

**Power and People:  
comments on the European  
Energy Market and Migration  
based on the 2015 EEAG Report**

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# The European Energy Conundrum

Power Failure

# Introduction

- National energy policies have been incoherent
- Failure to
  - price efficiently (wide price differentials within EU)
  - achieve flexible supply
  - achieve competition between suppliers and fuels
  - limit emissions efficiently

# Co-ordination Problems

- The 1996 Internal Energy Market Directive set out 3 goals. To achieve energy sources that are
  - secure
  - environmentally friendly
  - competitive
- Conflict
  - Environmentally friendly energy neither secure nor cheap
  - Imported fuels, e.g. gas, cheap but not secure
- Balance and compromise between these goals are needed

# Market vs planned solutions

- EC has fostered market solutions
  - Competition and deregulation
  - Separation of production from distribution
- But:
- Cost structure of energy industries
  - Low marginal costs
  - High cost of long-lived capital investments
    - Nuclear power stations, electric power grids, pipelines, etc
  - Argues for consistent policies and predictable market conditions
- Security concerns limit market role and require policy
- Need to co-ordinate national policies across EU

# Lisbon Treaty (2007)

- Article 194(1) set out 4 aims of energy policy
  - Ensure functioning of energy market
  - Ensure security of supply in the EU
  - Promote efficiency, saving energy, developing new and renewable sources
  - Promoting interconnection of energy networks
- Goals not achieved
- Intermittent implementation

# Missed environmental targets

- 2008 targets for 2020
  - 20% reduction in production of greenhouse gases
  - 20% share of renewables
  - 20% efficiency improvement

# 2009 EU 3<sup>rd</sup> Energy Package

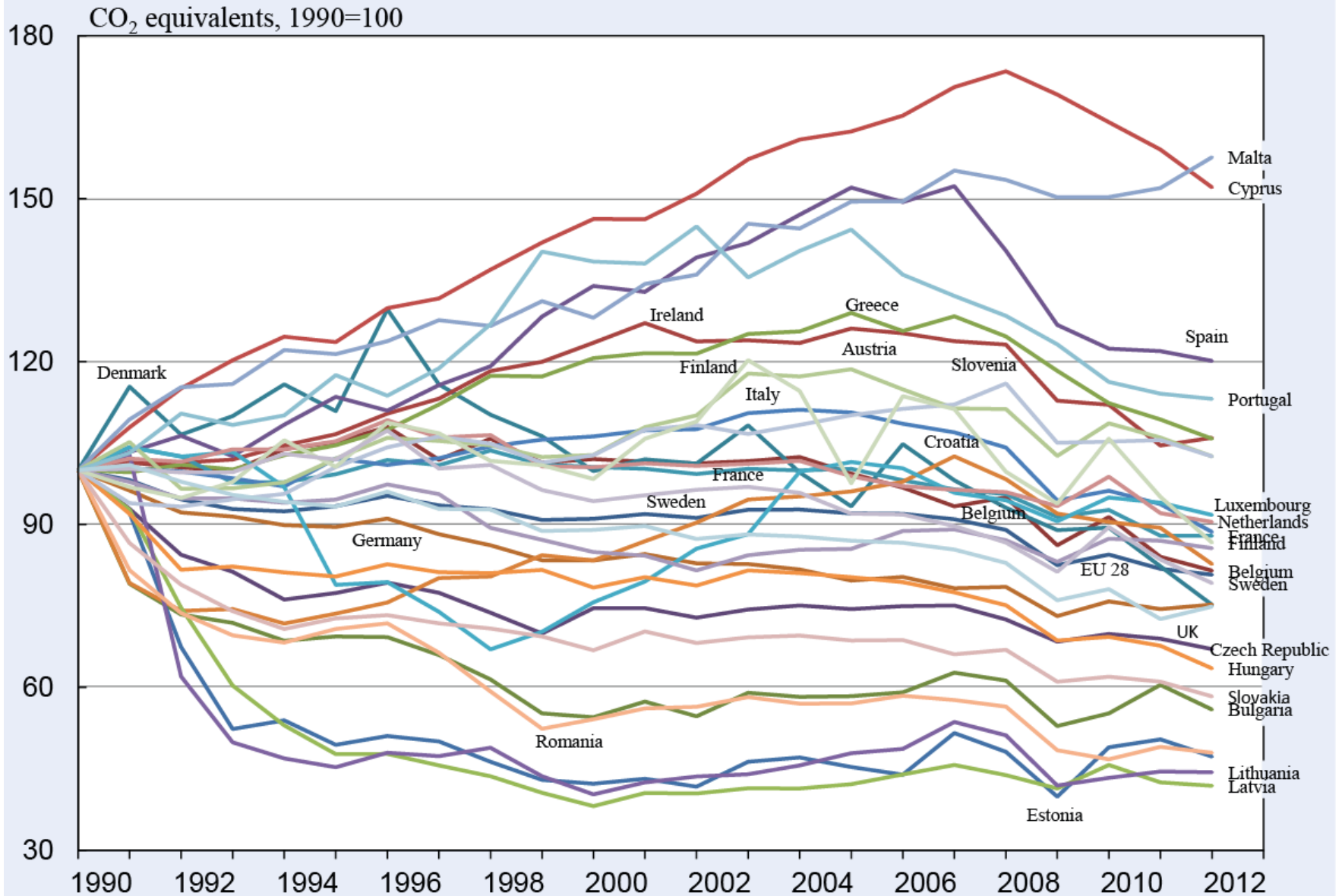
- More transparency
- More collaboration between national energy companies and governments
- Five principles
  - Unbundling
  - More co-operation and dialogue between national regulators
  - An ‘agency for cooperation of energy regulators’ set up
  - Two European networks of transmission system regulators set up
  - Greater investment in national gas networks and better coordination among them
- Encountered widespread opposition
- Different interests in Eastern and Western Europe



# New postponed environmental targets

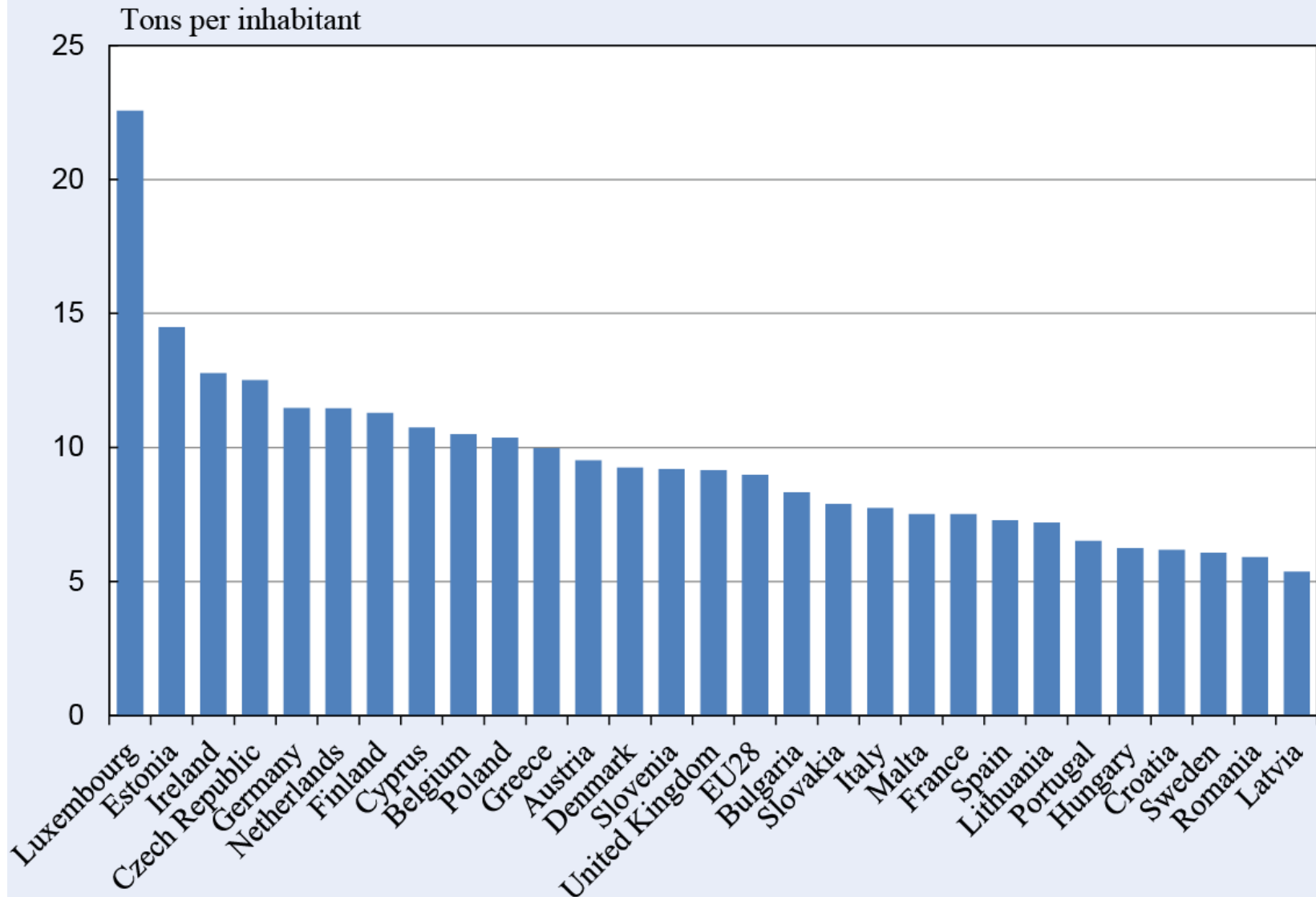
- 24 Oct 2014 EU Summit
- Goals put off until 2030
  - 40% reduction in CO<sub>2</sub> relative to 1990
  - Renewables up to 27% of supplies
  - Efficiency 27% better
- CO<sub>2</sub> emissions fell due to recession, not policy

# Europe's CO<sub>2</sub> emissions



Source: European Environment Agency, last accessed on 24 November 2014.

# Greenhouse gas emissions in 2012

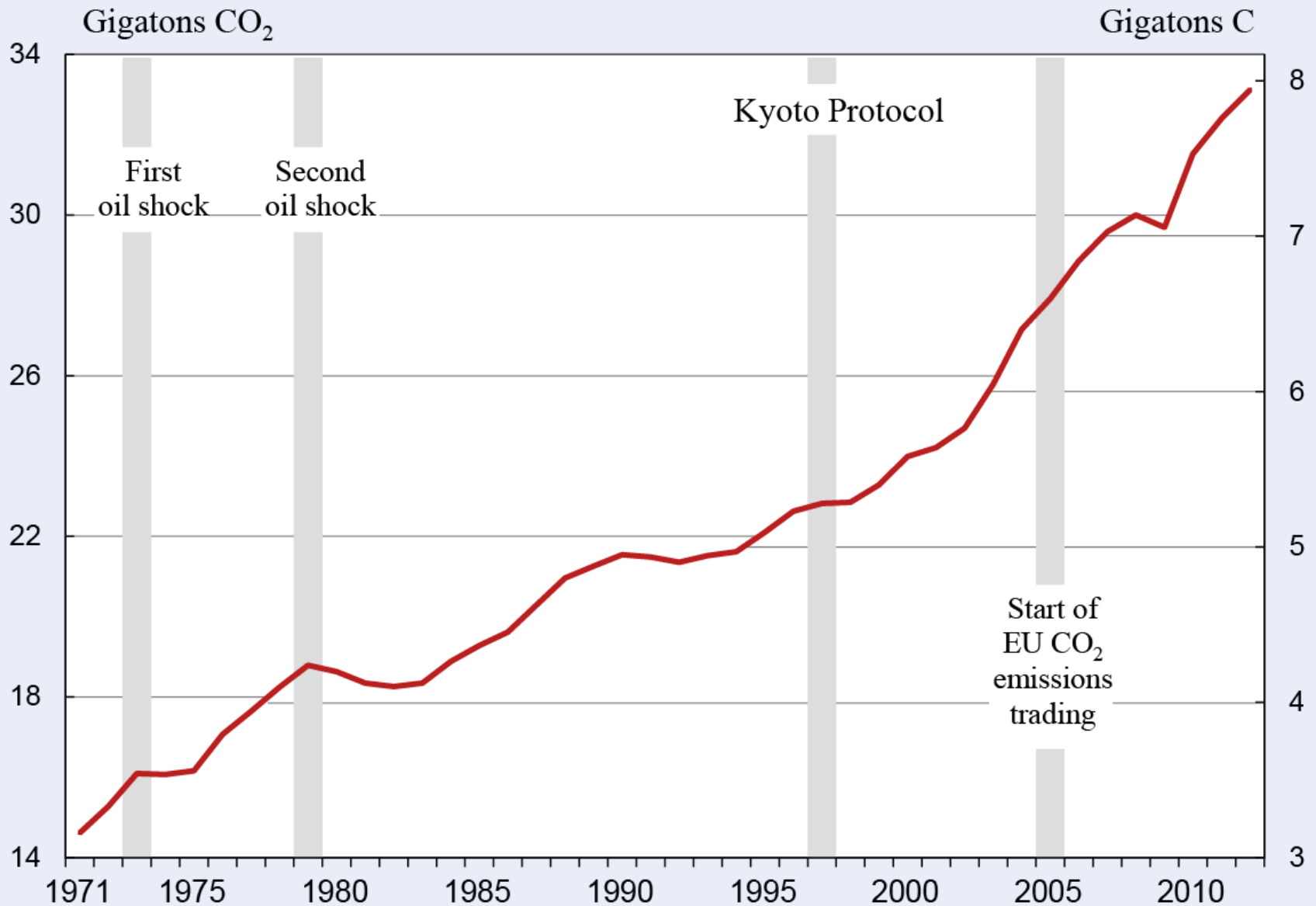


Source: Eurostat, last accessed on 19 November 2014.

# Global Interactions

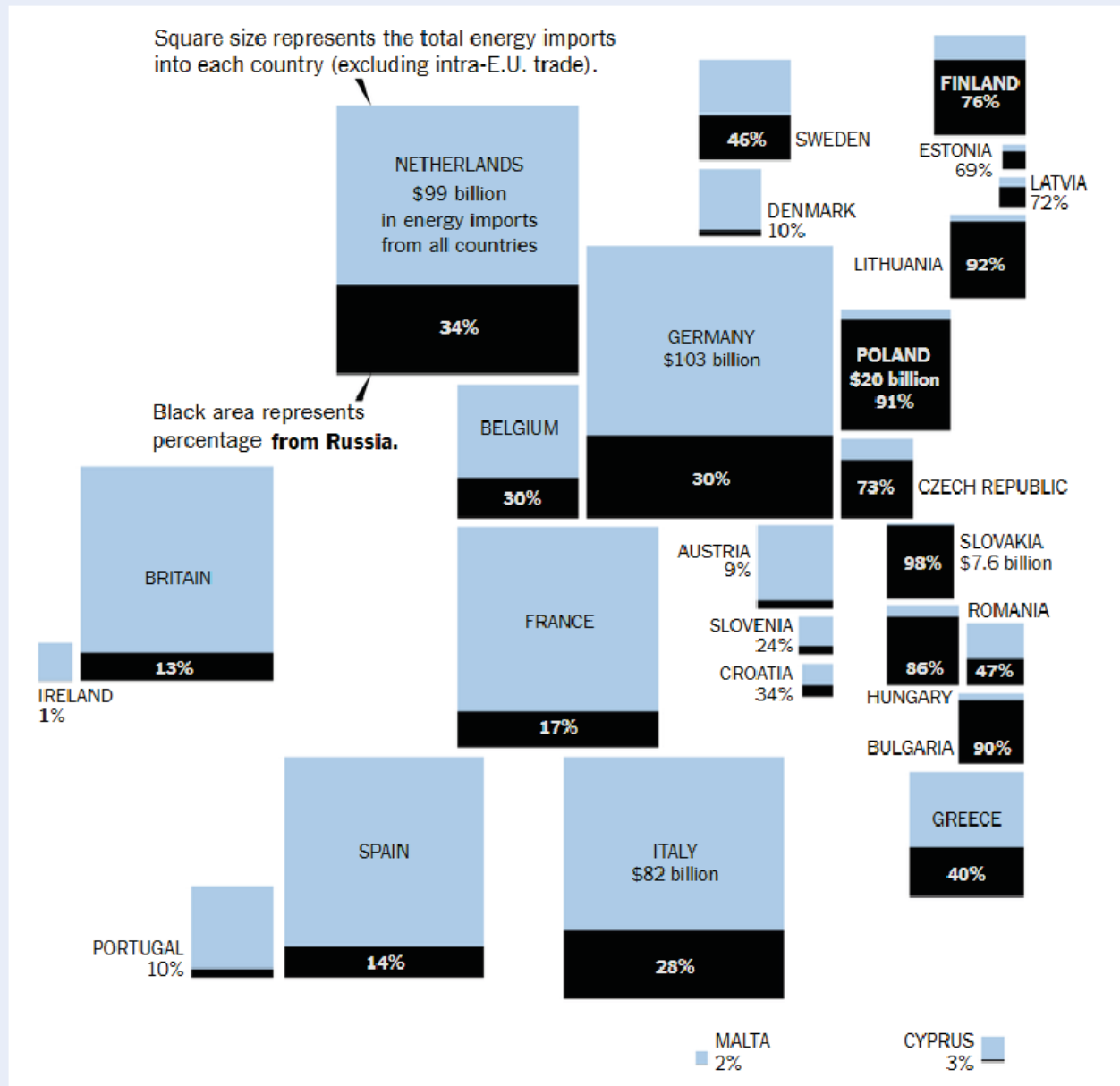
- Post 2008, European emissions trading scheme (ETS) – price collapse
- No effect of European policy on global fossil fuel use
- Need to include US and China in emissions reduction
  - US agreed (Nov 2014 ) 25-28% cuts in CO2 emissions by 2025 relative to 2005
  - China agreed to plan reductions after 2030

# The world's CO<sub>2</sub> emissions

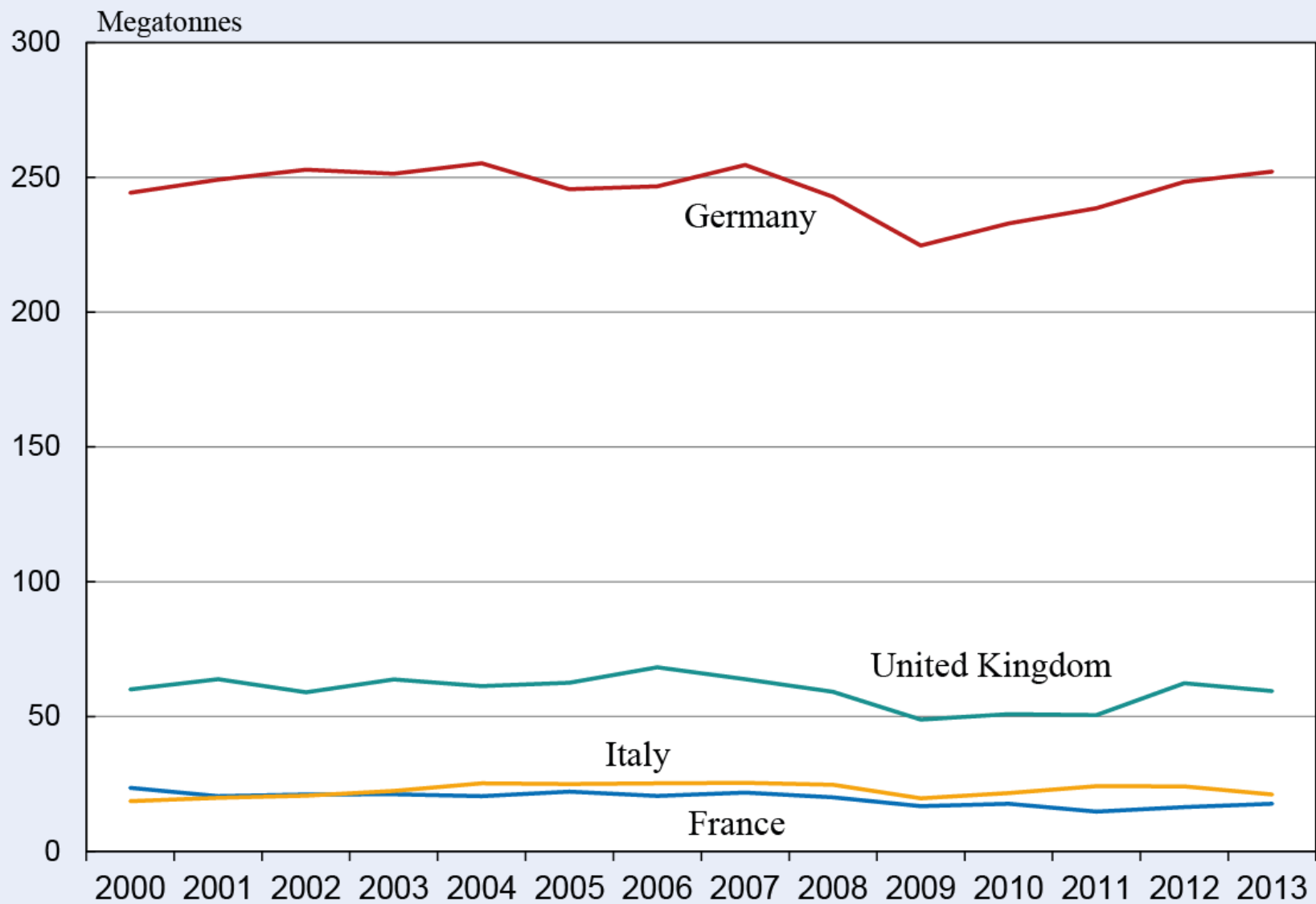


Source: International Energy Agency, Database, CO<sub>2</sub> Emissions from Fuel Combustion, last accessed on 24 November 2014.

# Dependence on energy imports



# Domestic consumption of coal and lignite



Source: Enerdata, last accessed on 10 December 2014.

# Assessing Different Risks

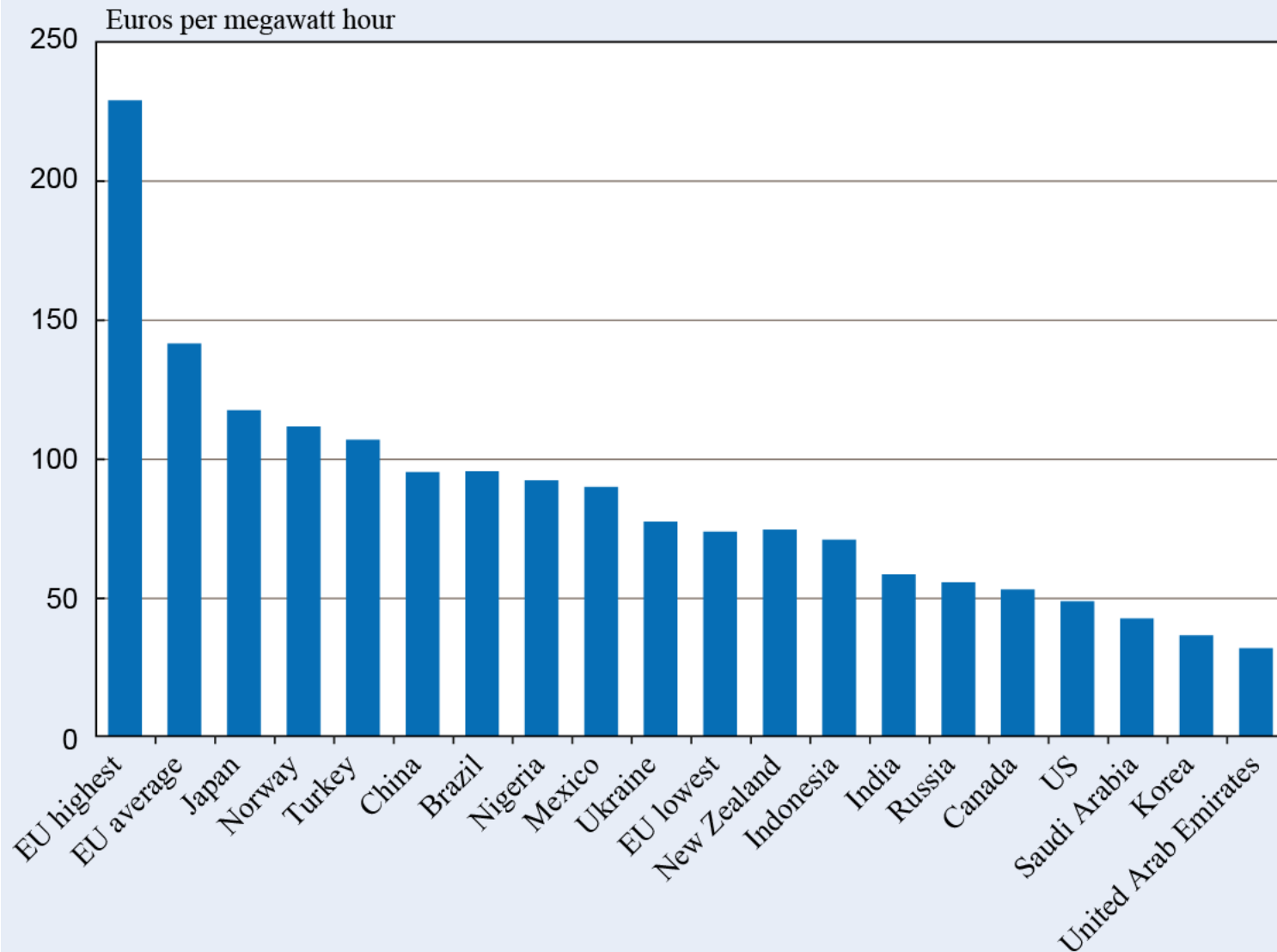
- Four risks:
  1. Global warming
  2. Nuclear energy
  3. Dependence on imported oil and gas
  4. Fragilities of electricity supply networks



# Green paradoxes

- Local greenery may export pollution not reduce it
- Higher future taxes may induce race to extract and pollute now
- Green power production in Germany liberates emissions permits for others to pollute
- ETS: prices too low to be effective
  - Need to be €70/ton or more
- Biomass
  - carbon-neutral?
  - Raises food prices, hurts poor and has caused political unrest
- Subsidies via feed-in prices lead to rent seeking

# Retail electricity prices in 2012: industrial consumers<sup>a)</sup>

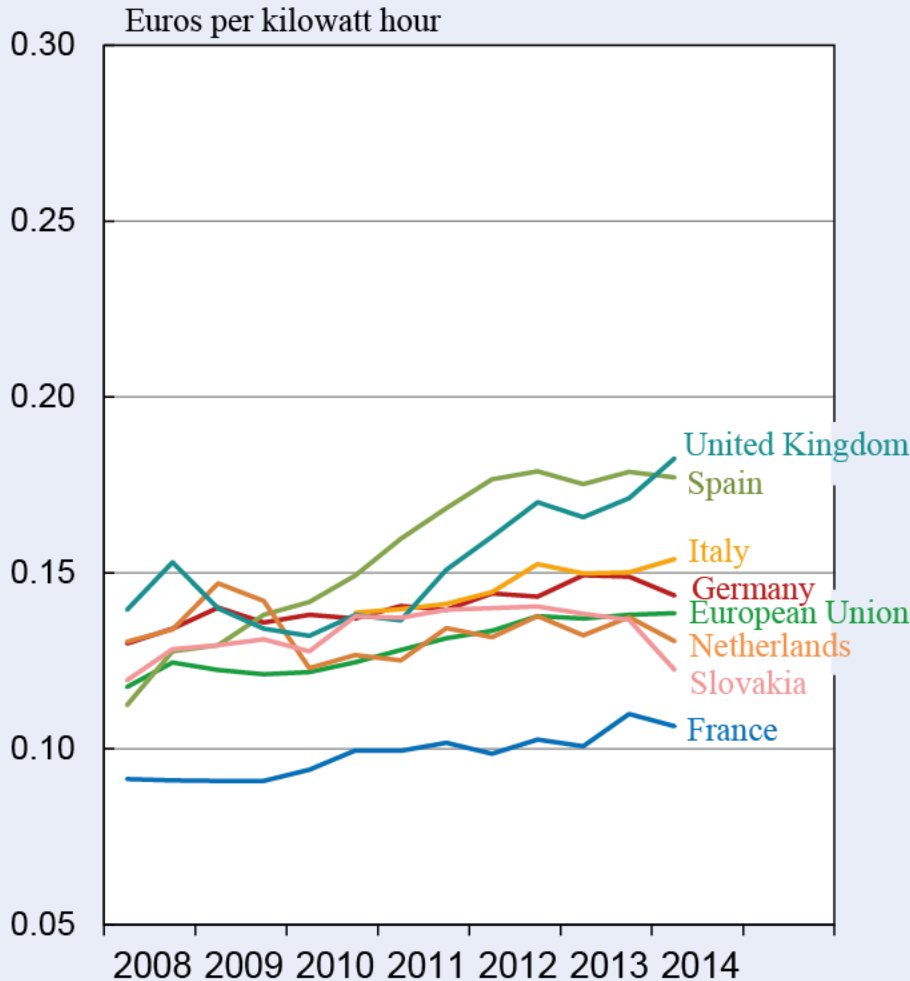


<sup>a)</sup> EU electricity prices for industry refer to consumption band IC, exclusive of VAT and other recoverable taxes. Electricity prices for industry for Canada refer to 2010 and for Korea to 2009. ECB annual exchange rates have been used. Industrial prices exclude taxes as reported by ERA for Nigeria, Russia and Ukraine, by ANEEL for Brazil, by the IEA for Japan, Canada (2010) and New Zealand. IEA reports zero taxation of industrial prices for Mexico; ERA reports zero taxation for Saudi Arabia and UAE. No data on taxation of industrial prices in South Korea (IEA); until 2009 natural gas prices reported by South Korea indicated 12–14 percent taxation of industrial natural gas prices. Prices

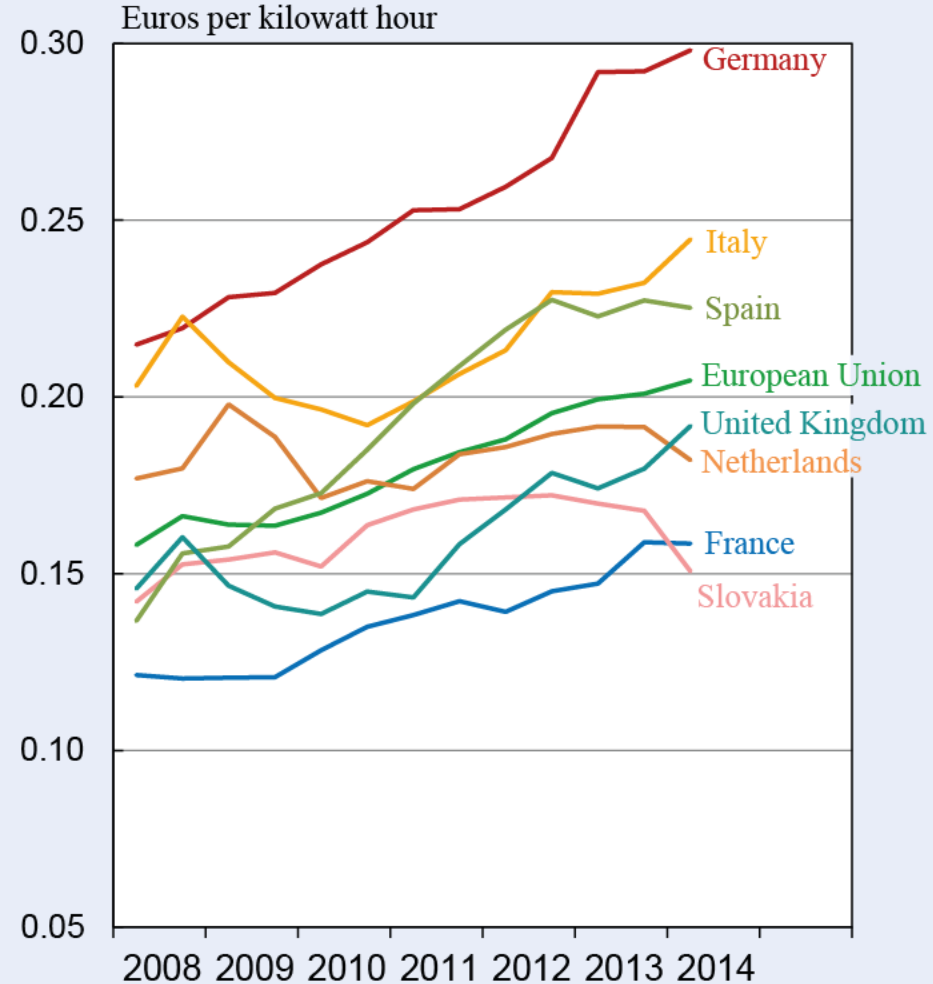
# Consumer electricity prices

(2500 kilowatt hours < consumption < 5000 kilowatt hours)

Excluding taxes and levies

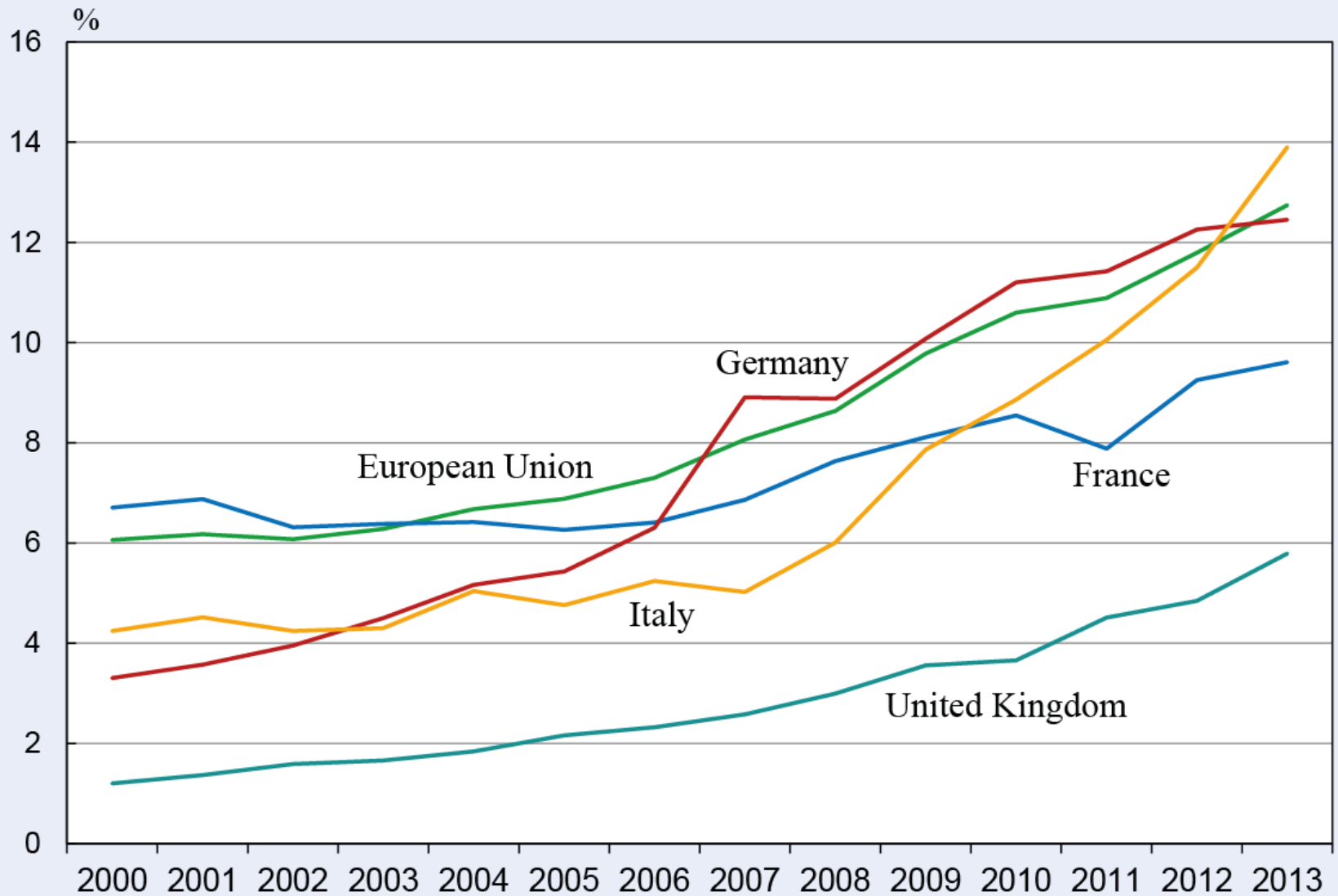


Including taxes and levies



Source: Eurostat, last accessed on 8 January 2015.

# Share of renewables in primary consumption

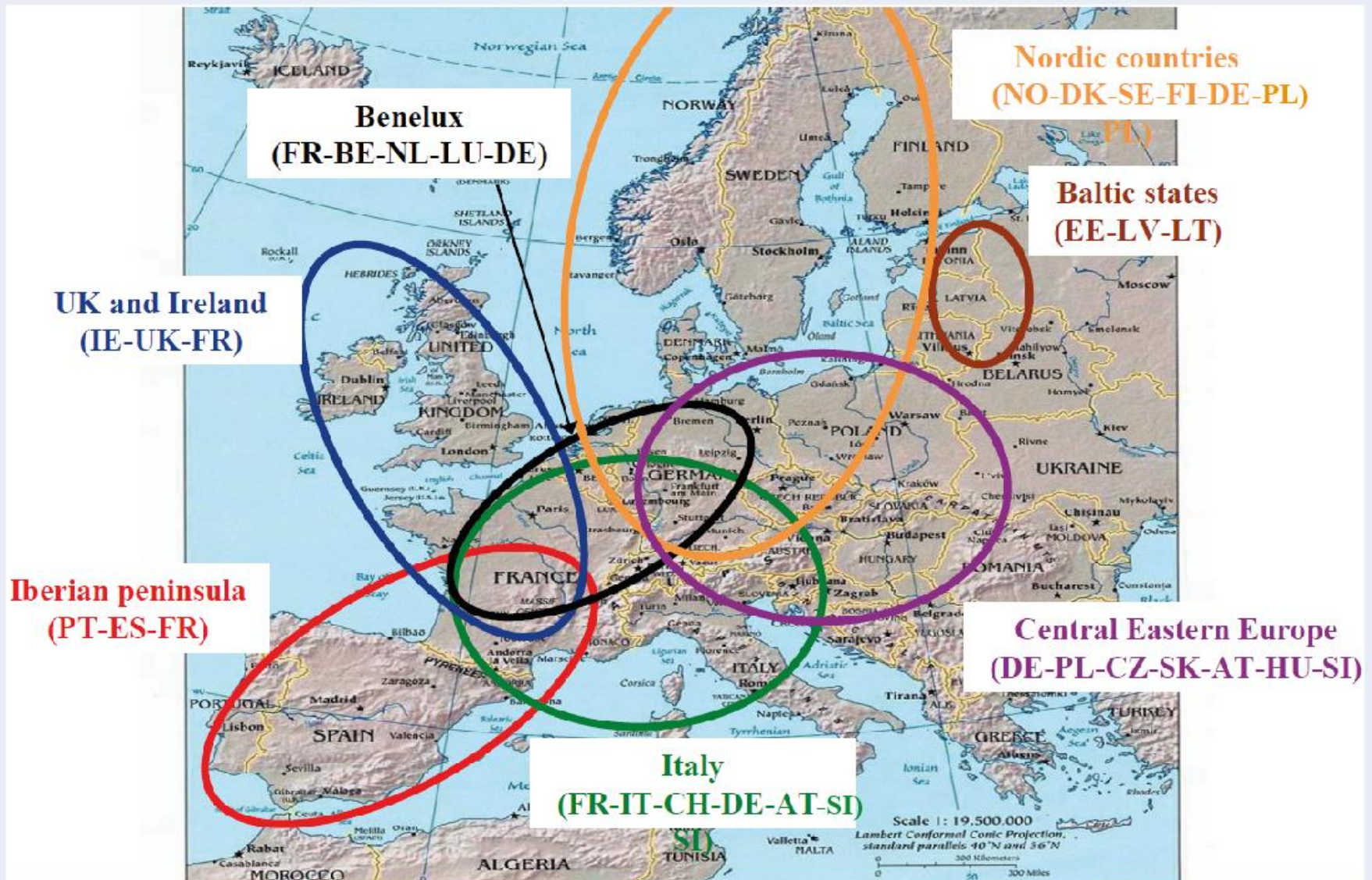


Source: Enerdata, last accessed on 10 December 2014.

# Pricing and incentives

- Tension between
- long-term planning and price fixing
  - Versus
- Responses to short-term market signals
- E.g., gas
  - NW Europe, spare capacity for LNG, can import from RoW, less reliant on pipelines, market approach
  - Central, Eastern, Southern Europe, managed prices, fewer suppliers, less competition

# Regional energy networks



# Interconnectedness

- Important but expensive and hard to get agreement on
- Many projects cancelled or delayed
  - French-Spanish link across the Pyrenees
  - Steiermarkleitung in Austria
  - plagued by long delays (up to 25 years)
- ENTSO-E (European Network of Transmission System Operators for Electricity) “Projects of Pan-European Significance” have been cancelled
- annual savings could amount to €2.5 to 4 billion
- The European Commission assesses a need for 140 billion euros in investment.

# Conclusion

- Is more investment in energy supply needed?
  - Previous public sector investment has been misdirected
  - Private sector investment too
- Networks need investment
- Funding?
  - A security levy on energy supply?
- Efficiency gains in energy supply are best way of saving resources

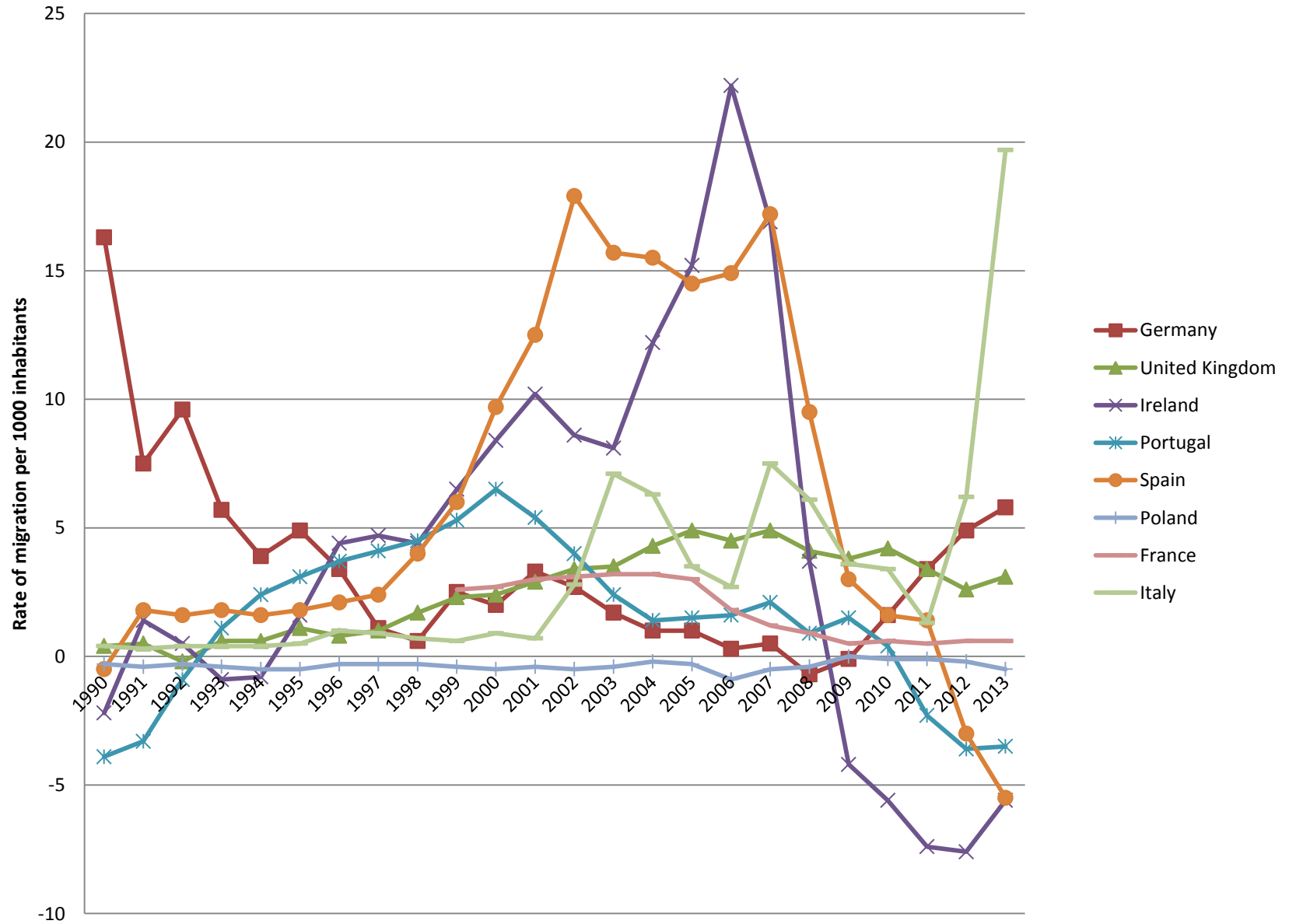


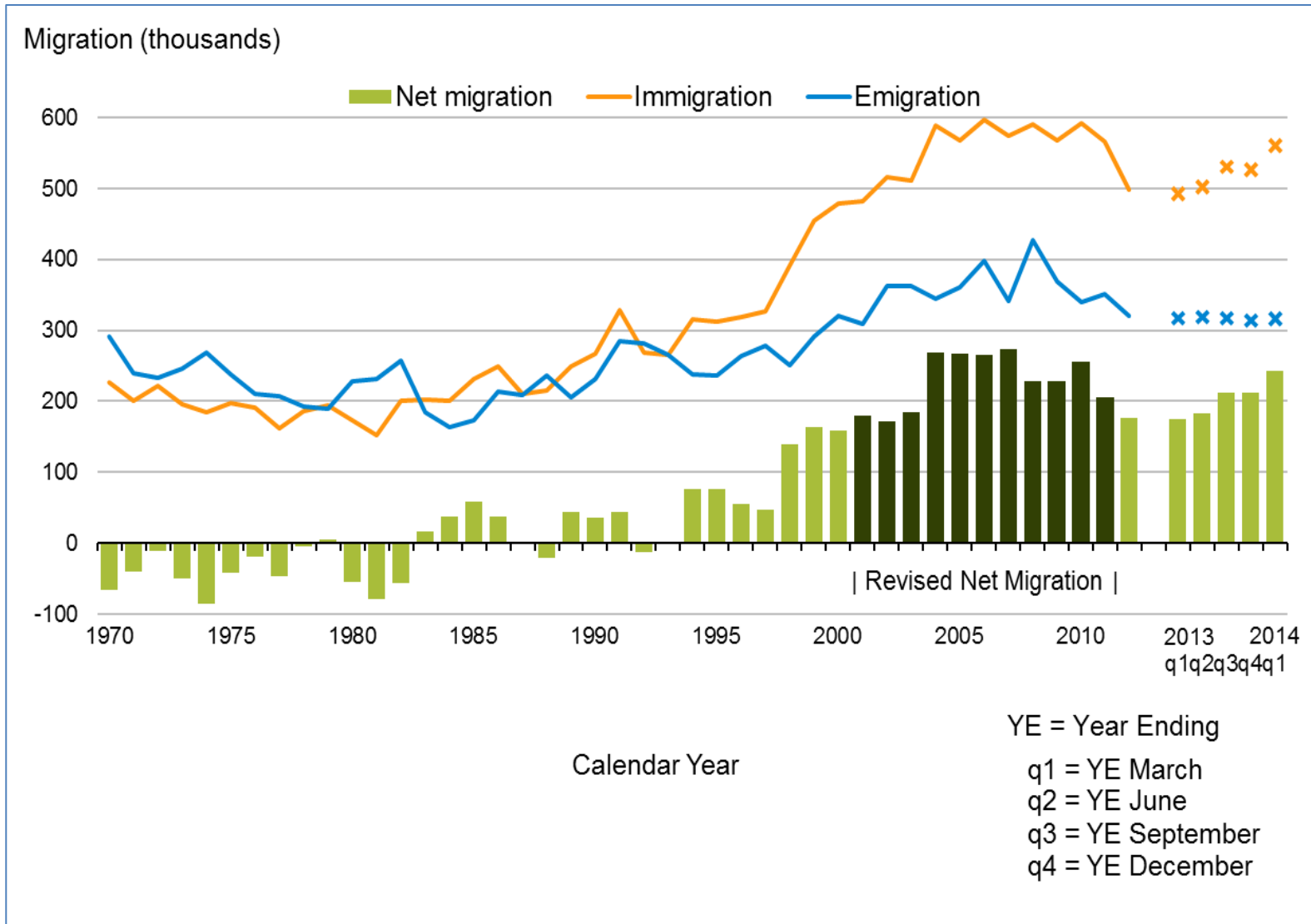
# European Migration: Too much of a good thing?

# Another impossible trinity?

- The principle of free movement of labour has run up against generous (?) welfare states in northern Europe and enlargement of the EU to include much poorer members e.g., Bulgaria and Romania

# Crude Rate of Net Migration plus Adjustment

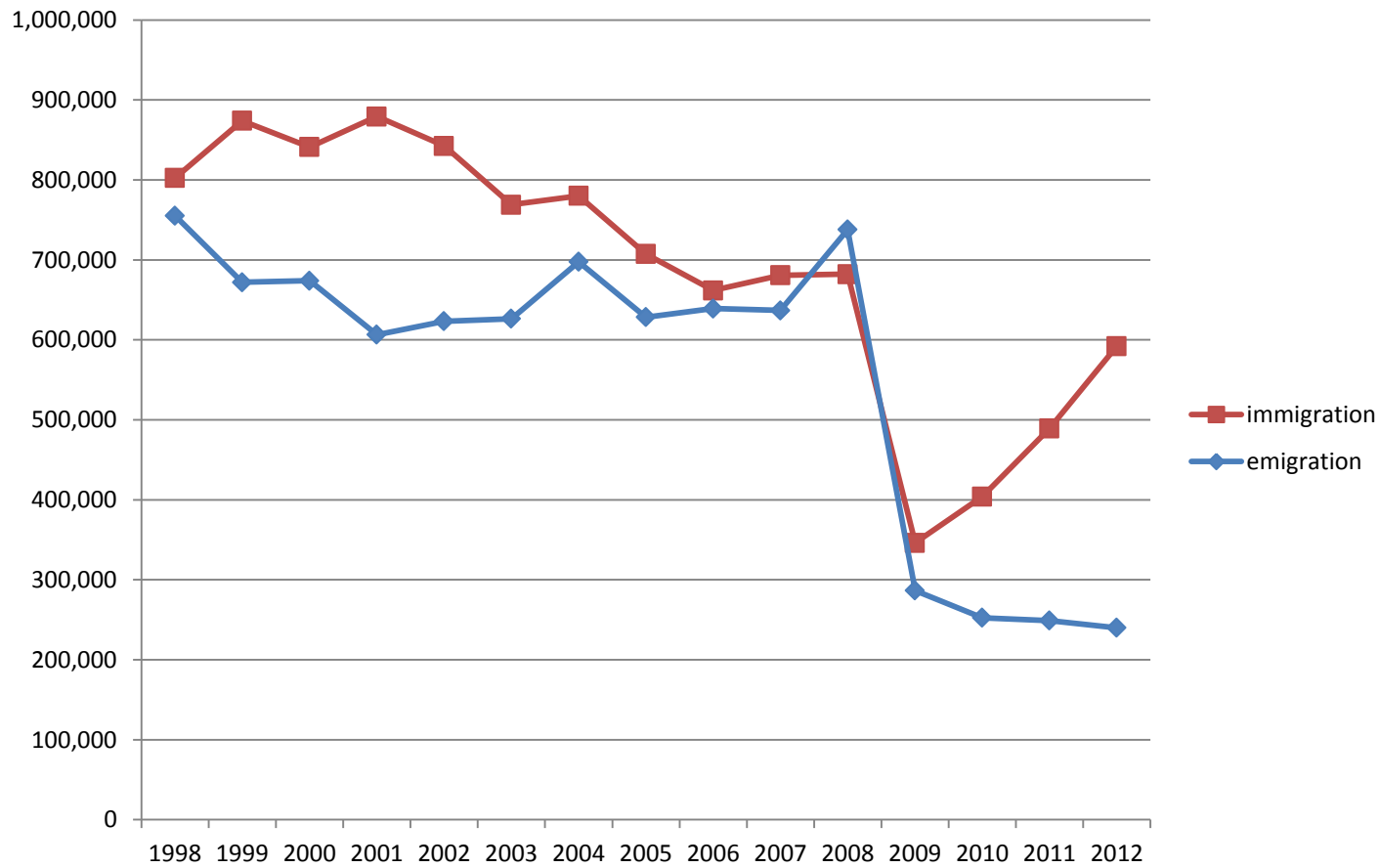




UK Data on migration flows. Source of data: UK Office for National Statistics

<http://www.ons.gov.uk/ons/rel/migration1/migration-statistics-quarterly-report/august-2014/sty-net-migration.html>

## Germany -- gross flows



# Stock of migrants

- Foreign-born as % of total population, end 2011
  - Germany 13.1%
  - UK 12.0%
  - France 11.6%
  - Italy 9.0%
  - Switzerland 23%

# Population projections

- Eurostat forecasts

	2013	2080
Germany	82	65
UK	64	85
France	66	79

- Dependency ratios
  - Set to rise substantially
- Analysis by Lanzieri (2014) Eurostat

# Effects

- Winners and losers
- (Un)employment and earnings
- House prices and rents
- Pressure on social services
- Congestion in access to public goods
- Social cohesion



# Effects on Employment and earnings

- Homogeneous labour market
  - Immigrants similar to pre-existing labour force in terms of age and skills
  - Flexible wages and prices – textbook economy
  - Short run: higher unemployment, lower wages, higher returns to capital
  - Medium run: elastic supply of capital, more investment, higher capital stock, returns to capital and labour go back to normal level, economy expands

# Heterogeneous labour

- Skilled and unskilled labour
- Unskilled immigration
  - Low skilled workers in pre-existing population lose
  - Lower wages, higher unemployment
  - Gainers: high skilled workers, capital
  - Depends on patterns of substitution between high and low skilled labour and capital
  - Depends also on substitution between pre-existing workers and recent immigrants: how good substitutes are they?

# Immigration of skilled labour

- Lowers wages of skilled workers relative to unskilled, narrows skill differential
  - Raises wages and employment of unskilled workers
- Raises return on capital
- Likely to occur to countries with less redistribution or less generous welfare state (free movement – supply driven) or to countries restricting entry to desired groups of workers
  - Meeting needs for skills in short supply or not locally available, e.g., UK Nat Health service
  - Likely to meet relatively little opposition

# Empirical evidence

- Dustmann *et al* (2008) UK

(Dustmann, Christian, Albrecht Glitz, and Tommaso Frattini, 2008, “The Labour Market Impact of Immigration,” Oxford Review of Economic Policy, vol. 24 no 3, 477-494)

- Overall: very modest effects on wages and employment of existing workers.
- no effect of immigration on wages of young Austrians
- Israel: insignificant positive effect
- Spain: no effect
- US: modest negative effects in earlier research; zero or positive effects in more recent studies
- UK: Dustmann *et al* find no effect on employment of native workers.

# UK Gov report 2014

- Home Office and BIS, 2014, “Impacts of migration on UK native employment: An analytical review of the evidence,” Occasional Paper 109
- Delayed, re-written and re-written.
- “there is relatively little evidence that migration has caused statistically significant displacement of UK natives from the labour market in periods when the economy has been strong. However, in line with some recent studies, there is evidence for some labour market displacement in recent years when the economy was in recession.”
- displacement effects more likely when net migration volumes are high
- any displacement effects likely to be concentrated on low skilled natives.
- “...the labour market adjusts to increased net migration when economic conditions are good. But during a recession, and when net migration volumes are high as in recent years, it appears that the labour market adjusts at a slower rate and some short-term impacts are observed.”

# Emigration

- Poland
- 1 May 04 -- 1 Jan 08: 6 per cent of the working-age population went abroad.
- Jan 08: 2,270,000 Poles abroad as 'temporary migrants', incl
  - 690,000 in UK
  - 490,000 in Germany
  - 200,000 in Ireland
- Mostly young men
  - 0.8% of 15-19 yr olds
  - 8.8% of 20-24 yr olds
  - 9.3% of 25–29 years
  - 3.8% of those aged 30–44
  - 1.1% of those aged 45+

(Kaczmarczyk, Paweł and Marek Okólski, 2008, "Demographic and labour-market impacts of migration on Poland," *Oxford Review of Economic Policy*, Vol. 24 no 3, 599-624)
- actual emigration much higher than forecast
  - Bauer et al. (1999) predicted 2-3% of population of E Europe over 10-15 years
  - Boeri et al. (2001) similar

# Poland II

- Unemployment: 20% in 2002; <10% in 2007
- fell from 3.1 million to 1.5 million between 2004q2 and 2007q4
- Polish economy grew vigorously after EU accession
- no evidence that out-migration hindered growth.
- labour market effects of outward migration were modest, in line with the evidence on effects of inward migration in the UK and Germany

# Migration & Social Cohesion

- To what extent does the presence of many recent immigrants affect social cohesion, social capital, etc.?
  - Collier speaks of mutual regard between immigrants and pre-existing population – lack of, and need for it
  - Social capital: trust and co-operation
- Four models of how migrants integrate or not with existing population (Collier)
  - Assimilation with indigenous culture: migrants adapt
  - Cultural fusion: both immigrants and existing population change and merge. A kind of multiculturalism
  - Separatism – e.g., guest workers
  - Settlers – migrants' culture supplants that of pre-existing population. Europeans in North America, Australia, etc.
- An issue mainly relevant to migration from outside EU?
- An argument for limiting flows of immigration?



# Migration and Welfare State

- In a world of competitive market economies
  - Textbook economies
  - Perfect wage and price flexibility, full employment
  - No public goods or other distortions
- Migration no (economic) problem
- Public goods and taxes change the picture
- States with an above-averagely-redistributive system attract too few skilled people and too many unskilled
- EU limits entitlement to benefits to migrants
  - Only eligible after 5 years – in principle
  - Does this provide appropriate incentives?

# Welfare tourism?

- Hypothetical example
  - Possible in theory for a 60 yr old person with enough resources to move to Germany, live there for five years, thus establish right of permanent residency, and then claim a public pension
  - Incentive for inefficient migration?
  - How prevalent in practice?
- How to improve / better align incentives?
  - Home-country principle for benefits
  - Benefits paid for by the 'home state' of recipient, not state of residence, consumed anywhere
  - Could such a scheme work?

# Contributions to welfare state

- Working age immigrants net contributors to pay-as-you-go social security on average
  - Migrant contributes; his retirement benefits are paid by future generations benefit; rest balance
- Redistributive welfare state implies those with below average wages net recipients; above net contributors
- Each state provides public goods – natural environment; infrastructure – roads, railways
  - Subject to congestion
  - Migrants net beneficiaries
- Public education
  - Host countries benefit from education migrants bring with them
  - Should there be an exit charge?

# Evidence on migration and welfare state

- How much use do migrants make of welfare benefits compared with pre-existing population (the natives)?
- Does a more generous welfare state attract more migrants? How many?
- Does a more redistributive state attract less-skilled / low wage immigrants?

# Use of welfare

- Hansen and Lofstrom (2003), Swedish data, 1990 to 1996
  - immigrants use welfare more than natives, but the difference is smaller the longer they have spent in Sweden.
  - Borjas and Trejo (1991), United States, opposite findings
  - Riphahn et al (2010): Turkish immigrants in Germany are more prone to welfare use than natives. But after controlling for a set of individual and household characteristics, the difference is statistically significant only for second-generation immigrants.
  - Barrett and McCarthy (2008): evidence across countries is mixed.
  - Giulietti and Wahba (2011) “...immigrants’ excess welfare use does not necessarily imply that generous welfare states attract immigrants.”
  - Dustmann et al (2014) – EJ paper widely mentioned in the press; migrants make net contribution
- So what?

# Welfare Magnet

- De Giorgi and Pellizzari (2009)
  - European Community Household Panel (ECHP) and the OECD Database on Unemployment Benefit Entitlements and Replacement Rates
  - welfare generosity influences migration decisions
  - effect is small
- Pedersen et al. (2008), OECD countries
  - social networks are an important pull factor for immigrants
  - Welfare not significant
  - results influence by immigration policies which restrict entry of some types of workers?
- Brücker et al. (2002)
  - welfare-generous countries attract low-skilled workers
  - low social spending countries more likely magnet for high-skilled workers
  - welfare generosity may induce a negative sorting of immigrants.

# Race to the bottom?

- Competition among countries with free mobility may undermine the welfare state
- Milton Friedman
- Explored in numerous papers

# Conclusions and policy recommendations

- Enlargement of EU has put the combination of fairly generous welfare systems and free movement of labour under strain
- Irony:
  - EU supposedly dogged by insufficient mobility to be an optimum currency area;
  - now has too much mobility to enable the welfare state to survive



# Policy Recommendations

- Stop demonising people who move between EU states – or into EU
- Economies absorb changes in size of labour force better than people realise
- Scale and costs of welfare tourism grossly exaggerated
- Despite small scale of problem, rules that seem unfair may create social and political problems
- The principle of free movement of people should be upheld
  - It has become a highly valued freedom; aspect of EU citizenship
- EU members can use various means to limit access of recent migrants to welfare benefits
  - Strengthen the insurance principle in social insurance: make more benefits dependent on contributions
  - Adopt strict criteria of availability for work as condition of receiving benefits
  - Is this an aspect of the ‘race to the bottom’ that one wants to avoid?

# More recommendations

- EU needs to encourage economic development of poorer members
  - Structural funds etc
  - But...evidence on regional convergence not encouraging (another chapter in the 2015 EEAG report)
- Flows of people may reverse
  - Example of Poland
  - Short-term flows may speed up convergence