

Theory and Politics of European Integration

Lecture 6: Migration and Labor Market Integration

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- **Dynamic effects**
 - Trade and growth models
 - Neoclassical growth model (Solow-diagram)
 - Endogenous growth models
 - Transitional vs. permanent growth effects of trade and integration
 - Empirical evidence

- **Capital market integration**

- Capital endowments tend to equalise
- Reduces interest rate in countries with poor capital endowments, increases in countries with rich capital endowments
- Interest rates eventually converge
- Welfare effects:
 - labour wins in country with poor endowments, capital owners lose there, but total income increases
 - labour loses in country with rich endowments, capitals wins there. Net effects depends on whether income from foreign capital is considered as sending country income.

This lecture: Integration, Labor Markets, Migration

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- **Institutions**
- **Scale and composition of migration**
 - Net-flows
 - Skill structure,
 - Self-/out-selection
- **Labour market effects**
 - Clearing-labour markets
 - Imperfect labour markets
 - Capital stock adjustment
- **Demographic change and impact on welfare states**

- Free movement of workers one of four fundamental freedoms in Treaty of Rome
 - fixed in 1957, came into force 1968
- Unique in modern world
- Allows workers, job-seekers and their family members to move
- Job-seekers and family members: only if they have sufficient means to spend their living
- No skill-selection

- Freedom of settlement covers also self-employed
- Service-trade: posting of workers
- Students, pupils and individuals in vocational training

- EU-Rules require “equal treatment”, granting access to same benefit as natives level in principle
- New arrivals can be excluded before they work
- Minimum working times can be requested
- Exclusion rule for job-seekers from EU Member States included in Social Code II (“Hartz-IV”) in Germany
- European Court of Justice proves whether rules are consistent with equal treatment principle. Yet no clear guide lines, but common consensus on temporary restrictions for job-seekers upon arrival.

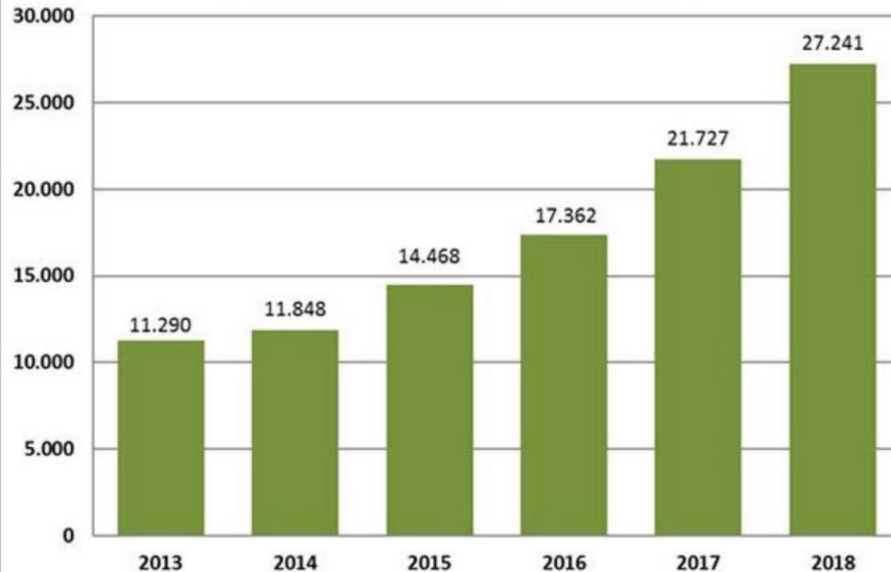
- Southern Enlargement (ESP, GRE, POR): 7 years
- Eastern Enlargement: 2+3+2 formula
- Selective application of transitional arrangements for NMS-8 and NMS-2
- Selective application of transitional arrangements for NMS-2
- Selective application resulted in substantial migration diversion toward IE and UK in case of NMS-8 and towards ESP and ITA in case of NMS-2

Migration policies vis-à-vis third-country-nationals

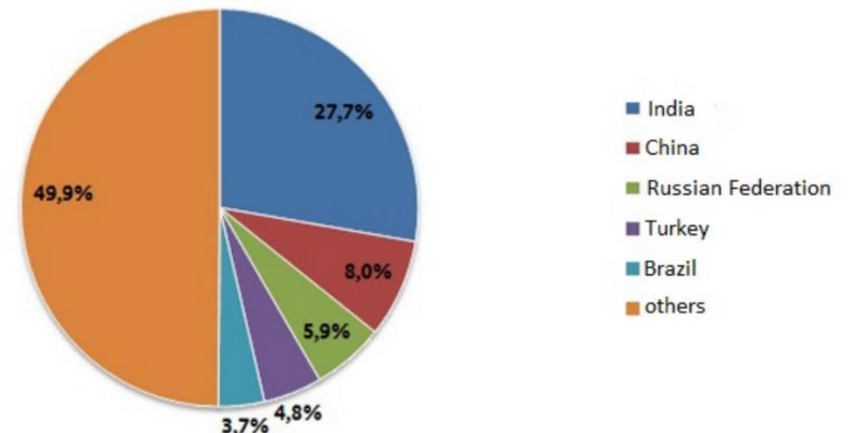
- Admitting third-country nationals remains in domain of national sovereignty
- Exception: Blue Card EU (introduced Aug 1, 2012), which admits high-skilled immigrants if they (i) possess a university or equivalent degree and (ii) earn above an income threshold level between 50-67% of average annual income
- Entitles after period of time also for free mobility within EU
- Still high restrictions: ~52,000 EUR in Germany 2018, ~40,500 EUR for doctors and some other science occupations in short supply.

Granting and structure of EU-Blue Card in Germany

EU Blue Cards issued in Germany



Top 5 nationalities receiving EU Blue Cards in 2018



Source: BAMF, AZR.

- EU and its Member States have signed Geneva Convention and its protocols
- Geneva Convention protects individuals who face persecution by wars, civil wars and persecution for political, ethnical, religious and sexual reasons
- “Non-refoulement” clause, i.e. you cannot deport individuals in countries where they face wars, violence and persecution
- Individuals who enter countries irregularly cannot be persecuted if they apply for asylum
- But there is no visa for humanitarian reasons. The EU penalises airlines, shipping companies etc. if they transport individuals without visa

European asylum policies: Dublin-agreements

- Dublin agreements request that asylum claims have to be settled in save country of first entry in principle
 - Save third-countries: EU-28, CH, IS, NOR, LIE
- Dublin agreements require that minimum humanitarian standards apply across Member States, but no real harmonization of rules
- Weak incentives to maintain humanitarian standards in border countries and to register asylum-seekers there
- European Court of Justice forbids deportation to Greece
- This implied de facto break-down of Dublin system

European asylum policies: Common border policies

- Protection of external EU borders remains in domain of national sovereignty, but Schengen agreement defines minimum standards
- Frontex agency supports Member States with border controls
- Joint initiatives for controlling the sea but also to save refugees
- Bilateral- and European agreements with third countries to prevent border crossings by refugees, e.g. Libya under the Gaddafi-regime; Algeria, Morocco, Tunisia and Turkey at present

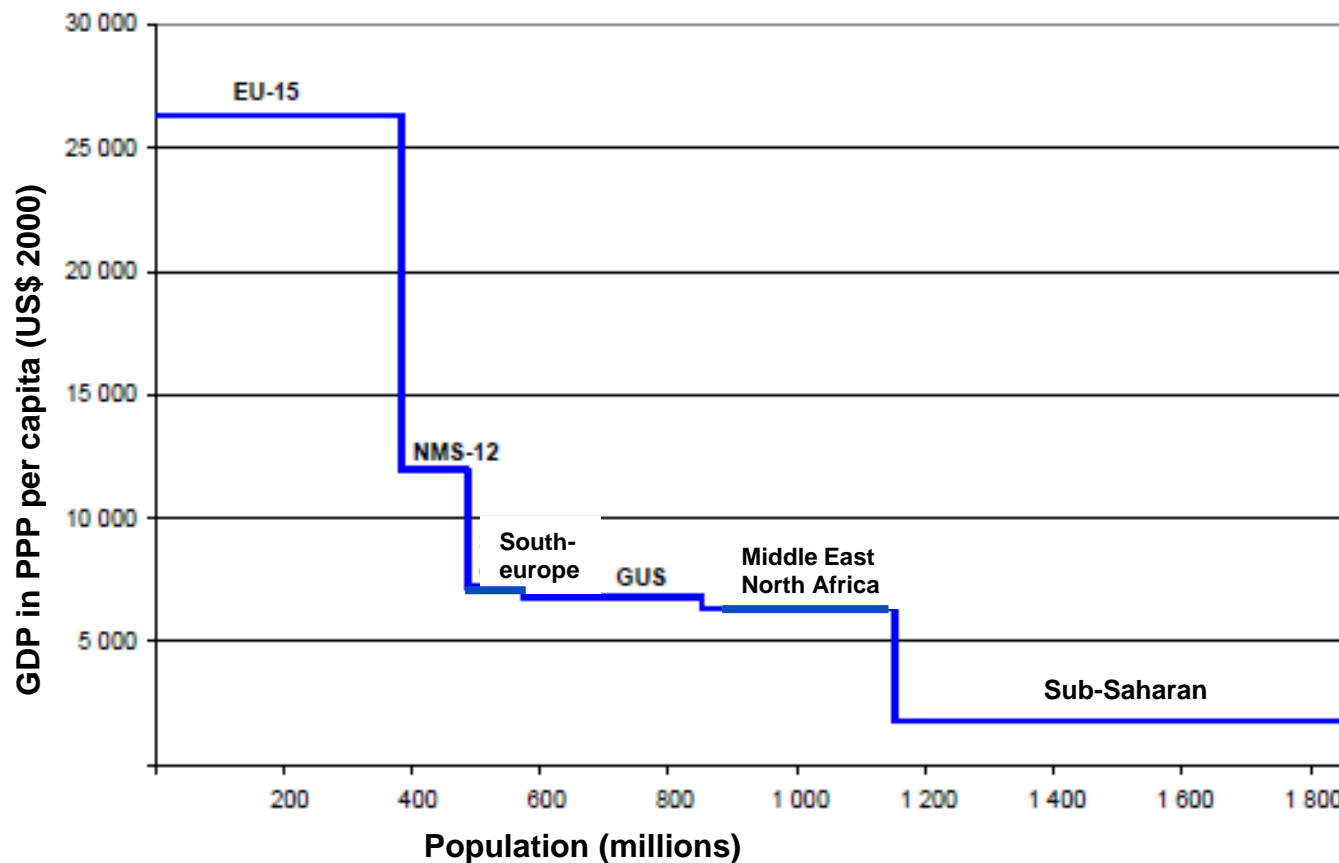
The scale of migration within and into the EU

- **Theories of the migration decision**

- Migration is driven by wage differences (Hicks, 1932)
- Migration as an investment in human resources (Sjaastadt, 1962)
 - Net present value of earnings difference (incl. costs)
 - Consideration of social and psychic costs
- Employment opportunities (Harris/Todaro, 1970)
- Network effects and chain migration (Massey, 1987)
- Uncertainty, incomplete information and risk aversion (Burda, 1995)

- The income gap between the EU and the other countries on the European continent and its periphery is similar to that between the US and the sending countries in the Americas
- Step by step migration from the Southern to the Northern EU countries was replaced by immigration from third-country nationals (Turkey, former Yugoslavia, Northern Africa and Middle East, Eastern Europe)
- The average GDP per capita in PPP of the sending countries of migration in the EU-15 has declined from 60 per cent (1970) to 35 per cent (2005)
- EU Eastern enlargement and financial crisis involved that today intra-EU migration accounts again for more than 50 per of total immigration in the EU-15 (and in the EU-28 as well)
- Refugee crisis will result in increasing third-country share

The European income gap



Median net earnings (annual), 2004-13

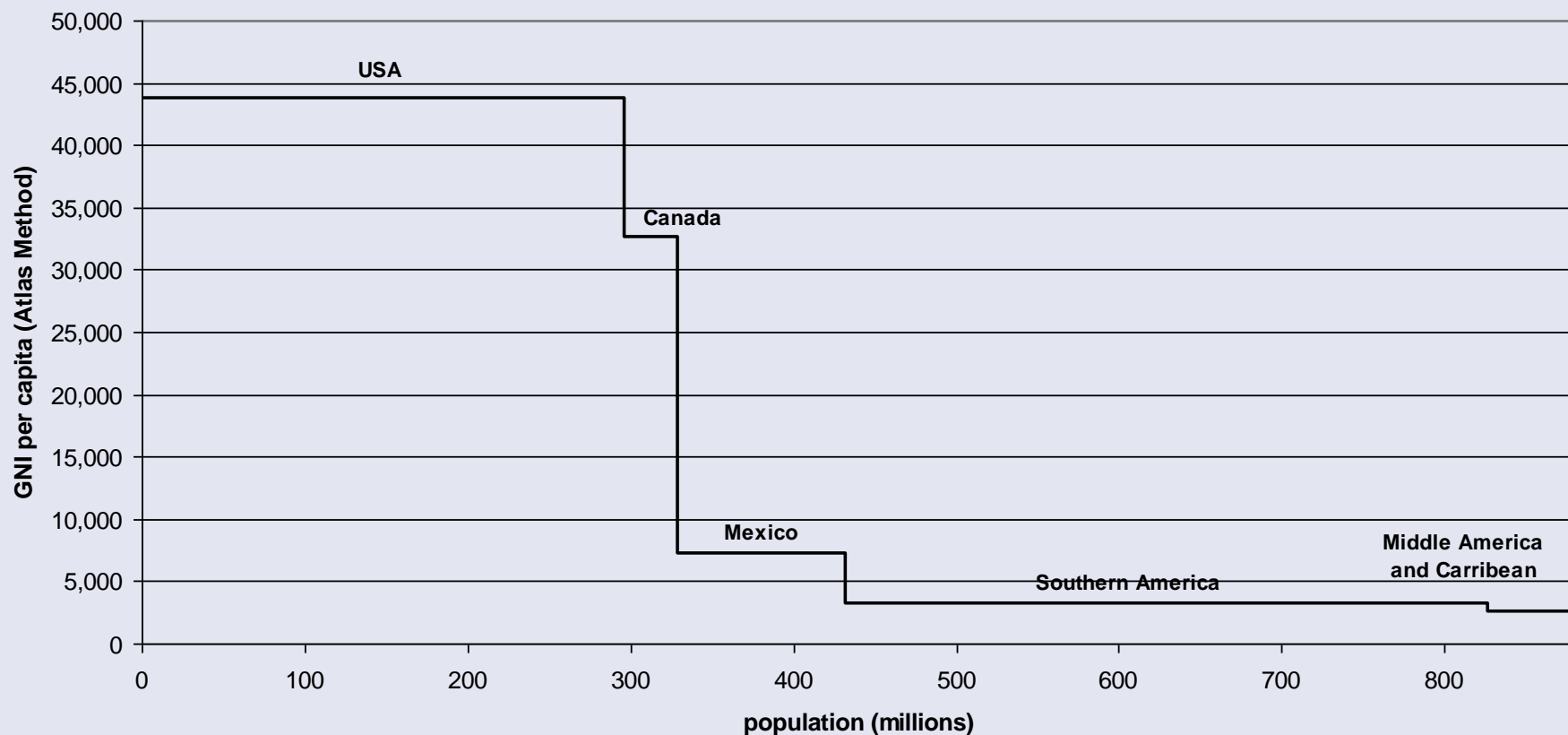
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	2004	2006	2008	2010	2012
Bulgaria	729	961	1,308	1,536	1,799
Czech Republic	2,617	3,427	4,671	4,897	5,103
Estonia	–	–	4,046	4,041	4,588
Latvia	1,393	1,916	3,109	2,919	3,219
Lithuania	1,602	2,074	2,967	2,798	2,982
Hungary	2,724	3,061	3,560	3,457	3,113
Poland	2,229	2,776	3,717	3,515	3,599
Romania	944	1,431	2,066	2,068	2,084
Slovenia	–	–	5,953	6,513	6,758
Slovakia	–	–	3,715	4,035	4,133
Germany	13,129	13,267	14,098	14,706	15,254
France	11,968	12,745	13,672	14,050	14,443
UK	17,133	18,256	16,733	16,036	18,170
EU27	10,729	11,300	11,662	11,986	12,697

Source: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Wages_and_labour_costs

The American income gap



The scale of migration: current developments

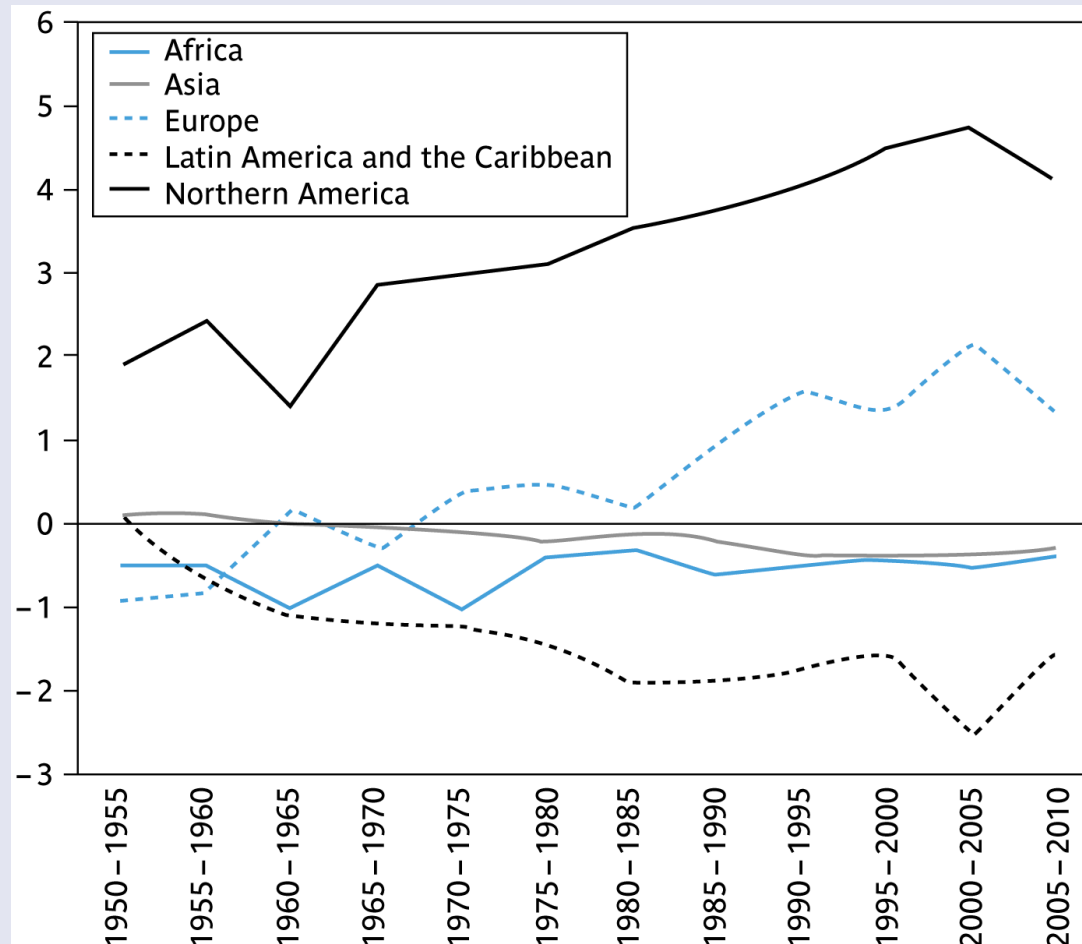
- Net immigration rates in the EU have converged to those of the US
- Spain, Italy, Ireland and UK have been main migrant destinations in the EU from 2000 to 2009
- German net immigration was well below EU average during the 2000s, but net migration rate recovers in 2010 and increased to 1.1 million in 2015
- Eastern enlargement I: ~3.5 million people migrated from NMS-8 into EU-15 between 2004-2015
- Eastern enlargement II: ~4.0 million people from BU+RO migrated into EU-15 between 2004-2015

The scale of migration: current developments

- Migration diversion: 60 percent of the NMS-8 immigrants resided in DE and AT before enlargement, 70 percent moved to UK and IE after enlargement
- 70 percent of NMS-2 migrants resided in DE and AT until 1995, 80 percent reside in ITA and ESP in 2010
- Related to selective application of transitional arrangements for free movement, but also other factors: high GDP growth rates in UK, IE, ESP and (less) ITA, English as an additional factor in case of UK and IE
- Since Eurocrisis, we see a second diversion from old destinations ('migration magnets') to Germany, particularly from Spain and Italy
- 70 percent of German migration surge since 2007 can be traced back to deterioration in other destinations

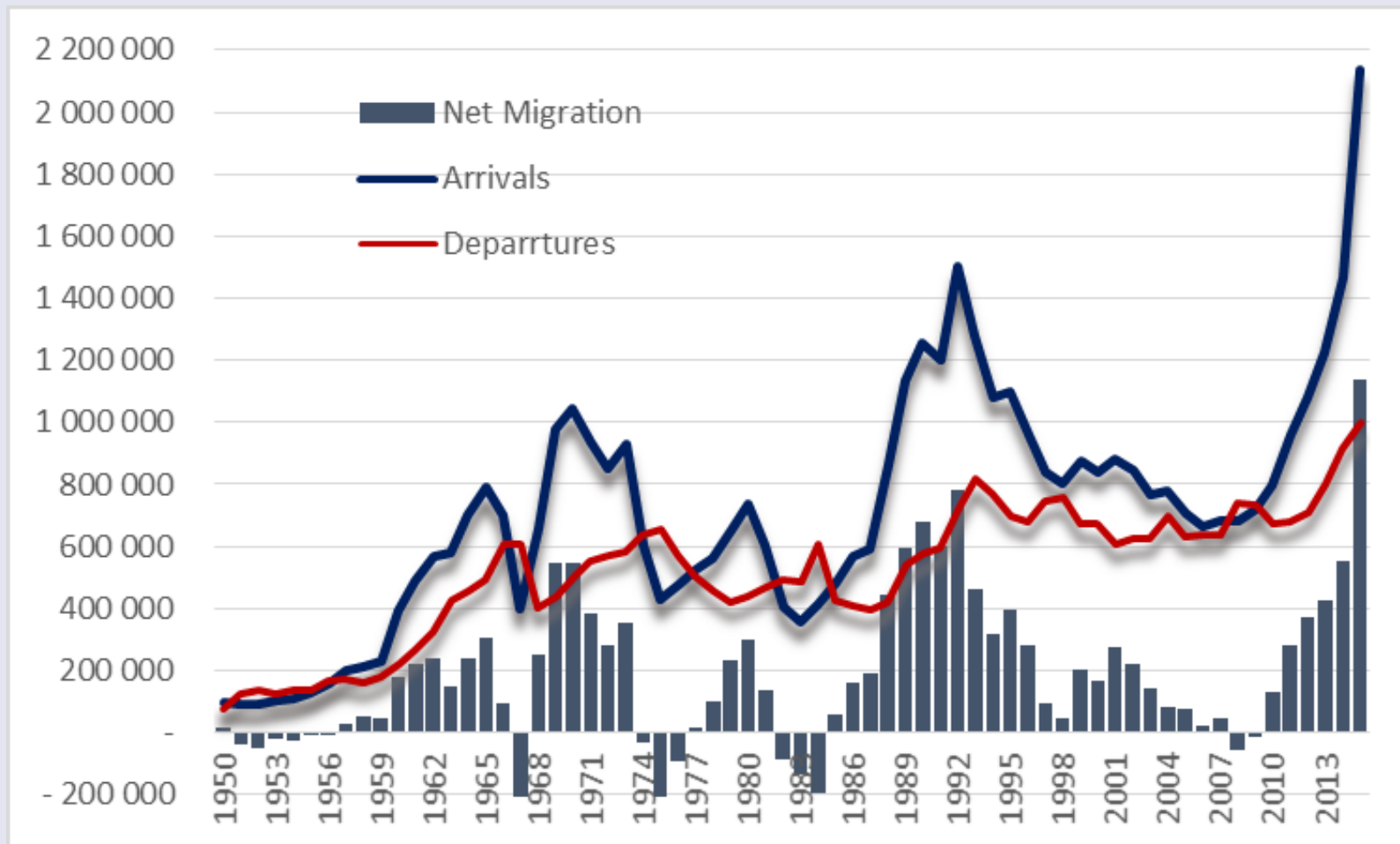
Migration: some facts

- Europe has switched from net emigration to net immigration because of spectacular growth during the late 1950s and the 1960s.



The German case: immigration, emigration, net migration, 1950 - 2015

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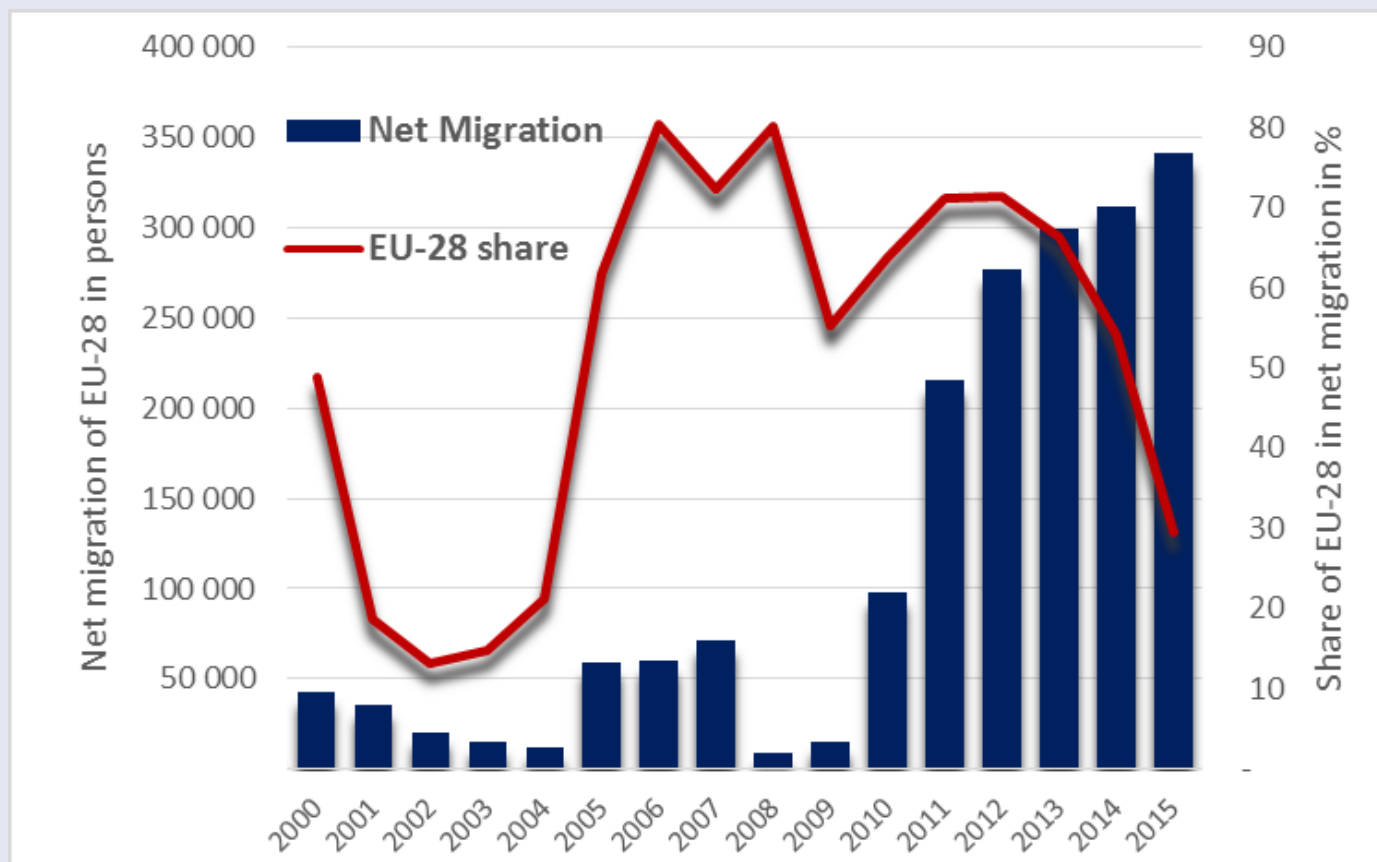


Sources: Statistisches Bundesamt, Wanderungstatistik, Wiesbaden, 2016, own calculations.

Net migration from EU-28 to Germany

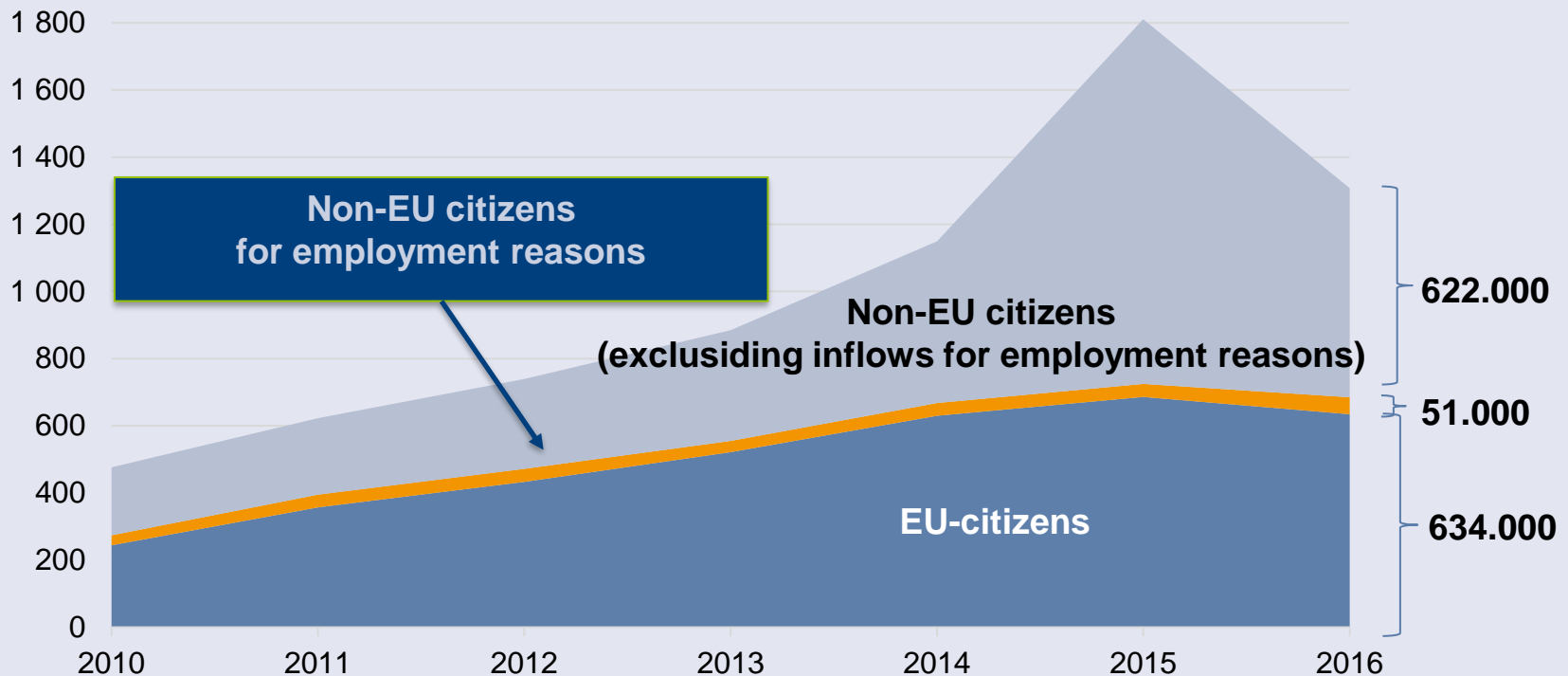
Net migration in persons (left axis) and share in total net migration (right axis)

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Sources: Statistisches Bundesamt, Wanderungstatistik, Wiesbaden, 2016, own calculations.

Inflows of EU- and Non-EU citizens



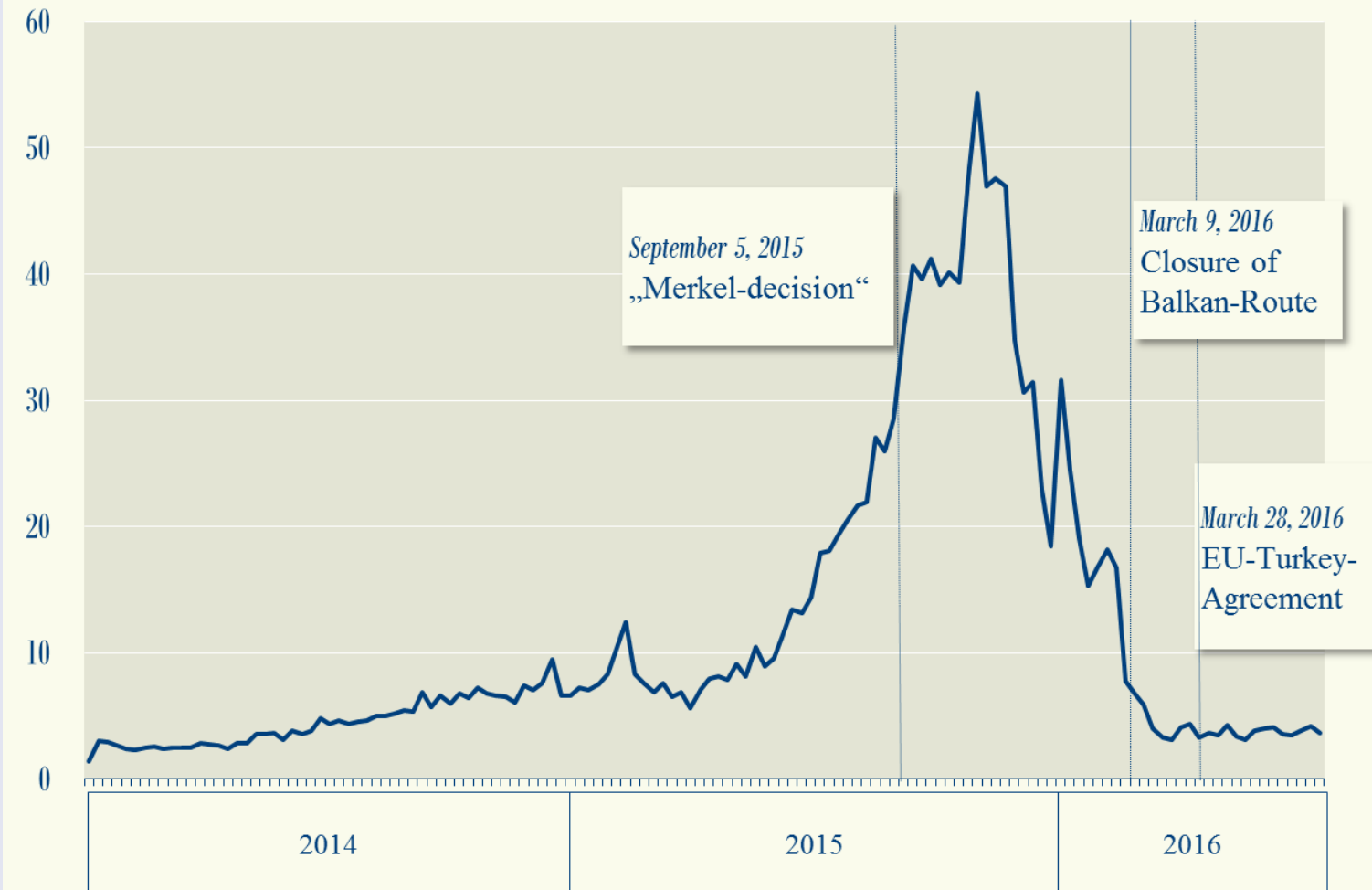
Sources: Statistisches Bundesamt, Wanderungstatistik, Wiesbaden, 2016, own calculations.

- Number of violent conflicts and persecution is increasing globally, particularly in regions close to EU
- UNHCR counts 65.5 million refugees in 2015, one-third of these reside in other countries
- 85 per cent of international refugees reside in neighbouring countries (e.g. Jordan, Lebanon, Turkey, Iran)
- We can estimate influx of refugees into EU Member States at 1.7-1.9 millions in 2015, about three-quarters of those migrated to Germany
- The highest share of refugees and asylum seekers in the population has Hungary, followed by Sweden and Germany

Refugee arrivals in Germany per week

in 1,000 persons, EASY-Accounting system

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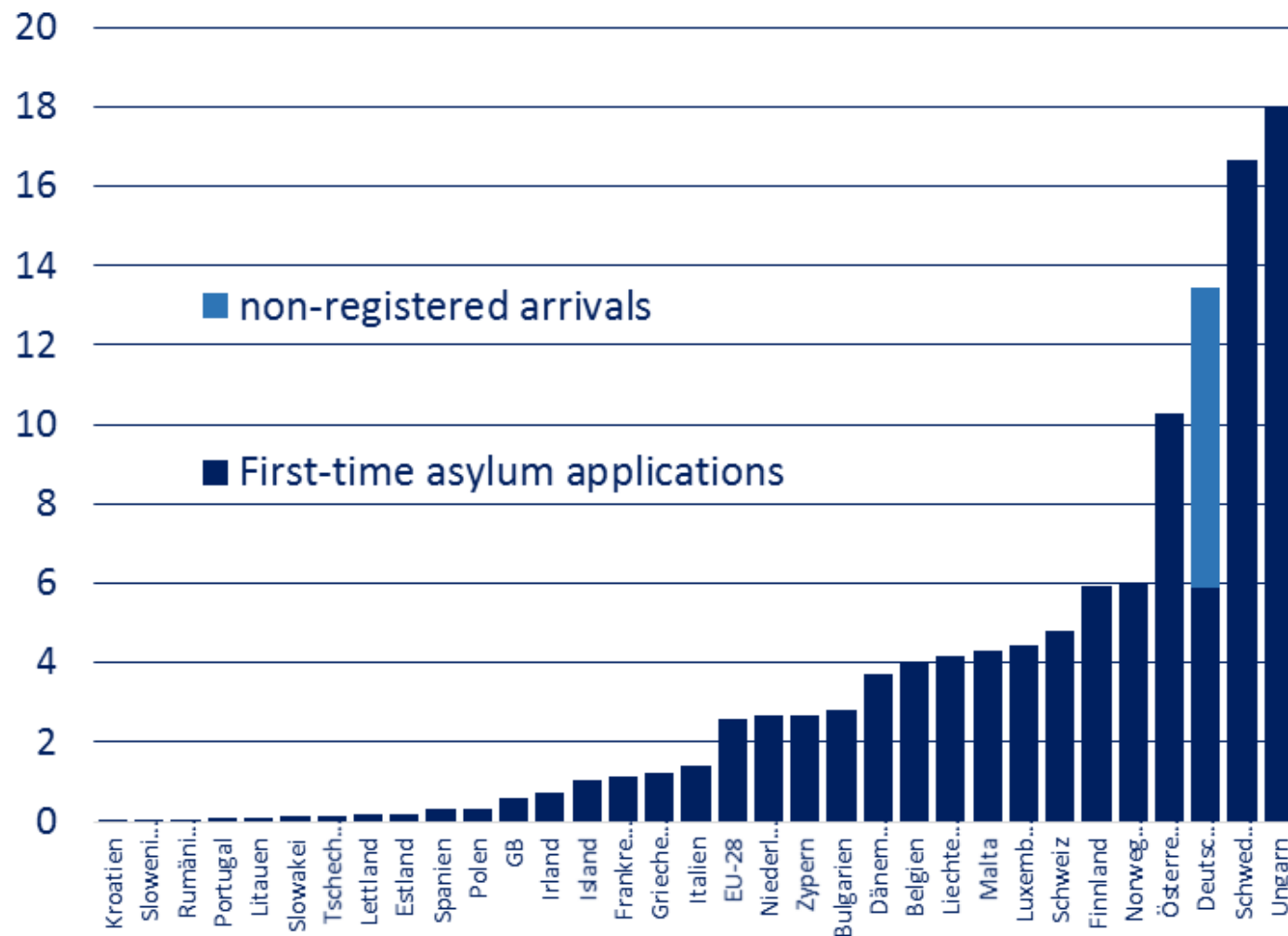


Sources: Bundesamt für Migration und Flüchtlinge, special provision, own calculations.

Asylum applications per 1,000 in Europe, 2015

(Germany: plus non-registered arrivals)

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Sources: Eurostat 2016, own calculations.

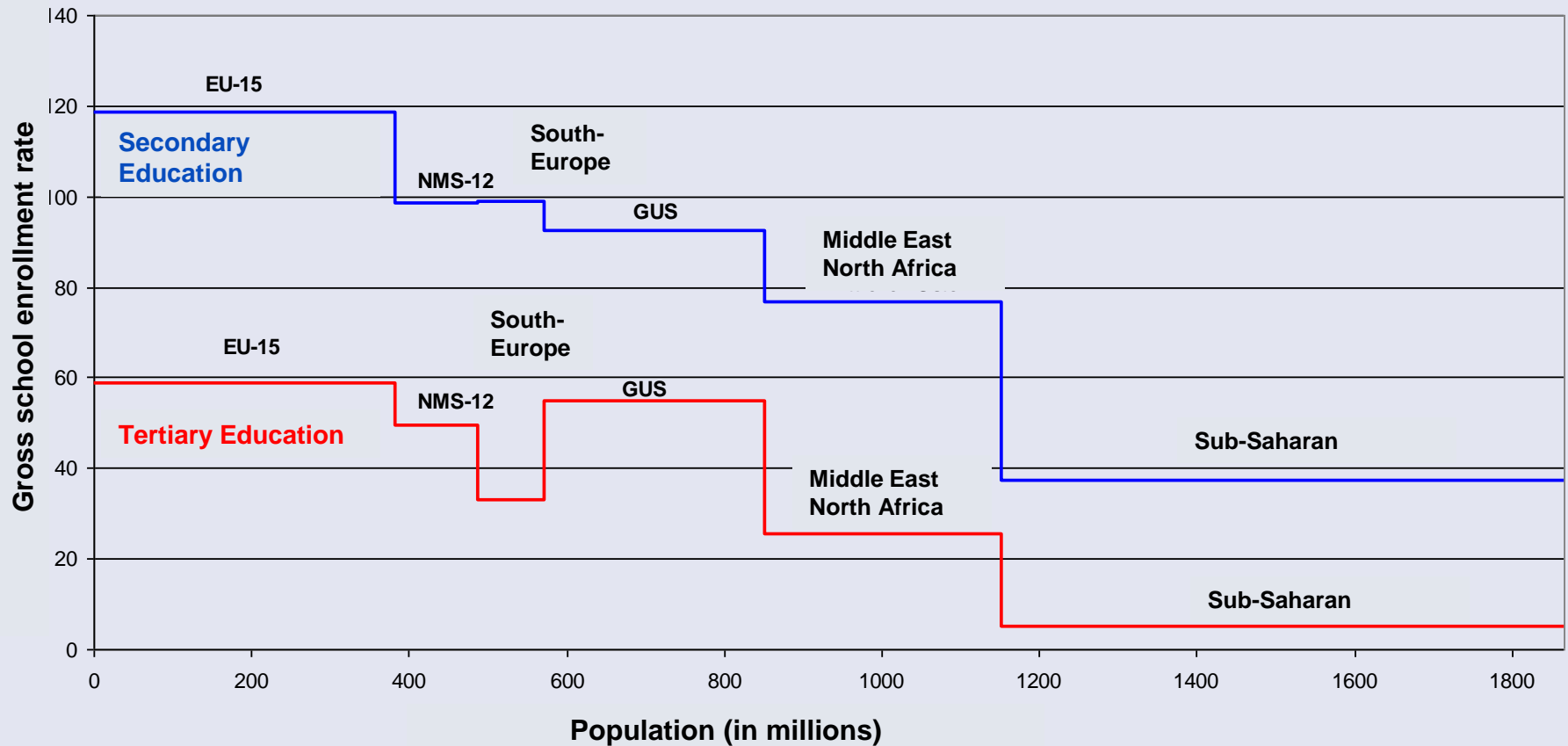
Skill composition

- The education level of migrants and other abilities affect the labour market performance of migrants, their effects on native workers and on the fiscal balance of the welfare state
- Most empirical studies find that the benefits from migration increase with skill level of immigrant population
 - via the labour market channel
 - via the welfare state channel

- The labour market channel
 - The unemployment rate of migrants is about twice as high as that of natives
 - We can explain only a part of the difference in the labour market performance of migrants relative to natives by observable human capital characteristics, i.e. by education and work experience
 - Moreover, skilled immigrants replace less native workers than unskilled do
- The welfare state channel
 - The fiscal benefits of the welfare state increase with the skill level of immigrants
(Bonin 2014; Brücker et al, 2002, Brücker 2013).

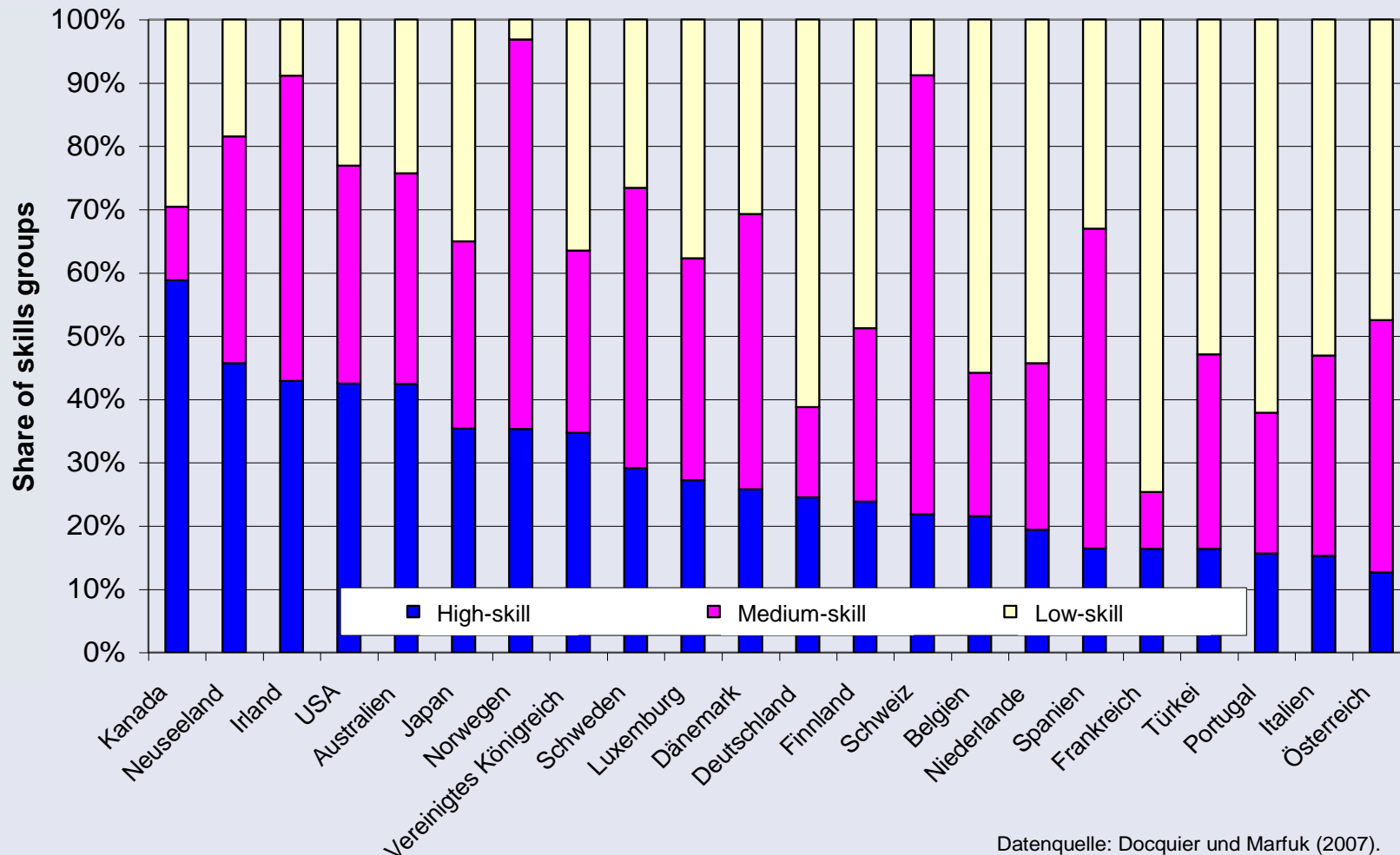
- The composition of migrants with respect to observable skills and unobservable abilities is driven by immigration policies (out-selection) and economic incentives (self-selection)
- Self-selection: the Roy(1951)-Borjas(1987) model:
 - migrants are positively self-selected on unobservable skills if inequality of earnings is larger at destination relative to sending country and vice versa
 - migrants are positive self-selected on observable skills if relative returns to education are larger at destination relative to sending country
- Caveat: Fixed migration costs or migration costs which fall with education change conclusion (Chiswick, 1999; Brücker/Defoort, 2009; Grogger/Hanson, 2008)

School enrolment rates

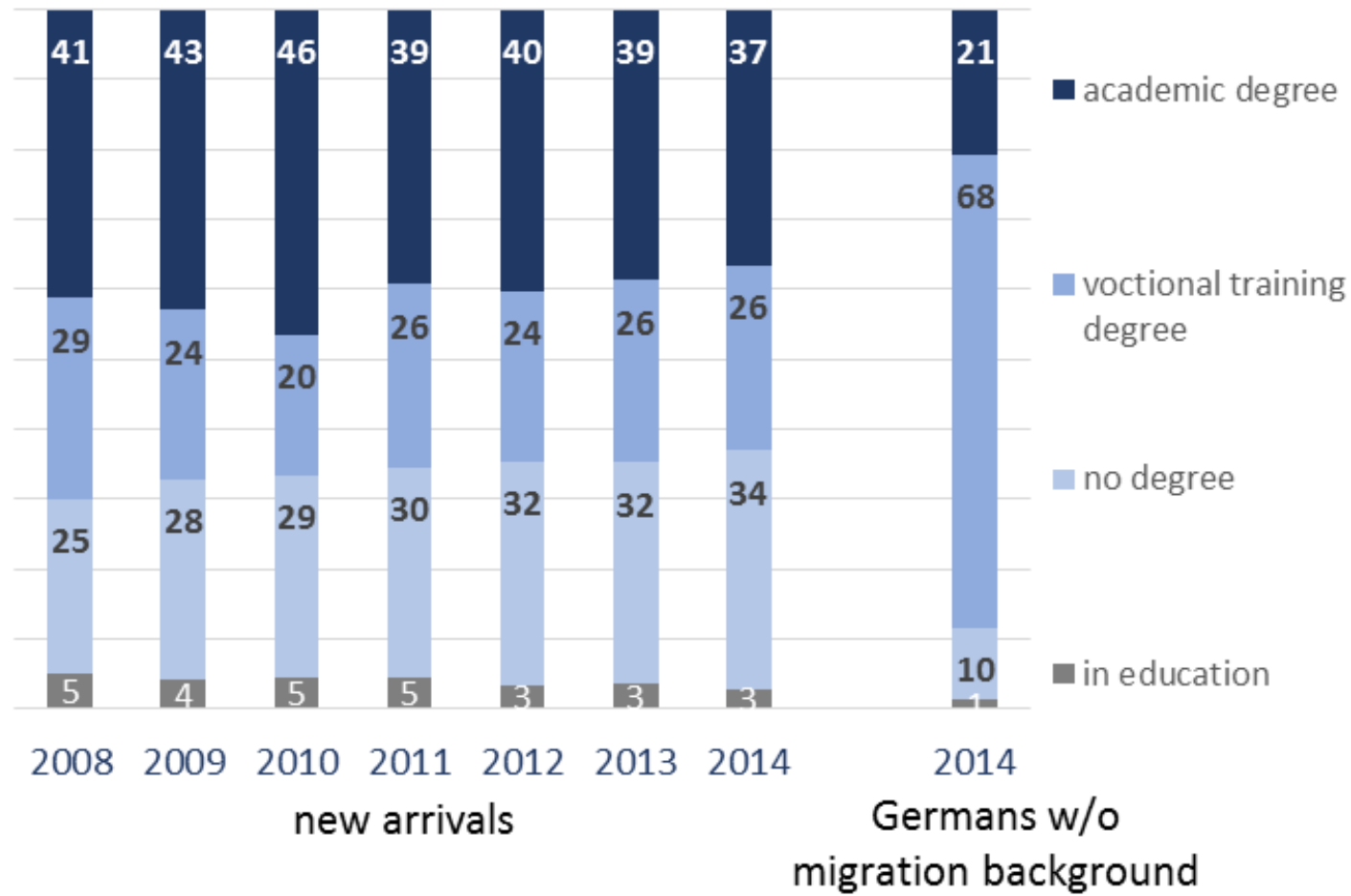


Skill structure of migrant population 2010/11

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Changing skill-composition of new arrivals in Germany



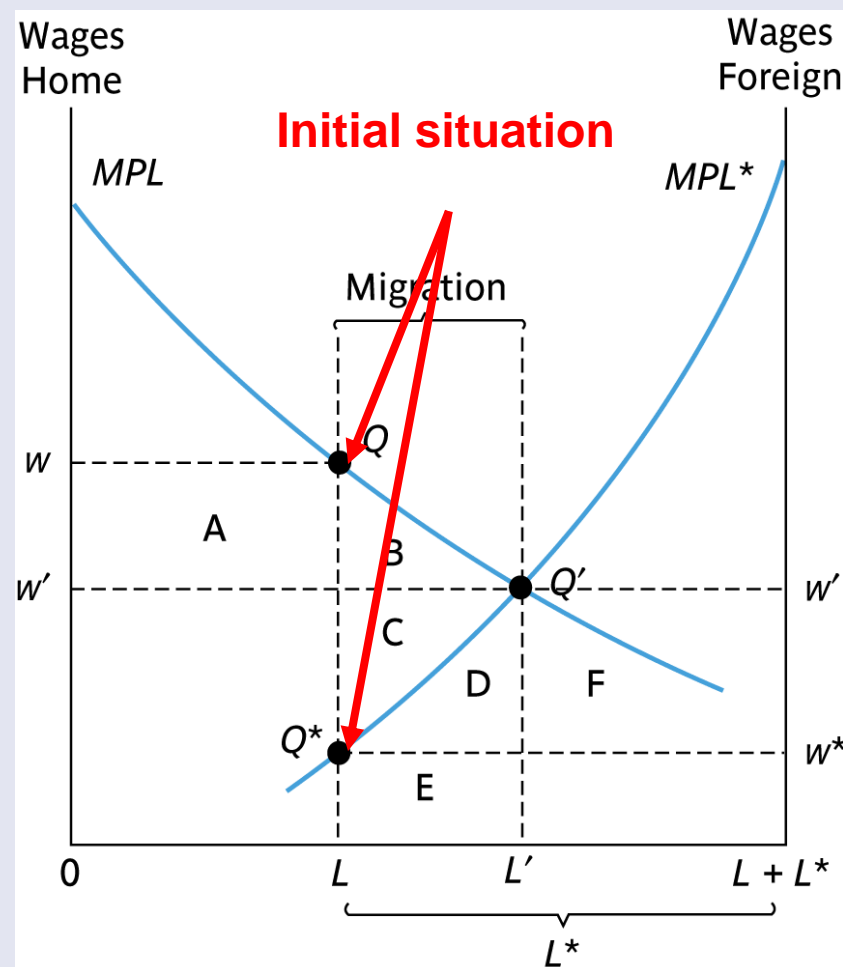
Source: Destatis, own calculation.

Labour market impacts of immigration

- Standard model with fixed capital stock, clearing labour markets and no trade
 - labour loses in host country, benefits in sending countries
 - capital loses sending country, wins in host country
 - natives benefits in host country, lose in home country
- Models with unemployment
 - Ambiguous impact
- Models with capital stock adjustment
 - larger economic gains
 - neutral for aggregate wages and unemployment
- Models with trade
 - neutral in small open countries (FPI theorem)

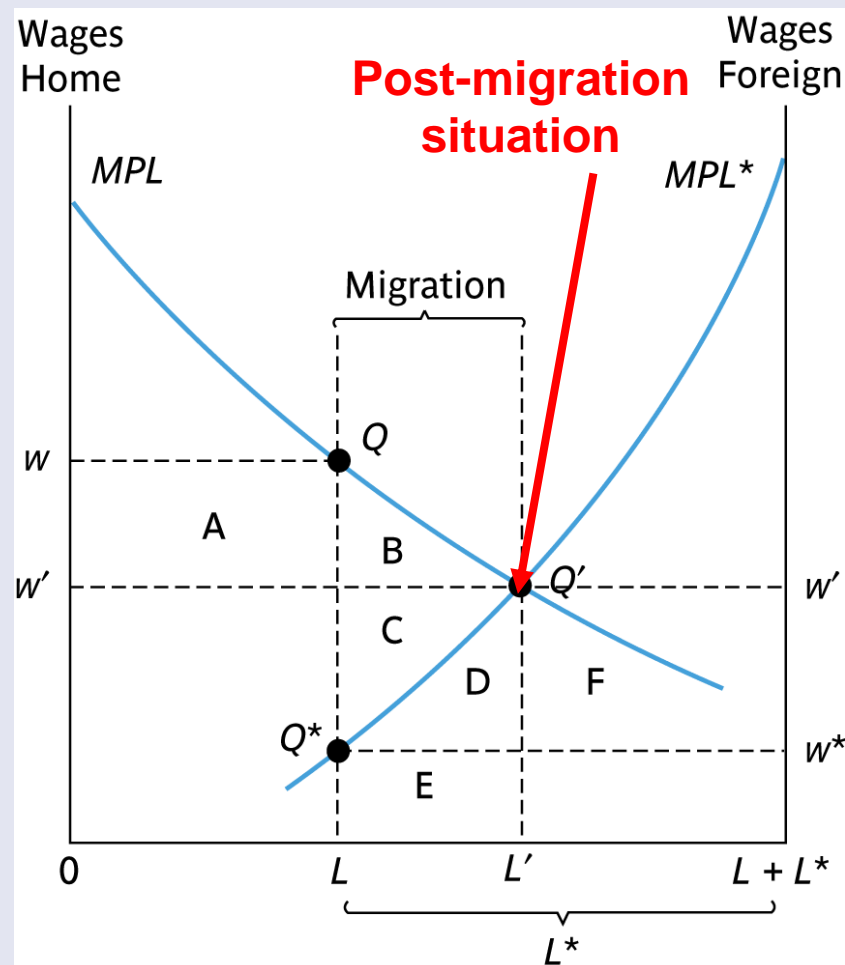
Migration: the simplest framework

- Start with the case where migration is not allowed between two nations (Home and Foreign) which initially have different wages and then allow migration.



Migration: the simplest framework

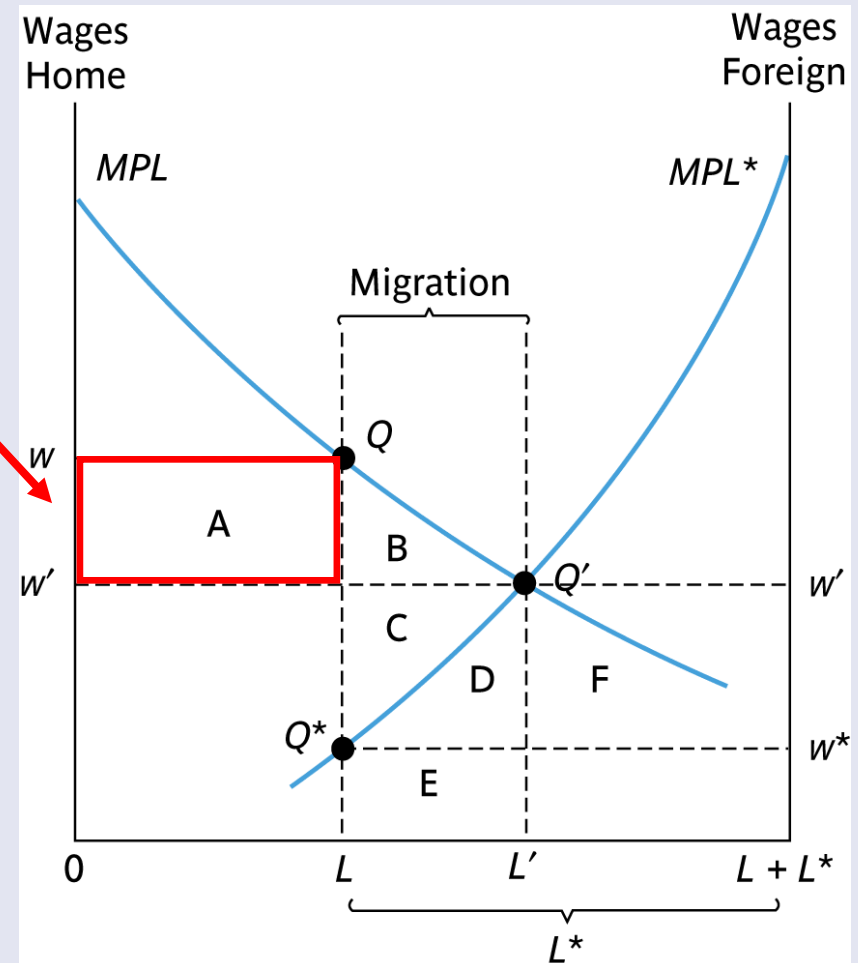
- Migration induces a convergence in factor prices (wages).



Welfare effects: home workers

- Home workers lose: -A

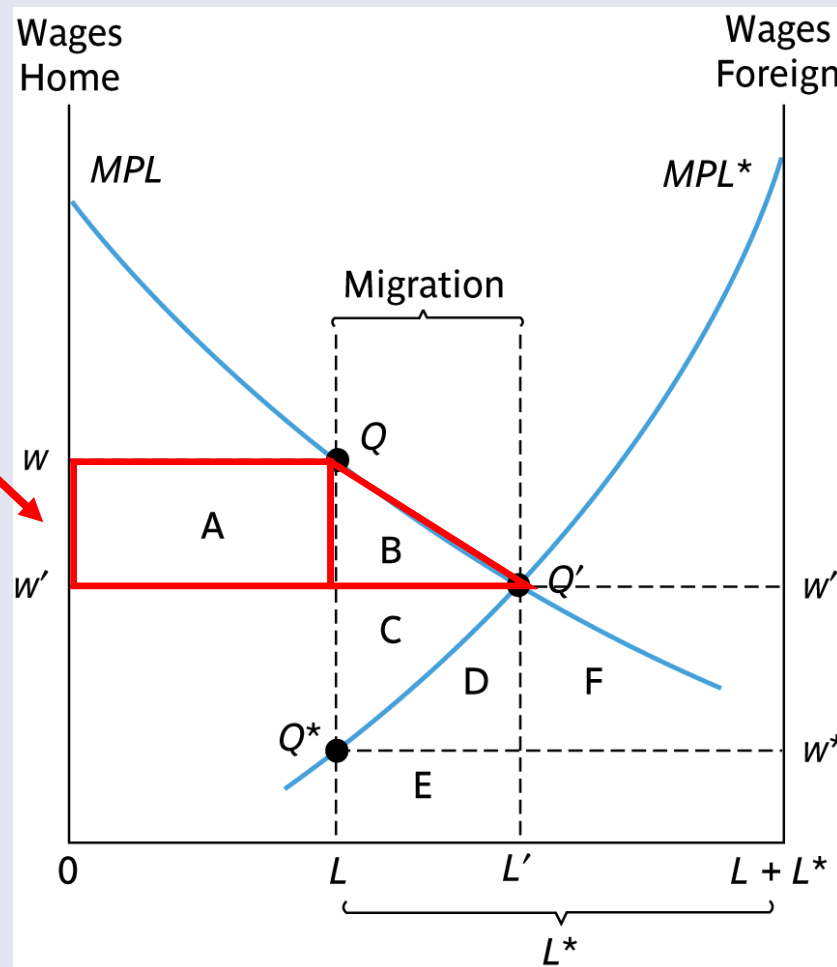
Loss of
home workers



Welfare effects: Home capital-owner

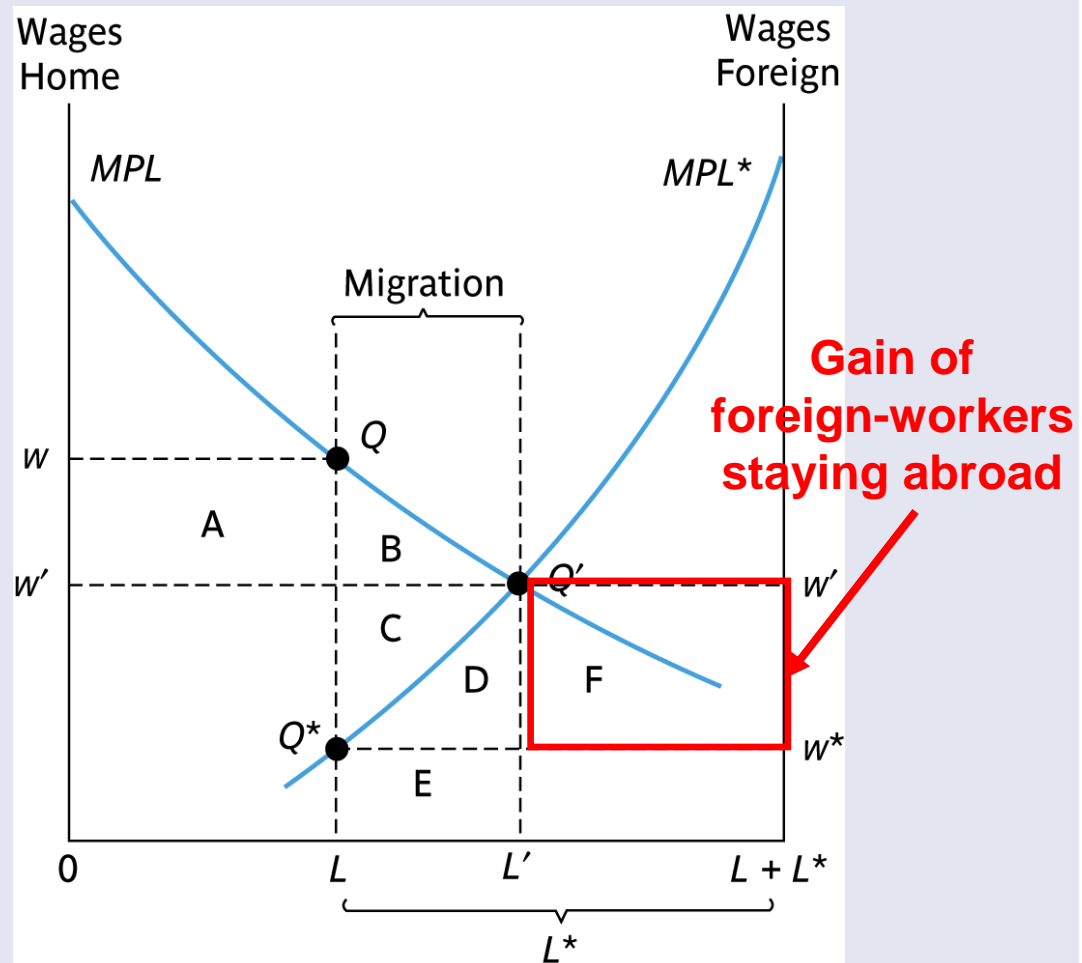
- Home capital owner win: A+B

Gain of home capital-owners



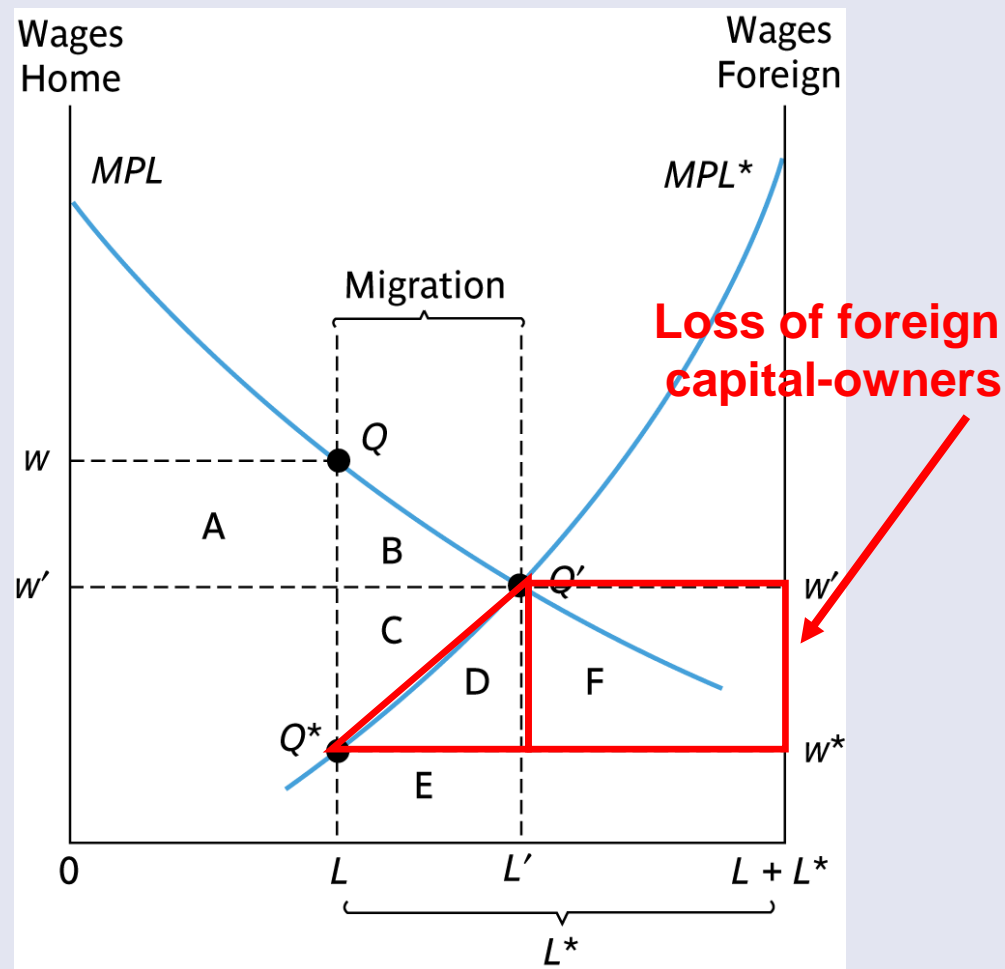
Welfare effects: Foreign workers

- Foreign-workers gain: +F



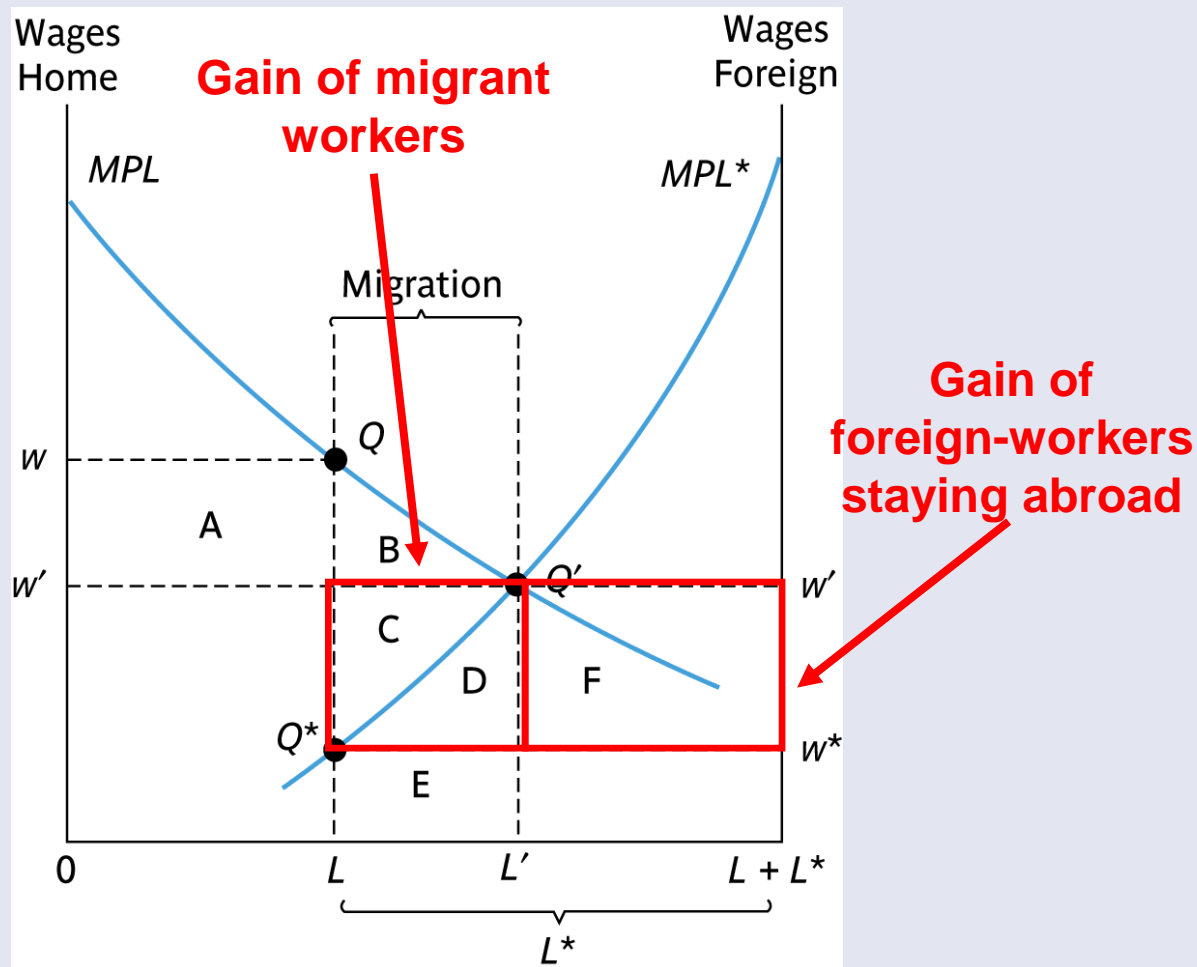
Welfare effects: Foreign capital-owner

- Foreign capital-owner lose: $-(D+F)$



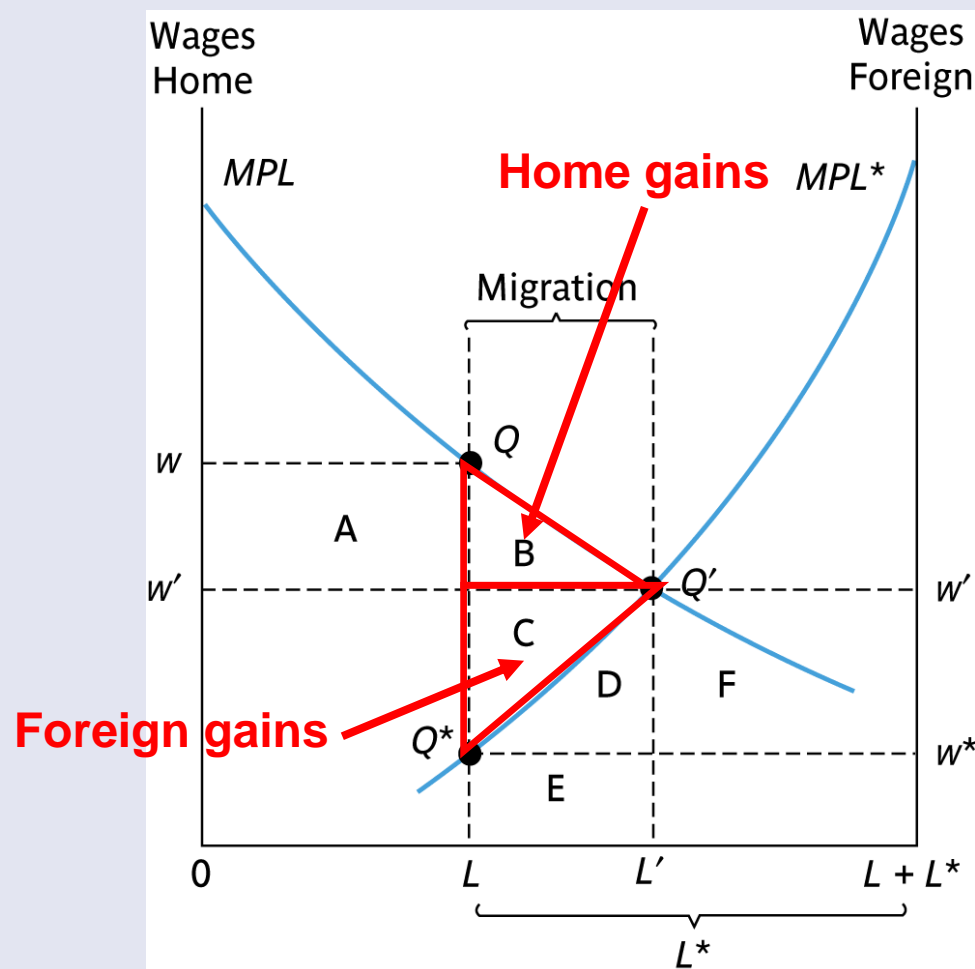
Welfare effects: Foreign workers and migrants

- Gains for migrants and foreign-workers: $C+D+F$

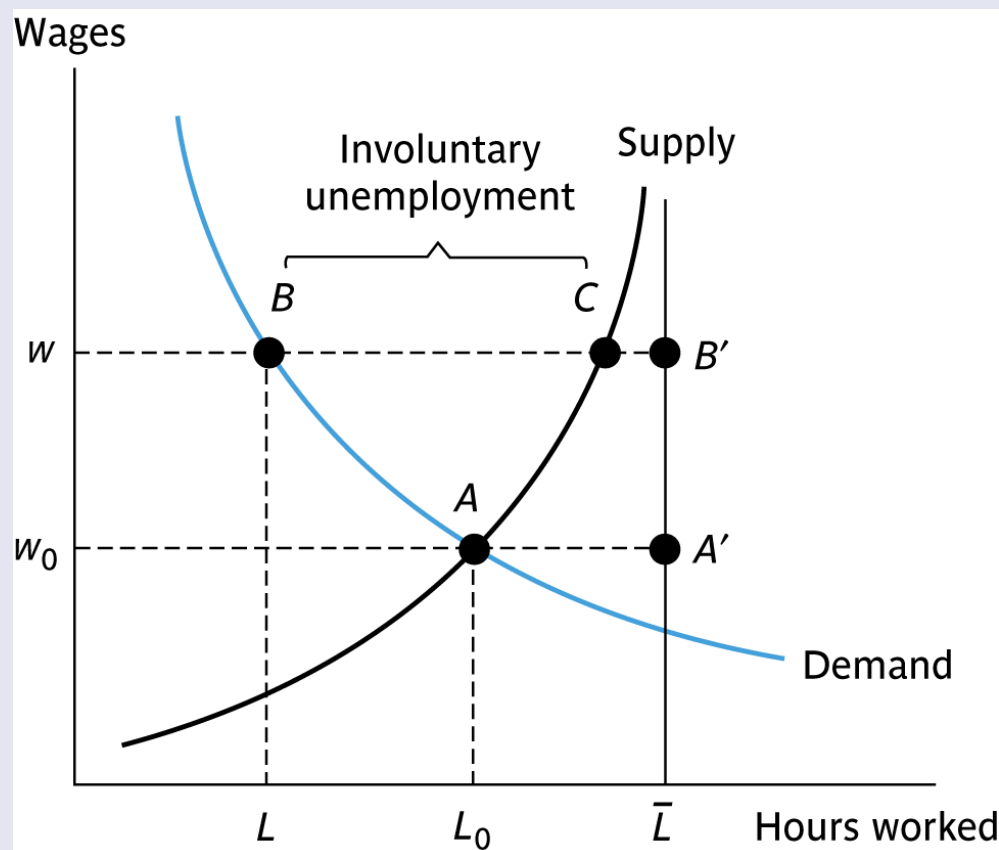


Welfare effects: net effect of migration

- Net welfare effect of labor market integration: B+C

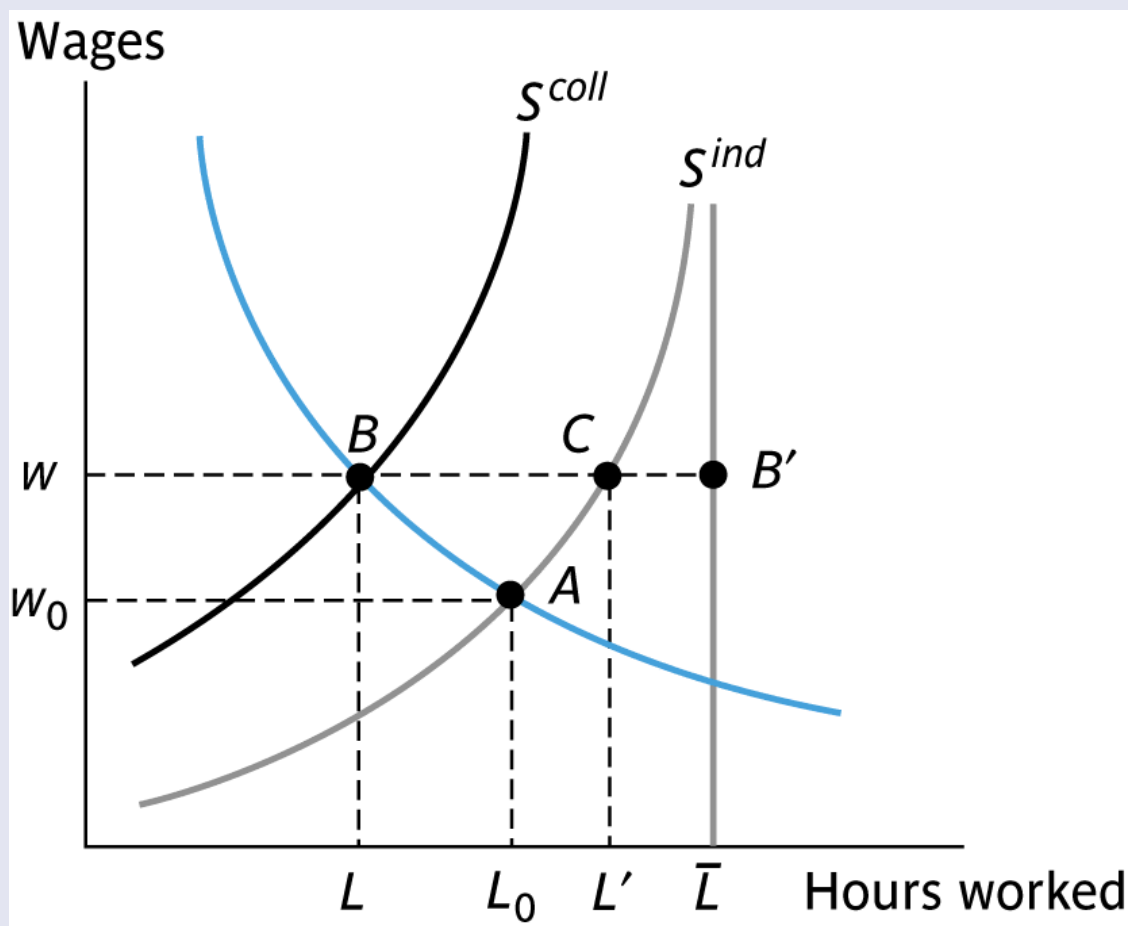


- Supply from people: balancing cost (disutility) and benefit (wage).
- Labor market equilibria A versus B



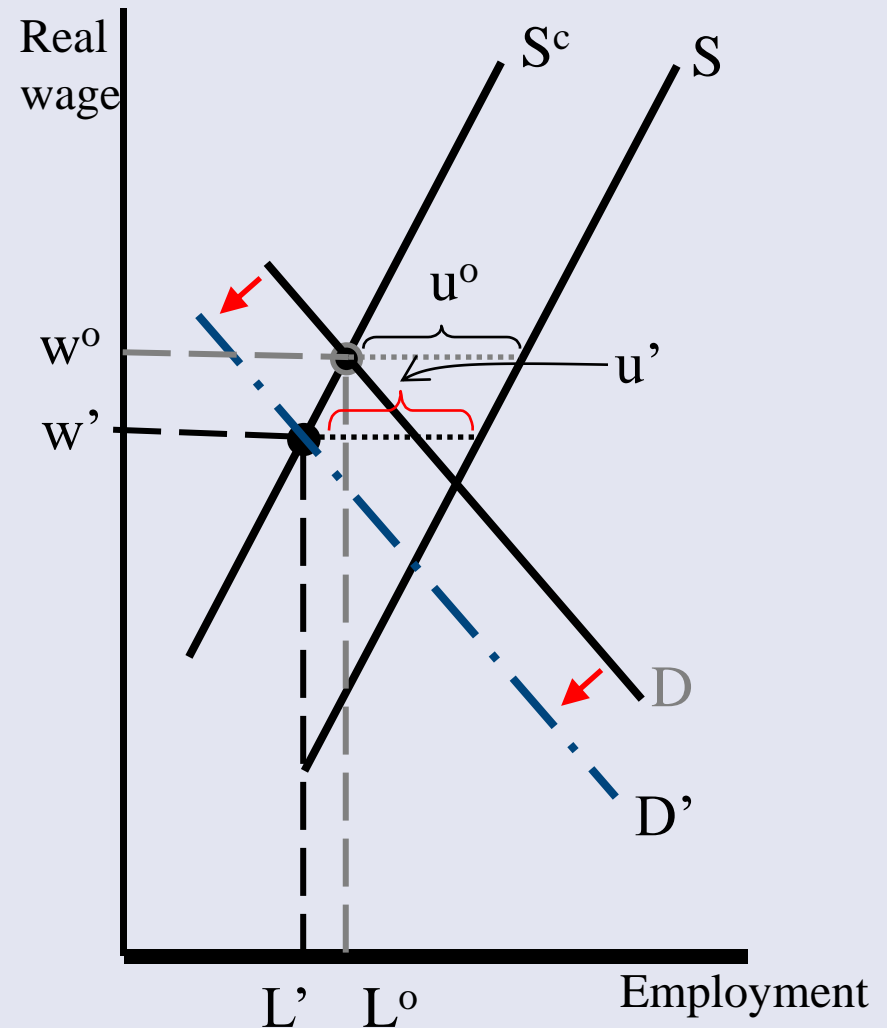
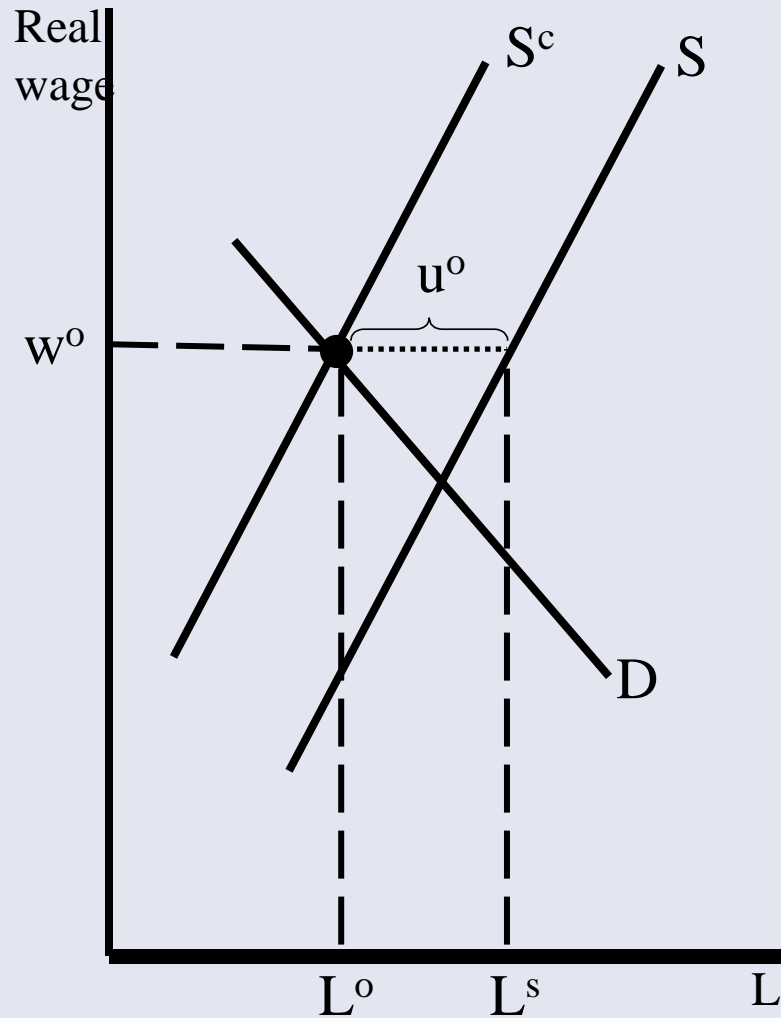
- Notice that:
 - point A: equilibrium with perfectly flexible labour market = full employment;
 - point B: equilibrium with unemployment, due to:
 - salaries are collectively negotiated;
 - agreements hold for long periods, thus labour markets react slowly to changing conditions;
 - wage contracts are often regulated;
 - conditions for hiring and firing are also regulated;
 - unemployment benefits.
- Labour market rigidities lead to involuntary unemployment.

- Most crucial feature is collective labour negotiations:
→ Collective supply curve is above individual supply curve.

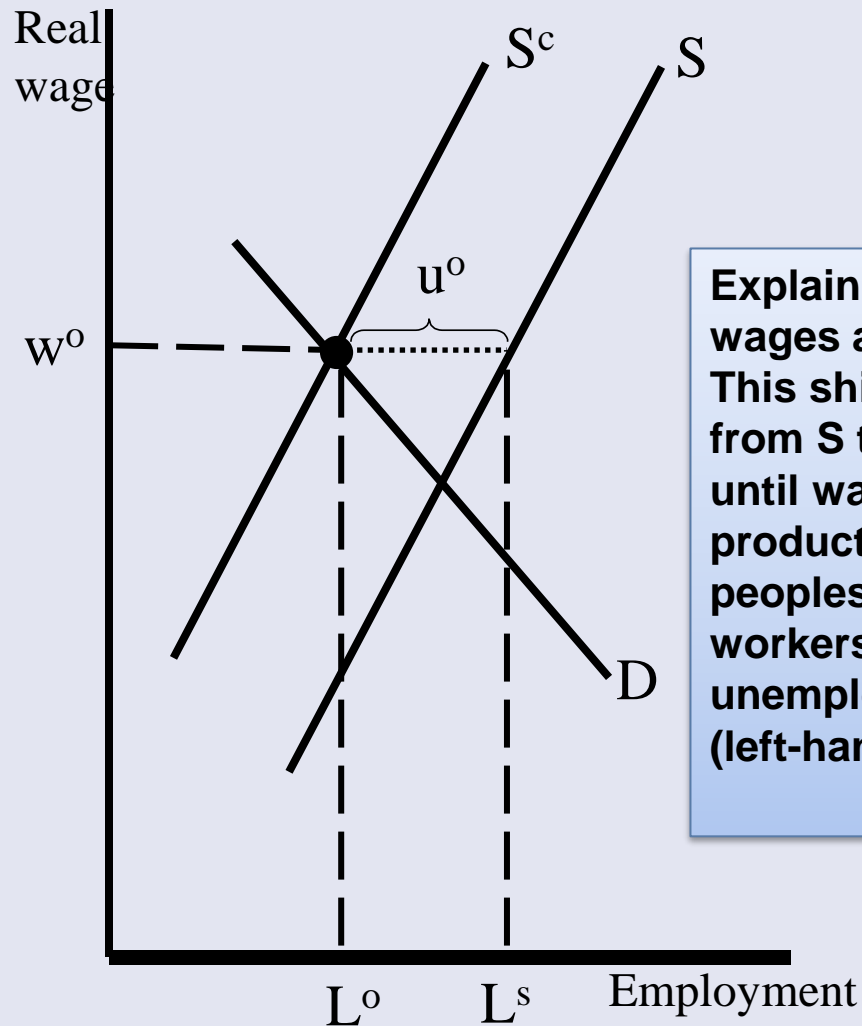


Migration and unemployment

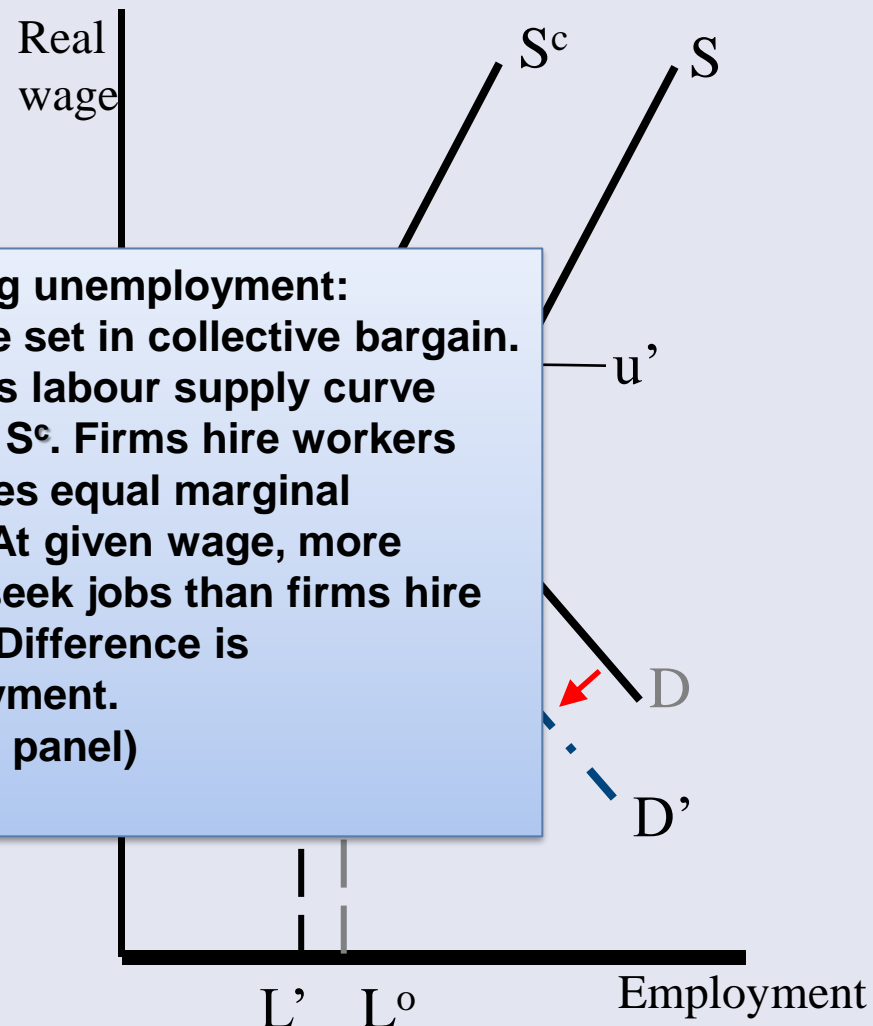
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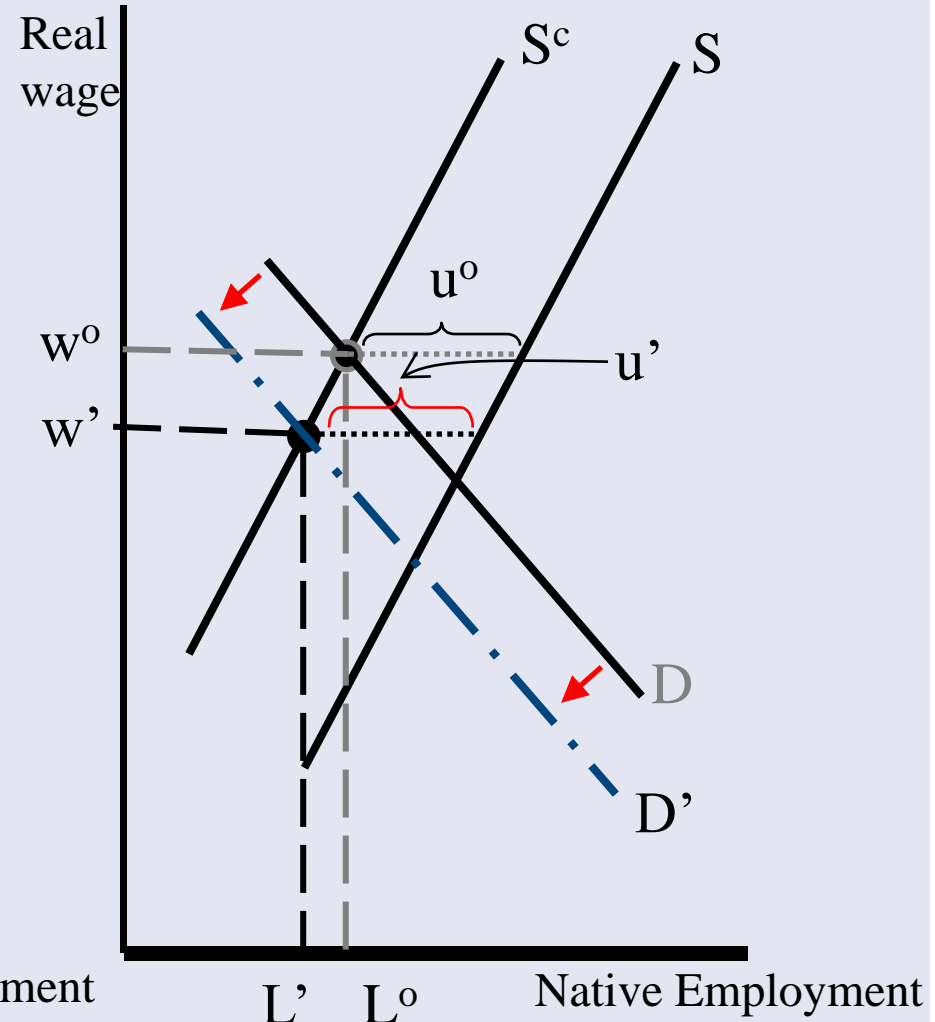
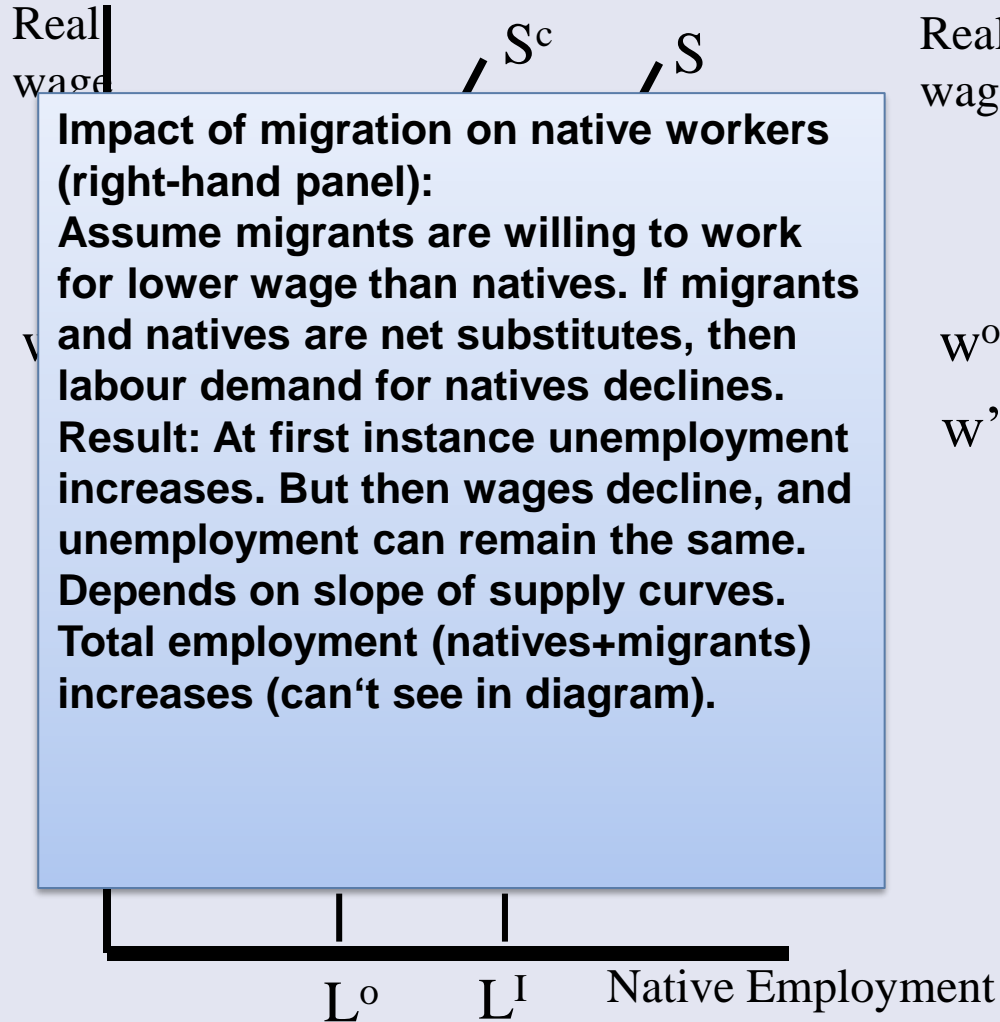
A model with unemployment



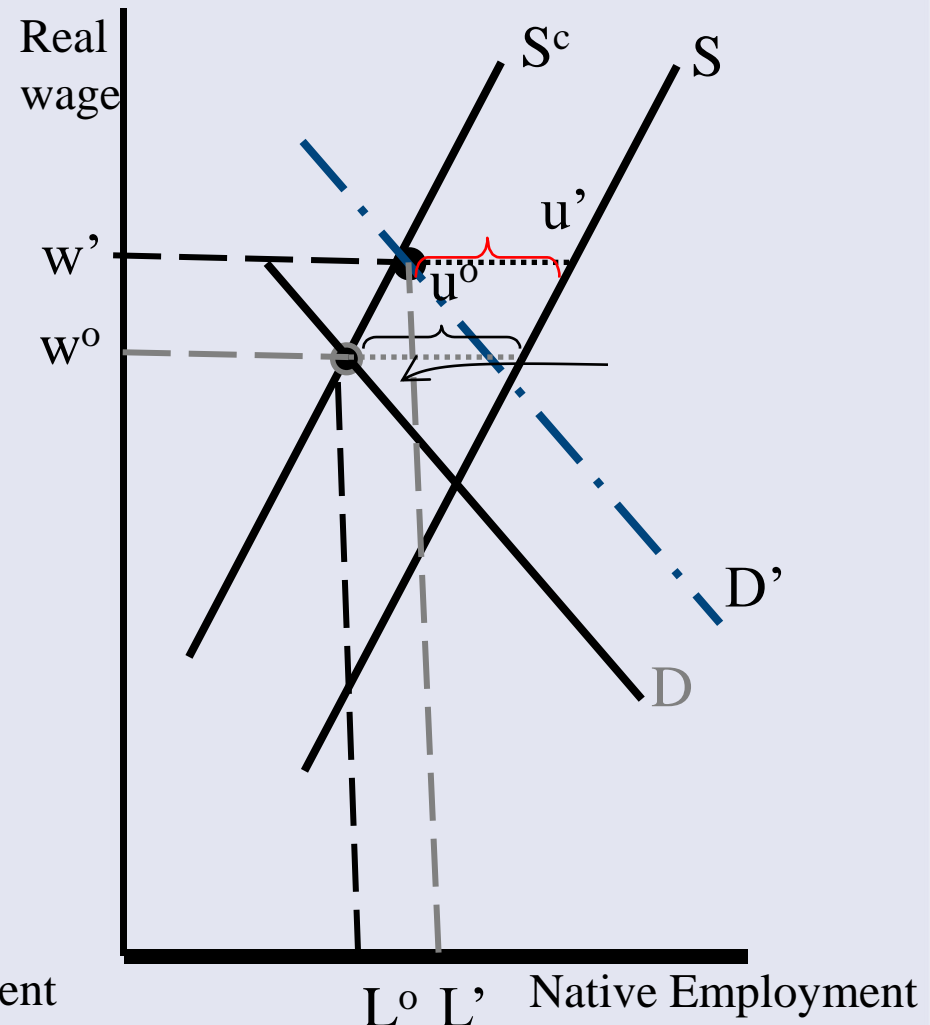
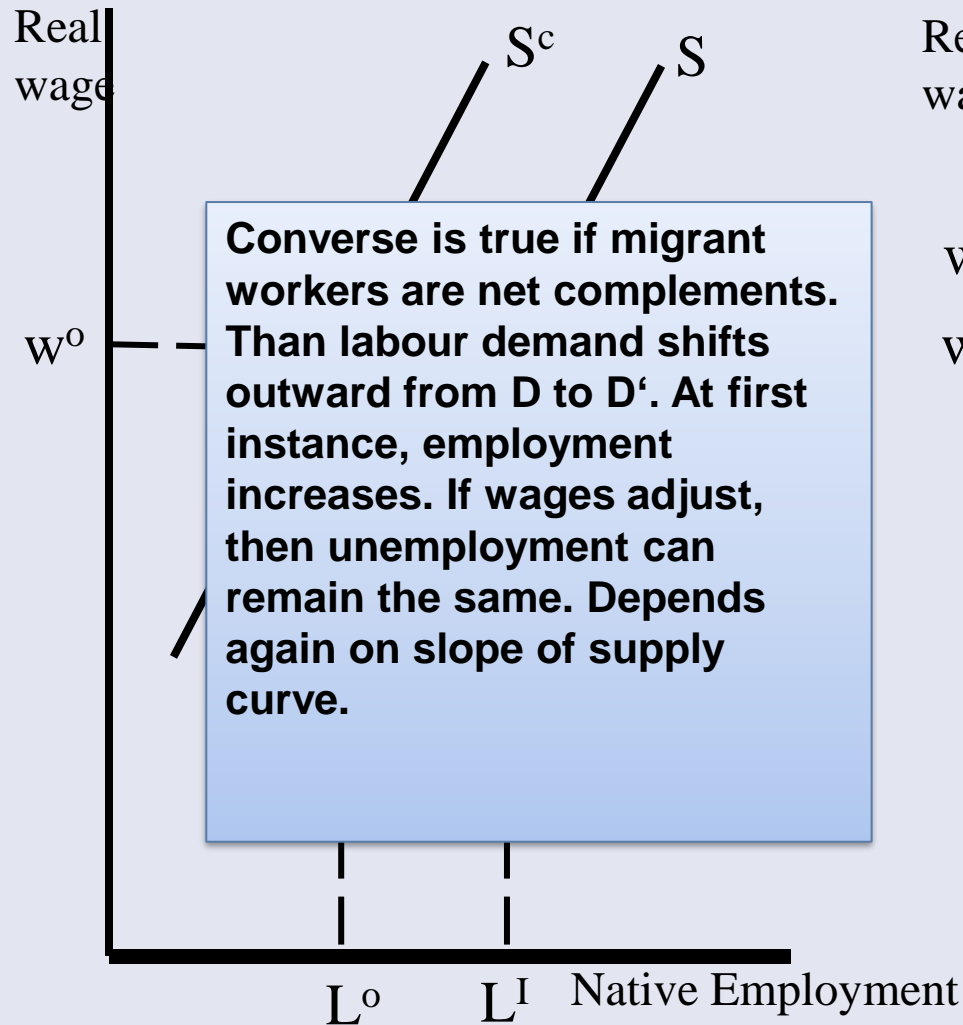
Explaining unemployment:
wages are set in collective bargain.
This shifts labour supply curve
from S to S^c . Firms hire workers
until wages equal marginal
product. At given wage, more
peoples seek jobs than firms hire
workers. Difference is
unemployment.
(left-hand panel)



A model with unemployment



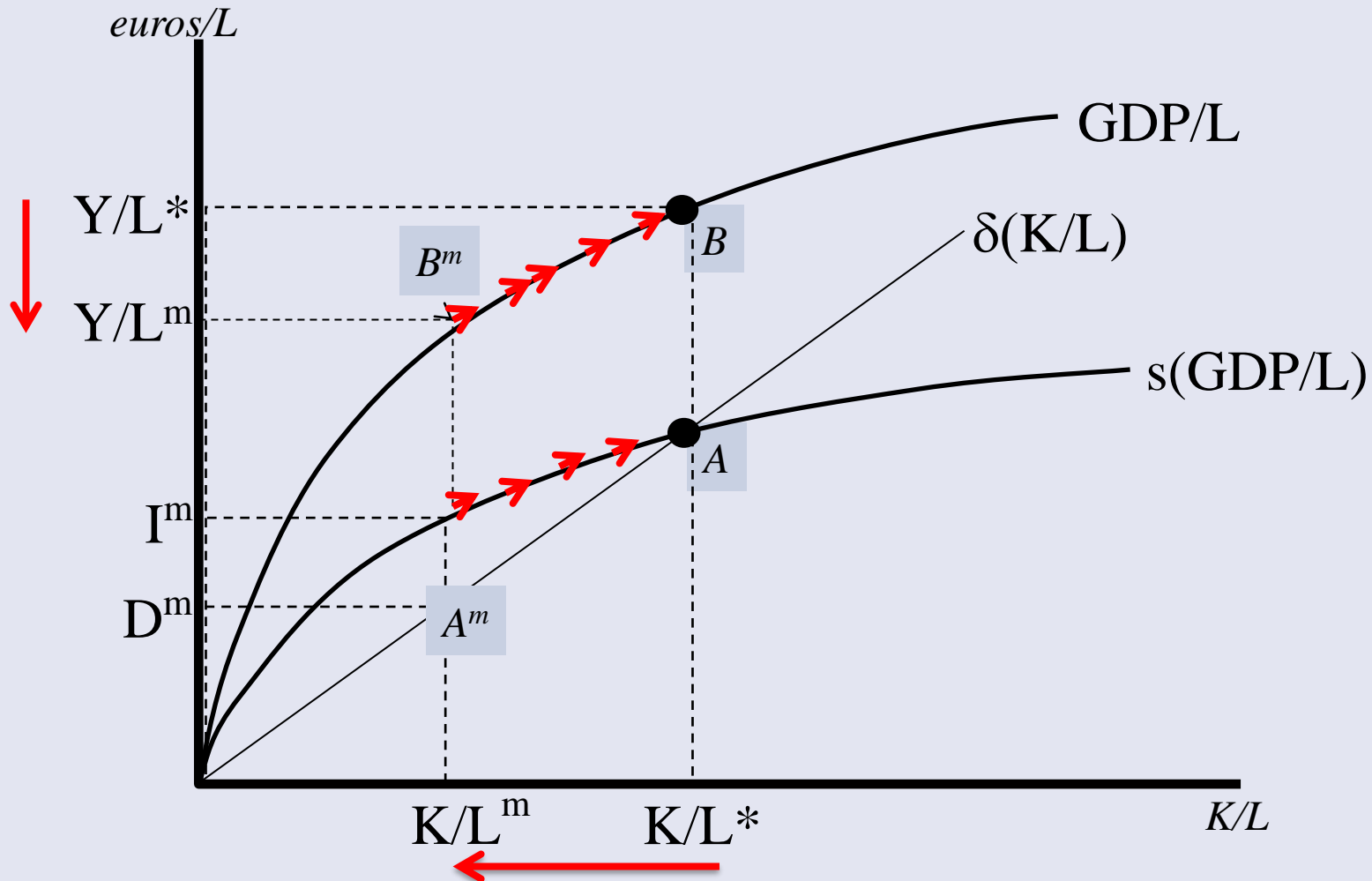
A model with unemployment



Other adjustment mechanisms: capital stock adjustment

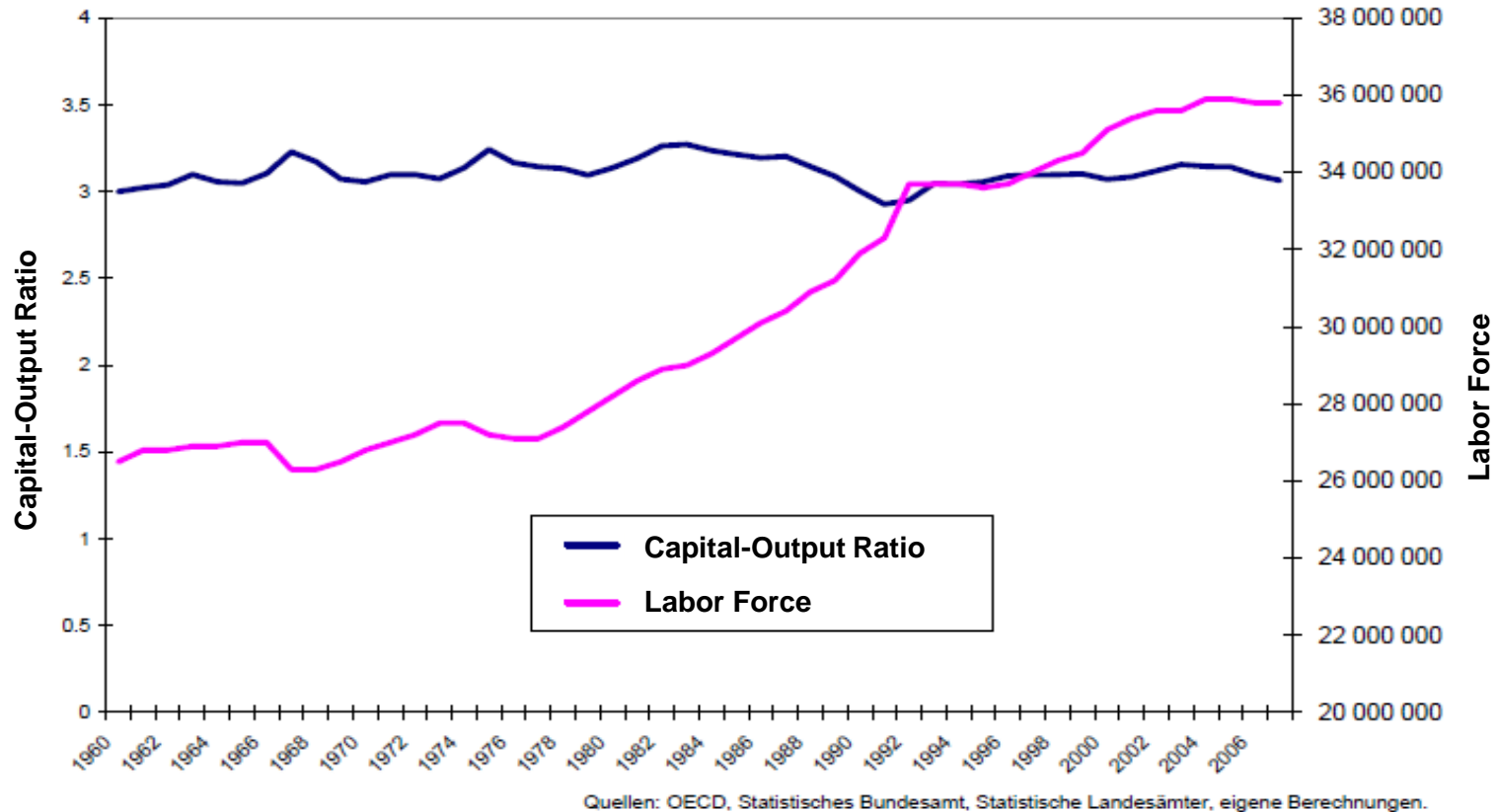
- incentives for domestic or international investment increases if labour supply increases
- capital-labour ratio remains eventually constant
- hence, factor prices remain constant as well
- empirical evidence: capital-output ratio and, hence, productivity adjusted capital-labour ratio is constant over time (Kaldor, 1961)
 - e.g. Western Germany: capital-output ratio has increased from 3.0 (1960) to 3.14 (1990)

Theory: Why capital stock adjustment in Solow diagram



Capital-output ratio in Western Germany

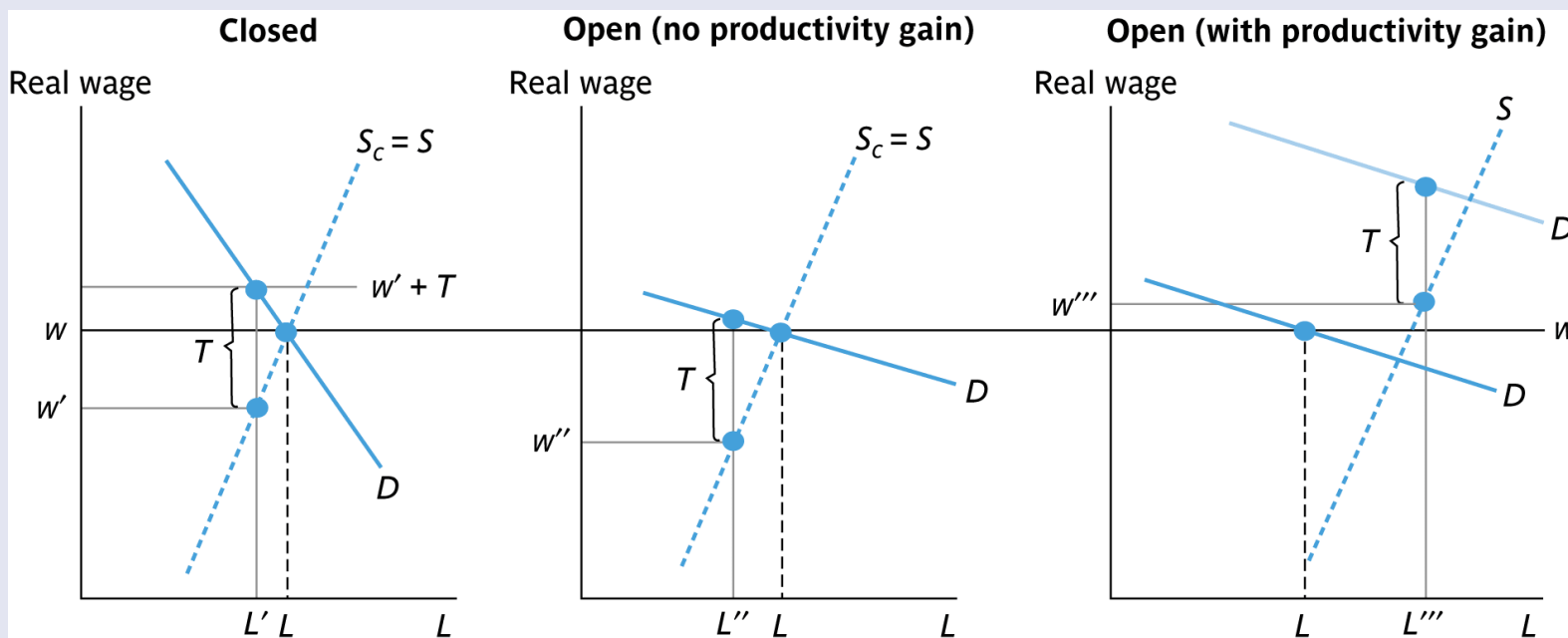
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- International goods prices depend not on domestic supply (small country assumption)
- Host countries imports after labour supply shock less labour intensive goods, exports less capital intensive goods (trade substitution)
- production share of labour intensive sector increases, production share of capital intensive sector declines (Rybczynski-effect)
- prices on goods markets remain constant
- prices on factor prices remain constant (Factor Price Insensitivity Theorem)
- Large economies: picture changes if domestic supply affects global supply curve and global goods prices

Trade and social dumping

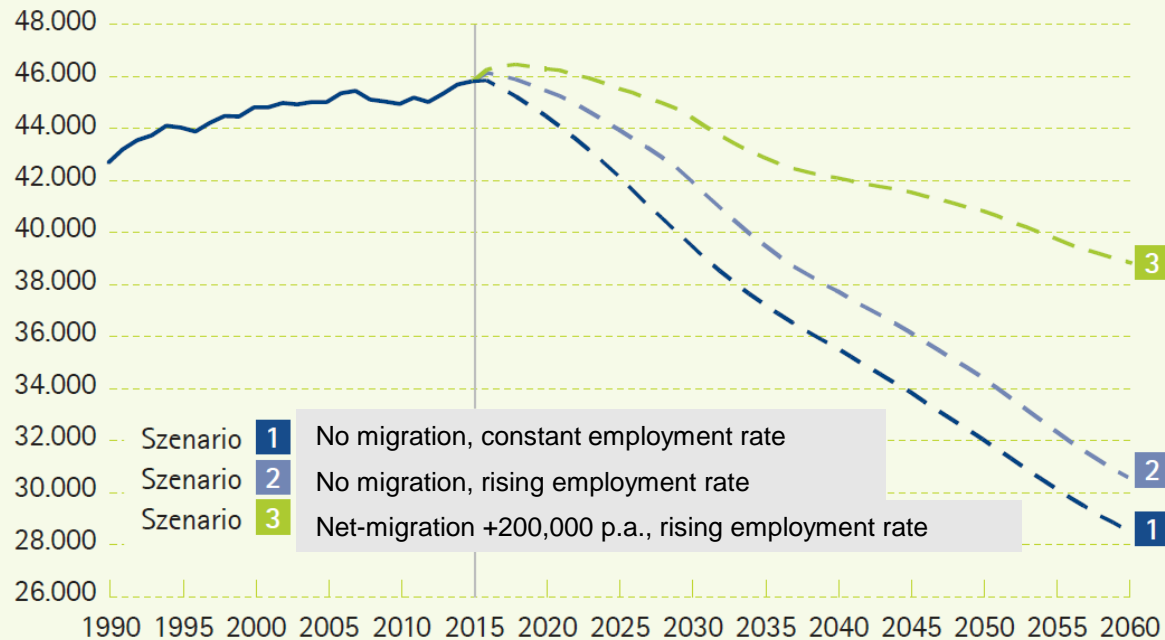
- Model: flexible labour market where social protection with cost T is introduced in country originally closed and then opened to trade.



- Flatter demand curve due to higher competition (open economy).
- Take home wage declines from w' to w'' when there is no productivity gain.
- Trade induces efficiency gains, shifting up demand curve

- The European population will (i) decline and (ii) age rapidly without migrations
- In Germany, labour force would decline by 40 per cent or 18 million workers in case of no migrations until 2050
 - Net migration of 200,000 p.a.: - 19%
 - Net migration of 550,000 p.a.: constant labour force
 - But still ageing population, i.e. ratio of elderly to active labour force will increase
 - Bottomline: migration can mitigate, but not compensate low fertility rates and increasing life expectations
 - Pension age at 67 and higher female labour market participation has only moderate impact (~ 1.5 millions)

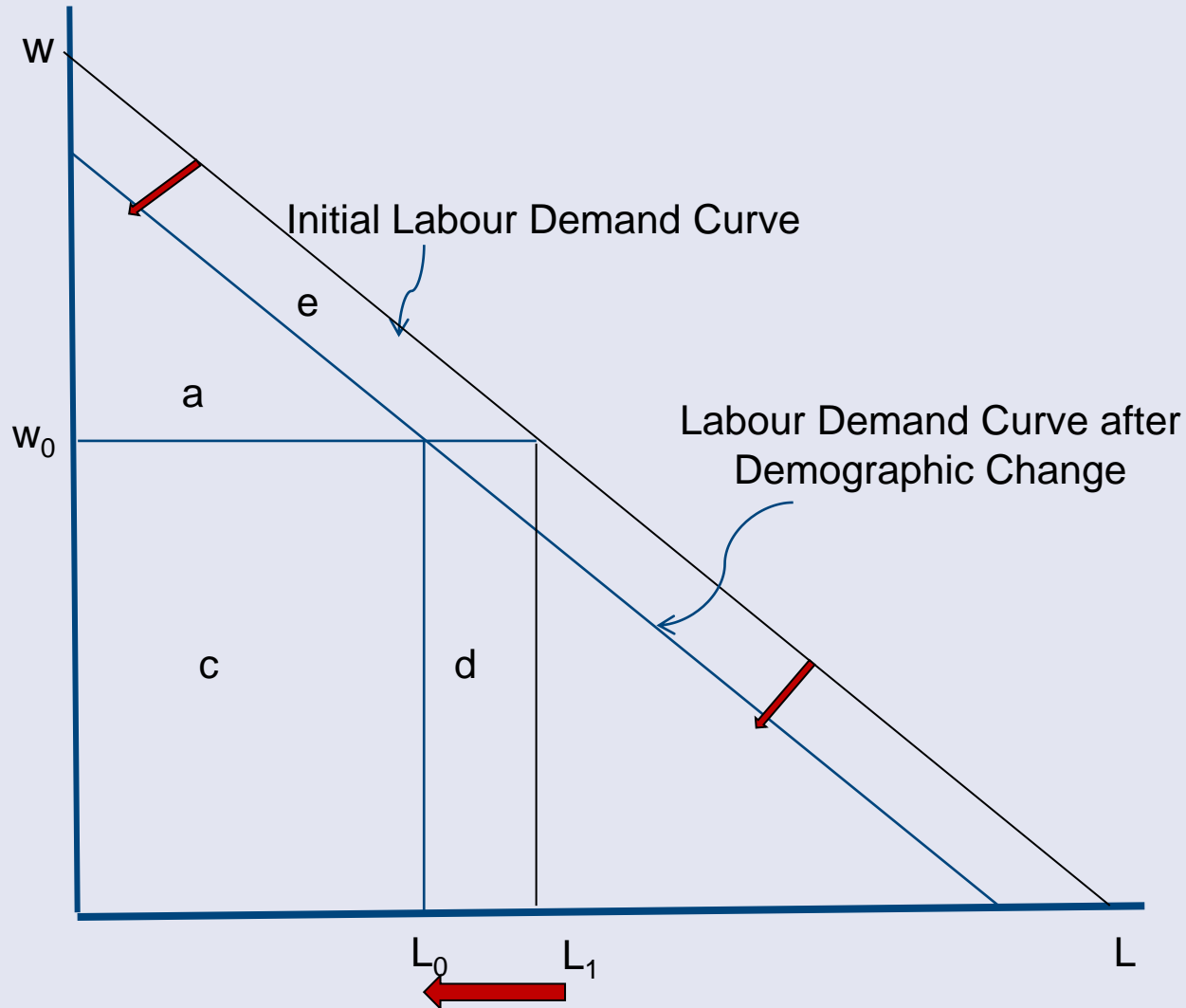
Demographic change and impact on welfare state



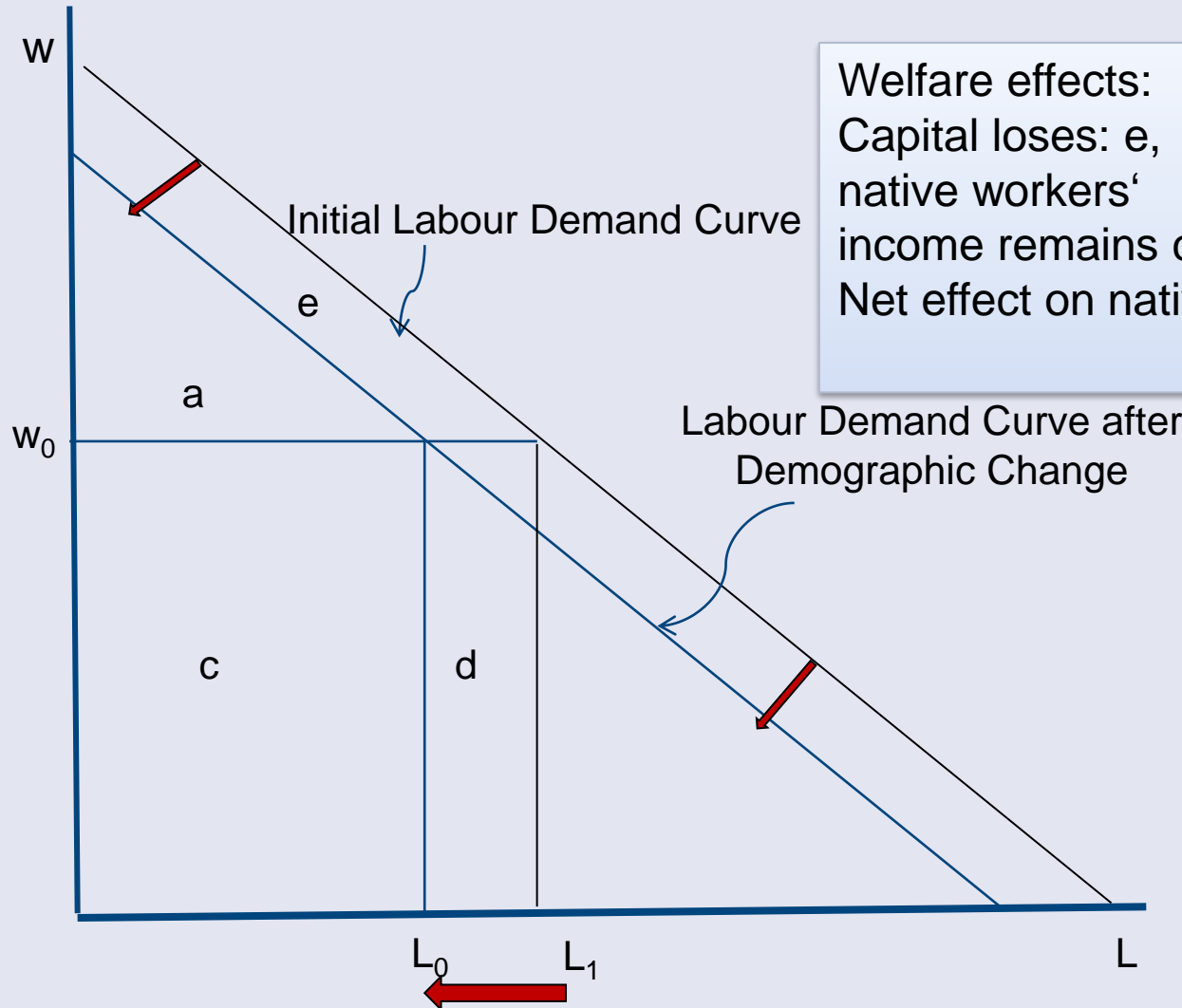
Quelle: Fuchs, Söhnlein, Weber (2017).

- Declining labour supply will reduce real returns to capital
- This in turn will reduce domestic investment and result in declining capital stocks.
- International capital mobility will support these effects
- Declining capital stocks and labour force will result in declining output
- Note that labour demand also shrinks, such that wages and unemployment may remain unchanged (no “labour shortages”)
- Smaller labour force has to fund higher transfers via pension system, health insurance, etc.
- Considering demographic change, there is a “sustainability gap” of public households of 3 per cent of GDP (Bonin, 2014)

Impacts of demographic change



Impacts of demographic change



Welfare effects:
Capital loses: e,
native workers' income remains constant,
Net effect on natives: - e

Can migration reduce the sustainability gap?

- Migration affects the fiscal balance of the welfare state via the tax-transfer mechanism and some other channels
- It is useful to distinguish transfers within an age cohort (e.g. via unemployment- and mean-tested benefits) and across age cohorts (via pensions, health insurance etc.)
- As a stylized fact migrants receive more tax-based benefits (mean-tested benefits such as Hartz-IV), but less contribution based benefits (pensions, health insurance)
- In principle, given that immigrants have in most countries a lower labour participation, pay less taxes and receive more transfers, but are much younger than the population average and contribute more to the pension system, the effects are likely to be ambiguous

- Revenues: taxes and social security contributions
- Individually attributable expenditures: unemployment and mean-tested benefits, pensions, other transfers, expenditures of health-care-system, education, child care etc.
- Individually non-attributable expenditures: physical infrastructure, defense, police, administration, culture, development aid, etc.

- Immigration increases income of natives as well (capital income, wage sum of complementary workers)
- These persons pay taxes and social security contributions as well
- These effects can be considered in general equilibrium framework which calculated all kind of changes in prices, earnings and income
- Note that these effects can be large: about 40 per cent of the additional income created through immigration accrue to natives, 60 per cent to immigrants

- Most studies calculate only current impact on government revenues and expenditures
- However, since many effects result in the long-term, we have to calculate the dynamic effects as well
- E.g. generational accounting, calculates net present value (or costs) of all revenues and expenditures over the lifecycle of representative native and immigrant cohorts, cohort by cohort under certain assumptions on skill structure and labour market integration of future immigrants (Bonin, 2014)
- Does not consider indirect effects. For doing this, more complex overlapping generation models are needed. Does not exist for Germany

- Two key results emerge:
 - immigration is likely to raise employment and national income;
 - immigration is unlikely to affect unemployment in either direction.
- These results provide a strong endorsement for the fundamental principle of freedom of movement of workers within the EU.
- Still, there is low mobility within EU:
 - Restrictions for new EU members' nationals mobility;
 - Differing Pensions systems;
 - Unemployment benefits;
 - Regulated professions;
 - Language, housing, health systems, etc.

- **February 1, 11:00 hours**
- **Next Topic: Baldwin & Wyplosz (2015), Ch. 15 and 17**
- **Last lecture: February 8!**