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal indiv. income &amp; estate tax</td>
<td>10.2 8.5 8.1 9.0 10.2</td>
<td>-0.8 -0.7 -1.0 -1.2 -2.1</td>
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<tr>
<td>State/Local indiv. income tax</td>
<td>10.1 8.4 7.9 8.7 9.8</td>
<td>-0.1 -0.1 -0.2 -0.3 -0.5</td>
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<tr>
<td>Corporate income tax</td>
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<td>-1.2 -0.3 -0.1 -0.1 -0.2</td>
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<tr>
<td>Property tax</td>
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<tr>
<td>Payroll tax</td>
<td>8.7 8.6 8.3 9.1 9.8</td>
<td>0.3 0.5 0.5 0.6 0.5</td>
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<tr>
<td>Sales and other taxes</td>
<td>9.0 8.9 8.5 9.3 9.9</td>
<td>0.3 0.3 0.2 0.2 0.1</td>
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<td><strong>After-tax Income, Add rest of government sector</strong></td>
<td></td>
<td></td>
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<tr>
<td>Government deficit/surplus</td>
<td>9.7 9.2 8.5 9.5 9.3</td>
<td>0.7 0.3 0.0 0.2 -0.6</td>
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<tr>
<td>Government consumption</td>
<td>8.5 8.2 7.8 8.5 8.8</td>
<td>-1.2 -1.0 -0.7 -1.0 -0.4</td>
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<td><strong>After-tax income &amp; total changes</strong></td>
<td>8.5 8.2 7.8 8.5 8.8</td>
<td>-2.9 -1.9 -2.2 -2.7 -5.3</td>
</tr>
</tbody>
</table>

**Notes:** Total changes are relative to pre-tax income. Tax totals are based on NIPA amounts. Fuel and utility taxes are not included. See Table A1 and online appendix for detailed description of adjustments.

**Source:** Authors’ calculations.
Figure 1: Total income as a share of NIPA income

Notes: Adjustments used to estimate Auten-Splinter pre-tax and after-tax income are listed in Tables 1, 2, and A1 and described in detail in the online appendix.
Sources: Authors’ calculations, and Piketty, Saez, and Zucman (2018, PSZ in figure).
Figure 4: Comparison of top 1% income shares

Notes: Piketty and Saez series includes capital gains (thresholds set without capital gains). Adjustments used to estimate pre-tax, pre-tax/after-transfer, and after-tax income are listed in Tables 1, 2, and A1 and described in detail in the online appendix.

Sources: Authors’ calculations and Piketty and Saez (2003 and updates).
Who Prefers Income Redistribution?
The Meltzer-Richards Model

pre-tax income: productivity times hours worked
individuals maximize utility, which is an increasing concave function of consumption
(=productivity*hours worked – taxes) and leisure z

\[ c = (1 - \tau)l\kappa + \nu \]

where \( c \) is consumption, \( \tau \) the tax rate, \( l \) is times worked (1-\( l \) is thus leisure) and \( \nu \) are government transfer to the individual, kappa is productivity.

Government’s transfers cannot exceed the tax rate times the taxed income (no deficits).
This model suggests that poorer individuals prefer higher taxes.
The model’s predictions are often interpreted as
The lower the median voter’s income relative to the mean income, the higher the degree of redistribution c.p.
Dixit-Londregan Model

In this model, two parties with different policy preferences compete for the votes of the electorate.

The utility of voters depends on two factors:
- the distance between her policy position and the position of the party in power, and
- her consumption, which is a function of his/her pre-tax income and transfers s/he receives.

Transfers are directed towards ‘groups’ (rather than to the population or to the individual). The model is non-trivial, but its main results are the following:

In equilibrium, each party offers a vector of transfers which maximize its total votes, taking the other parties vector of transfers into consideration (subject to a balanced budget constraint). The basic model has been used to derive predictions on the parties’ response to different reaction function of voters.
Most importantly, it can be shown that BOTH parties are more likely to target swing voters to direct transfers to voters that can be targeted more efficiently.
Pork Barrel refers to a situation in which a collectively financed program is directed to a small group though the social costs exceed the social benefits. In the US context, Pork Barrel is explained by the decision-making mechanism in the US congress.

The Weingast, Shepsle, Johnson model suggest that there are J legislative district, and each congressman has an incentive to provide goodies to his district’s electorate.

Projects are financed by tax revenues, which have a unspecific origin, that is: tax income from California might be used to finance a bridge in Delaware. Buchanan and Tullock argue that congressmen exchange support, that is, they support each others projects. This behavior is called logrolling.

Fiorina and Baron model legislative processes based on logrolling. In short, they suggest that the congress should decide firstly on the size of budget, then on its distribution.
Lobbying and Redistribution

The standard model of lobbying for special interests is by Grossman and Helpman.

They assume opportunistic governments, voters with mean interest $v$ and interest groups with interest $c$.

In the absence of organized special-interests, the government would implement a policy according to the mean (median) voters’ interest. With organized interests, the interest group might pull the government away from this policy.

In doing so, the interest group commands over two instruments: it can transfer ‘resources’ and ‘information’ to the government. The equilibrium of the game depends on the reaction function of the voters, the heterogeneity of interests among organized interests, and the resources/information over which the interest-group commands.
Inequality that Matters: Health Inequality
Why do Governments from time to time implement policy reforms and sometimes even begin the ‘transformation’ of the polity?
Why do Governments from time to time implement policy reforms and sometimes even begin the ‘transformation’ of the polity?

-- of course: reforms could always result from a change in government
-- the ‘old policy’ has proven to be suboptimal
(but are governments really social welfare optimizers?)
-- sticking to the ‘old policy’ threatens to wipe the incumbent out of the office
that is: the incumbent responds to changes in the aggregate preferences of the selectorate
-- if a simple policy is largely reducing political support of the incumbent, why didn’t the government conduct reforms much earlier?
-- hence: ‘what causes reform delay’ is an important question
More open questions:

Why do governments in different countries respond differently to common shocks?
Why do some governments do not respond at all?
Why do some governments seem to overreact at times?
How do governments respond to changes in voter preferences?
How do governments respond to new ‘debates’?
(Some call it ‘new ideas’, but in fact it is either an additional policy dimension or a change in the issue salience of one dimension.)
Assumptions
Reforms have a strong redistributive effect

winners and losers
individuals know whether they win or lose
majority of voters are winners (by assumption), but that is unknown to the voters
payoffs:

do nothing: 0

successful reform
(reform and majority of voters is winners: 1

unsuccessful reform
(reform and majority of voters is winners: -1)
Alesina and Drazen: War of Attrition

Assumptions:
- reforms are beneficial to all voters (by assumption)
- there are two groups of voters: a and b
- one group has to bear the burden of reform (reforms are still beneficial, but less so)
- the gains per individual exceed the costs

Why does this constellation lead to delay and possibly reform inactivity?
US Midterm Elections

Lots of Republicans are leaving Congress
Includes retirements and those running for other office

<table>
<thead>
<tr>
<th>Year</th>
<th>Democrat</th>
<th>Republican</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>1994</td>
<td>22</td>
<td>34</td>
</tr>
<tr>
<td>1998</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>2002</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>2006</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>2010</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>2014</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>2018</td>
<td>17</td>
<td>37</td>
</tr>
</tbody>
</table>

Source: Center for Responsive Politics
Voters often give mid-terms a miss

Turnout rate in presidential and mid-term elections (%)

- 18-29-year-olds
- 30-44
- 45-59
- 60+

Turnout peaks in presidential elections but falls considerably in mid-terms.

Source: United States Elections Project
The president's party usually loses seats

Net loss or gain by party in control of the White House

<table>
<thead>
<tr>
<th>Year</th>
<th>Democrat</th>
<th>Republican</th>
<th>House seats</th>
<th>Senate seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958 Eisenhower</td>
<td>-48</td>
<td>-13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1962 Kennedy</td>
<td>-47</td>
<td>-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1966 Johnson</td>
<td>-12</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1974 Ford</td>
<td>-26</td>
<td>-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978 Carter</td>
<td>-52*</td>
<td>5</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>1980 Reagan</td>
<td>-30*</td>
<td>8</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>1984 Clinton</td>
<td>-63*</td>
<td>-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988 Clinton</td>
<td>-13</td>
<td>-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* chamber switched party control

Source: The American Presidency Project
Institutions that allow ‘Simple Balancing’?

- Presidentialism
- Bicameralism/ Federalism
- Multiparty Government/ Coalitions
Balancing in the American System

Split Ticket Voting

President and House of Representatives (Senate)

Two separate ballots for presidential elections and house of representative elections

Accordingly, voters can vote for different candidates/parties in both elections.

Midterm Elections

Rule: Parties that hold the ‘White House’ lose in the midterm elections (relative to the vote share in the previous ‘main’ election).
More Complicated Balancing in the German System

Federalism Bundestag and Bundesrat

Bundestag. Country-Level

Bundesrat. State-Level
**Bundestag**

Mixed-system of proportional and majoritarian voting (dominantly representational)

**Bundesrat**

State governments send representative based on government in the state and the number of votes of that state.
Bundesrat Seats

Y Axis Title
X Axis Title
CDU
CDUFDP
SPDFDP
SPD
SPDGRU
SPDPDS
CDUSPD
CDUFDPFDP
SPDFDPGRU
Theory of Strategic Voting
The Logic of Policy Moderation

\[ q = p_1 + \alpha (p_2 - p_1) \]

always vote for i
vote i
vote o
always vote for o

\[ \alpha = 1 \]

incumbent i

opponent o
Accordingly, the smaller the influence of the opponent on policies, the higher the incentive to vote strategically!
Rethinking Strategic Voting

The notion of strategic voting depends on the wrong assumption of spatial electoral models – i.e. that voters vote for the party closest to their policy preferences.

Yet, under almost all real conditions, this does not make much sense.

Rather, voters vote for one party as to maximize their utility.
To maximize utility, voters have to vote for

relatively small parties (to strengthen their bargaining position in coalition negotiations),

parties in opposition (to increase their influence on policy outcomes)

or to vote against

governing parties (to moderate their influence on policy outcomes)
The Politics of International Trade
Efficiency Gains

Trade triggers welfare gains because of ‘international division of labor’.

Countries produce what their ‘factor endowment’ allows them to produce most competitively:

- capital
- technology
- labor
- skills
- natural resources
Gains from Trade

Schaetzungen besagen, dass industriel erzeugte Produkte ohne internationalen Handel etwa 20-50 Prozent teurer waeren...


International trade openness is robustly related to economic growth in models of economic growth...

Winners and Losers

Not everybody profits from international trade:

Winners: consumers (that is all...), but
The Ricardo – Viner Model

Factors of Production: Capital and Labor (results can be generalized to any number of production)

Comparative Advantage: capital rich countries in sectors in which production is labour intense, labour rich countries in sectors which are labour intense

Mechanism: Specialization

Winner: capital and labour in sectors with comparative advantage
The Heckscher – Ohlin Model

Factors of Production: Capital and Labour

Specialization according to comparative advantage

Mechanism: Specialization

Increases demand for relatively abundant factor, reduces demand for relatively scarce factor.

Winners: rel. abundant factors

Factor Mobility?
Ricardo – Viner and Heckscher – Ohlin were never competing models. Easy to integrate (not even necessary)...

Relative losers: scarce factor in sectors with comparative disadvantage.

OECD world: labour in labour-intense sectors...

elsewhere: capital in capital-intense sectors (?) (works better with land, though)

Empirical evidence tends to be strong. But note that ‘losers’ are relative losers.
Global income distribution in 1800, 1975, and 2015

Income is measured by adjusting for price changes over time and for price differences between countries (purchasing power parity (PPP) adjustment).

These estimates are based on reconstructed National Accounts and within-country inequality measures. Non-market income (e.g., through home production such as subsistence farming) is taken into account.

Data source: Gapminder

The visualization is available at OurWorldInData.org where you find more visualizations and research on global development.
Note: The content of the maps is updated in October every year, at the same time as the WTO Trade and Tariff Profiles.

Source: WTO
A Note on Latin America

Figure 5.1
Latin America and the Caribbean: Relative GDP per Capita
(Percent)

- Blue line: Relative to advanced economies
- Red line: Relative to emerging market and developing economies (right scale)

Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: Ratio of nominal GDP (purchasing power parity dollars) per capita for Latin America and the Caribbean versus advanced economies and emerging market and developing economies.
blue – yellow – red - black
The “Miracle of Chile” was a term used by economist Milton Friedman to describe the reorientation of the Chilean economy in the 1980s and the effects of the economic policies applied by a large group of Chilean economists who collectively came to be known as the Chicago Boys, having studied at the University of Chicago where Friedman taught. He said the “Chilean economy did very well, but more importantly, in the end the central government, the military junta, was replaced by a democratic society. So the really important thing about the Chilean business is that free markets did work their way in bringing about a free society.”
The graph displays the per capita income (deflated) for ARG, CHL, and BRA from 1960 to 2020. It shows a trend of increasing income over time, with CHL having the highest income levels, followed by BRA and then ARG. There are fluctuations in the income levels, particularly noticeable in the latter years.
FDI and Capital Mobility
## Trade and FDI

### The Balance of Payments

<table>
<thead>
<tr>
<th>Export of Goods</th>
<th>Import of Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export of Services</td>
<td>Import of Services</td>
</tr>
<tr>
<td>Inflow of FDI</td>
<td>Outflow of FDI</td>
</tr>
<tr>
<td>Inflow of Portfolio Investment</td>
<td>Outflow of Portfolio Investment</td>
</tr>
<tr>
<td>Other Transfers (contribution to IOs, remittances)</td>
<td></td>
</tr>
<tr>
<td>Increase in Reserves</td>
<td>Reduction in Reserves</td>
</tr>
</tbody>
</table>
Vernon’s Product Life Cycle

products (industries) run through a life cycle:

1. period: invention, high skill-intensity, patents, monopoly?
   location: most advanced country

2. period: maturing, mid skill-intensity, patents expired, fierce competition
   location: advanced countries

3. period: old, low skill-intensity, no patents, potentially labor intensive production
   location: developing country
time since 'birth' of an industry

skill intensity

number of firms
Alternative to Vernon: Krugman, Fujita, Venables’ Geography

most industries produce positive externalities to their competitors

i.e. by enhancing the sector-specific skills of the workforce

advantages of ‘clustering’

competing corporations choosing the same location regardless of the availability of raw materials
examples?

Silicon Valley

software industry in India

else?
Corporations chose the location where they maximize profit (so far, so trivial)

in doing so, they often (but not always) slice-up the product chain

factor endowment, market access, and agglomeration seem to be the driving forces
And what about policies?

environmental policy

child labor

labor rights

social security systems

else
Motives for FDI

- availability of raw materials
- wage and productivity differentials
- market access
- differences in regulation (i.e. production standards)
Flows and Stocks of FDI (Source: UNCTAD, excerpt)

Figure I.9. FDI inflows by region, 2014–2016 (Billions of dollars)

Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).
Figure I.11. FDI inflows, top 20 host economies, 2015 and 2016 (Billions of dollars)

(x) = 2015 ranking

- Hong Kong, China (3): 174 (2015), 146 (2016)
- Italy (17): 29 (2015), 28 (2016)

Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>640,702</td>
<td>794,317</td>
<td>587,456</td>
<td>707,529</td>
</tr>
<tr>
<td>Primary</td>
<td>18,297</td>
<td>75,753</td>
<td>-1,689</td>
<td>-3,963</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>300,133</td>
<td>378,682</td>
<td>361,480</td>
<td>364,354</td>
</tr>
<tr>
<td>Food, beverages and tobacco</td>
<td>18,637</td>
<td>133,396</td>
<td>21,944</td>
<td>116,349</td>
</tr>
<tr>
<td>Coke and refined petroleum products</td>
<td>309</td>
<td>-119</td>
<td>8,462</td>
<td>6,403</td>
</tr>
<tr>
<td>Chemicals and chemical products</td>
<td>47,955</td>
<td>32,062</td>
<td>20,726</td>
<td>36,479</td>
</tr>
<tr>
<td>Pharmaceuticals, medicinal chemicals and</td>
<td>114,250</td>
<td>22,835</td>
<td>145,734</td>
<td>102,950</td>
</tr>
<tr>
<td>botanical products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer, electronic, optical products</td>
<td>25,387</td>
<td>94,911</td>
<td>34,114</td>
<td>23,826</td>
</tr>
<tr>
<td>and electrical equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>292,342</td>
<td>338,402</td>
<td>237,706</td>
<td>347,136</td>
</tr>
<tr>
<td>Electricity, gas, water and waste</td>
<td>11,010</td>
<td>15,274</td>
<td>5,020</td>
<td>34,427</td>
</tr>
<tr>
<td>management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade</td>
<td>19,456</td>
<td>15,274</td>
<td>2,223</td>
<td>15,272</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>78,636</td>
<td>12,302</td>
<td>161,949</td>
<td>181,847</td>
</tr>
<tr>
<td>Business activities</td>
<td>71,647</td>
<td>12,302</td>
<td>21,301</td>
<td>40,355</td>
</tr>
</tbody>
</table>

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

<table>
<thead>
<tr>
<th>Region/economy</th>
<th>Sales 2015</th>
<th>Sales 2016</th>
<th>Purchases 2015</th>
<th>Purchases 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>640,702</td>
<td>794,317</td>
<td>587,456</td>
<td>707,529</td>
</tr>
<tr>
<td>Developed economies</td>
<td>543,079</td>
<td>695,913</td>
<td>543,079</td>
<td>695,913</td>
</tr>
<tr>
<td>Europe</td>
<td>296,968</td>
<td>437,546</td>
<td>296,968</td>
<td>437,546</td>
</tr>
<tr>
<td>North America</td>
<td>197,606</td>
<td>177,817</td>
<td>278,100</td>
<td>314,302</td>
</tr>
<tr>
<td>Other developed countries</td>
<td>10,406</td>
<td>130,250</td>
<td>6,311</td>
<td>28,103</td>
</tr>
<tr>
<td>Developing economies</td>
<td>80,876</td>
<td>87,174</td>
<td>37,825</td>
<td>12,771</td>
</tr>
<tr>
<td>Africa</td>
<td>-165</td>
<td>5,706</td>
<td>22,357</td>
<td>-2,190</td>
</tr>
<tr>
<td>Asia</td>
<td>80,470</td>
<td>79,380</td>
<td>10,642</td>
<td>3,812</td>
</tr>
<tr>
<td>China</td>
<td>33,708</td>
<td>69,447</td>
<td>3,225</td>
<td>4,426</td>
</tr>
<tr>
<td>India</td>
<td>804</td>
<td>3,299</td>
<td>73</td>
<td>5,686</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>570</td>
<td>2,120</td>
<td>5,210</td>
<td>11,155</td>
</tr>
<tr>
<td>Oceania</td>
<td>-125</td>
<td>365</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Transition economies</td>
<td>6,557</td>
<td>393</td>
<td>6,551</td>
<td>-1,156</td>
</tr>
</tbody>
</table>
Why Do Governments Restrict FDI and Foreign Ownership?

Figure 1. Changes in the overall FDI Index, 1997-2015

[Graph showing changes in the overall FDI Index from 1997 to 2015 for OECD and Non-OECD countries.]

Source: OECD FDI Regulatory Restrictiveness Index database, [www.oecd.org/investment/fdiindex.htm](http://www.oecd.org/investment/fdiindex.htm)
Figure 2. The top FDI reformers, 1997-2015

OECD FDI Regulatory Restrictiveness Index (open=0; closed=1)
Figure 3. Country experience with FDI reforms and the impact on FDI inflows, 1997-2015

Source: OECD calculations based on the OECD FDI Regulatory Restrictiveness Index methodology and UNCTAD statistics.
Figure 4. FDI regulatory restrictiveness per country, 2015

Source: OECD FDI Regulatory Restrictiveness Index database. [www.oecd.org/investment/fdirestrictiveness.htm](http://www.oecd.org/investment/fdirestrictiveness.htm)

Note: Countries without shading are not covered in the Index. Scores are preliminary for Thailand and Singapore (base year 2014), Cambodia (base year 2015), Namibia, Mozambique, Mauritius and Seychelles (base year 2013).
Figure III.11. Trends in IIAs signed, 1980–2016

Cumulative number of IIAs

Source: ©UNCTAD, IIA Navigator.
Much FDI is directed to gain market access.

‘Cheap labor’ and ‘absence of environmental regulation’ arguments cannot explain the bulk of FDI.

For example, China attracts less FDI than Britain.

... and FDI is less important in China than it is elsewhere...
Significance of value added of foreign affiliates in manufacturing (in %)

- Hungary: 24%
- China: 5%
- Ireland: 40%

Value added of foreign manufacturing affiliates
Value added of domestic manufacturing companies

Source: UNCTAD
Monetary Policy in Open Economies

Exchange-Rates
Exchange-Rate Regimes
Mundell-Fleming
Fear of Floating
Evidence
Currency Unions
External Effects
Dollar to Euro

Graph showing the exchange rate between dollars and euros from 2000 to 2016.
Euro to Pound

![Euro to Pound chart](image-url)
What is an exchange-rate?

An exchange rate is the rate at which one currency will be exchanged for another. It is also regarded as the value of one country’s currency in relation to another currency.

Exchange rates are either determined in the foreign exchange market, or set and defended by a government or central bank.
What drives exchange-rates?

...in the short run?

we don’t know or:

alternatively:

sentiments

rumors

expectations about the expectations of other investors

events (shocks)
... in the long run?

the relative ratio of productivity growth and inflation

expectations about productivity and inflation

monetary policies, trade policies

central bank interventions
Exchange-Rate Regimes

Flexible Exchange-Rate

the market decides on the relative value of the currency

Managed Float

in principle the currency floats, but the government may under certain circumstance intervene
Fixed Exchange Rate

Fixed to Key Currency (Dollar, Euro, Yen?)

Fixed to Currency Basked

the government(s) has/have the obligation to intervene

important: parities, bandwidths
Currency Board

Value of Issued Money held in Reserves

Dollarization

Introduction of Dollar/ Euro/ Franc/ Pound as SOLE Means of Payments

Currency Union

Common Currency and one monetary policy...
Why do some countries peg their currency, and other float?

Advantages of stable exchange-rates:

stable expectations

no need to insure against exchange-rate risks

→ low transactions costs to trade

→ more trade (Andrew Rose)

→ higher economic growth (?)
Disadvantages of fixed exchange-rates

- risk of severe misalignment
- speculative attacks on exchange-rate peg
- reduction in monetary policy autonomy
How are exchange rate regimes and monetary policy related?

Why does the exchange-rate and the exchange-rate regime matter for monetary policy?
Mundell-Fleming theorem (unholy trinity):

Government can only reach two of the following three policy goals simultaneously:

- stable exchange rates
- absence of capital controls
- monetary policy autonomy
De Facto Monetary Policy Autonomy: The Fear of Floating Literature

Empirical observation: ‘Dirty’ Float

a) Monetary authorities stabilize the exchange-rate to prevent an increase in the value of debt denominated in foreign currency to their GDP (or to their tax revenue).

b) Monetary authorities stabilize the exchange-rate to prevent exchange-rate pass-through thereby keeping the inflation rate down.
Hence: There is no clear trade-off any more: Pegging countries largely surrender monetary policy autonomy (degree depends on bandwidths of the peg and ease of realignment). Floating countries do not necessarily allow their currency to freely float but stabilize the exchange-rate to the key currency/ the key currencies.

→ De facto monetary policy autonomy is a continuum [0,1].
Empirical Evidence for Fear of Floating

Calvo and Reinhardt (QJE 2002): Empirical Evidence of ‘Dirty Float’

Shambaugh (QJE 2004): Pegged countries stabilize exchange-rates more than floating countries, but much additional evidence of dirty float.

Obstfeld, Shambaugh and Taylor (NBER 2004): Narrative of Fear of Floating

Campa and Goldberg (RES 2005): Evidence for Exchange-Rate Pass-Through

Hausman, Panizza and Stein (JDE 2001): Evidence for Borrowing – Float Hypothesis

Frankel, Schmuckler and Serven (NBER): Transmission of Interest Rates
The Political Economy of Monetary Unions

Why monetary unions?

Advantage:

Reduction in transaction cost of trade.

Andrew Rose for empirical evidence that common currencies increase trade.

Disadvantage:

Almost complete reduction in monetary policy autonomy.

Which countries are more likely to join a currency union?
neighboring countries

small, open economies

countries with independent central banks
The Intuition of the Argument

Monetary authorities in floating countries stabilize the exchange-rate to key currency areas (in the presence of competing key currencies). Since key currencies float with respect to each other, monetary authorities may need to stabilize to more than one key currency simultaneously. A currency basket allows ‘weighting’ various key currencies.

Capital flows (currency conversion flows) matters since they determine exchange-rate effects.

Share of both currency unions from key currency areas matters because of exchange-rate pass-through effects.
How do currency unions enter the equation?

The establishment of a currency union increases the size of the key currency area, increases the attractiveness of the union’s currency for investors. In the absence of intervention, the elasticity of the exchange rate to changes in the real interest rate difference increases.
The Euro Crisis
* actual market trade values without cut-off yield for Cyprus government bond maturing 3 February 2020
Wage Increases and the Euro Crisis

With a single currency, competitiveness declines when a country has a higher real wage increase (wage increase – productivity growth) than other countries of the monetary union.
Consequences 1: Current Account Deficit

Current account balances

- Spain
- Portugal
- Netherlands
- Italy
- Ireland
- Greece
- Germany
- Italy
- France
- Eurozone

$ billions


-400 -300 -200 -100 0 100 200 300
Consequences 2: Debt
The Number and Size of Nations


Year

Member Countries

FDI and Pollution

Factors Determining Pollution Level

Nitrogen Oxygen (NOx)

Sulfur Dioxide (SO2)

Suspended Particles
The Environmental Kuznets Curve

Pollution

Per Capita Income

5000-8000$ per capita
Starting from low income levels, an increase in GDPC is associated with an increase in pollution, starting from higher income levels, an increase in wealth is associated with a decline in pollution.
Reasons for the Kuznets Curve:

- voters in richer countries are environmentally more conscious
- energy use is more efficient
- richer countries have much larger service sectors
- else?
What about...

dirty industries ‘migrate’ to poor countries with low environmental standards?

Do they?
“First, aggregate comparisons of output and trade trends based on a classification of pollution industries based on US emissions revealed very marginal delocalization to the South.

Second, firm-level estimates of FDI location choices by-and-large found at best marginal evidence either of location choice in the US in response to cross-State differences in environmental regulations, or of location choices by multinational firms across developing countries in response to differences in environmental regulations.”
There is much evidence for the fact that industries in poorer countries are relatively dirty. Yet, there is remarkably little evidence for corporations ‘delocating’ to pollution havens.
Trade and the Environment

The Frankel/Rose Model
Trade \rightarrow + \rightarrow Per Capita Income

- (?) \rightarrow Democracy

+ \rightarrow Environmental Regulation

- \rightarrow Pollution

+ \rightarrow +/- depending on GDPC
Accordingly: the influence of trade on pollution is ambiguous and presumably conditional.

Why?
Table 2:
Air pollution equations - OLS (with quadratic income)

* NO2

OLS regression  
Number of obs = 36  
R-squared = 0.1572  
Root MSE = 40.427

<table>
<thead>
<tr>
<th>Robust</th>
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<td>-1697.314</td>
<td>517.8064</td>
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<td>0.003</td>
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</table>

* Income Peak 7665.0902
**Sulfur Dioxide**

OLS regression

|       | Coef. | Std. Err. | t     | P>|t| |
|-------|-------|-----------|-------|------|
| inc   | 287.2499 | 118.8063 | 2.42  | 0.021 |
| incsq | -16.584  | 6.781331 | -2.45 | 0.020 |
| openness | -0.3063532 | 0.0794114 | -3.86 | 0.000 |
| polity | -6.579158  | 2.0488908 | -3.21 | 0.003 |
| lareapc | -2.921048  | 1.393917 | -2.10 | 0.043 |
| _cons | -1123.359 | 500.5334 | -2.24 | 0.031 |

* Income Peak 5770.1305

**Suspended Particles**

OLS regression

|       | Coef. | Std. Err. | t     | P>|t| |
|-------|-------|-----------|-------|------|
| inc   | 566.6506  | 336.1893 | 1.69  | 0.102 |
| incsq | -35.56644  | 19.05568 | -1.87 | 0.071 |
| openness | -3.741319  | 3.365302 | -1.11 | 0.275 |
| polity | -6.696519  | 3.416111 | -1.96 | 0.059 |
| lareapc | -13.02382  | 6.292223 | -2.07 | 0.047 |
| _cons | -1998.683 | 1464.379 | -1.36 | 0.182 |

* Income Peak 2881.5566
. * Deforestation
. *

OLS regression
Number of obs = 96  F(5, 90) = 8.60
R-squared = 0.2459  Root MSE = 1.1264

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<td>5.205874</td>
<td>-2.62</td>
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</table>

. * Income Peak  1078.177
Findings:

“We confirmed the pattern of the environmental Kuznets curve, whereby growth eventually has a beneficial effect on pollution, after the initial adverse relationship at low levels of income. Trade accelerates the growth process. However, the primary emphasis of the paper was on the effect of openness for a given level of income. Here we found little or no evidence of the race to the bottom hypothesis. To the contrary, a higher ratio of trade to income, for a given level of income, seems if anything to reduce air pollution.”

(Frankel/ Rose 2002: 26-27)
Taxation in Open Economies
Government Spending Germany

Deutsche Staatsquote in Prozent
1960 - 2014

Quelle: Bundesministerium der Finanzen.
Where does the Government Share of the GDP Come From?

Partition of the German tax revenue 2007

- Value-added tax (31.5 %)
- Tax on earnings - Personal income tax, corporation tax, tax on capital income, PAYE tax, solidarity surcharge (40.3 %)
- Local taxes
  - Property tax (2.0 %)
  - Trade tax (7.5 %)
- Federal taxes
  - Tobacco tax (2.6 %)
  - Energy tax (7.2 %)
- Other taxes (8.8 %)

TAX REVENUE AS PERCENTAGE OF GDP

[SOURCE: HTTPS://DATA.OECD.ORG/TAX/TAX-REVENUE.HTM]

YEARLY TAX REVENUE COMPARISON ACROSS COUNTRIES

- Australia
- Denmark
- Finland
- Germany
- Ireland
- Luxembourg
- Spain
- Sweden
- Switzerland
- UK
- USA
- OECD Average

PERCENTAGE OF GDP

YEARS

Effective Tax Rate

(a) Australia

(b) Austria
(g) Germany

(h) Italy
(m) Switzerland

(n) United Kingdom
(o) United States
Trends?

- increase in effective labor taxation (exception UK, Switzerland)
- effective labor taxes extremely high in social welfare states
- effective capital taxes increase in Australia, Austria, Italy, Switzerland, UK
- effective capital taxes decline in USA

Is that tax competition?
### Effective Tax Rate of US companies

**The Corporate-Tax Mess**

Some large companies pay little in tax, while others pay many billions of dollars.

**Tax rate covering federal, state, local and foreign taxes, 2007 through 2015**

<table>
<thead>
<tr>
<th>Company</th>
<th>Tax Rate</th>
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</thead>
<tbody>
<tr>
<td>PG&amp;E</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Facebook</td>
<td>3.8%</td>
</tr>
<tr>
<td>Boeing</td>
<td>8.3%</td>
</tr>
<tr>
<td>Amazon</td>
<td>13.0%</td>
</tr>
<tr>
<td>Alphabet (Google)</td>
<td>16.1%</td>
</tr>
<tr>
<td>Apple</td>
<td>16.5%</td>
</tr>
<tr>
<td>Coca-Cola</td>
<td>17.2%</td>
</tr>
<tr>
<td>O.E.</td>
<td>17.9%</td>
</tr>
<tr>
<td>Microsoft</td>
<td>20.7%</td>
</tr>
<tr>
<td>FedEx</td>
<td>23.8%</td>
</tr>
<tr>
<td><strong>S&amp;P 500 avg.</strong></td>
<td><strong>26.9%</strong></td>
</tr>
<tr>
<td>Disney</td>
<td>30.7%</td>
</tr>
<tr>
<td>Walmart</td>
<td>31.0%</td>
</tr>
<tr>
<td>Starbucks</td>
<td>31.2%</td>
</tr>
<tr>
<td>UPS</td>
<td>34.5%</td>
</tr>
<tr>
<td>Exxon Mobil</td>
<td>37.4%</td>
</tr>
<tr>
<td>Home Depot</td>
<td>37.7%</td>
</tr>
<tr>
<td>CVS</td>
<td>38.8%</td>
</tr>
<tr>
<td>Lowe's</td>
<td>39.3%</td>
</tr>
</tbody>
</table>
Companies

2.9 billion surplus, <1 percent effective tax rate

How? Disney is a bank registered in Luxemburg
McDonald’s

Registered in US and Luxemburg, avoids corporate tax (Koerperschaftssteuern)
Google

8.8 billion, corporate tax in Europe <5 percent (but much higher in US)

Google is a Irish and Dutch company that licenses its patents to itself
Amazon

6.8 billion turnover in Germany, effective tax rate app. 0.1 percent

Amazon is a Luxemburg company that licenses patents to itself
Ikea

6 billion surplus, effective tax rate 15 percent

Ikea is a charity
Apple stores surplus in Ireland, does not pay taxes in Europe, but pays taxes in US

Apple now has to pay 13 billion Euro taxes to Ireland.
Zara

is a Dutch holding called Inditex.
Starbucks

Is a Dutch holding. Taxes in Germany? 0.

Average tax rate outside US 13 percent.
In 2014, Facebook paid 4237 Pound taxes in the UK.

Facebook is an Irish company that licenses patents to itself.
Lutz

XXXLutz

Is a Maltese company. Does not pay corporate taxes in Austria.
2006-2008 effective tax rate: - 3 percent (that is minus three percent).

More recently: 1.9 billion surplus, 19 million corporate taxes
Transfer Pricing

slicing up the product chain

setting internal prices so that profits occur in countries with low corporate taxes
Tax base and tax rate effect

- Lowing tax rates reduces income from taxation of domestic corporations, but attracts foreign capital.

- First effect is the tax rate effect, the latter the tax base effect.

- For small countries the tax base effect tends to be larger.

- For large countries the tax rate effect tends to be larger.
Political Integration

The members of the European Union have transferred to it considerable sovereignty, more than that of any other non-sovereign regional organization. In certain areas the EU begins to take on the character of a federation or confederation. However, in legal terms, member states remain the masters of the Treaties, which means that the Union does not have the power to transfer additional powers from states onto itself without their agreement through further international treaties.
What does the EU do?

Why have members 'transferred sovereignty'?

At what cost?

Why is there no other political entity like the EU?
Which Europe?
Memberships of various groupings

Source: The Economist

*Croatia currently a provisional member
The functioning of the European Union is supported by several institutions:

* The European Parliament (732 members 750 max.)
* The Council of the European Union (or 'Council of Ministers') (25 members)
* The European Commission (25 members)
* The European Court of Justice (incorporating the Court of First Instance) (25 judges (& 25 judges of CFI))
* The European Court of Auditors (25 members)
There are several financial bodies:

* European Central Bank (which alongside the national Central Banks, composes the European System of Central Banks)
* European Investment Bank (including the European Investment Fund)

There are also several advisory committees to the institutions:

* Committee of the Regions, advising on regional issues
* Economic and Social Committee, advising on economic and social policy (principally relations between workers and employers)
* Political and Security Committee, established in the context of the Common Foreign and Security Policy, monitoring and advising on international issues of global security.
What is it doing?

Why does it exist?
The fundamental trade-off...

On the one hand...
...the EU reduces the barriers to trade, capital flows, and the movement of persons.

On the other, however, ...
...it reduces the political autonomy of the member countries.

Why is the reduction of barriers to certain types of mobility beneficial to governments/countries?

Why is the loss of political autonomy costly to governments/countries?
Gains from political integration

free trade

free movement of capital

free movement of labor

free movement of ideas

abolition of non tariff barriers to trade

i.e. different standards

monetary integration

  reduction in uncertainty

  -> economies of scale, politics of scale

  -> increase in competition -> efficiency

  -> comparative advantage
Costs of Political Integration

loss in political autonomy
-> inappropriate standards
-> adjustment costs
   -> reduction in speed of adjustment to exogenous shocks
   -> potential increase in strengths of right-wing/Anti-European party
A non-functionalistic Theory of Political Integration

Why is there an increase in political integration since WW2?

What countries are most likely to join a political integration area?

Does political integration need to have a strong regional component?
A non-functionalistic Theory of Political Integration

Why is there an increase in political integration since WW2?
- countries became similar (regulatory competition, convergence)
- increasing trade openness and capital mobility reduced political autonomy anyway
however: this also led to an increase in competitiveness of small political entities
Further Questions

Is there a trade-off between widening and deepening?

The Politics of Brexit: Hard or Soft?

An Ever Deeper Union? Is the Bicycle Theory of Political Integration Correct?
Disbanded Currency Unions

between Bahrain and Abu Dhabi using the Bahraini dinar
between Bahrain, Kuwait, Oman, Qatar and the Trucial States, using the Gulf rupee from 1959 until 1966
between Aden and South Arabia, Bahrain, Kenya, Kuwait, Oman, Qatar, British Somaliland, the Trucial States, Uganda, Zanzibar and British India (later independent India) using the Indian rupee
between British India and the Straits Settlements (1837–1867) using the Indian rupee
between Czech Republic and Slovakia (briefly from January 1, 1993 to February 8, 1993) using the Czechoslovak koruna
between Ethiopia and Eritrea using the Ethiopian birr
between France, Monaco, and Andorra using the French franc
between the Eastern Caribbean, Jamaica, Barbados, Trinidad and Tobago and British Guiana using the British West Indies dollar
between the Eastern Caribbean, Barbados, Trinidad and Tobago and British Guiana using the Eastern Caribbean dollar
between Italy, Vatican City, and San Marino using the Italian lira
between Jamaica and the Cayman Islands using the Jamaican pound and later Jamaican dollar
between Kenya, Uganda and Zanzibar using the East African rupee
between Kenya, Uganda and Zanzibar (and later Tanganyika) using the East African florin
between Kenya, Tanganyika and Zanzibar (later merged as Tanzania), Uganda, South Arabia, British Somaliland and Italian Somaliland using the East African shilling
Latin Monetary Union (1865–1927), initially between France, Belgium, Italy and Switzerland, and later involving Greece,[11] Romania, Spain and other countries.
between Liberia and the United States using the United States dollar
between Mauritius and Seychelles using the Mauritian rupee
between Nigeria, the Gambia, Sierra Leone, the Gold Coast and Liberia using the British West African pound
between Prussia and the North German states (1838–1857) using the North German thaler
between Russia and the former Soviet republics (1991–1993) using the Soviet ruble
between Qatar and all the emirates of the UAE, except Abu Dhabi using the Qatari and Dubai riyal
between Saudi Arabia and Qatar using the Saudi riyal
between Samoa and New Zealand using the New Zealand pound
Scandinavian Monetary Union (1870s until 1924), between Denmark, Norway and Sweden[11]
between the Solomon Islands, Papua New Guinea and Australia using the Australian dollar
South German guilder
between Spain and Andorra using the Spanish peseta
between Trinidad and Tobago and Grenada using the Trinidad and Tobago dollar
between Brunei, Malaysia, and Singapore (1953–1967) using the Malaya and British Borneo dollar
between Cambodia, Laos, and Vietnam (1885–1952) using the French Indochinese piastre
between South Africa and Botswana (1966–1976) using the South African rand
between Egypt and Sudan using the Egyptian pound – until 1956
between West Germany and East Germany between 1 July 1990 and 3 October 1990, as part of a temporary, so-called "Monetary, Economic and Social Union" prior to German reunification.
between Republic of Ireland and United Kingdom between 1928 and 1979 using the Irish Pound.
Explaining Brexit

MP Nadine Dorries does not like May’s Brexit deal, because she sees her future at risk. Brexit will leave without any Members of the European Parliament:

“Unfortunately, the future of the country and of our relationship with Europe is at stake. This deal gives us no voice, no votes, no MEPs, no commissioner.”

Who has to pay the prize of Brexit? The poor British politicians.

Reality can be a bummer.
Explaining Brexit

- Euroscepticism is a political preference

- large parts of all parties oppose EU membership (establishment theory)

- referenda offer an option to ‘punish’ the government (similar to 2nd order elections)

- the UK referendum was an opportunity to vote against Merkel’s ‘welcome culture’ and EU ‘free movement of labor policies’
Should I stay or should I go?
The Clash’s Brexit Forecast:

It's always tease, tease, tease
You're happy when I'm on my knees
One day it's fine and next it's black
So if you want me off your back
Well, come on and let me know
Should I stay or should I go?

If I go, there will be trouble
And if I stay it will be double