

Chapter 7

Institutions, Economic Inequality, and Political Outcomes

Background Information

- unit of analysis: individuals or households
- reference variable: *income*, *wages*, wealth, consumption, health conditions, access to education, access to healthcare
- inequality vs poverty
 - *absolute poverty*: based on a defined minimum standard of living
 - *relative poverty*: based on a statistic of the distribution in the population

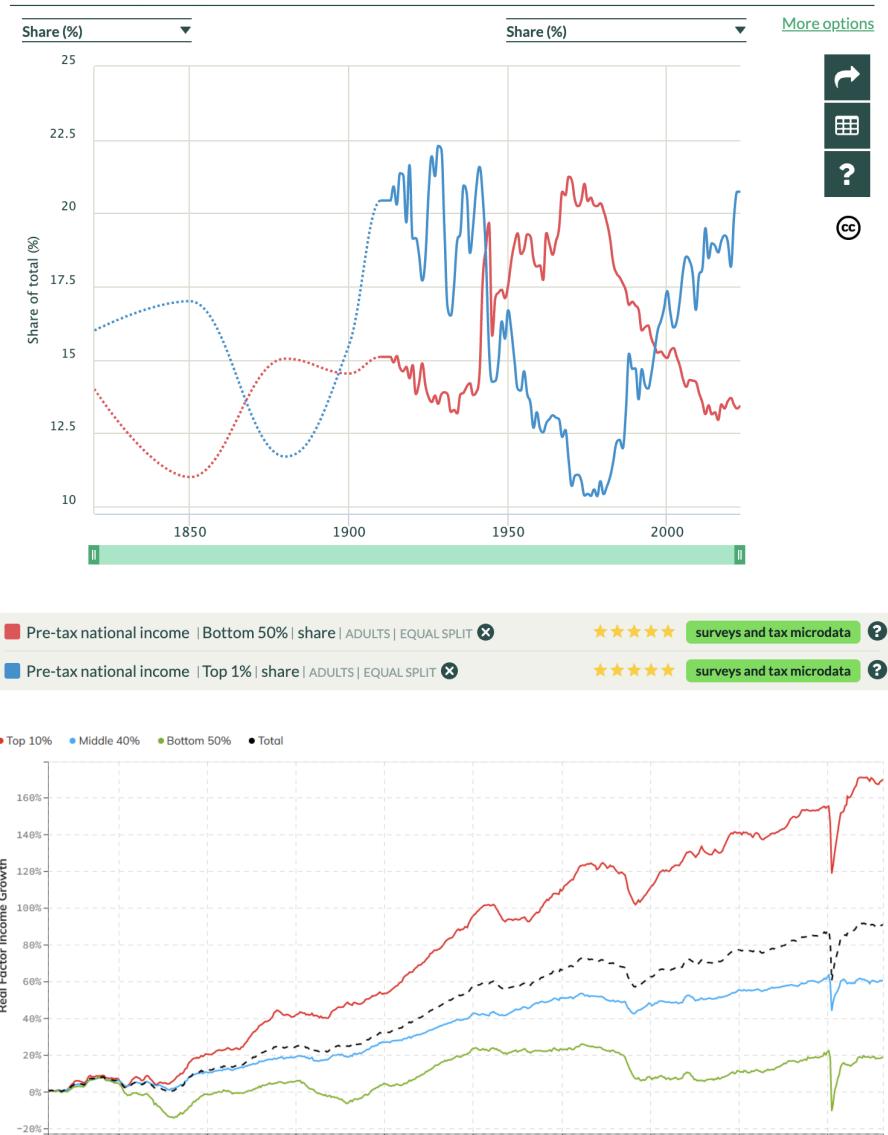
Measures of Inequality

- *gini coefficient*: statistical measure used to determine the extent of income inequality within a population
 - 0 indicates perfect equality (everyone has the same income)
 - 1 indicates perfect inequality (one person has all the income)
- non-parametric estimates
- income share (top $x\%$ of total population, bottom $x\%$ of total population, etc...)
- income quintile share ratio (top 20% / bottom 20%)
- *labor share* (total labor income/GDP): proportion of national income that is allocated to workers in the form of wages, salaries, and other benefits

Recent trends in inequality

Inequality is rising almost everywhere. We focus on developed countries and the issue of poverty not addressed

Income inequality, USA, 1820-2023



Real income growth per adult in the last quarter (2023-Q1)

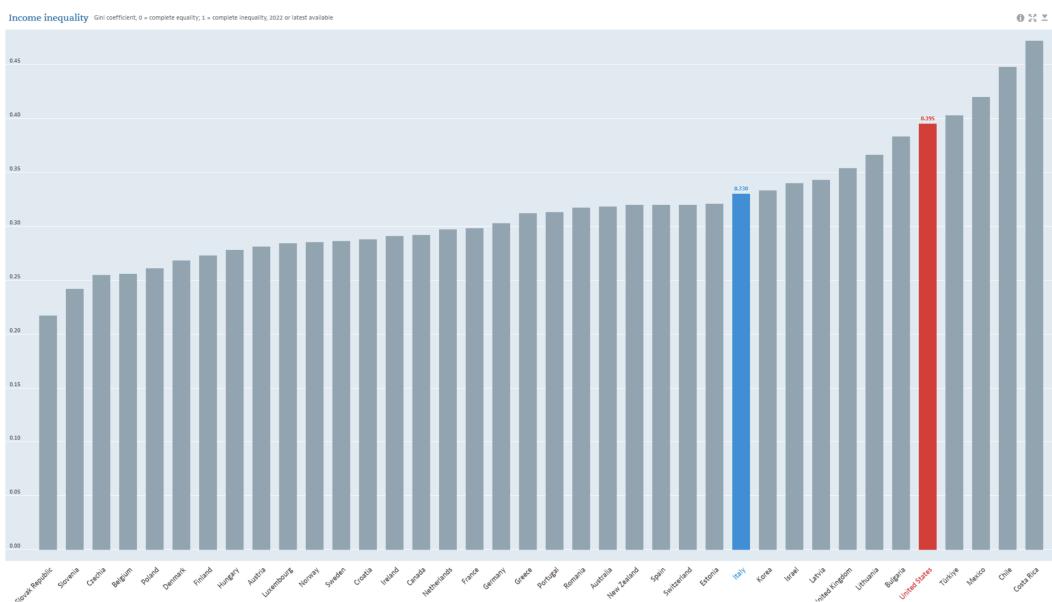
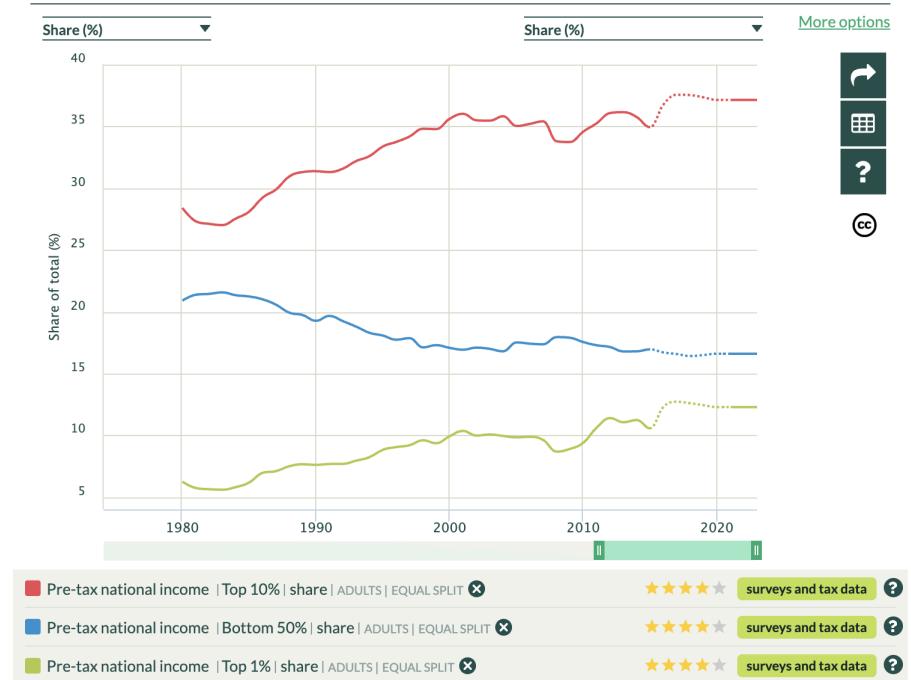
Growth rates, gains, and income levels are annualized.

Period: Last Calendar Year Last Quarter

Sort by: Group ↓ Growth (%) Gain (\$) Income

Group	Growth (%)	Gain (\$)	Avg. Income
● Total	2.2%	\$1.9k	\$89k
● Bottom 50%	1.5%	\$270	\$18k
● Middle 40%	1.7%	\$1.6k	\$92k
● Top 10%	2.7%	\$12k	\$430k
● Top 1%	4.3%	\$78k	\$1.9M
● Top 0.1%	4.5%	\$400k	\$8.9M
● Top 0.01%	5%	\$2.1M	\$42M

Income inequality, Italy, 1975-2023



→ main point: income inequality is rising and the inequality is particularly high in the US.

Labor Share

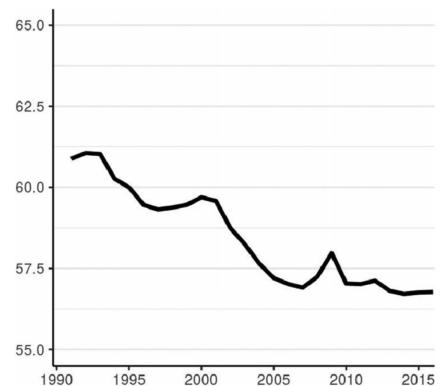
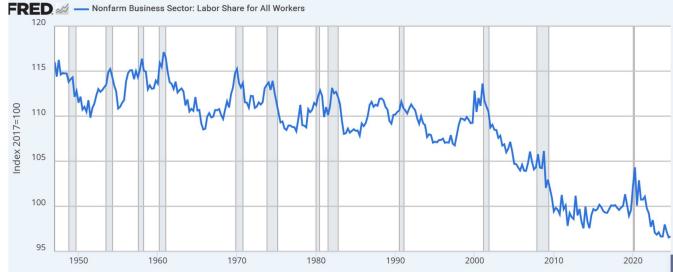
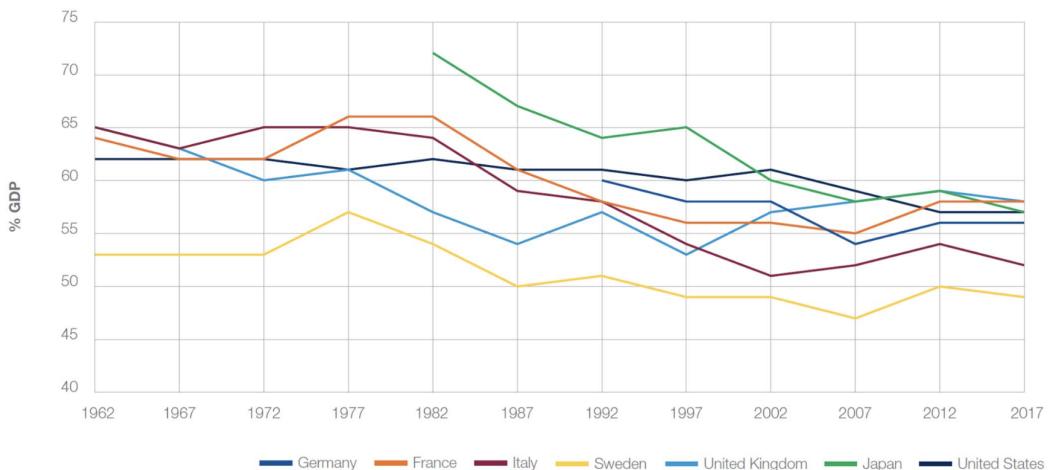
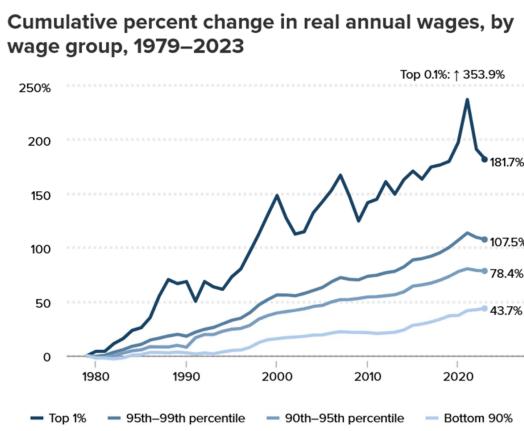


Figure 1. Evolution of the Labour Share for 23 OECD Countries.

Figure 3 Trend in labour shares, 1962-2017



Wage Inequality



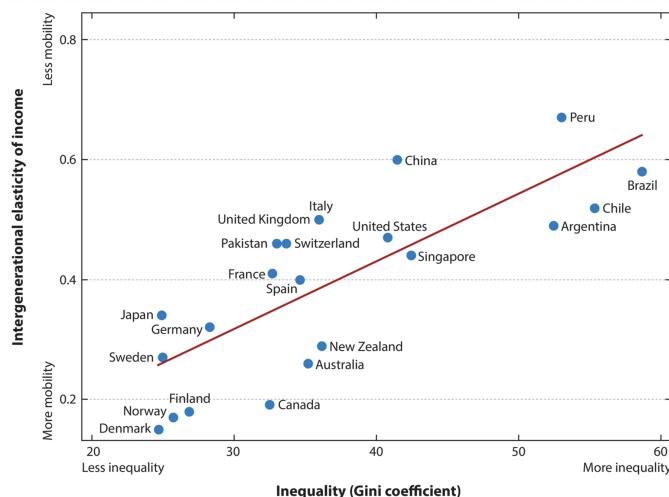
Over the long run earnings growth has been vastly unequal. Between 1979 and 2023, annual earnings for the top 1% and top 0.1% skyrocketed by 181.7% and 353.9%, respectively, while earnings for the bottom 90% grew just 43.7%. On an annualized basis, wages for the bottom 90% grew just 0.8% per year, compared with 2.4% and 3.5% annualized wage growth for the top 1% and top 0.1%, respectively.

These vastly unequal growth rates are on top of the already vast inequality that existed in 1979. Back then, the top 1% earned average wages (\$281,932) more than nine times as much as the bottom 90% (\$29,953). In 2023, the top 1% earned average wages (\$794,129) more than 18 times as much as the bottom 90% (\$43,035).

Remark (1): The "Great Gatsby" Curve

Some people do not see growing inequality as a problem. They believe it is not a problem as long as there is also possibility of mobility across social, income and educational group. They believe inequality provides the right incentives for mobility.

The problem is that this empirical relationship does not seem to hold.



The Great Gatsby Curve describes the **positive empirical relationship** between cross-sectional income inequality and persistence of income across generations. The scatter plot shows a correlation between income inequality in a country and intergenerational income mobility (the potential for its citizens to achieve upward mobility).

The Great Gatsby Curve illustrates the connection between **concentration of wealth** in one generation and the **ability** of those in the next generation **to move up the economic ladder** compared to their parents.

(Intergenerational income elasticity (IGE) is a measure that quantifies the relationship between a parent's income and their child's income. It indicates how much a child's income is expected to change for every percentage point change in the parent's income. A higher IGE suggests stronger intergenerational persistence of income, meaning children are more likely to be in the same income bracket as their parents, and social mobility is lower)

Remark (2): Wealth Inequality

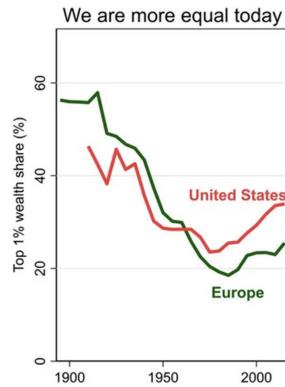
Wealth Inequality:



Remark on Remark (2)

Ongoing debate on wealth inequality: *Daniel Waldenström (2024)*

- wealth inequality is much lower than in the past → reduction in wealth inequality
 - homeownership
 - private pension
- reversed "consensus"
- familiar policy prescription



Causes of Inequality

Possible Causes of Inequality

- *Institutions*
 - labor market institutions
 - redistributive institutions/policies
 - informal institutions
- *Market Forces*
 - globalization
 - * immigration
 - * international trade
 - * financial integration, FDI, remittances
 - technological change
 - * skill-bias technological change
 - * capital-skills complementarity
 - * automatization

- *Interactions between Institutions and Market Forces*

A Few Caveats

- the dichotomy "market forces" – "institutions" is didactically convenient and rhetorically powerful, but misleading → Markets are institutions

The point is that extreme inequality and the falling fortunes of America's workers are a choice, not a destiny imposed by the gods of the market. And we can change that choice if we want to.

Krugman, The New York Times, 2 March 2015

- Specific policy prescriptions of the Consensus (liberalize, privatize, stabilize) likely to increase inequality (see VoCs)

7.1 Institutions

- **labor market institutions:** minimum wage, unions, pay-setting institutions (performance - pay), indexation schemes, Employment Protection Legislation (EPL)
- **redistributive institutions/policies:** Progressivity of the tax system, Redistributive public expenditures, Corporate taxes
- **informal institutions and social norms:** Social approval of income differences

7.1.1 "The changing nature of wage inequality" - Lemieux (2008)

Wage inequality increased during the 1980s.

By the early 1990s, a set of highly influential papers by Bound and Johnson (1992), Katz and Murphy (1992), Levy and Murnane (1992) and Juhn et al. (1993) established a wide consensus that (1) inequality had been growing sharply in the 1980s and (2) the primary factor behind the growth was the increase in the relative demand for skill. The consensus was also that the relative demand for skill had been growing in the 1970s, but had been outstripped by the steep growth in educational attainment—the relative supply for skills—linked to the entry of the highly educated baby boom generation in the labor market

While this first set of papers did not take a strong position on the source of the increase in the relative demand for skills, it became widely accepted during the early 1990s that skill-biased technical change (SBTC), driven by the computer revolution, was the primary source of growth in the relative demand for skill

Even back in the 1990s, however, it was already clear that a number of facts were difficult to reconcile with the prevailing view that SBTC was driving the growth in inequality in the United States:

- far from being “ubiquitous”, the growth in wage inequality was increasingly concentrated in the top end of the wage distribution. → wage inequality concentrated at the top 1%
 - other large advanced economies like France, Japan or Germany had failed to experience any significant growth in inequality during the 1980s
 - *If technological change is the explanation for growing inequality, how can it be that other advanced economies subject to the same technological change do not experience an increase in inequality?*
 - wage-setting institutions appear to play a substantial role in the growth in inequality
- these trends cannot be explained by market forces only
- **Labor market institutions** are found to be the **main driver of increasing inequality**

e.g. Minimum Wage

Another important wage-setting institution is the minimum wage, which fell sharply (in real terms) during the 1980s.

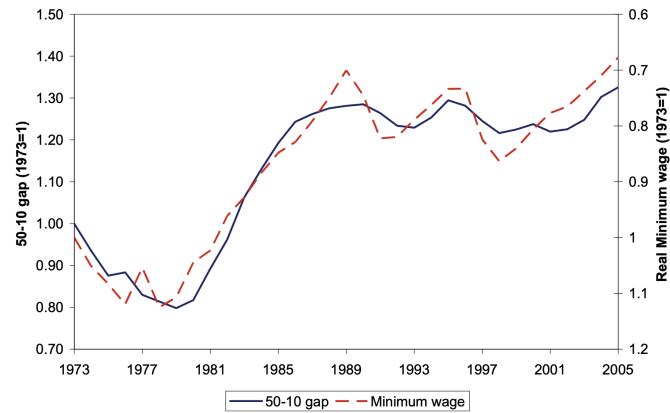


Fig. 5 50–10 gap for women vs minimum wage

Labor Market Institutions, US (Lemieux et al, 2019)

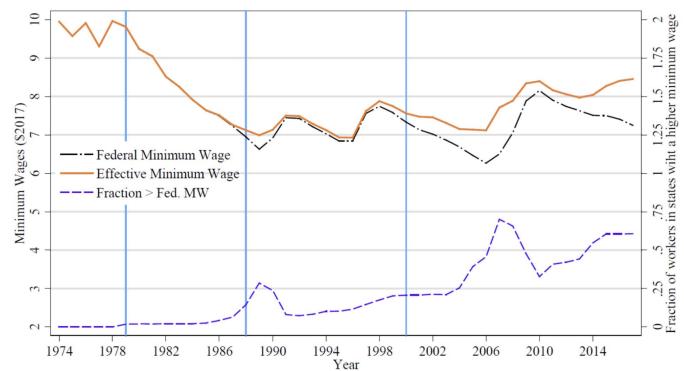


Figure 1. Real Value (\$2017) of the Minimum Wage and Fraction of Workers in States with a Higher Minimum

Labor Market Institutions (Nolan et al, 2019)

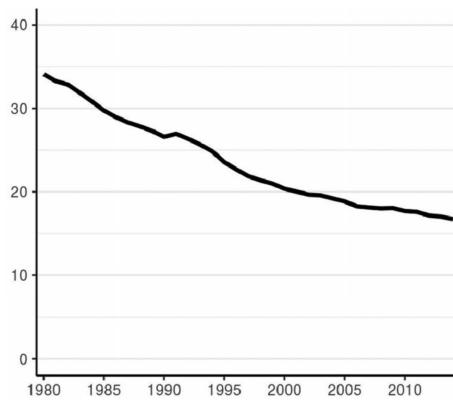


Figure 4. Evolution of Trade Union Density in OECD Countries.

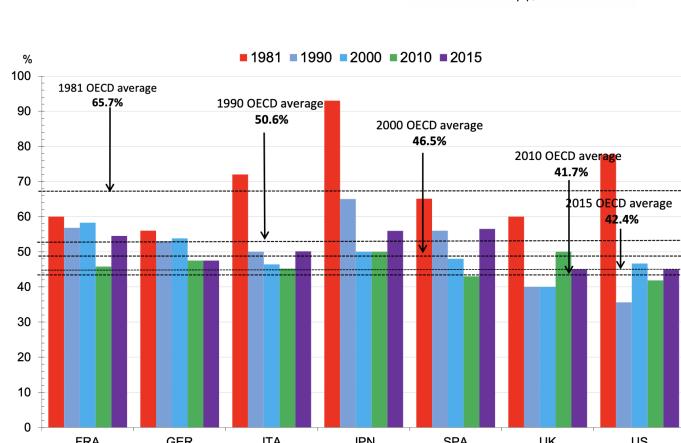
Conclusion - Lemieux (2008)

4.4 Institutions: an overall assessment

Wage-setting institutions are a fairly successful explanation for recent changes in inequality in the United States. De-unionization implies increasing inequality at the top end but decreasing inequality at the low end, which is consistent with changes in the wage distribution observed over the last 15 years. Adding another institutional factor, the minimum wage, can also account for the fact that inequality also expanded in the low end of the distribution in the 1980s, when the real value of the minimum wage fell sharply. Finally, changes in the way wages are set due to the

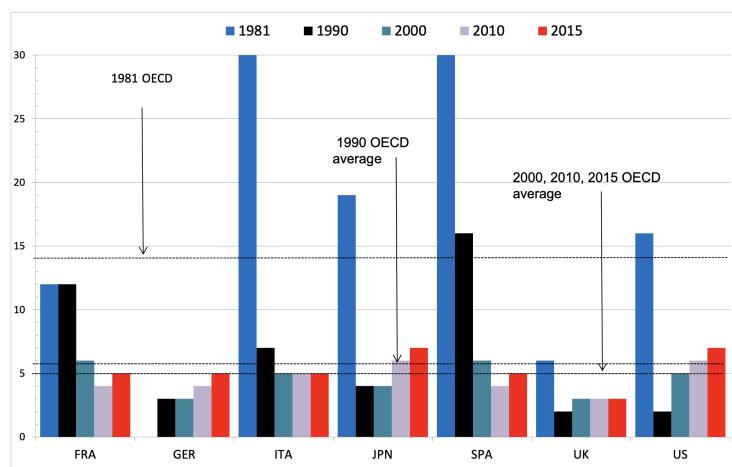
growth in performance-pay jobs can also help explain a large share of the growth in inequality above the 80th percentile of the wage distribution.

Two other advantages of the institutional explanation are that it is also consistent with long-run trends in inequality in the United States and with cross-country differences in inequality changes over countries. On the historical side, Levy and Temin (2007) provide both historical and quantitative evidence that institutional changes played both a major role in the decline in inequality around and after World War II (the “Detroit Treaty” era) and in the more recent growth in inequality since 1980 (the “Washington Consensus” era).



Personal income tax: marginal rates, OECD

Average OECD Personal Income Tax Marginal Rate decreased and only after the 2008 crisis some countries began to raise it back up.



Personal income tax: Number of Brackets

Also the number of brackets has decreased over time.

7.1.2 Examples of Interactions between Market Forces and Institutions

- labor market institutions shape the relationship between market forces and wages (e.g. trade unions and collective bargaining)
- corporate income taxation (and factor mobility + skill-biased technological adoption)

E.g. “a decline in corporate income tax rates, for instance, can raise the relative return to capital, which may induce a further substitution of capital for labor and lower the labor share of income” (IMF, WEO 2017)

7.1.3 Treaty of Detroit

“Wages and institutions”, Levy & Temin (2010)

Treaty of Detroit (1947-1973):

- high minimum wage
- strong support for collective bargaining
- strong support for unions
- high marginal tax rates
- Fair Trade Pricing
- willingness to regulate industries

Washington Consensus:

- antithetic to the Treaty of Detroit
- accompanied by a cultural change (changes in social norms)

→ This **institutional change**, from the Treaty of Detroit to the Washington Consensus, explains increasing wage inequality and fall in labor share

Treaty of Detroit

From today's perspective, two features of the conference (National Labor-Management Conference, US, November 1945) stand out:

- *the short guest list*: Oligopolistic, regulated structure of industry + concentration of union power
- Business-labor relations would remain a tripartite process with government actively involved as the *“third man in the ring”*

Some similarities with CMEs, rather than LMEs.

7.2 Market Forces

“While this theoretical link between [market forces] and inequality had long been known, empirical research [...] gained momentum in the 1990s, when economists debated the causes of the rapidly rising wage differential between college-educated and high-school-educated workers in the US and elsewhere.”

Conceptual Framework

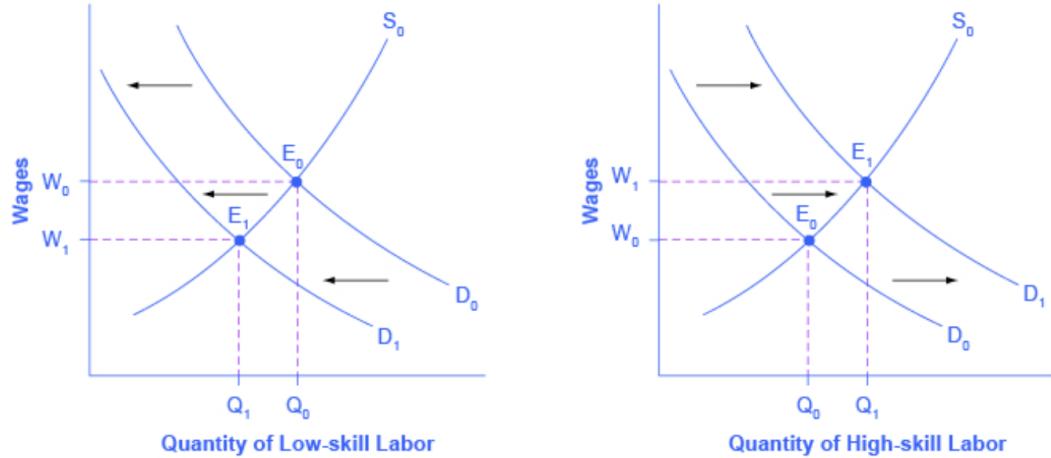
$$\frac{\Delta \left(\frac{w^L}{w^H} \right)}{\left(\frac{w^L}{w^H} \right)} = \frac{1}{\sigma} \left[\frac{\Delta D}{D} - \frac{\Delta \left(\frac{L}{H} \right)}{\left(\frac{L}{H} \right)} \right]$$

- H is skilled labor and L is unskilled labor
- D is relative demand
- σ is elasticity of substitution btw H and L
- w is wage

The wage of unskilled workers over skilled workers (relative wage) is a function of the percentage change in the relative demand and the relative supply.

Market forces expected to affect relative wages:

- migration changes the supply of skill composition (increase in L/H)
- trade and technology changes the relative demand (decrease in D)



7.2.1 Migration and (Wage) Inequality

Migration and Wages

Empirical research concerned with estimating the *causal* effect of immigration on wages of residents

- observed: Wages of residents before and after immigration
- not observed: Wages of residents after immigration *if immigration had not taken place*

→ empirical challenge: reconstruction of the *missing counterfactual* → what would have been the wage distribution had immigration not taken place

The "Spatial Correlation Approach"

The standard approach in this literature is the *Spatial Correlation Approach/Local Labor Market Approach*

- reconstruction of the missing counterfactual
 - slice labor market into different sub-markets that are differently exposed to immigration
→ different exposure of different areas to inflows of immigrants
 - correlate changes in wages with changes in immigration
- sub-markets are defined geographically ("spatial correlation approach")
 - in general, local labor markets
- identification: variation within spatial units over time

Why do we need variation within spatial units over time? if you want to identify the effect of migration on wages and you proceed by looking at country level data it is no longer possible to disentangle the institutional and the immigration story

The *Pure Spatial Correlation Approach*

Consider an economy that can be divided into two identical labor markets i and j

- suppose immigration takes place and immigrants allocate differently to the two labor markets
- the effect of immigration on wages and employment could now be measured by comparing wages (and employment) between labor market i and labor market j and relate it to the relative magnitude of immigration
- → labor market j serves as the *counterfactual*

Some indication of the impact of immigration on the relative size of the dropout labor force in different cities is presented in Table 2. The table shows the fractions of immigrants in all cities and in 15 selected cities in 1980 and 2000, along with the fractions of immigrants and natives with less than 12 years of completed schooling, and the overall fractions of the working age population in each city with less than 12 years of schooling.

Table 2: Immigrant Densities and the Relative Fractions of Less Educated Workers, Selected Cities 1980 and 2000

	1980:				2000:				Percent Dropouts In City	
	Percent Immigrants In City	Percent Dropouts:		Percent Dropouts In City	Percent Immigrants In City	Percent Dropouts:				
	Among Immigrants	Among Natives	24.3	18.0	Among Immigrants	Among Natives				
All Cities	9.5	38.9	23.0	24.3	18.0	37.8	13.0	17.7		
New York	23.2	39.6	26.4	29.5	41.8	32.0	17.5	23.6		
Los Angeles	25.3	49.2	19.5	27.0	47.8	47.2	14.4	30.1		
Chicago	11.8	44.0	23.7	26.1	21.2	37.7	11.8	17.3		
Philadelphia	4.9	31.1	25.2	25.5	8.3	21.9	13.3	14.0		
Detroit	6.3	34.3	25.8	26.4	8.6	26.2	14.4	15.5		
Houston	9.4	46.1	25.1	27.1	26.0	51.6	15.5	24.9		
Dallas	5.1	43.7	24.3	25.3	19.7	54.2	13.6	21.6		
Washington DC	9.6	18.3	16.8	16.9	20.6	25.8	9.9	13.2		
Boston	10.3	35.6	15.6	17.6	17.8	24.0	7.9	10.7		
San Francisco	17.0	28.4	14.3	16.7	36.4	26.6	6.9	14.0		
Miami	41.1	38.5	23.3	29.6	61.2	33.3	18.6	27.6		
Atlanta	3.1	14.8	24.9	24.6	12.1	34.0	13.6	16.1		
Pittsburgh	2.6	28.1	21.5	21.7	2.6	12.5	10.4	10.5		
Cleveland	5.8	34.5	24.0	24.6	5.6	19.7	14.2	14.5		

Note: Based on tabulations of 1980 and 2000 Census public use files. "All cities" includes 272 Standard Metropolitan Areas in 1980 and 325 Metropolitan Statistical Areas in 2000. Boundaries of some cities change between 1980 and 2000. Samples include individuals age 18-64 only.

The data for all cities in the first row of the table reveals three interesting facts:

- the fraction of immigrants in U.S. cities has roughly doubled since 1980, from 9.5 percent to 18 percent
- in both 1980 and 2000, slightly more than one third of immigrants had less than a high school education
- the fraction of natives with less than a high school education has fallen sharply, more than offsetting the inflow of less-educated immigrants

Regression Model

$$Y_{a,t} = \alpha + \beta Imm_{a,t} + \gamma X_{a,t} + \delta K_t + \mu_a + \epsilon_{a,t}$$

- $Y_{a,t}$: generic outcome in a geographical area a at time t
 - e.g. wages and employment, by educational level
- $Imm_{a,t}$: share of immigrants over population in the area
- $X_{a,t}$: time-varying are characteristics
- K_t : controls for changes at the national level
- μ_a : area fixed effects
 - removes any permanent correlation of economic conditions and immigrant concentration in particular areas

Problems of the "Spatial Correlation Approach"

1. non-random allocation of immigrants
 - immigrants sort into areas in which they want to live and work (self-selection)
 - their location choices may be related to the same factors that affect the outcome
→ upward bias in OLS estimates
2. possibility of counterbalancing native out-migration
 - general equilibrium effects (e.g. emigration, displacement of natives, education)

Non-Random Allocation of Immigrants

Solution 1: Exogenous allocation of migrant (i.e. migrants do not choose where to settle)

- immigrant dispersal policies
- other "natural experiments"

Solution 2: IV estimation (to deal with endogeneity) → most common instrument: historical immigrant settlements (Bartik Instrument / "Instrument a la Card")

- first stage: migration chains
- exclusion restriction problematic if shocks are persistent

The Bartik instrument

The Bartik instrument is formed by interacting *local shares* and national *growth rates* (**shift-share instrument**):

- Widely used in many different areas (trade, automatization, and migration)
- Recent debate on identifying assumptions (Goldsmith-Pinkham et al 2020)

Instrument for $Imm_{a,t}$:

$$\frac{\sum_{c=1}^N \delta_{a,c} \cdot immigrants_{c,t}}{population_{a,t}}$$

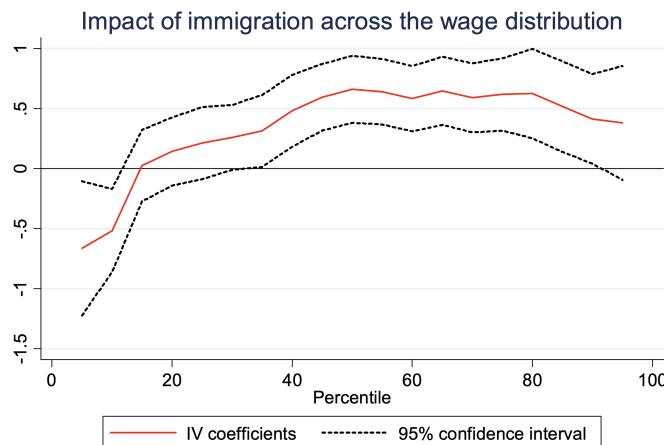
- $\delta_{a,c}$ is the local "share" in the past: the share of immigrants from country c in areas a in a base year
- $immigrants_{c,t}$ is the shift: the national (growth rate of the) number of immigrants from country c at time t
- N : number of countries of origin

Results on Migration and Wages

existing empirical findings: **immigration has a modest (positive) wage effect**

- migration affects the skill composition
 - Europe: Recent immigrants are well-educated relative to the native population. However they work in relatively poorly paid jobs, particularly in early years after arrival.
- important distributional effects: growth of wages at low end held back by immigration while wages benefit around the middle
- average wage growth modestly encouraged by immigration

A graphical illustration of the results - (Dustmann et al. 2013)



The graph shows the negative impact on low-wage percentiles and the positive impact on percentiles further up the wage distribution

7.2.2 International Trade

- similar motivation (dramatic increase in international trade)
- almost identical conceptual framework → here we look at changes in relative demand of skills, with a few complications
- similar empirical approaches
 - spatial correlation & Bartik instrument
 - Natural experiments
 - * trade policy reforms (trade agreements, Brexit)
 - * devaluations

Recent Patterns in International Trade

four salient patterns of change in international goods trade that have taken place since 1980:

1. rising world trade in goods
2. rising share of low-income countries in world exports
3. rising share of global value chains in world trade.
4. growing trade imbalances

Pattern 1: Rising world trade in goods

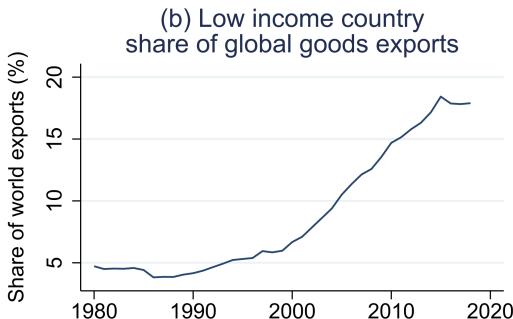
The last four decades have witnessed a large increase in worldwide merchandise trade. The annual value of goods traded across national boundaries increased considerably faster than worldwide GDP



The ratio of world exports to world GDP grew from 16.3% in 1980 to 22.3% in 2018. However, that increase was unevenly distributed over the last four decades. The export-to-GDP ratio actually declined during both the 1980s and the 2010s, and all of the overall expansion occurred in the two intermittent decades of the 1990s and 2000s

Pattern 2: Rising share of low-income countries in world exports

The expansion in trade's overall volume coincided with remarkable changes in the composition of trade flows. One of these changes was the rising importance of goods exports from low-income countries.



Low-income countries, which had per-capita annual incomes below \$480 in 1987, accounted for a mere 3–5% of world exports during the 1980s. The low-income country contribution to world exports slowly increased during the subsequent decade, from 4.2% in 1990 to 6.7% in 2000. In the following 15 years, low-income countries rapidly rose to prominence as exporters of goods, and their share of global exports nearly tripled to 18.4% in 2015, before levelling off in the most recent years

Pattern 3: Rising share of global value chains in world trade

Another important change in the composition of world trade comes from the rising importance of global value chains (GVCs), where different stages of production take place in different countries.

One measure of this international segmentation of production is the amount of trade that crosses borders multiple times because a country's exports embody inputs sourced from abroad.



The fraction of trade associated with GVCs rose from 41.4% in 1980 to 48.1% in 2015, the last year covered in the underlying World Bank (2019) data series. As with the global export-to-GDP ratio, this growth was concentrated in the middle two decades. The GVC share of world trade grew from 41.6% in 1990 to a peak of 51.8% in 2008, and has declined slightly since.

Pattern 4: Growing trade imbalances

While overall goods trade grew and changed in composition, some countries increasingly specialized as manufacturing hubs whose exports exceeded their goods imports. These countries therefore experienced a growth in their trade surpluses. Other countries instead expanded their imports by much

more than their exports, and thus realized large trade deficits.



The combined value of the goods trade deficits of all countries whose trade balance in goods was negative in a given year. Echoing the time pattern of the previous figures, the aggregate trade deficit changed little between 1980 (\$685 billion) and 1990 (\$717 billion), but then expanded rapidly, reaching values of \$1230 billion in 2000 and \$2745 billion in 2008, before stabilizing at somewhat lower levels.

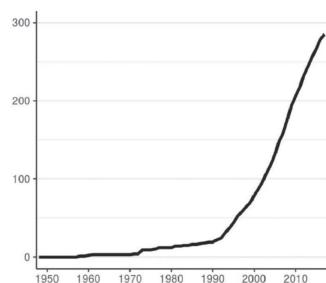
Underlying causes

- rise in productivity/competitiveness of some low-income countries (China)
 - China entered the international market with extremely high potential of productivity growth and was successful
- decline in trade and communication costs
- **decline in tariff rates**
- **free-trade agreements**

Examples....

Free-trade agreements – Nolan (2019)

(a) Number of active regional trade agreements in the world



Example of decline in tariff rates

Tariff rate across all products, 1990 to 2022
Weighted mean applied tariff is the average of effectively applied rates weighted by the product import shares corresponding each country.



The China Shock

At a global level, the most important transformation was the dramatic economic expansion of the world's most populous country, China.

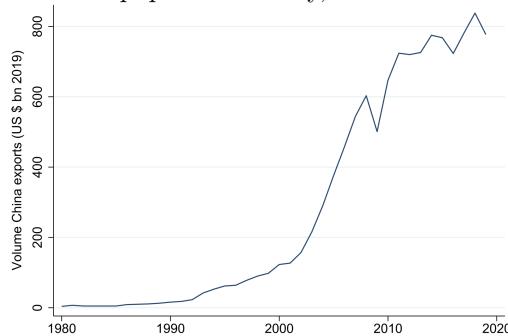


Figure 2: Volume of Chinese merchandise exports to the US and EU15. Source: International Monetary Fund (2021a). Dollar values are deflated to \$2019 with the US GDP deflator.

Chinese merchandise exports to the US and EU15 countries (including the UK) grew from just \$4 billion in 1980 to \$777 billion in 2019 – an astonishing 194-fold increase. Chinese worldwide exports reached \$2.4 trillion in 2019, making it the world's largest goods exporter.

China's rapid expansion had an important impact on all four of the global trade patterns. During the 1990s and 2000s, China was the largest contributor to the worldwide growth in exports-to-GDP, as well as the largest contributor to rising trade in global value chains → China alone was responsible for more than 90% of low-income countries' combined export growth .

China's prominent contribution to changing patterns of world trade during the globalization wave of the 1990s and 2000s explains why many recent empirical analyses of trade's impact on inequality in Europe and the US focus on the 'China shock'. However, the one-time event of the former communist bloc's integration into the worldwide market economy and international trade systems also coincided with important declines in trade and communication costs, which further contributed to the expansion of world trade.

Change in imports from and exports to China (% of GDP)

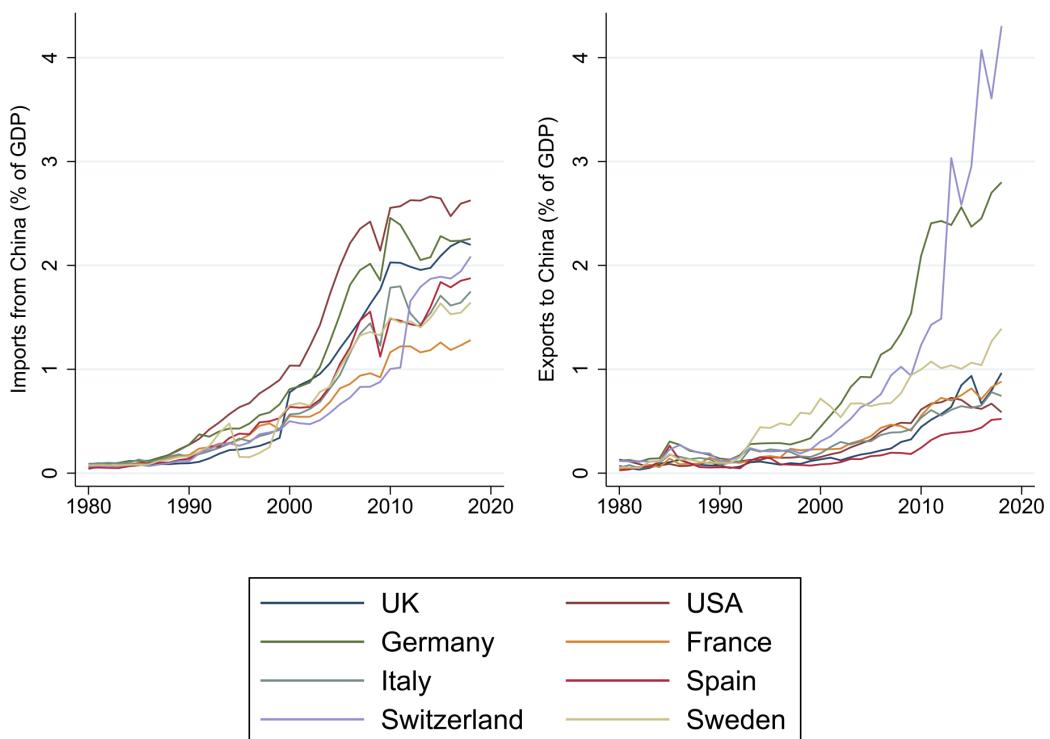


Figure 3: Change in imports from and exports to China as a share of national GDP in developed economies.
Source: Authors' calculations using data from [International Monetary Fund \(2021a\)](#) and [World Bank \(2021\)](#).

Overall, the time-series patterns for aggregate imports from China are notably more homogeneous across countries than the patterns for exports to China.

A comparison of the two panels indicates that export growth lagged well behind import growth for most countries during the 1990s and 2000s, thus contributing to the global trade imbalances.

- For countries such as the US, the UK or Spain, trade with China grew largely through an expansion of these countries' imports from China, while exports to China played a minor role.
- notable exceptions to that pattern are Germany, Switzerland and, to a lesser extent, Sweden. These countries were able to rapidly expand their exports to China, and maintained a roughly balanced trade relationship with regard to China in most years

Why were patterns of aggregate import growth more similar across countries than patterns of export growth?

One potential explanation is that many imports from China are consumer goods such as apparel, shoes, toys, home electronics or furniture that are demanded to a similar extent by consumers in the US and in European countries. Instead, China's own import demand was concentrated in specific industries in which only some of the western countries possessed an export strength

Conceptual Framework

"changes in relative demand of skills, with a few complications"

- effect on D (relative demand of skills) → ***Stolper-Samuelson theorem***
 - factors of production that are used intensively in comparative advantage sectors, i.e., those that expand thanks to trade liberalization, will win (H in Developed Countries)
 - * the comparative advantage of US is high skilled labour embedded goods and service
 - factors of production that are used intensively in shrinking sectors will lose (L in Developed Countries)
- complications
 - offshoring¹: intermediate inputs
 - trade imbalances

Remark on Trade Imbalances and Aggregate Demand

National Accounts Identity:

$$Y = F(L, K, A) = C + I + [G + NX]$$

- NX = net exports = exports (X) – imports (M)
- G = public expenditure

Moden Macro dismisses the role of demand: $Y \rightarrow AD$

- Y = income (wages and profits) = $S + C = I + C = AD$
- Supply Side Economics/Say's Law: $S = I + C = AD$
 - Say's law states that the production of goods creates its own demand
 - this view suggests that the key to economic growth is not increasing demand, but increasing production.

In Keynes, it is well possible that $AD \neq Y : AD \rightarrow Y$

- because $S \neq I$ (due to expectation, animal spirits²)
- importance of G and NX and inequality (impoverishment of the middle class) in shaping macroeconomic outcomes

Important for the short run and export oriented growth → export oriented growth is a zero-sum game

¹practice of relocating a company's operations or functions to another country, typically to reduce costs or take advantage of other benefits

²Keynesian Concept: The term "animal spirits" was popularized by economist John Maynard Keynes, who argued that these non-rational factors play a crucial role in economic booms and busts, along with rational factors like interest rate

- If all countries adopt an export oriented growth strategy, AD would be lower worldwide
- risky strategy

*“We (IMF and ILO) were formed from the ashes of a ruined world, imbued with the determination of our founders to never again make the mistakes of the past – mistakes that led to economic nationalism and war. Our overarching goal is fostering better relations between countries, and avoiding the economic roots of instability and conflict. Our role begins with economic stability, but it ends with the goal of all multilateral institutions a stable and **peaceful world.**”* (Strauss-Kahn, Managing Director, IMF, 2010)

Empirical Approach

$$Y_{a,t} = \alpha + \beta Import_{a,t} + \gamma X_{a,t} + \delta K_t + \mu_a + \epsilon_{a,t}$$

- Problem: possible endogeneity of import exposure:
 - some regions may already be in decline due to unrelated factors (e.g. technological change, demographics)
 - firms might anticipate foreign competition
- Solution: Bartik (Shift-Share) instrument

$$\frac{\sum_{i=1}^N \delta_{a,i} \cdot immigrants_{i,t}}{population_{a,t}}$$

where i is industry

- $\delta_{a,i}$ is the local "share" in the past: the initial employment share in industry i in areas a
- $immigrants_{i,t}$ is the shift: import growth at the country level

Results on trade and labor market outcomes

Available studies support the existence of **sizeable and long lasting distributional effects of trade**

- Import competition (from China) reduced employment and earnings for workers in more trade-exposed industries and regions
 - Effect larger in countries with $NX < 0$
- **Earnings effects** are considerably more adverse for **workers from lower income strata (L)**
- Negative spillover effects in the local labor market
- Offshoring seems to produce an overall negative employment effect, but gains among high-skilled workers

Other Outcomes (in these literatures)

Same Model:

$$Y_{a,t} = \alpha + \beta Import/Immigration_{a,t} + \gamma X_{a,t} + \delta K_t + \mu_a + \epsilon_{a,t}$$

Where Y can be:

- **economic outcomes:** Prices, Firms (e.g. sales, capital stock, exit), Labor income share, Taxes and public expenditures

- ***social outcomes***: Physical and mental health and health behaviors, Fertility, household structure, Crime
- ***attitudes and electoral outcomes***: Far-right (nationalist/anti immigration) parties, Distribution of policy stances, Anti immigration/trade attitudes, Political polarization

7.3 Policy Tools to Tackling Inequality

The realization that globalization had adverse economic and social impacts on some segments of the population in high-income countries raises the question of how governments could best support such losers from trade.

Should countries reduce inequality?

Yes.... for

- Equity reasons
- Macroeconomic outcomes (stability and growth)
- Social cohesion and political stability

...but not everywhere

”we cannot all be like the Scandinavians, because Scandinavian capitalism depends in part on the knowledge spillovers created by the more cutthroat American capitalism” [Acemoglu et al. 2017]

7.3.1 (1) Redistribution (“*Compensating income losses*”)

Economists have long realized that trade could be financially beneficial for everyone.⁵⁸ For this to be the case, however, it is necessary that the beneficiaries from trade use a part of their gains to provide compensation to trade's losers. In practice, such redistribution occurs primarily through general tax and transfer systems that shift resources from employed and high-income individuals towards unemployed and low-income individuals.

Progressivity of the tax schedule

- *”The quasi-confiscatory top marginal tax rates—80-90 percent or more—applied in the United States and the United Kingdom between the 1940s and the 1970s, might have been consistent with a sensibly specified optimal tax model”* (Piketty et al, 2014)
- There is a strong case for addressing wealth inequality through the tax system (OECD 2018)

Public Expenditures

- Redistributive and insurance programs
- Better access to social protection systems for workers in less stable jobs could help preserve labor market flexibility, while significantly reducing (youth) poverty and income inequality. (IMF 2018)

7.3.2 (2) Reduce frictions (“*Lowering adjustment costs*”)

Adverse labour market impacts of trade shocks such as rising import competition from China are differentially concentrated among the employees of the industries most exposed to such shocks and in the geographic regions where such industries are concentrated. Many workers do not quickly adjust to trade shocks through mobility across sectors and space.

- active labor market policies
- retraining

Active labour market policies (ALMPs) seek to reduce adjustment costs in the labour market by facilitating workers' re-employment through such measures as job search counselling, retraining, or employment subsidies.

Overall, the evidence on trade-specific and general ALMPs suggests that such programmes can be helpful at easing displaced workers' labour market adjustment. Different from transfer payments to the unemployed, programmes that help workers to find new jobs mitigate not only displaced workers' financial losses, but also the adverse social outcomes associated with persistent joblessness. However, not all ALMPs achieve their goals to help workers find good jobs, and even when programmes are effective, they do not always perform well in cost-benefit calculations.

7.3.3 (3) Regional policies (“*Reviving local economic activity*”)

An important result of the recent literature on local labour market effects of trade is that adverse shocks do not lead to large and rapid population adjustments. Instead, displaced workers are often spatially immobile, and adverse labour market outcomes such as low employment rates and depressed earnings remain heavily concentrated in the locations whose industries were most exposed to adverse trade shocks, even years after such shocks subside.

- transfers

Such policies can take the form of place-based redistribution, where a system of taxes and transfers is conditioned on individuals' location rather than on their individual income level. Gaubert et al. (2021) show that place-based redistribution can be more efficient than income-based redistribution under some conditions, especially if the poor population is spatially concentrated and if the place-based redistribution does not induce strong migration from thriving to depressed locations.

- investments

Instead of transferring funds to the residents of economically weak regions, many place-based policies seek to stimulate job creation in such locations through such measures as infrastructure investments or subsidies to firms.

- subsidies to firms

Governments often use place-based policies that provide subsidies to specific firms in depressed areas.

Tools (1)-(3) seem to work, in general (market forces)

"A combination of income support and retraining can (...) help displaced workers to avoid significant financial hardship and to find their way back into gainful employment. Moreover, place-based policies such as grants for firms that invest in depressed regions may rekindle economic activity" (Dorn and Levell, 2024).

but effects are heterogeneous

7.3.4 (4) Protective policies

In international trade: tariff, quotas and regulations

In international migration: quota systems, selection policies

- large evidence that protective policies are ineffective/inefficient/harmful
 - Migration: illegal migration; return migration; routes; migrants' death risk
 - Trade: negative/no labor market effect
- but they bring large electoral reward

The realization that trade shocks can cause severe disruption in labour markets and rising income inequality in society raises the question of what policymakers can do to support the losers from globalization. Protective trade policy in the form of new import tariffs that seeks to undo past globalization tends to create more harm than benefit. A combination of income support and retraining can instead help displaced workers to avoid significant financial hardship and to find their way back into gainful employment. Moreover, place-based policies such as grants for firms that invest in depressed regions may rekindle economic activity in localities that suffer from persistently low employment rates following trade shocks. It remains a challenge, however, to identify which specific policies are effective at helping the losers from trade while not creating unfavourable trade-offs between equity and efficiency.

7.4 Colantone et al. (2024)

Embedded liberalism (Ruggie 1982): economic liberalization **and** the development of the welfare state

In the second half of the 20th century, Western democracies adopted a model that ultimately implemented the basic idea that the prosperity created by more open trade could be distributed broadly via government policy. The concept of 'embedded liberalism' was introduced by Ruggie (1982) to describe the international economic order that emerged in Western democracies after

World War II. Embedded liberalism combined postwar trade liberalization and multilateralism with policies aimed at fostering domestic economic growth and safeguarding the domestic economy from external shocks to minimize their social consequences. In line with this argument, both Cameron (1978) and Rodrik (1998) found evidence of greater public spending in countries with higher levels of openness. It is well documented that policies in the spirit of 'embedded liberalism' are effective: redistributive programs indeed reduce opposition to international trade (Hays et al., 2005), as well as anti-incumbent and anti-globalization vote following trade shocks

- freeing the market causes some redistributional conflicts that are addressed through the development of welfare state
- fusion of "*liberal*" economic policies and redistributive universal welfare provisions constituted the foundation of the traditional European "social market economy" model

This arrangement made it possible to spread widely the benefits of the sustained economic growth experienced after World War II, and unsurprisingly it garnered broad political support. This support was evident in votes for mainstream parties across the political spectrum that promoted this model.

Neoliberal Economic Policy after 1980s ("Consensus"): Economic liberalization and the **reduction of (Welfare) State intervention** (fiscal austerity)

The shift can explain the success of anti-globalization platforms:

- The rise in inequality eroded the credibility of the mainstream liberal Model
- Protectionist promises made by anti-globalization parties may then be attractive for distressed constituencies no matter what the source of their distress is
- Remarkably, salience is the driving force

The sustainability of the embedded liberalism model started encountering challenges in the 1990s, ultimately escalating into a full-fledged crisis from the Great Recession onward (Hays, 2017, 2009). In a context of slower growth compared to the previous decades, industrialized countries were exposed to stronger trade shocks such as surging imports from China and other emerging economies. This would have called for even more compensation and redistribution policies, but these were difficult to implement. On the one hand, governments faced budget constraints that were partly due to a race to the bottom in corporate taxation driven by globalization (Egger et al., 2019; Tørslev et al., 2023). On the other hand, it was difficult to compensate manufacturing regions exposed to something as disruptive as the China shock. As a matter of fact, this would have involved not just unemployment benefits and other standard forms of cash transfers, but rather a complete turnaround of the economic model of these regions. Confidence waned both in governments' ability to formulate policies that foster economic growth and in the adequacy of government policies to cushion the impact of structural economic changes. The rise in inequality observed in many countries eroded the credibility of the mainstream liberal model, undermining the promise underlying the social contract of embedded liberalism. Mainstream parties of the right and the left faced growing difficulties in convincing the electorate that globalization benefits everyone.

Trade-off between equity and efficiency

Embedded Liberalism:

- Market forces determine the dimension of the pie (GDP)
- Taxes and public expenditures to redistribute the pie
But, at some efficiency cost (redistribution always entails some distortions) → time-inconsistency issues

The trade-off between efficiency and equity derives from a specific theoretical framework that assumes perfect and complete markets, but:

- market failures are pervasive
- public intervention can:
 - correct misallocation of production factors
 - enhance innovation
 - promote economic growth

Tackling inequality in the marketplace

Tony Atkinson (2015), p. 113:

*"Today's high level of inequality can be effectively reduced only by **tackling inequality in the marketplace**"*

Ostry et al. (2016), IMF

*"In sum, the benefits of some policies that are an important part of the neoliberal agenda appear to have been somewhat overplayed. (...) The increase in inequality engendered by financial openness and austerity might itself undercut growth, the very thing that the neoliberal agenda is intent on boosting. There is now strong evidence that **inequality can significantly lower both the level and the durability of growth**"*