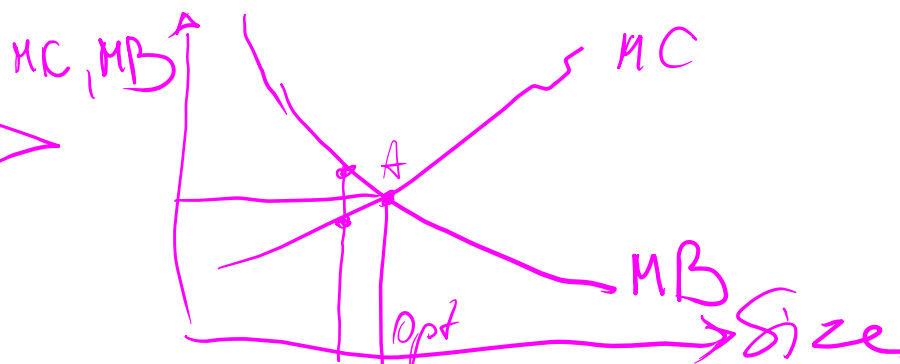




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Lecture1_Questions



1 Optimum currency area theory can be used to think about whether it is good for a country to join the euro.

True

A)

False

B)

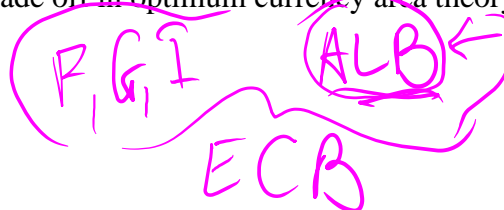
2 A currency becomes more useful as it is used in a wider economic area - but having a one-size-fits-all monetary policy typically becomes more problematic in a wider economic area; this is the key trade off in optimum currency area theory.

True

A)

False

B)



3 An example of an 'asymmetric shock' would be if world demand declined for the exports of all members of a monetary union, but demand rose for the exports of non-members.

True

A)

False

B)

4 If workers are highly mobile between two nations, those nations are more likely to form an optimal currency area.

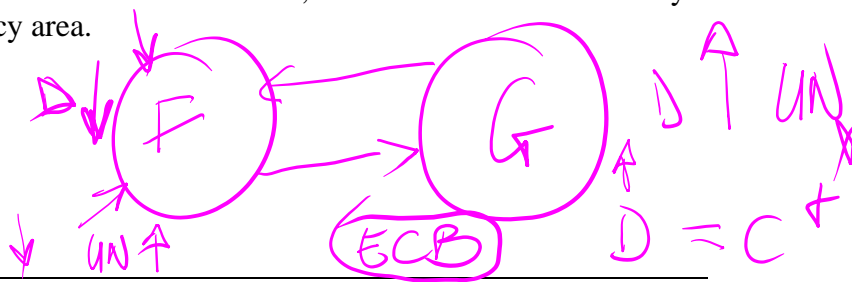
True

A)

False

B)

Lob
Mundell





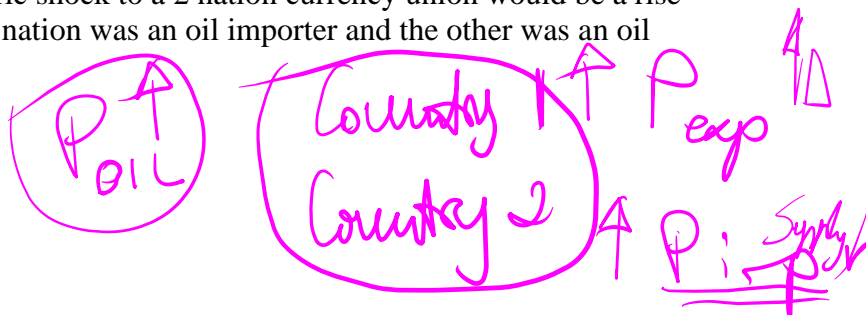
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5 According to the optimal currency area theory, a common language and religion are key determinants of whether two nations should share a single currency.

- True
- A)
- False
- B)

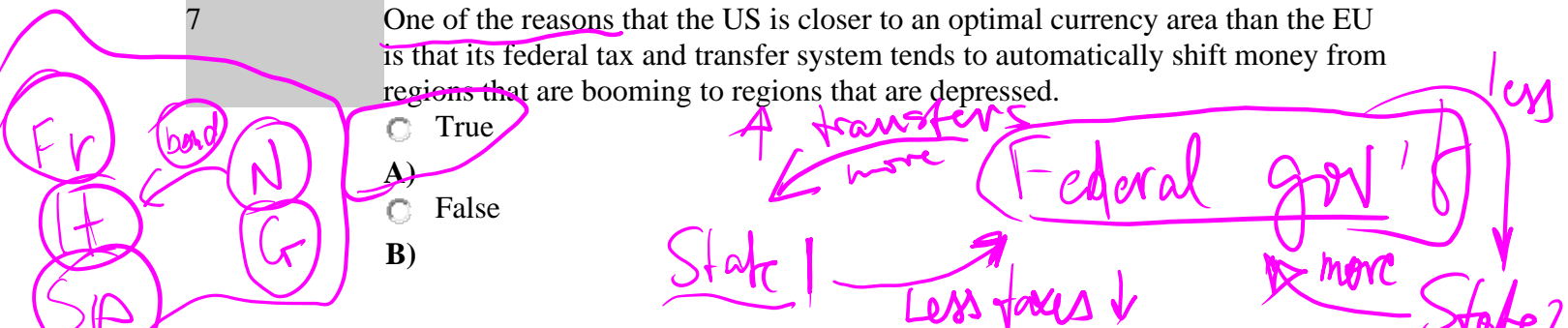
6 An example of an asymmetric shock to a 2 nation currency union would be a rise in the price of oil when one nation was an oil importer and the other was an oil exporter.

- True
- A)
- False
- B)



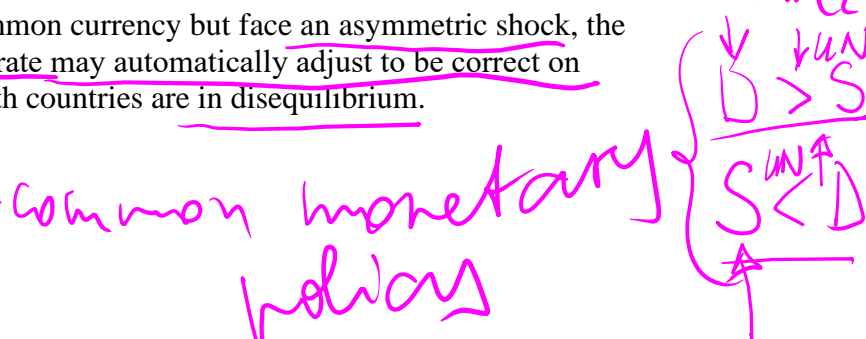
7 One of the reasons that the US is closer to an optimal currency area than the EU is that its federal tax and transfer system tends to automatically shift money from regions that are booming to regions that are depressed.

- True
- A)
- False
- B)



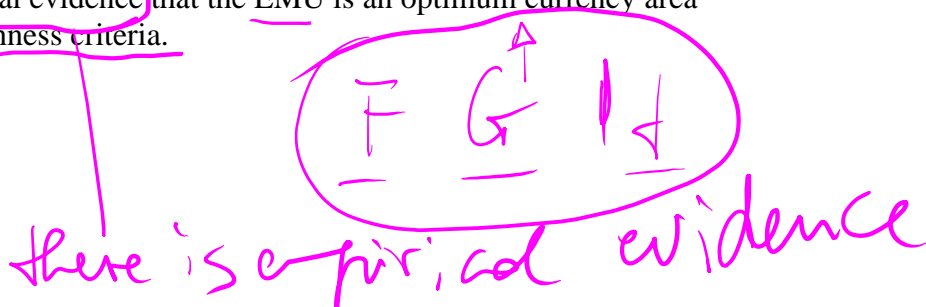
8 If two countries share a common currency but face an asymmetric shock, the union's common exchange rate may automatically adjust to be correct on average but individually both countries are in disequilibrium.

- True
- A)
- False
- B)



9 There are no empirical evidence that the EMU is an optimum currency area according to the openness criteria.

- True
- A)





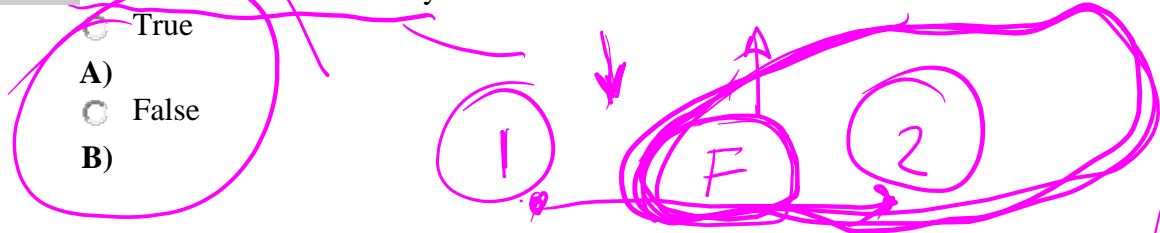
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- False
- B)**

in fact

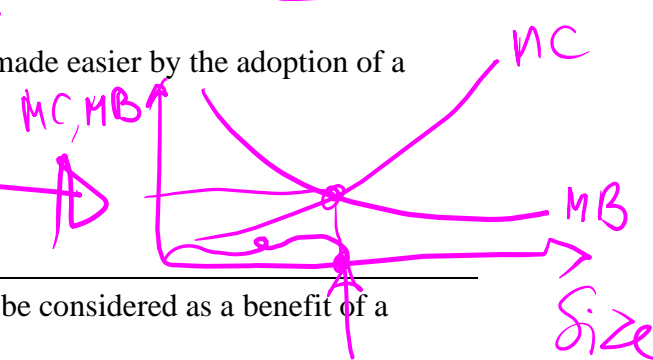
10 The Mundell criterion is a political OCA criterion since it recommends fostering the labour market flexibility.

- True
- A)**
- False
- B)**



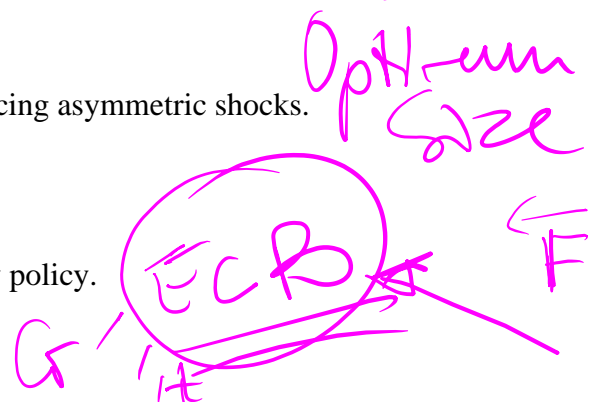
11 Which of the following propositions is true?

- Symmetric shocks are not a problem in a currency area.
- A)**
- The borders of an optimal currency area must coincide with political borders.
- B)**
- Adjustments to asymmetric shocks are made easier by the adoption of a common currency.
- C)**
- All of the above are true.
- D)**



12 Which of the following propositions cannot be considered as a benefit of a currency area?

- It reduces transaction costs.
- A)**
- It reduces the probability of experiencing asymmetric shocks.
- B)**
- It reduces the exchange rate risk.
- C)**
- It strengthens the quality of monetary policy.
- D)**



13 According to the Optimum Currency Area theory more diverseness of industrial structures within the Member States of the Currency Area is an advantage since it reduces the probability of asymmetric shocks hitting the currency area as a whole.



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- True
- A)
- False
- B)

14 Using the simplest representation of the logic of the optimum currency areas (Figure 15.2) choose the correct answer from the choices below.

- The 'marginal cost' curve is upward sloped since a currency gets more useful when more people use it;
- A)
- The 'marginal cost' curve is upward sloped because it becomes less practical to set a single monetary policy when the area covered gets larger;
- B)
- The 'marginal benefit' curve is downward sloped since the central bank has an easier time setting monetary policy for a large area where minor, regional variations tend to cancel each other out;
- C)
- The 'marginal benefit' curve is downward sloped since a currency gets more useful when more people use it.
- D)

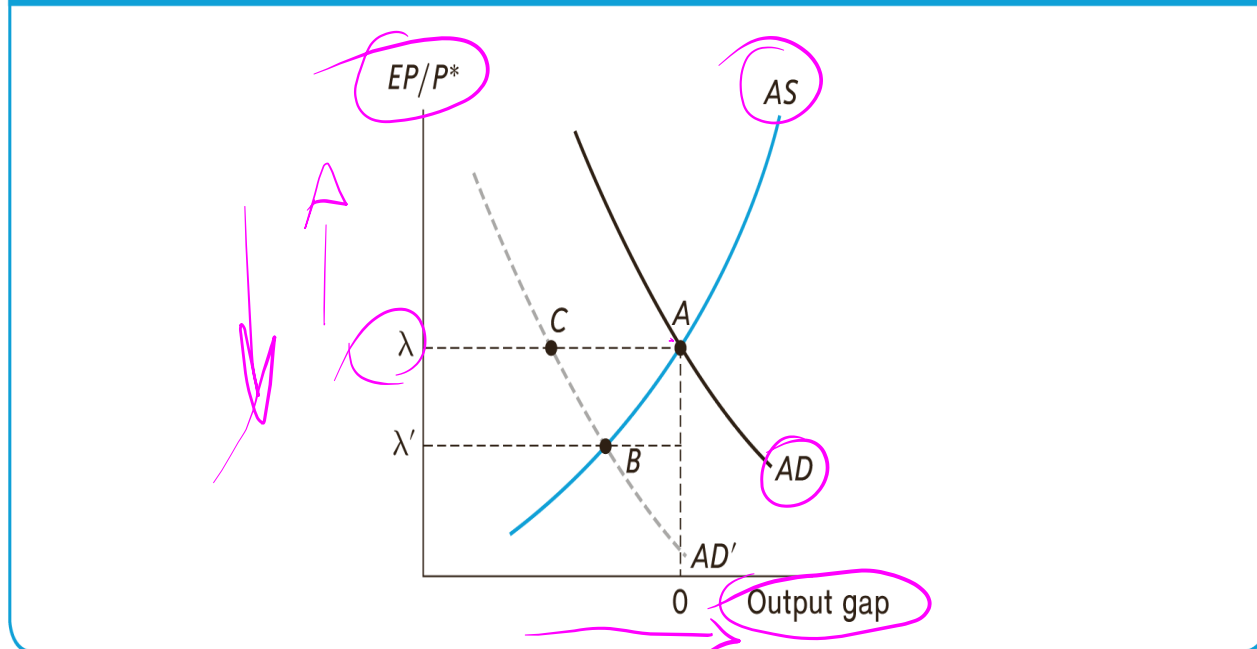
15 Using the simplest representation of the logic of the optimum currency areas (Figure 15.2), the intersection of the two curves identifies the optimum currency area size since:

- this is where the marginal cost of enlarging the area just equals the marginal benefit, so this is the size where the total benefit is maximized.
- A)
- this is where the political gains from integration equal the economic costs of a single currency.
- B)
- this is where the political costs and benefits just offset each other, so the political cost of the monetary union is nil.
- C)
- All of the above.
- D)



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Figure 15.4 An adverse demand shock



Chp 15, Q 16

- 16 In the diagram above, λ is the initial equilibrium exchange rate since at λ :
- The supply and demand for short-term demand deposits are equal.
 - A)
 - the costs and benefits of expanding the monetary union are equal.
 - B)
 - the nation's output (i.e. GDP) just equals the demand for its output.
 - C)
 - the nation's wages are equal to those of foreigners and thus the current account is in balance.
 - D)

- 17 Referring to the following list, identify the three classic economic criteria for an optimal currency:
- a highly mobile labour force within the area;
 - A)
 - a common language;
 - B)

price



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geographic closeness;

C)

well diversified and highly similar production and export structures;

D)

highly open nations that trade a lot with each other;

E)

highly integrated capital markets.

F)

18 Referring to the following list, identify the three political criteria for an optimal currency:

voters who are even split between centre right and centre left coalitions;

A)

a strong and shared belief in subsidiarity;

B)

common preferences concerning how the central bank should view the trade-off between inflation and unemployment when dealing with shocks;

similar political structures in terms of the role of the Parliament versus the

D) Government in decision making;

a well functioning system for transferring resources from one member of the

E) currency union to the other in the event of asymmetric shocks;

a shared belief that the short-term cost of a common currency will be

F) compensated for by the longer term benefits of deeper integration.

19 The difference between the McKinnon and Kenen criteria is that the former considers that deep trade integration makes the exchange rate inefficient to establish competitiveness while the latter considers that deep trade integration reduces the odds of asymmetric shocks

True

A)

False

B)

20 According to Baldwin and Wyplosz, the EU fulfills three of the following five optimum currency area criteria. Which ones are these? (More than one answer is correct)



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openness

A)

diversification

B)

homogeneity of preferences.

C)

Labour mobility

D)

fiscal transfer conditions

E)



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Lecture2_Questions

Lecture2_Questions_Answers

1

The EU's monetary union was agreed in the 1986 Single European Act, but only implemented in the Amsterdam Treaty.

A) True

B) False

2

The difference in membership between the European System of Central Banks and the Euro system is the national central banks of EU members who have not adopted the euro.

A) True

B) False

3

Referring to the following list, the 'Convergence Criteria' for joining the monetary union - by Baldwin and Wyplosz also called the coronation theory - included:

(i) a country's inflation rate should not exceed by more than 1.5 percentage points the average of the three lowest inflation rates achieved by the European Union member countries, and that its long-term interest rate should not exceed the average rates observed in the three lowest inflation rate countries by more than 2 percentage points.

(ii) the country must have taken part in the ERM for at least two years without having had to devalue its currency, its public debt should not exceed 60 per





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cent of its GDP or be moving in that direction, and its government deficit should be less than 3 per cent.

(iii) the country's GDP growth rate should be at less than 50 per cent of the average of the three fastest growing EU members.

A)(i) only

B)(i) and (ii)

C)(iii) only

D)(i), (ii) and (iii)

4

The endogeneity of the European Monetary Union means that the monetary union is an endogenous variable for further European Political Integration.

A)True

B)False

5

The European System of Central Banks (ESCB) is composed of:

A)the European Central Bank (ECB) and the national central banks of all EU Member States.

B)all the organizations mentioned in a. plus the Bank for International Settlements.

C)all the organizations mentioned in b. plus the IMF.

D)the European Central Bank (ECB) and the national Central banks of monetary union Member States.



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6

The strategy of the European Central Bank gives priority to money targeting instead of inflation targeting.

A) True

B) False

7

The ECB is run by the Governing Council which is made up of:

A) an Executive Board of six members, appointed by the heads of states or governments of the countries which have joined the monetary union.

B) the governors of the national central banks of EU members in the Eurozone.

C) the President of the EU, and two representatives of the EU Parliament.

D) a and b

9

The ECB is quite independent in two senses: it can define its _____ and it can decide how to conduct _____.

A) President, public relations

B) objectives, monetary policy

C) President, monetary policy

D) Board of Governors, voting in the Council



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10

In 2015 there were 19 members of the monetary union; there were 11 members initially and Greece joined in 2001.

A) True

B) False

11

Interest rate decisions of the ECB are made on the basis of qualified majority voting.

A) True

B) False

12

The Taylor rule states that the following variables affect the interest rate position: i) the deviation of inflation from its (implicit or explicit) target ii) the money growth iii) the output gap, which is the difference between actual and potential GDP, measured as a percentage of potential GDP iv) the velocity of money

A) i) and ii)

B) i), iii and iv)

C) i) and iii).

Taylor Rule

$$\text{int rate} = \text{inf} + \text{inf} + 0.5(\text{inf} - \text{Target}) + 0.5\left(\frac{\gamma_a - \gamma_p}{\gamma_p} \cdot 100\right)$$

13

Within the Monetary union, there can only be a single short-term interest rate but long-term interest rates can differ from one country to another because:

A) The ECB chooses different long-term rates.

B) The ECB controls the short-term rate and leave the long-term rates to the markets.



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- C) The long-term rate is controlled by national governments.
- D) The assertion above is wrong.

14

In the euro area, inflation rates can differ from one country to another because:

- A) The ECB only considers the euro area-wide inflation rate.
- B) The single monetary policy produces different effects.
- C) Fiscal policies are not aligned.
- D) All of the above

15

The Balassa-Samuelson principle predicts that:

- A) Inflation will always exceed the 2 per cent level chosen by the ECB.
- B) Inflation will be higher in rich countries.
- C) Inflation will be higher in poor countries.
- D) Inflation rates must be the same throughout the euro area.

16

In order to enter the monetary union, the new EU members must satisfy the same criteria that the older members did.

- A) True



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B)False

17

The Maastricht Treaty specifies that the ECB's prime goal is to maintain price stability and the ECB clarified this by saying it means to keep inflation in the range of 3 per cent to 1 per cent over a 5 year horizon.

A)True

B)False

18

The HICP stands for Harmonized Index of Consumer Prices.

A)True

B)False

19

The European Central Bank is one of the most politically independent central banks in the world.

A)True

B)False

Maastricht Treaty ECU

20

The effectiveness of the European Central Banks policies depends crucially on its (i) Transparency ii) Solidity iii) Conservativeness iv) Independence



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A) i, ii and iv

B) i, iii and iv

21

The EU Parliament oversees the operation of the European Central Bank.

A) True

B) False

ECB ? independent

Accountable

BoA → accountable to
People's Assembly

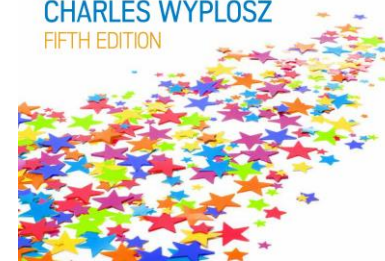


Chapter 9: The Common Agricultural Policy

“There is a common misconception that the CAP is about helping small struggling farmers and looking after the European rural environment. But in reality the bulk of these funds end up in the pockets of the wealthiest farmers and processors while also doing enormous harm to developing countries.”

Luis Morago, Head of Oxfam International in Brussels

**THE
ECONOMICS
OF EUROPEAN
INTEGRATION**
RICHARD BALDWIN
CHARLES WYPLOSZ
FIFTH EDITION



The Common Agricultural Policy



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- The Common Agricultural Policy (CAP) is a set of policies aimed at raising farm incomes in the EU.
- The CAP is problematic:
 - it accounts for about 40 per cent of the EU budget but farmers continue to leave the land;
 - it accounts for many of the quarrels among EU members and between the EU and third nations;
 - it is a massively complex matrix of policies;
 - it started as simple price support policy in 1962 when the EU was net importer of most food and agriculture was very important in terms of employment and GDP (but not anymore).



The Common Agricultural Policy

To a large extent, the CAP has been a programme aimed at buffering the worst pain of the inevitable downsizing of the agricultural sector.

Table 9.1 Importance of agriculture, 1955 vs. 2009

	Agriculture's share of GDP (%)		Agriculture's share of employment (%)	
	1955	2009	1955	2009
Belgium	7.9	0.6	9.3	1.5
Luxembourg	9.3	0.2	19.4	1.4
Netherlands	11.4	1.3	13.2	2.8
Germany	8.0	0.5	18.5	1.7
France	11.4	1.2	26.9	2.9
Italy	20.7	1.5	40.0	3.7
EEC6	11.5		21.2	
UK	4.8	0.5	4.6	1.1
Denmark	18.4	0.7	24.9	2.5

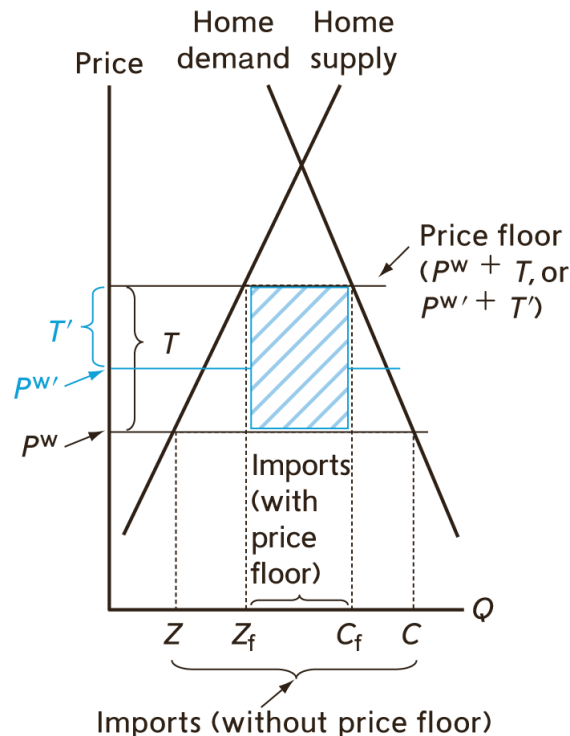
Sources: European Commission (2011) and Zobbe (2001)



The simple old logic: price supports

The early Cap was designed to ensure that farmers at least get a minimum price = price floor

Figure 9.2 Economics of the CAP's 'variable levies'



Economic impact of price floor

The higher price induces:

EU farmers to produce more food (Z_f instead of Z)

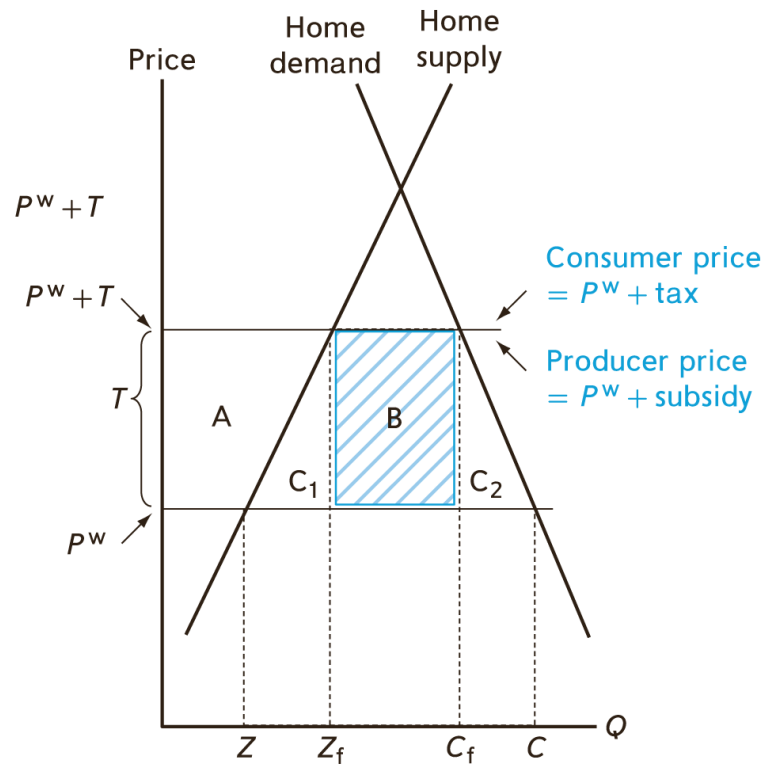
EU consumers to consume less food (C_f instead of C)

EU tariff revenue to rise by the shaded box (when world price is P^w)

The simple old logic: price supports

Tariff as free trade with a consumption tax and production subsidy

Figure 9.3 Tariff as free trade with a consumption tax and production subsidy



Tariff as tax and subsidy

Consumers refers to plus tax T

Producers receive world price plus subsidy T

Consumption falls (C_f instead of C) and production rises (Z_f instead of Z)

Tariff revenue minus subsidy cost is shaded box



Food tax and subsidy interpretation

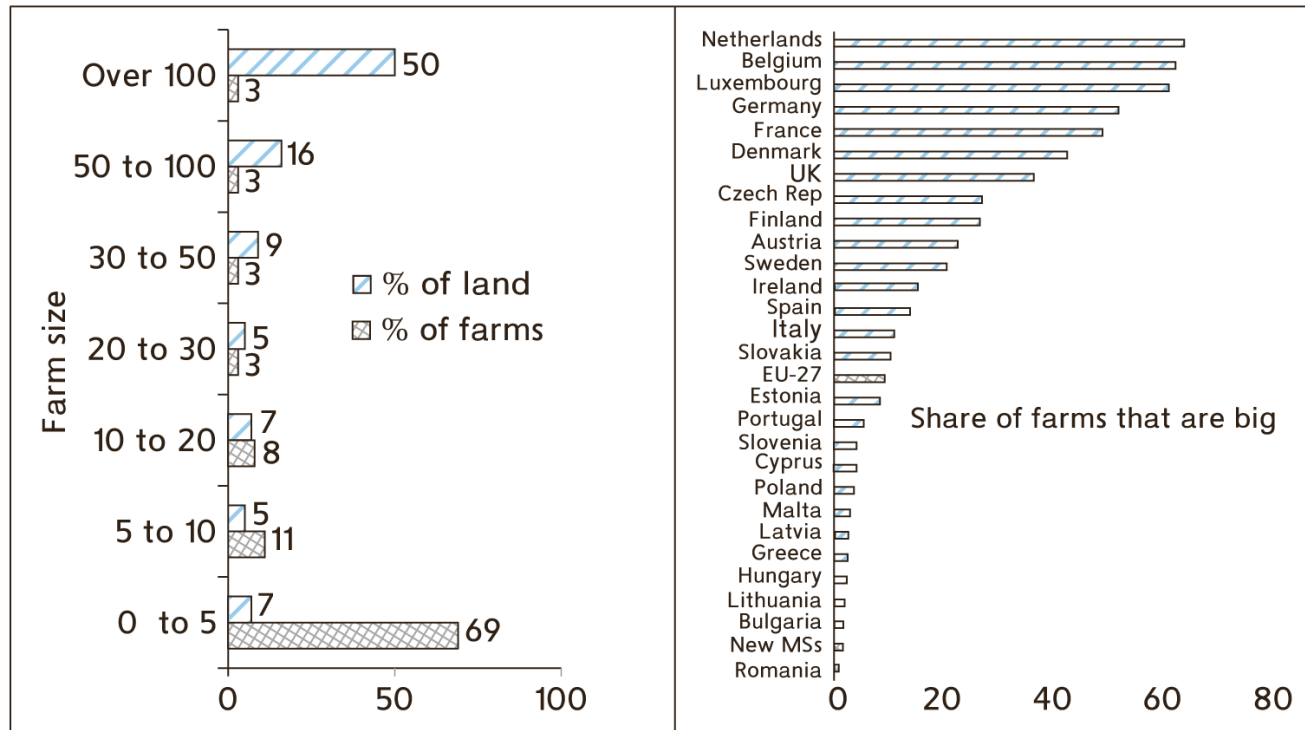
- Price floor supported by tariff is like all-in-one package made up of simpler policy measures:
 - free trade in the presence of
 - a consumption tax equal to T and
 - a production subsidy equal to T .
- This illustrates that consumers are the ones who pay for a price floor enforced with a variable levy: part of what they pay goes to domestic farmers (area A), part of it goes to the EU budget (area B) and part is wasted (areas C_1 and C_2).
- Also notice that the price instability typical of food markets is eliminated for EU producers: only the tariff varies.



Uneven distribution of benefit

EU farms are very heterogeneous and the size differences have important implications for the distribution of benefits:

Figure 9.4 Distribution of farm size by number of farms and share of land, EU27

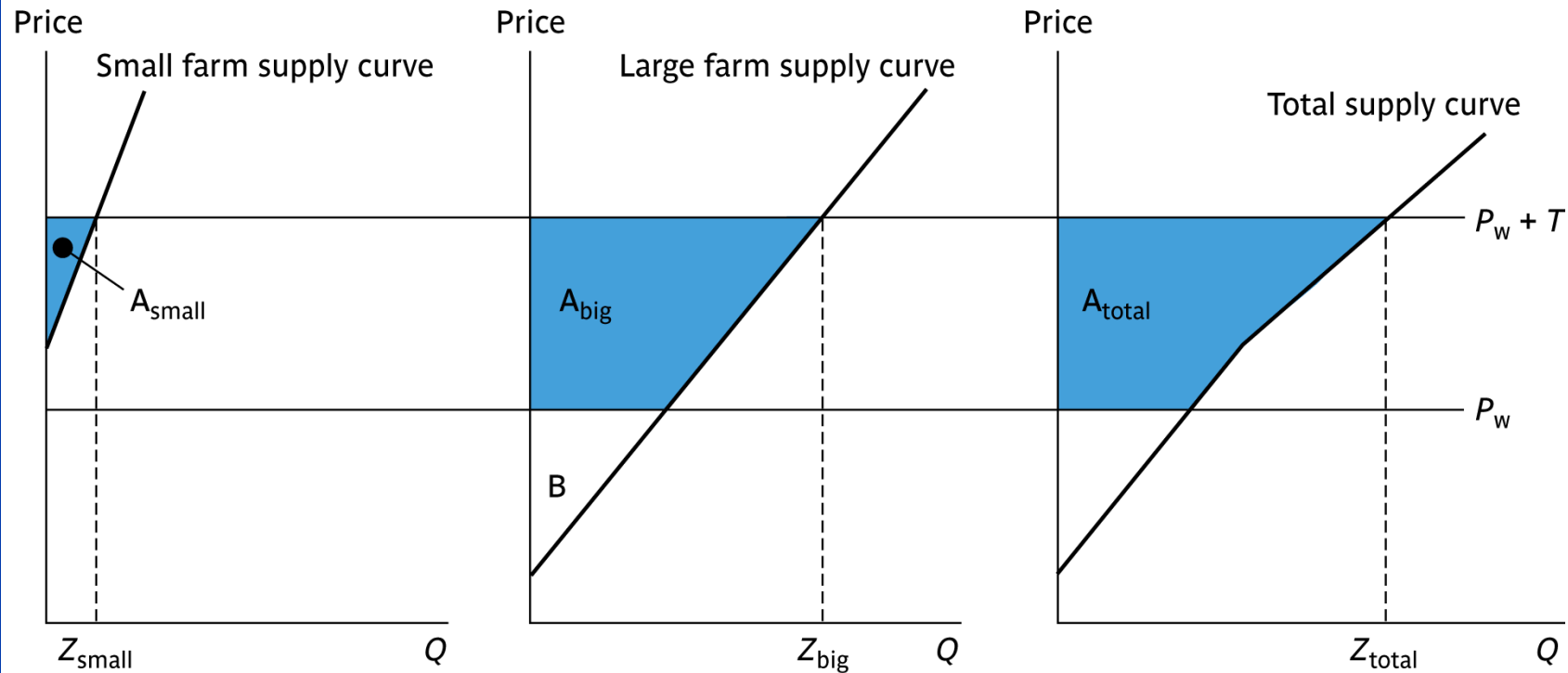


Note: Big farms are defined as those producing sales of more than 50,000 euros per year.

Source: Authors' manipulation of European Commission data (2013), Table 3.5.4

Uneven distribution of benefit

→ Heterogeneity leads to uneven distribution of benefits. Price floors help all farmers but most of the gains go to large farmers who tend to be richer in the first place.



Changed circumstances and CAP problems

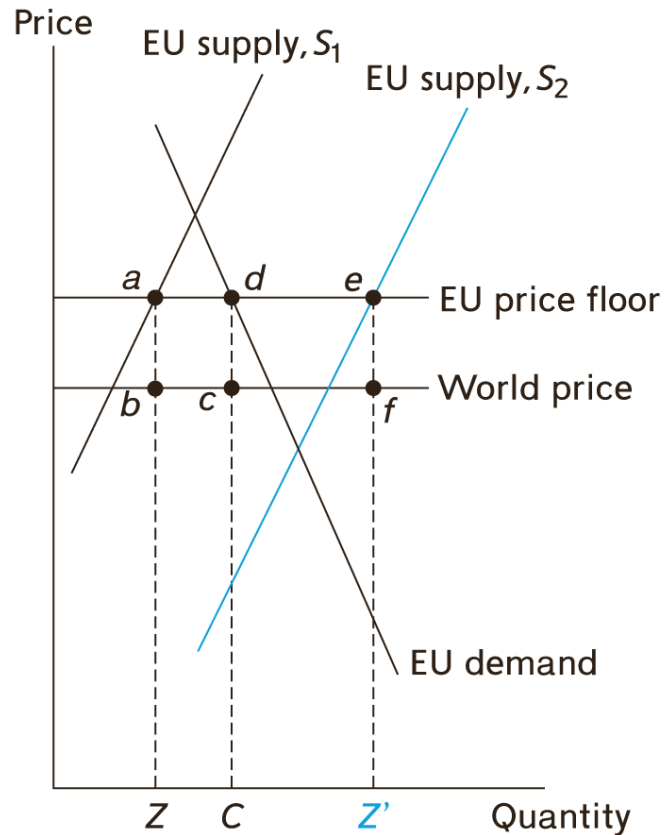


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- Initially, the CAP made everyone happy:
 - higher and stable prices to farmers;
 - tariff revenue for the EU budget;
 - and consumers were also happy: more food and lower dependence on food imports; empathy with farmers.
- Post-war period saw productivity gains: the 'green revolution':
 - high guaranteed prices encourage investment;
 - output rises much faster than consumption;
 - EU becomes a net exporter of agricultural goods.
- Price floor cannot be maintained with a tariff: EU actually has to purchase the surplus food.

Changed circumstances and CAP problems

Figure 9.6 The green revolution and price floors: the EU becomes an exporter



Green revolution impact

Technological improvements lower marginal cost.

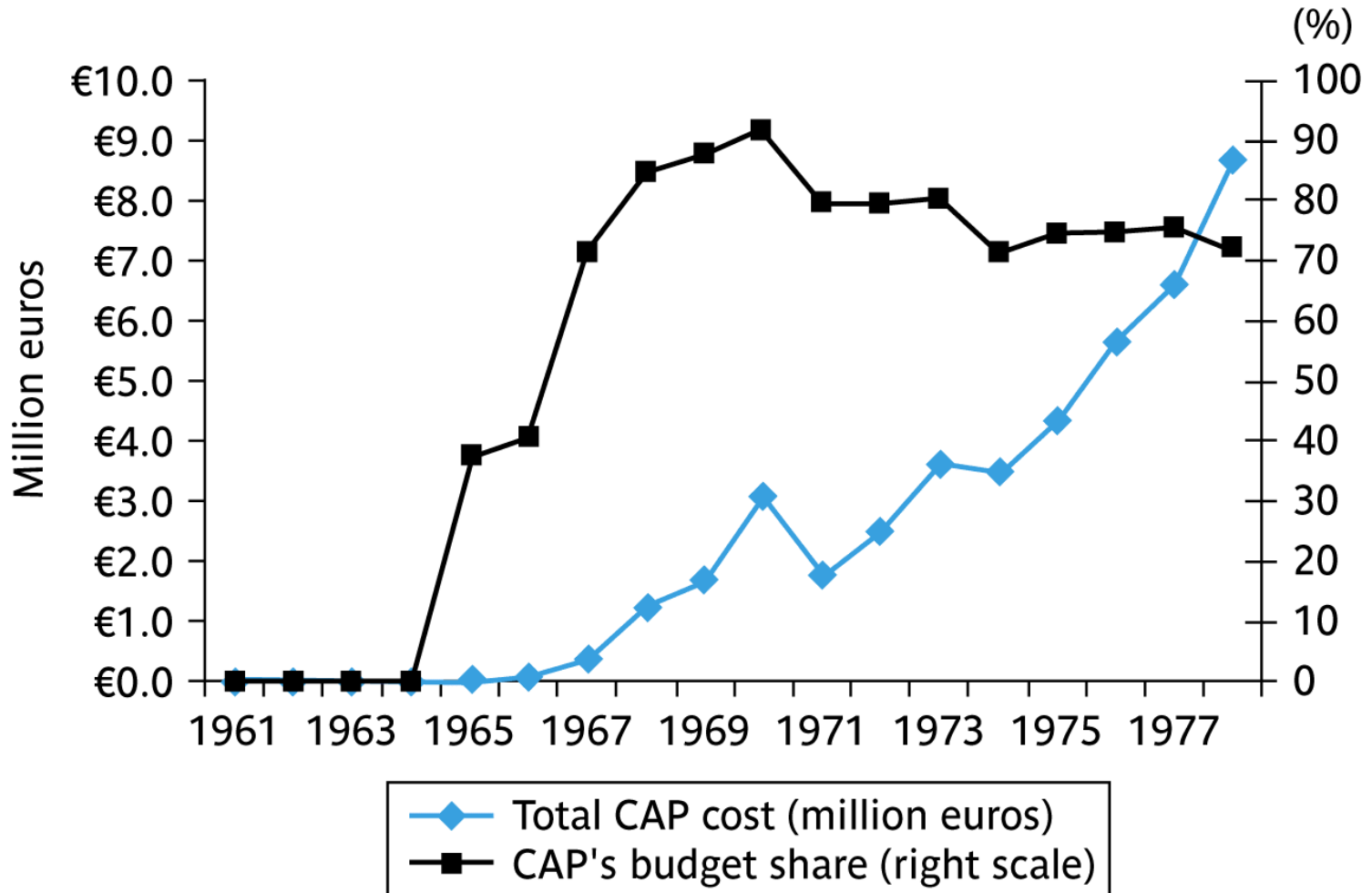
This shifts down supply curve from S_1 to S_2 .

EU switches from importing food to producing surplus food (production exceeds consumption at price floor).

Tariff revenue switches from positive ($abcd$) to negative ($dcfe$).

Unintended consequences: budget problems

CAP cost from 8% of EU budget in 1965 to 90% of EU budget in 1969.

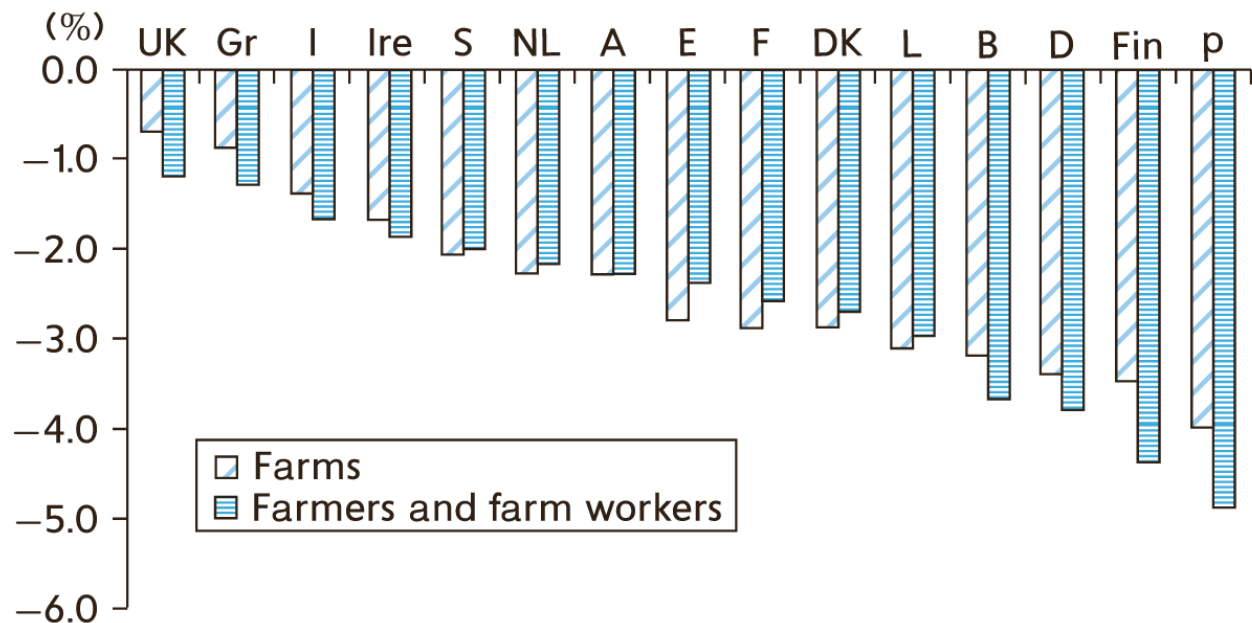


Unintended consequences: farm income problem



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Despite massive budgetary cost, the CAP failed to bring the reward to farming in line with the incomes of average EU citizens. Farmers showed their discontent with the CAP by 'voting with their feet':



Note: Average from 1975 to 2005 depending upon data availability.

Sources: DG-Ag (2010); http://ec.europa.eu/agriculture/publi/situation-and-prospects/2010_en.pdf

Unintended consequences: CAP paradox



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How could farming be unattractive to the average farmer? CAP's billions? Because of uneven payments.

Table 9.2 Extremely uneven distribution of CAP payments, EU27, 2011

Size of payment (euros)	1000 recipients	Average payment (euros)	Cumulative share of recipients (%)	Cumulative share of payments (%)
< 0	13.7	824	0.2	0.0
> 0 and < 500	2,847.7	250	37.6	1.7
> 500 and < 1,250	1,582.3	807	58.4	4.9
> 1,250 and < 2,000	671.7	1,585	67.2	7.6
> 2,000 and < 5,000	996.5	3,187	80.3	15.5
> 5,000 and < 10,000	577.9	7,082	87.9	25.7
> 10,000 and < 20,000	433.2	14,212	93.6	41.0
> 20,000 and < 50,000	364.6	30,736	98.4	68.9
> 50,000 and < 100,000	93.0	66,954	99.6	84.4
> 100,000 and < 200,000	16.7	119,528	99.8	89.3
> 200,000 and < 300,000	5.7	171,469	99.9	91.8
> 100,000 and < 200,000	2.9	221,665	99.9	93.4
> 200,000 and < 300,000	1.7	276,555	99.9	94.5
> 300,000 and < 500,000	2.6	380,738	100.0	97.0
> 500,000	1.5	806,719	100.0	100.0

Source: http://ec.europa.eu/agriculture/statistics/agricultural/2013/index_en.htm, Table 3.6.1.14



Unintended consequences: other problems

'Industrialization of farming' had a negative environmental impact:

- pollution;
- water quality
- animal welfare:
 - 'mad cow' disease;
 - 'foot and mouth' disease.
- Concerns for developing countries

The simple economic logic of the new CAP



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- Political power of farms makes it infeasible to eliminate price floors:
 - farmers had invested heavily in restructuring their farms to focus on the goods most heavily supported by the CAP;
 - small farmers earned much less from the CAP but without the higher prices, many would be driven out of farming altogether.
 - and opinion polls show that most EU citizens support the CAP.
- It was impossible to just eliminate the price floor: lowering or elimination of price floors with compensation payments paid directly to farmland owners. To break the link between payments and overproduction, the payments were 'decoupled' = size of payment not related to the amount currently produced (set according to historical production levels).

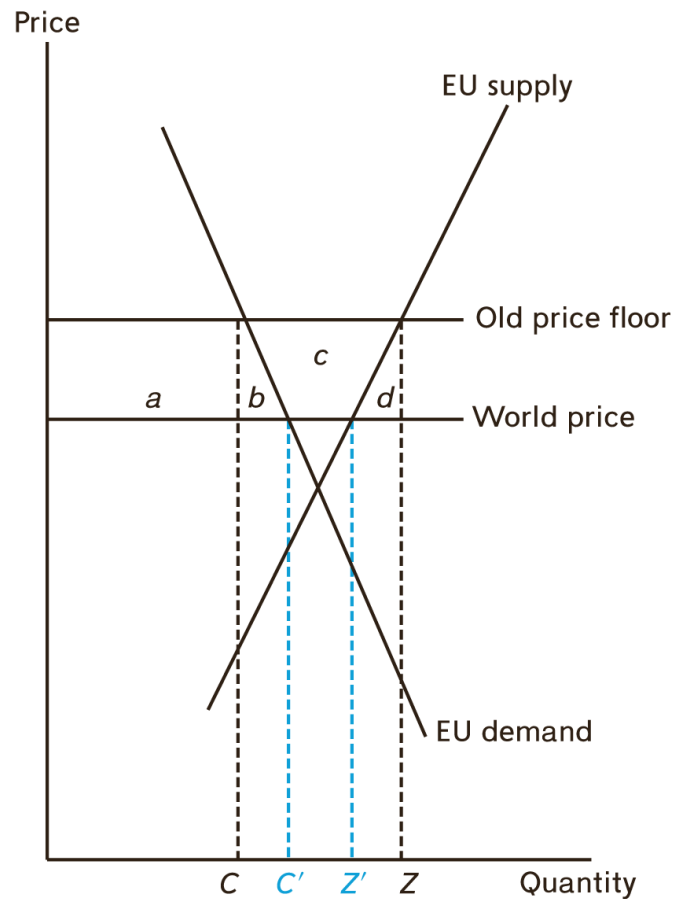
Decoupled direct payments



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The decoupling reform lowers the price to the world price. If consumers are fully compensated, the direct payments would cost $a + b + c$.

Figure 9.10 The new logic – price cuts with compensation



CAP price-cut-reform: price falls to world price, boosting consumption to C' and lowering production to Z' .

Consumers gain $a + b$; producers lose $a + b + c$; taxpayers gain $b + c + d$; net gain is b .

CAP price-cut-and-compensate reform: same price and quantity effects, and same welfare effects except the producers' loss is shifted to taxpayers.

Consumers gain $a + b$; producers lose nothing; taxpayers gain $b + c + d$ but lose $a + b + c$; net gain is $b + d$.

CAP reform



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- Supply control attempts in the 1980s' to discourage production: generally failed.
- MacSharry Reforms (1992):
 - cap prices and compensate farmers with direct payments;
 - essential to complete the Uruguay Round.
- 2003 Reforms: similar to MacSharry reforms but not enough to allow Doha Round to finish.
- Health Check 2008: pushed the market orientation of the CAP even further and reduced amount of direct payments.

Today's CAP



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Two pillar structure:

- **First Pillar: direct payments and market intervention**
 - To achieve `convergence`
 - Uniform payment per hectare will start in 2019
 - `Basic Payment Scheme`
 - Quotas and milk (sugar) are eliminated in 2015 (2017)

- **Second Pillar: rural development:**
 - improving agricultural knowledge and innovation;
 - improving agricultural competitiveness;
 - promoting food-chain integration;
 - helping ecosystems
 - transfer to low carbon economy
 - improving the quality of life in rural areas (social inclusion).

Remaining Problems



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- Social inequality and CAP problems
 - Image problem
 - CAP spending is seen as welfare for the rich land owners

- Farmers only get about half of the CAP's support
 - about 45 cent of every of direct payment benefit non-farming land owners instead of farmers
 - also direct price support often misses target

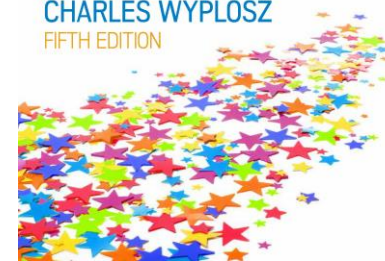


Chapter 10: Location effects, economic geography and regional policy

“... the Community shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions or islands, including rural areas.”

Treaty of the European Community, Maastricht, 1992

**THE
ECONOMICS
OF EUROPEAN
INTEGRATION**
RICHARD BALDWIN
CHARLES WYPLOSZ
FIFTH EDITION



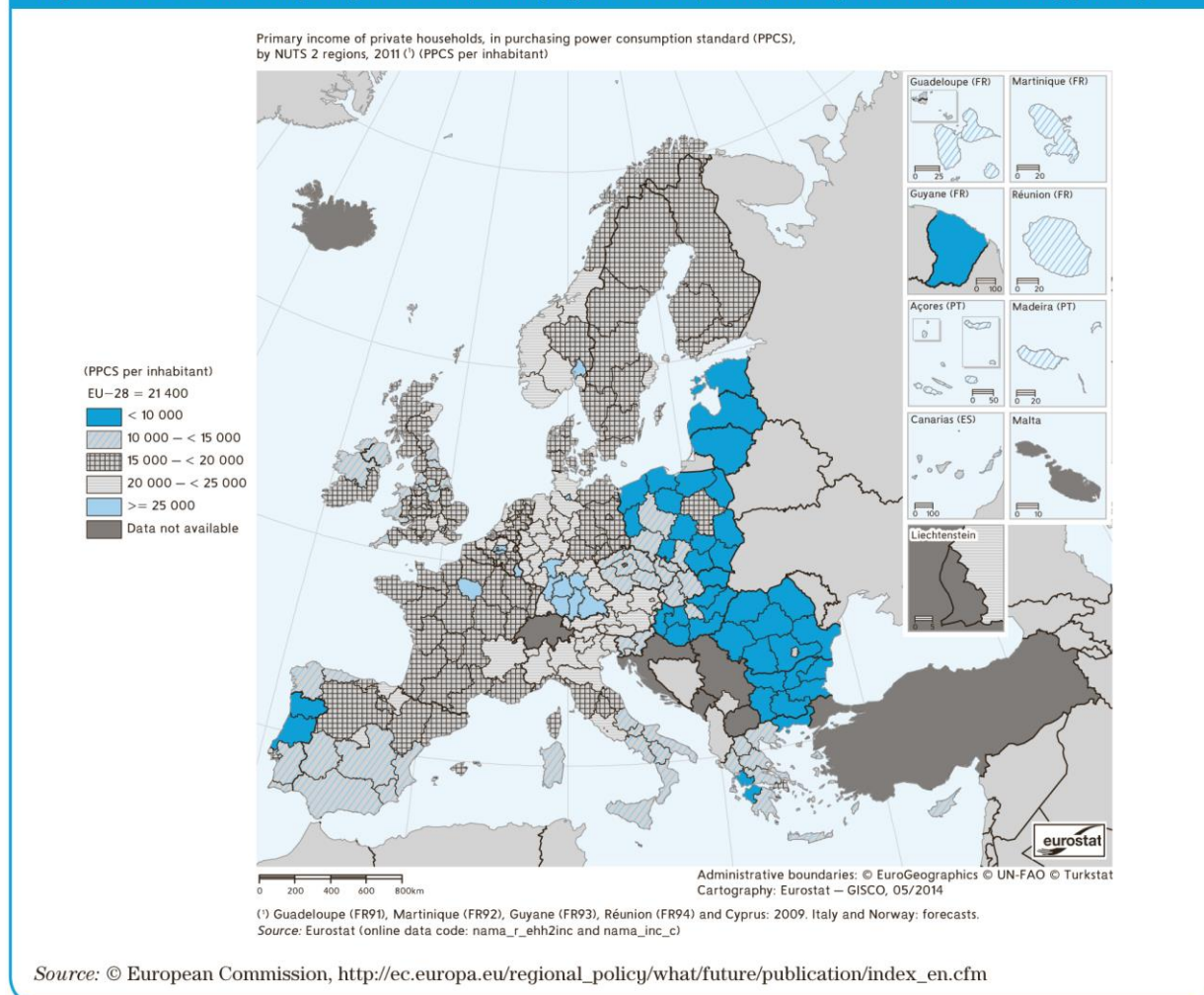
Europe's economic geography: the facts



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Rich regions are clustered and form the 'core' of the EU economy, as shown by regional GDP per capita (PPS) in 2010:

Figure 10.2 Income disparity in the EU, 2010 (regional GDP per capita adjusted for purchasing power)

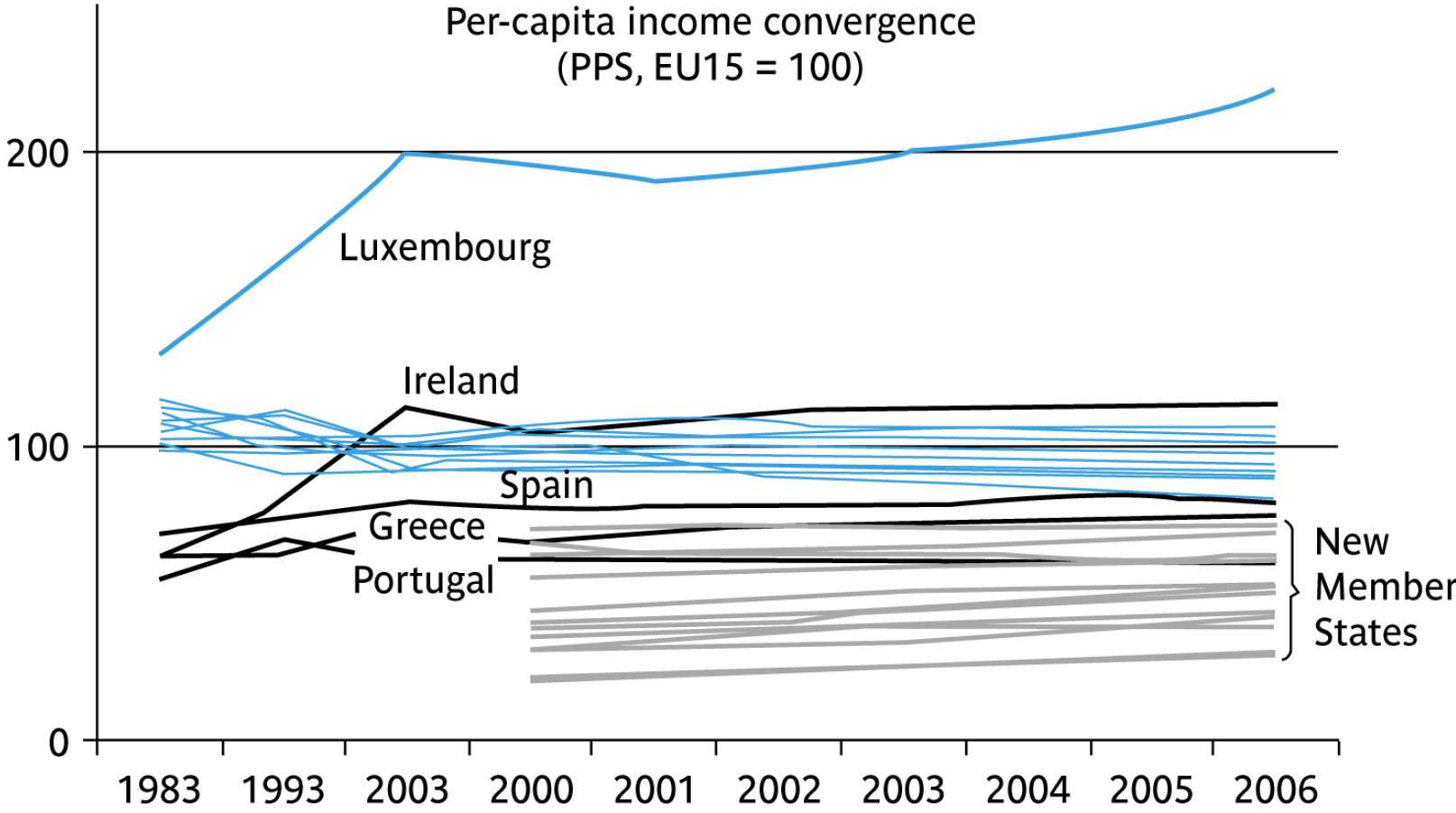


Europe's economic geography: the facts



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Still, gaps among EU members have been steadily narrowing:

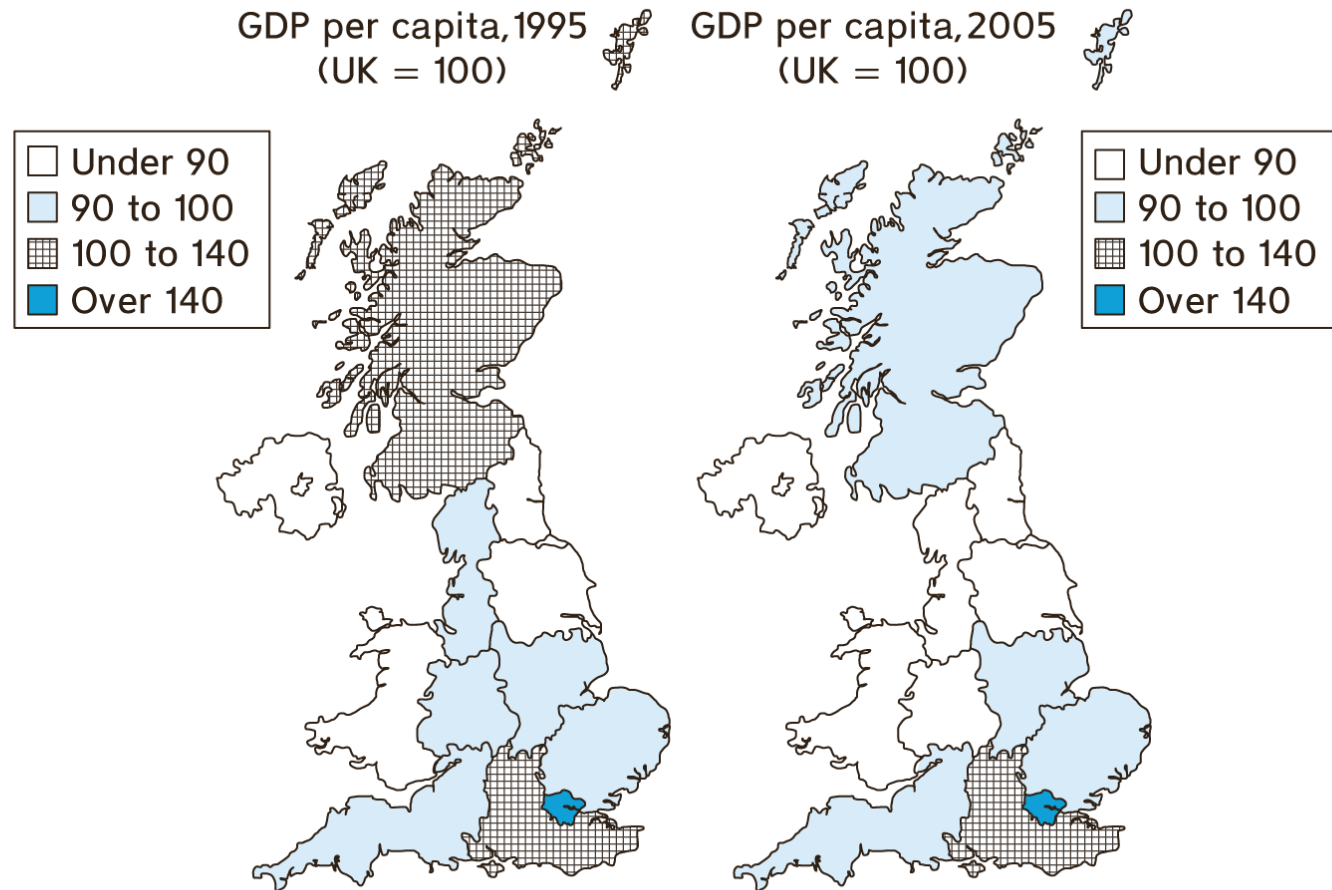


Europe's economic geography: the facts



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However, income inequality within each EU nation has been rising:



Source: Authors' calculations based on Eurostat data

Europe's economic geography: the facts



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Krugman specialization index: fraction of manufacturing change sector to make a nation's sector-shares line up with the sector-shares of average EU nations: Most EU nations are becoming more specialized.

Table 10.1 Specialization by nations, 1980–1997

	1980–83 (%)	1988–91 (%)	1994–97 (%)
Ireland	62	66	78
Greece	58	66	70
Finland	51	53	59
Denmark	55	59	59
Portugal	48	59	57
Netherlands	57	55	52
Sweden	39	40	50
Belgium	35	38	45
Italy	35	36	44
Germany	31	35	37
Austria	28	28	35
Spain	29	33	34
UK	19	22	21
France	19	21	20
EU15 average (weighted)	30	33	35

Source: Midelfart-Knarvik et al. (2002)



Theory part I: comparative advantage

→ Comparative advantage suggests that nations specialize in sectors in which they have a comparative advantage.

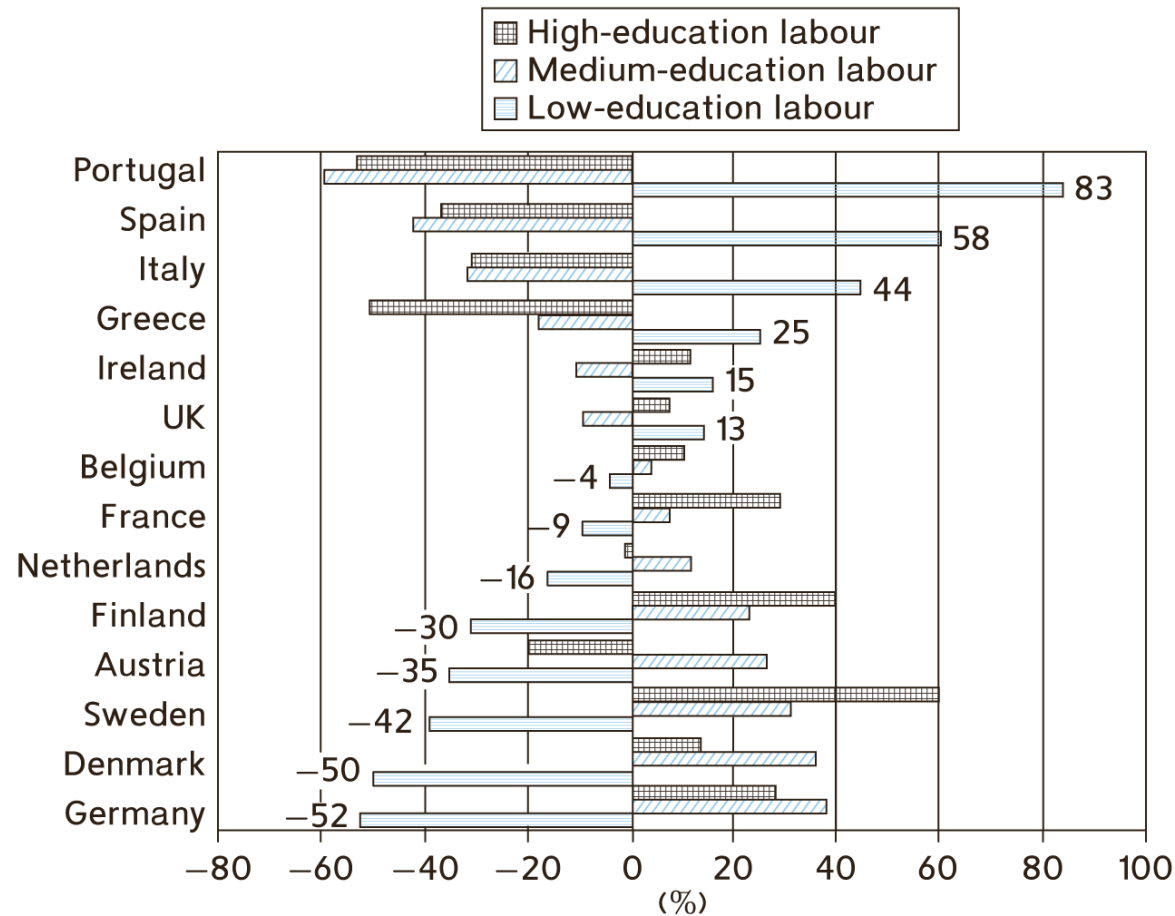
Example:

- Germany abundant in high skilled labour;
- Portugal abundant in low skilled labour;
- with trade: Germany specializes in pharmaceuticals and trades them for cloth from Portugal and the industrial structures of both Portugal and Germany would become more specialized.



Theory part I: comparative advantage

Relative labour endowments in Europe:



Source: Data from Midelfart-Knarvik et al. (2002)



Theory part II: new economic geography

→ New economic geography suggests that integration tends to concentrate economic activity spatially.

It is based on two pillars:

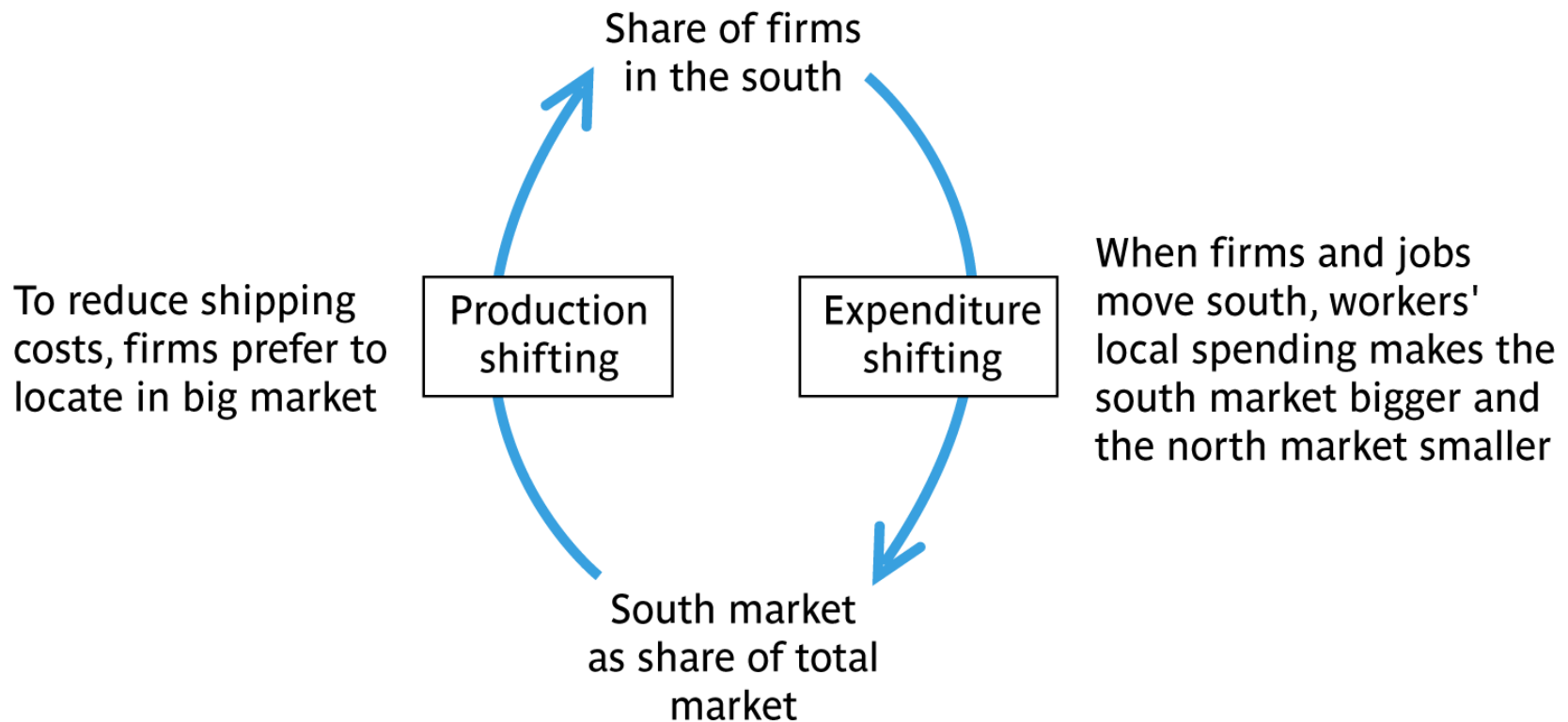
- dispersion forces favour the geographic dispersion of economic activity (e.g., higher rent and land prices, high cost of non-traded services, competition with other firms);
- agglomeration forces encourage spatial concentration:
 - demand linkages: big markets;
 - cost linkages: availability of suppliers.

Theory part II: new economic geography



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Demand-linked circular causality:

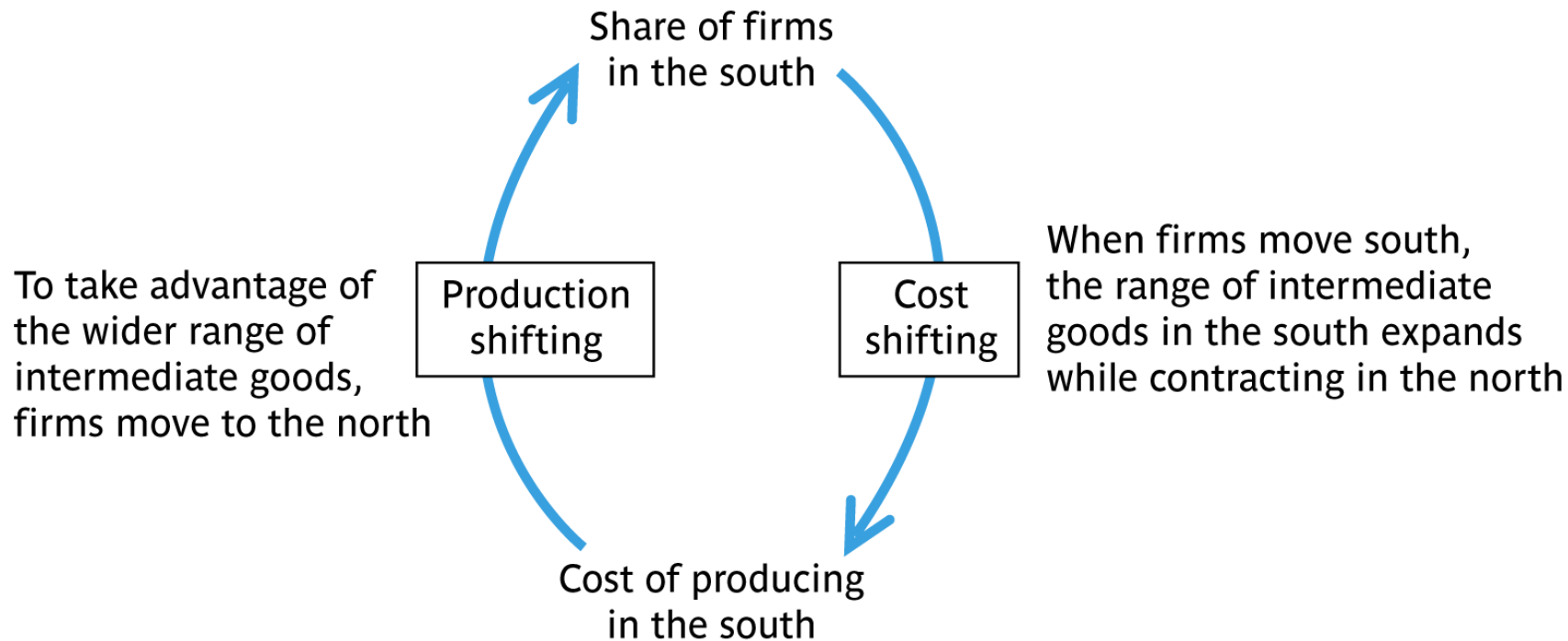


Theory part II: new economic geography



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Cost-linked circular causality:



The locational effects of European integration



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→ European integration affects the balance of agglomeration and dispersion forces in complex ways.

A very simple analytical framework:

- assume away all dispersion forces except 'local competition';
- assume away the demand-linked circular causality;
- assume away cost-linked circular causality (by assuming firms buy no intermediate inputs);
 - one pro-agglomeration and one pro-dispersion consideration:
 - firms would, all else equal, prefer to locate in the big market in order to save on trade costs;
 - firms would, all else equal, prefer to be in the market where there are few local competitors.

The locational effects of European integration



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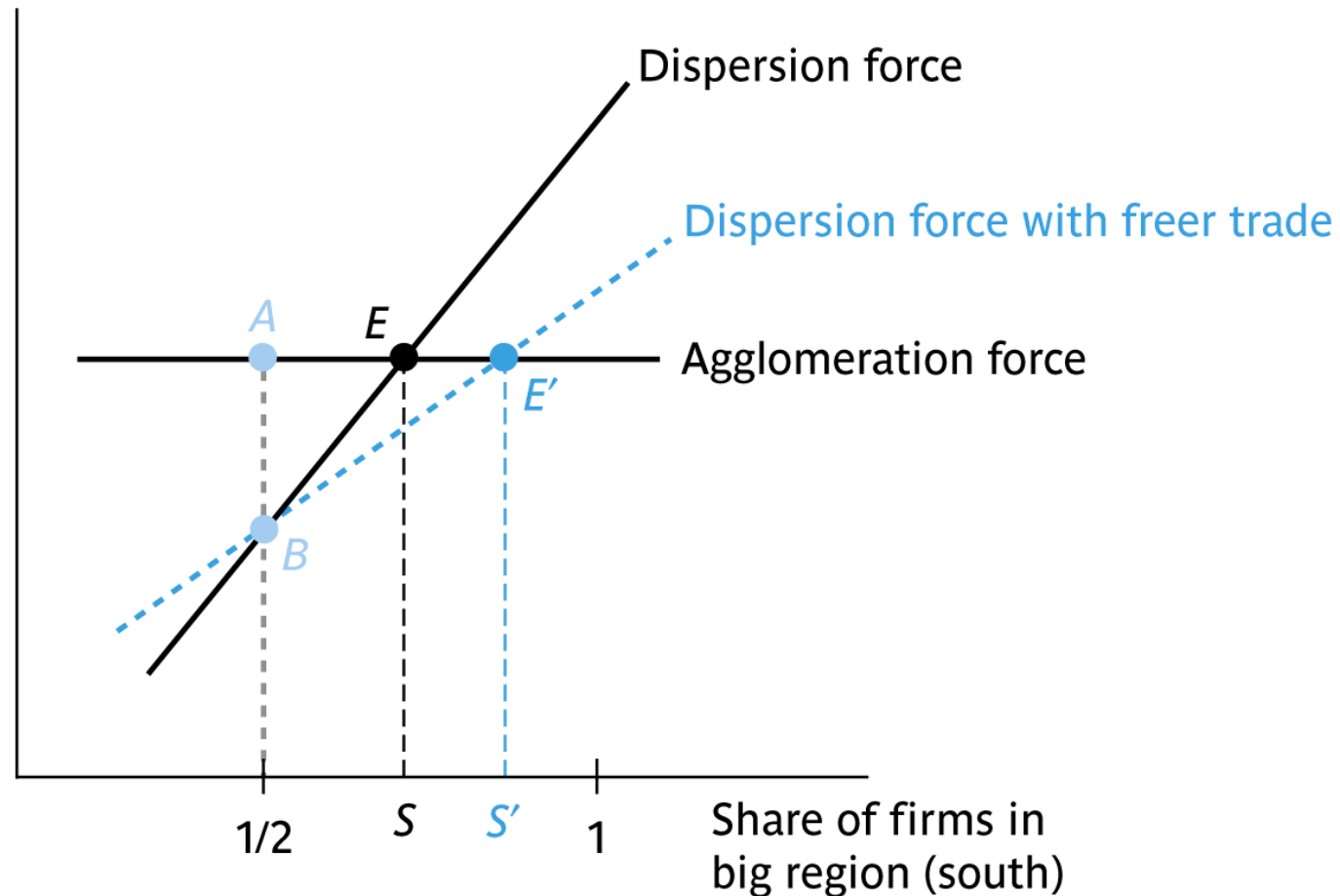
- With these simplifications:
 - 'agglomeration force' is flat in the share of firms in big region;
 - 'dispersion force' line is rising in the share of firms in big region since the benefit of staying in the small region rises as more firms move to the southern market.
- The location equilibrium is given by the intersection of these lines.
- Economic integration reduces trading costs and weakens dispersion forces → more concentration of economic activities.

The locational effects of European integration



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Strength of the agglomeration and dispersion forces



EU regional policy



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- Concern for Europe's disadvantaged regions has always been part of EU priorities (i.e., part of Treaty of Rome preamble).
- Still, major EU funding for less-favoured regions was introduced only when the first 'poor' member, Ireland, joined in 1973: the European Regional Development Fund (ERDF) was set up to redistribute money to the poorest regions, but its budget was minor.
- The situation changed in the 1980s when Greece, Spain and Portugal joined: these nations were substantially poorer and did not benefit from CAP funding. The voting power of Greece, Spain, Portugal produced a major realignment of EU spending priorities.

EU regional policy



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Europe's 2020 Strategy for smart, sustainable and inclusive growth:

Table 10.2 Thematic objectives in the Europe 2020 strategy

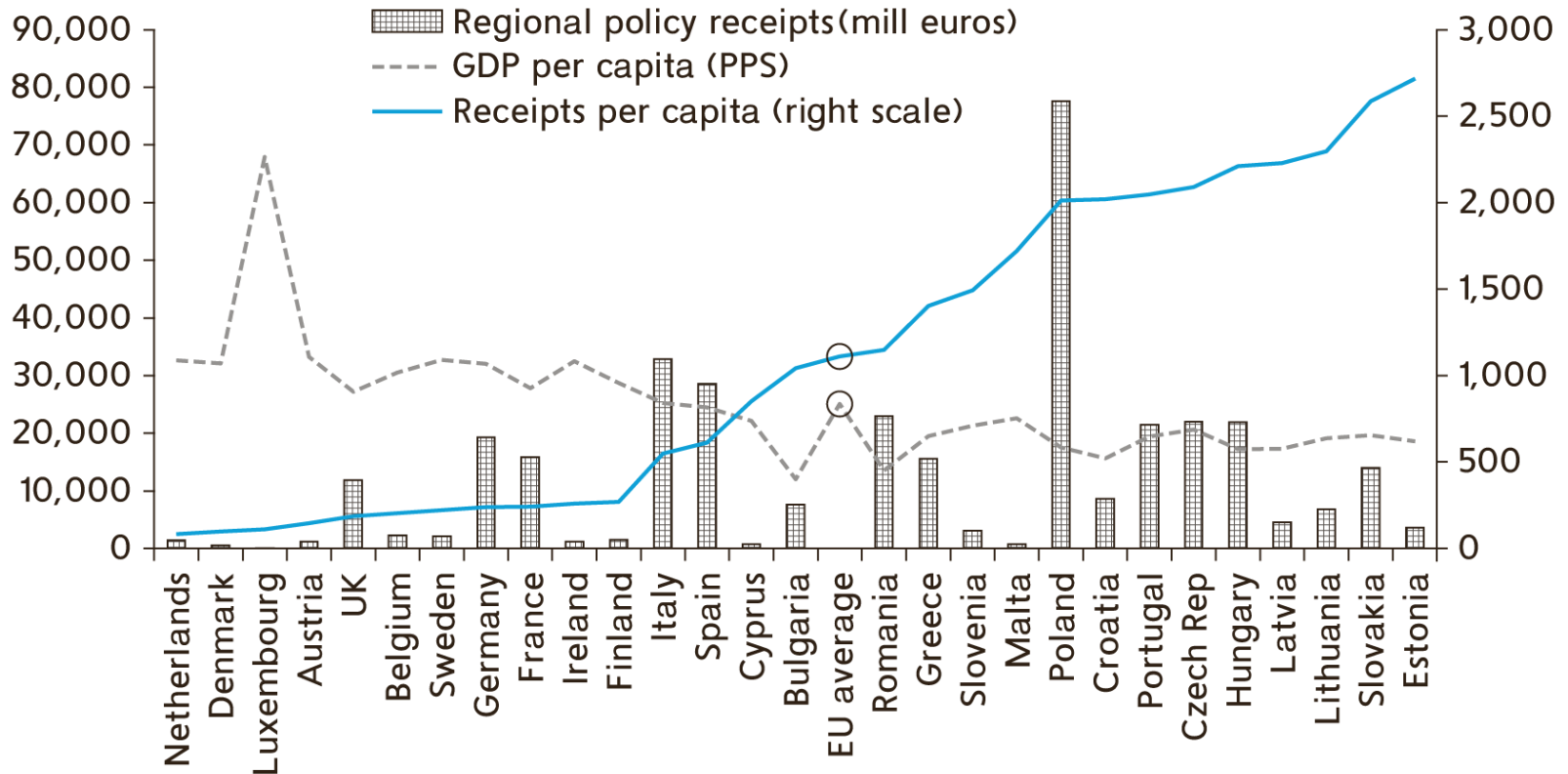
Smart growth	
1	Strengthening research, technological development and innovation
2	Enhancing access to, and use and quality of, information and communication technologies
3	Enhancing the competitiveness of small and medium-sized enterprises (SMEs)
Sustainable growth	
4	Supporting the shift towards a low-carbon economy in all sectors
5	Promoting climate change adaptation, risk prevention and management
6	Preserving and protecting the environment, and promoting resource efficiency
7	Promoting sustainable transport and removing bottlenecks in key network infrastructures
Inclusive growth	
8	Promoting employment and supporting labour mobility
9	Promoting social inclusion, combating poverty and countering discrimination
10	Investing in education, skills and lifelong learning
11	Enhancing institutional capacity of public authorities and stakeholders, and promoting efficient public administration

EU regional policy



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EU allocation of cohesion spending by nation, 2014 - 2020:



Source: Multiannual Financial Framework and Eurostat for population and income data



Chapter 11: EU competition and state aid policy

“Keeping markets open to new entrants is a key factor for the promotion of innovation. When monopolies and tight oligopolies are allowed to occupy a market, they tend to resist change and often end up caring only about the preservation of their business models. Contestable markets, instead, allow new players to experiment, and new ideas to succeed. It is a major task of competition control to ensure that new generations of businesses are given a fair chance.”

Joaquín Almunia, Vice President of the European
Commission responsible for Competition Policy, 2012

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EU's role in competition policy

- Founders of the EU understood that pressures to collude and subsidize would arise in the course of economic integration. And anticipation of such unfair practices could reduce political support for economic integration in all nations.
- Thus, the Treaty of Rome includes broad prohibitions on private and public policies that distort competition.
- The European Commission has sole power to regulate the EU's competition policy (i.e., its decisions are not subject to approval by the Council or the Parliament but they can be overturned by the EU Court).



The economics of anti-competitive behaviour

Collusion among firms result in high prices leading to lower demand and production: it is illegal under EU law and economically harmful for Europe as a whole.

Perfect collusion in the BE-COMP diagram:

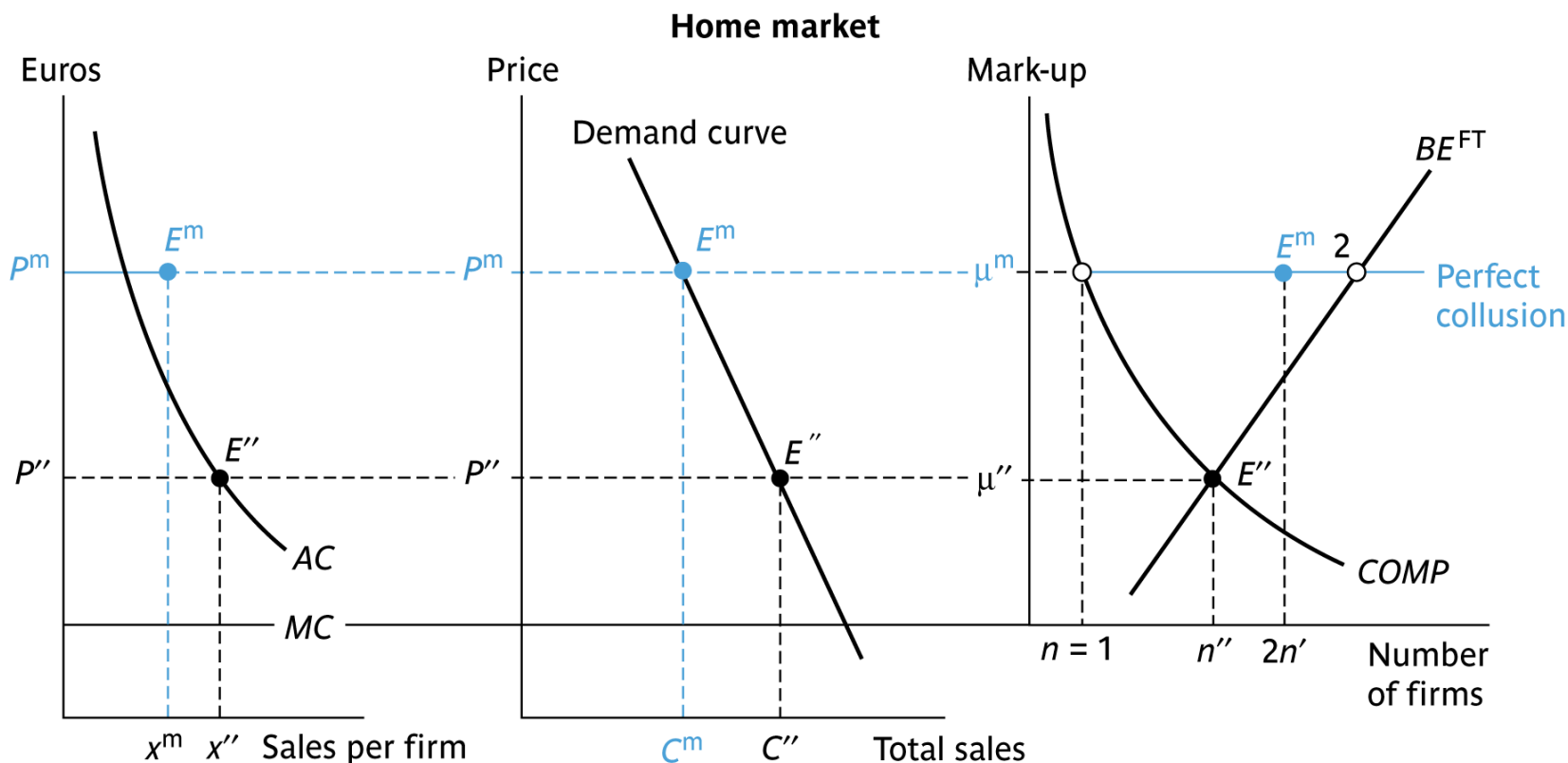
- firms co-ordinate prices and sales perfectly;
- maximum profit at monopoly price and split sales among firms;
- assume that firms all have equal market share.

The economics of anti-competitive behaviour



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→ Collusion is good for firms' profits, but price is high, consumption and production are lower. Moreover, since firms are smaller average costs are higher, so the industry is less efficient.

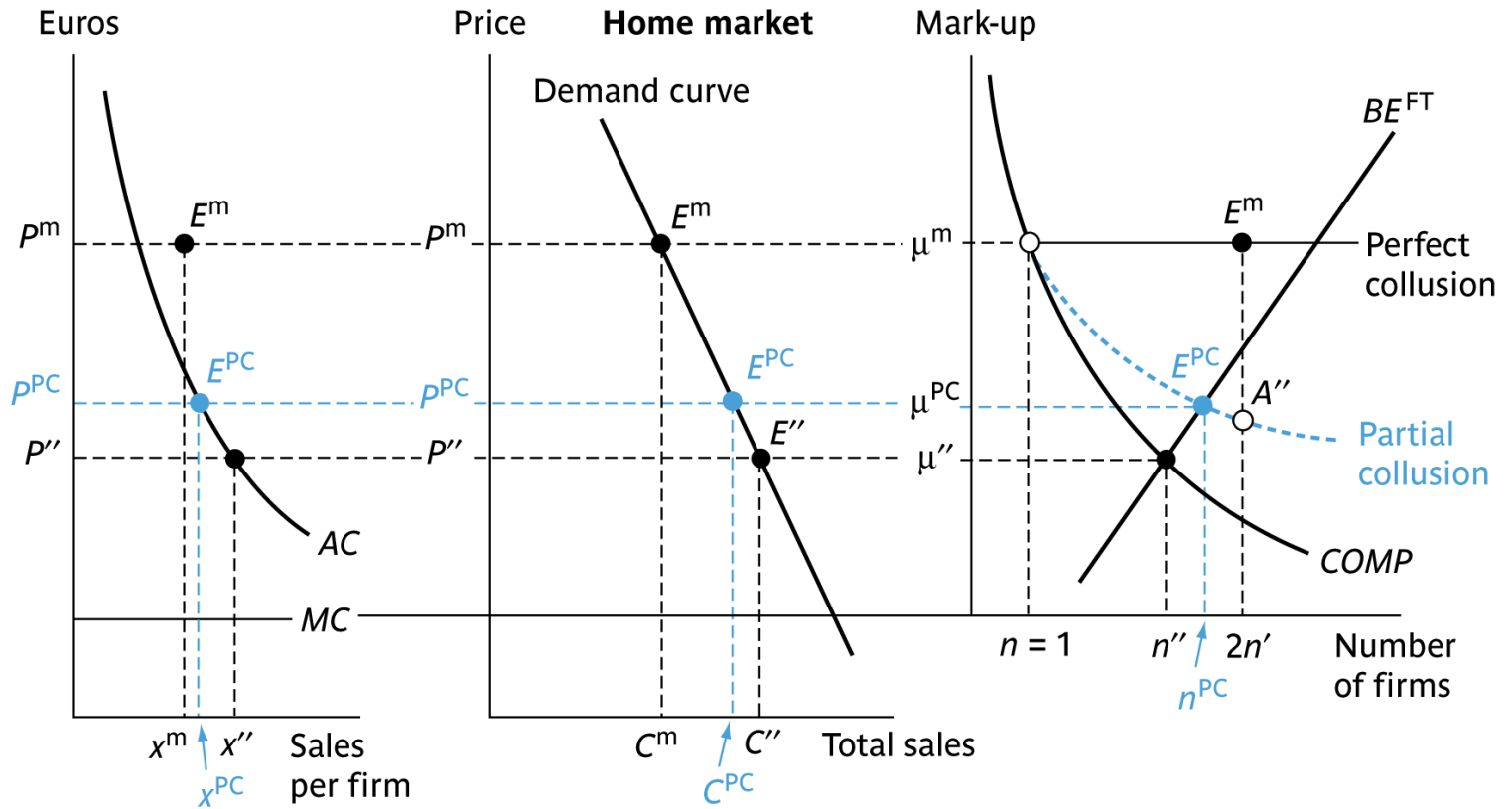


The economics of anti-competitive behaviour



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- Perfect collusion difficult to maintain because of ‘
- Partial collusion: some restrictions on sales of all firms so the mark-up is lower than the monopoly mark-up but higher than the *COMP* mark-up.



Economics of cartels



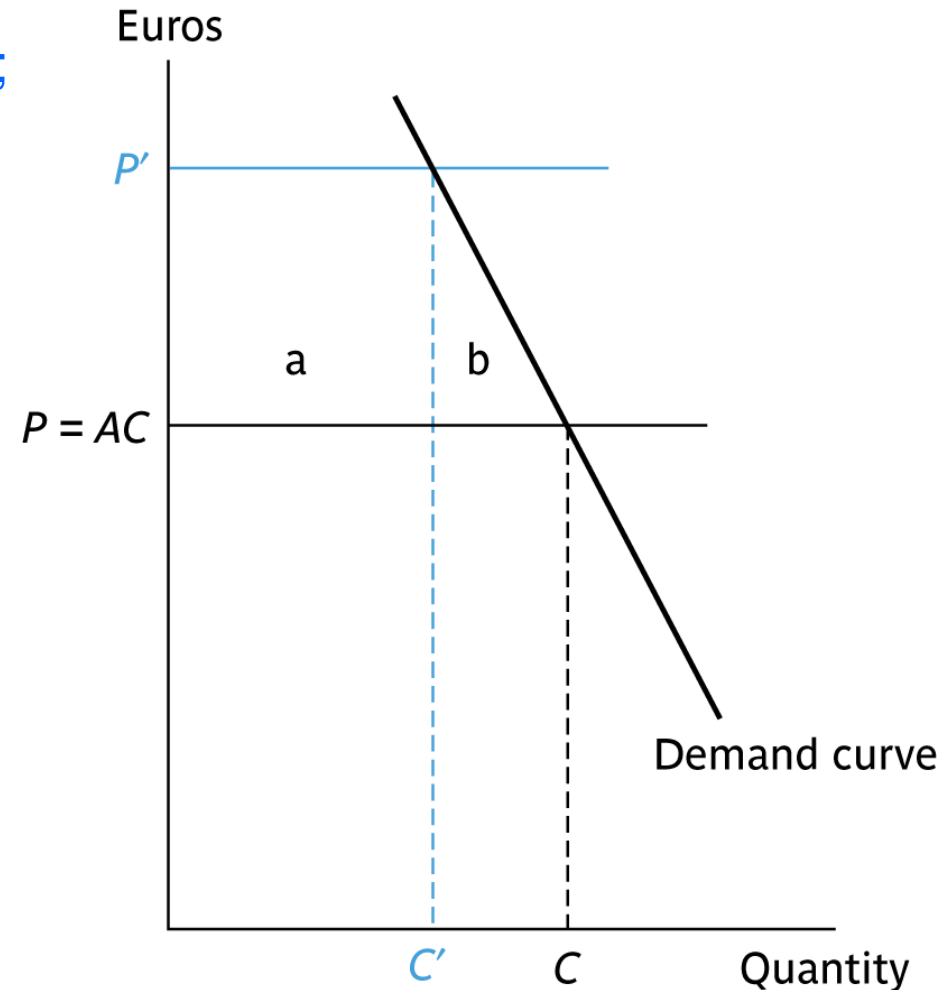
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Suppose price without cartel would be $P=AC$ while the cartel raises price to P' :

- $\Delta\text{Consumer Surplus} = -a - b$;
- $\Delta\text{profit} = a$;
- net welfare effect = $-b$.

Outcome:

- 'rip-off' effect;
- Inefficiency effect.



Examples of cartels



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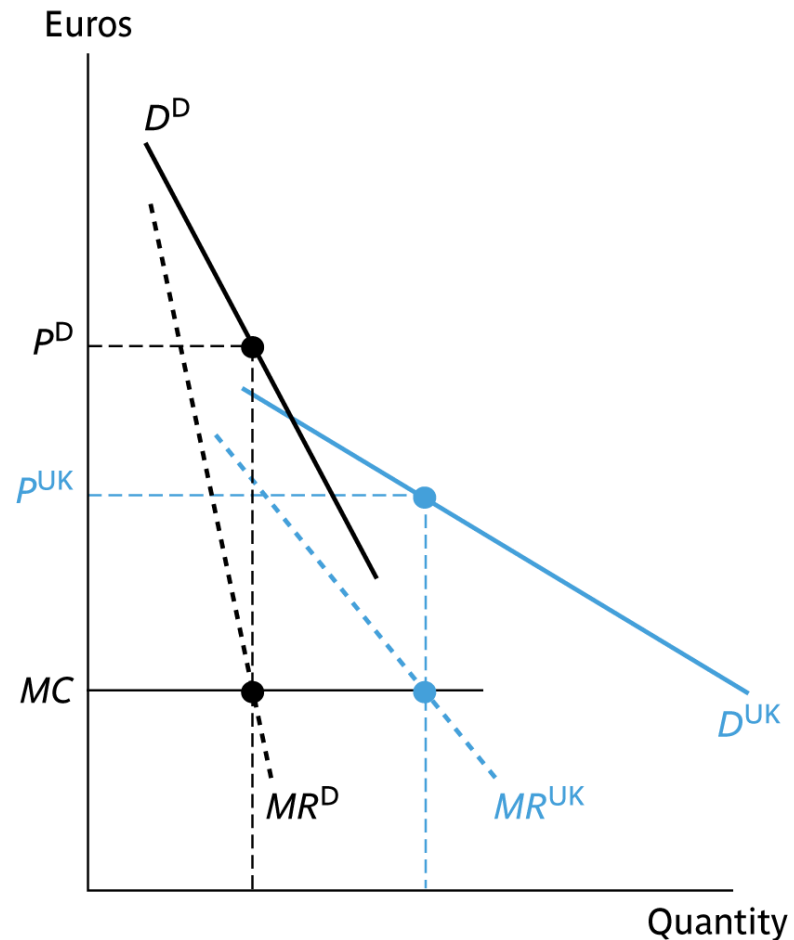
- In 2011, the Commission fined Procter & Gamble and Unilever for operating a cartel with Henkel in the market for household laundry powder detergents in 8 EU countries. Henkel was part of the cartel, but got immunity for revealing the cartel to the Commission;
- The Commission convicted 4 brewers (Heineken group, Grolsch, Bavaria, and InBev group) of running a cartel in the Netherlands. The cartel was discovered when a similar cartel in Belgium was uncovered (when InBev gave evidence to the Commission in order to reduce its fine);
- In 2010, the Commission concluded that 10 DRAM producers (only one European) were running a cartel between 1998 and 2002.



Economics of exclusive territories

More common anti-competitive practice is 'exclusive territories' (e.g., one company would agree to sell only in its local market in exchange for a similar promise by its foreign competitors).

Segmenting the market:



Abuse of dominant position



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- Dominant position not a problem per se: it may reflect superior products and/or efficiency.
- However dominance may tempt firm to extract extra profits from suppliers or customers.
- The ‘abuse of dominant position’ is illegal under EU law.
 - examples:
 - Microsoft refused to supply information to Sun Microsystems for the communication with its operating system. During the investigation the Commission found evidence of additional illegal behaviours with the most recent case in 2008 involving Office and Internet Explorer.
 - The Google case in 2013 (see Box 11.4)

Merger control

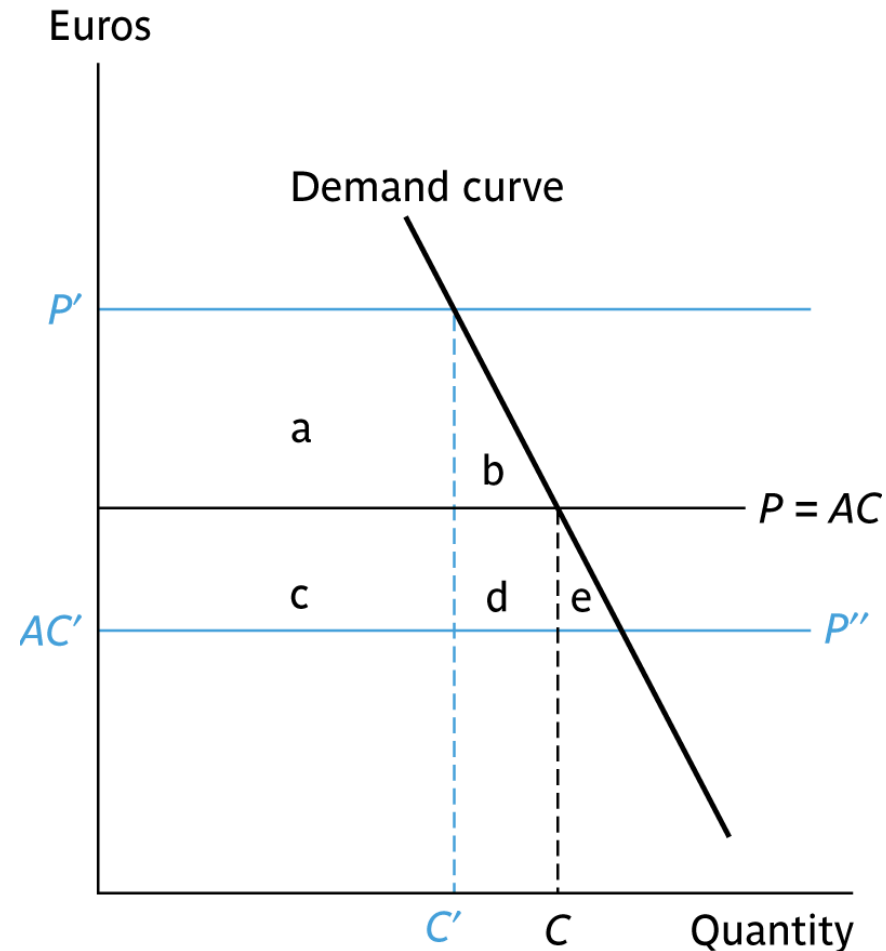


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Initially $P=AC$. Merger of firms lowers AC to AC' but raises price to P' :

- $\Delta CS = -a - b$;
- $\Delta PS = a + c$;
- net welfare = $-b + c$.

With free entry then eventually P driven down to AC' , boosting efficiency also for consumers.

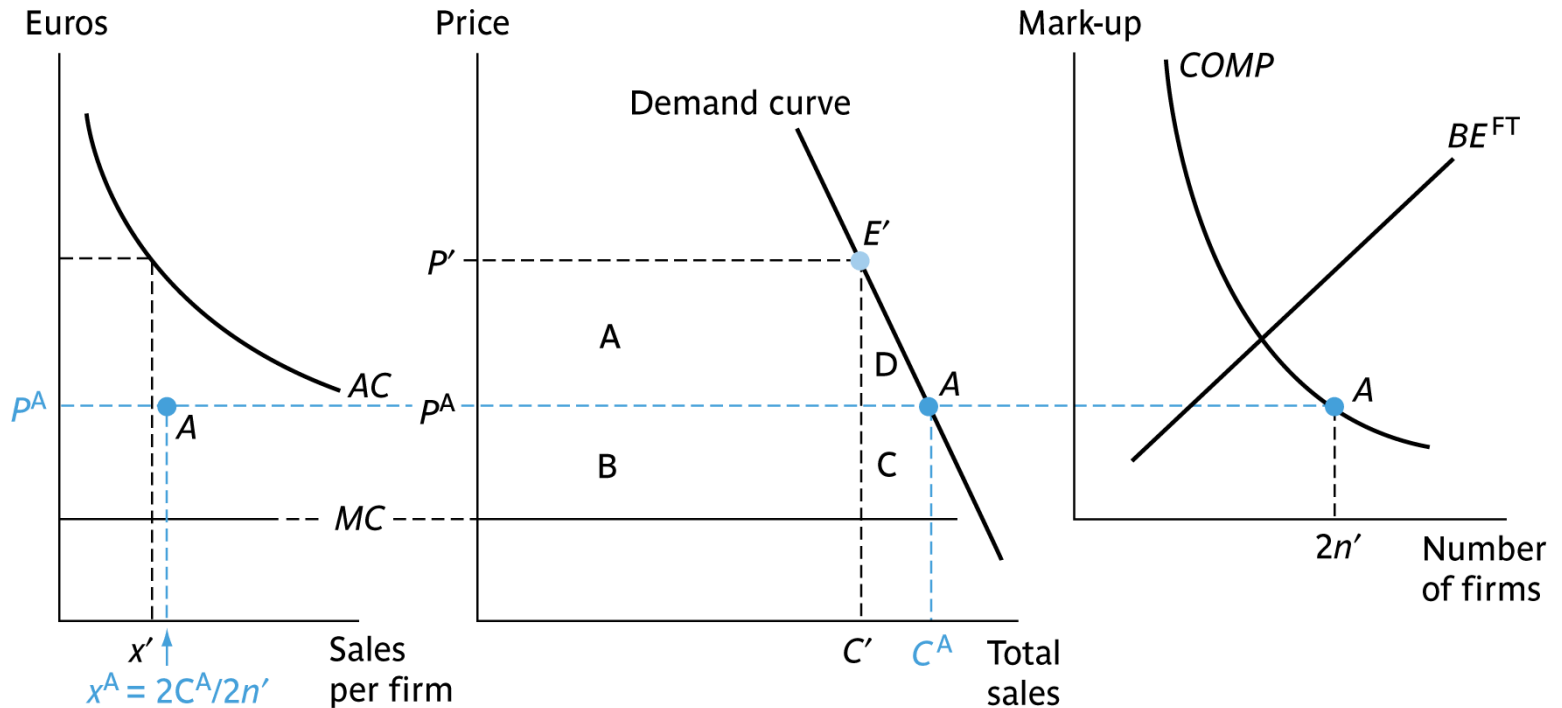




State aid

Consider subsidies that prevent restructuring where each government makes annual payments to all firms exactly equal to their losses:

- equilibrium doesn't change (i.e., A);
- all firms in analysis break even, but no new firms will enter;
- now, taxpayers instead of consumers pay for inefficient small firms.



State aid



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- Welfare effects of liberalize-and-subsidize policy:
 - $\Delta PS = 0$;
 - $\Delta CS = A + D$;
 - subsidy cost = $A - C$;
 - net welfare = $D + C$ (gain from partially redressing a market power distortion).
- EU members' governments differ over how much they can or want to subsidize loss-making firms. If only some governments subsidize their firms, the outcome may be 'unfair' since restructuring is forced upon the firms in nations that do not subsidize.
- This may create the impression that European economic integration gives an unfair advantage to some nations' firms. Disciplines on state aid allows governments to proceed with painful and politically difficult reforms.

EU competition policy



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- Treaty of Rome prohibited any action that prevents, restricts or distorts competition in the common market and it puts the Commission in charge of enforcing these strictures.
- The Commission has considerable powers in this area:
 - the Commission has the right to make on-site inspections without prior warning;
 - with a court order, the Commission can even inspect the homes of company personnel;
 - the Commission has the right to impose fines on firms found guilty of anti-competitive conduct, with a maximum of 10% of the firm's worldwide turnover;
 - when it comes to subsidies, the Commission has the power to force firms to repay subsidies it deems to be illicit.

EU competition policy



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To prevent anti-competitive behavior, EU policy focuses on:

- Antitrust and cartels. The Commission tries:
 - to eliminate behaviours that restrict competition (e.g. price-fixing arrangements and cartels);
 - to eliminate abusive behaviour by firms that have a dominant position.
- Merger control. The Commission seeks:
 - to block mergers that would create firms that would dominate the market.



EU law on anti-competitive behaviour

- Article 101:
 - forbids practices that prevent, restrict or distort competition;
 - typically prevents horizontal or vertical anti-competitive agreements;
 - exemptions possible where benefits exceed anti-competitive effects (e.g., R&D agreements).

- Article 102:
 - restricts the abuse of a dominant market position;
 - dominant position depends on market share;
 - practices banned: refusal to supply, unfair prices and conditions, predatory pricing, loyalty rebates, exclusive dealing, abuse of intellectual property rights.



Control of mergers

Merger Regulation, introduced only in the late 1980s:

- anti-competitive behaviour addressed: ‘a concentration which would significantly impede effective competition in the common market’;
- no more notification requirement and increased role of national competition authorities.



EU policies on state aid

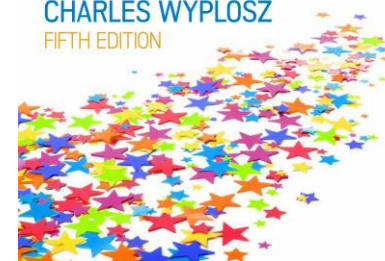
- Treaty of Rome bans state aid (broadly defined) that provides firms with an unfair advantage and thus distorts competition.
- Exceptions relate to social policy; natural disaster aid; economic development aid to regions.
- Example: the airline industry:
Restructuring of the European airline industry has been exacerbated by the terrorist attacks of September 2001. Subsidies could only cover only the 'exceptional losses' due to the attacks. Commission has managed to resist the desire of several Member States to support their national airlines as done in the US, also because low-cost airlines (e.g, Ryanair and easyJet) have done well without subsidies. Moreover, artificial support for inefficient national carriers hinders the expansion of low-cost airlines.



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Chapter 12: EU trade policy

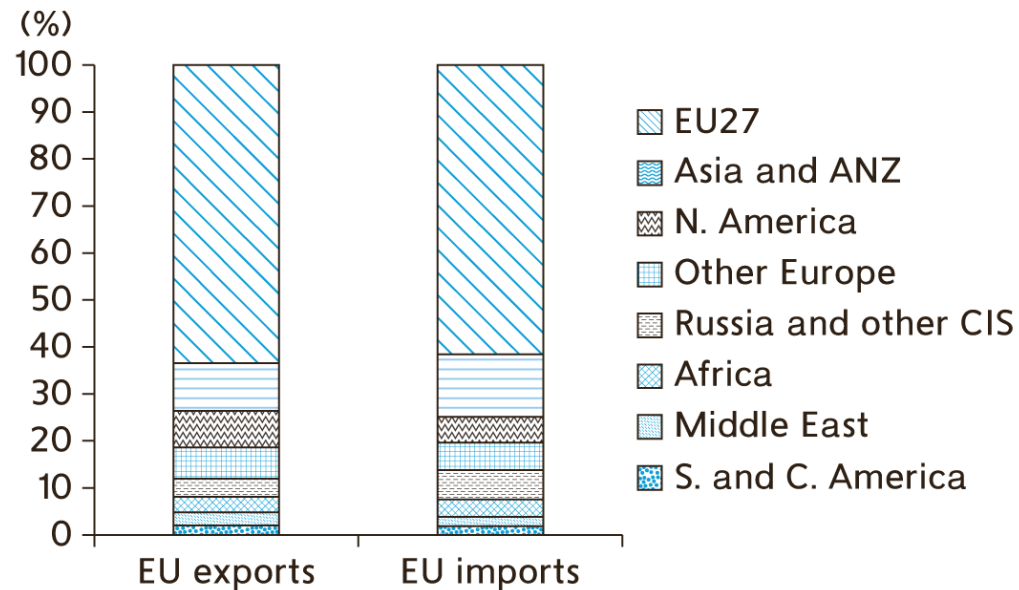
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The facts

- The EU is the world's biggest trader; its dominant services is even greater. In particular:
- 2/3 of EU27 exports are to other EU27 nations; and up to 3/4 if also considering EFTA nations and Turkey;
- after Europe, North America and Asia are the EU27's main markets;
- Africa, Latin America and the Middle East are not very important as EU export destinations.



The facts



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Top Ten Partners of the EU by individual countries (2010, bill €)

Table 12.1 The EU's top 10 import and export partners, 2010 (€ billions)

Partner	Exports	Share (%)	Partner	Imports	Share (%)
USA	242	18	China	157	10
China	113	8	USA	105	7
Switzerland	105	8	Russia	72	5
Russia	87	6	Switzerland	68	5
Turkey	61	5	Norway	59	4
Japan	44	3	Japan	51	3
Norway	42	3	Turkey	26	2
India	35	3	Korea	26	2
Brazil	31	2	India	22	1
Korea	28	2	Brazil	19	1
UAE	28	2	Libya	16	1
Hong Kong	27	2	Taiwan	16	1

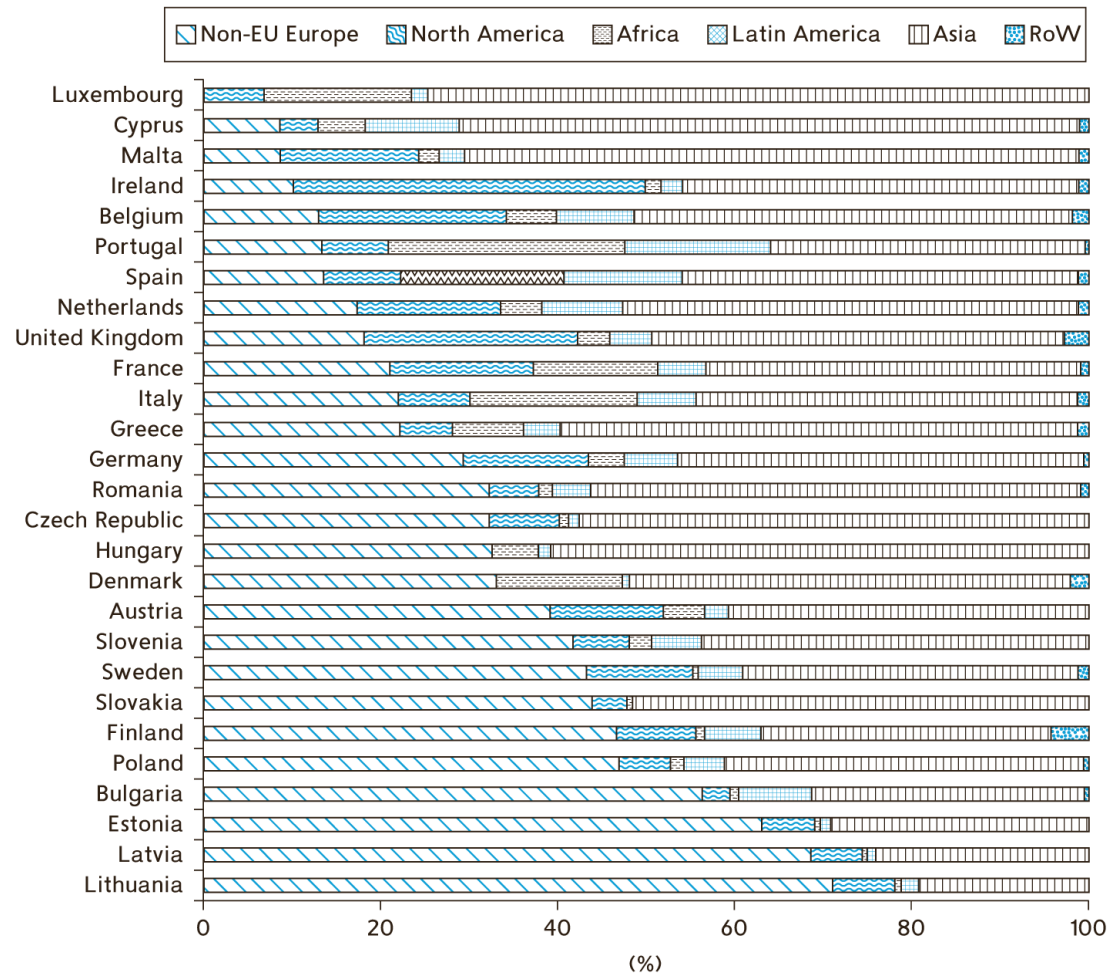
(Source: http://epp.eurostat.ec.europa.eu/portal/page/portal/international_trade/introduction)

The facts: differences among Member States



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Member States have quite different trade patterns. Source of imports:



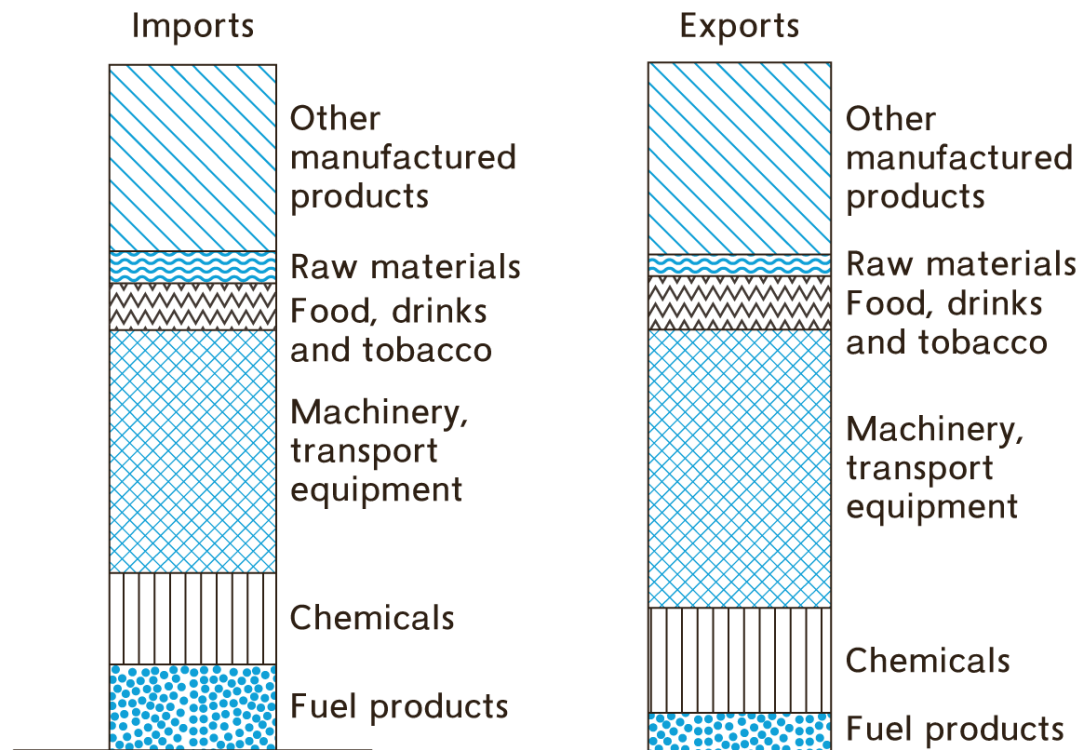
Source: http://epp.eurostat.ec.europa.eu/portal/page/portal/international_trade/introduction

The facts: composition of the EU's external trade



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- Manufactured goods account for almost 90% of EU exports,
- on import side, 2/3 of spending on manufactured goods;
- EU27 is a big importer of fuel (about 1/5 of total).

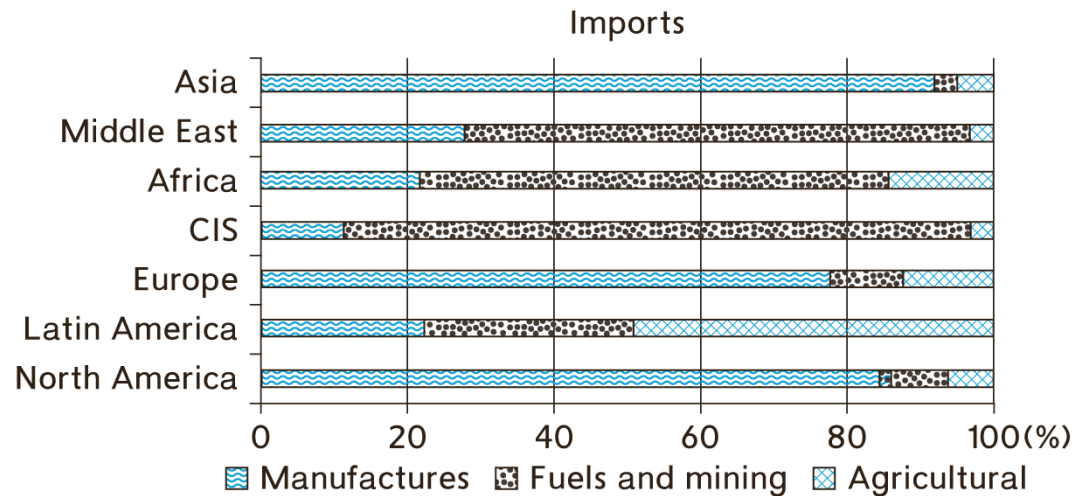
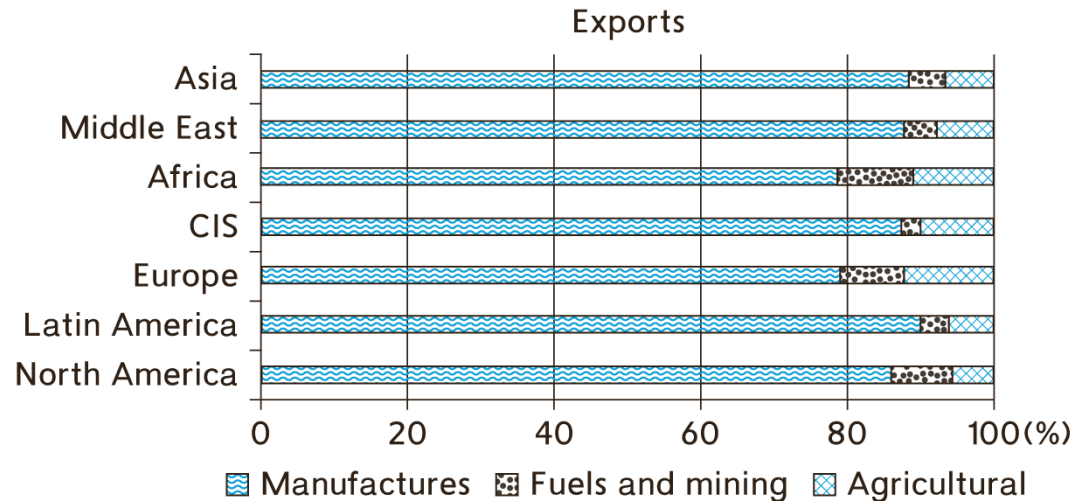


Source: http://epp.eurostat.ec.europa.eu/portal/page/portal/international_trade/introduction

The facts: composition of the EU's external trade



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Source: http://epp.eurostat.ec.europa.eu/portal/page/portal/international_trade/introduction

The facts: EU's Common External Tariff (CET)



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The average CET rate is about 6%, with wide variation.

Table 12.2 EU's Common External Tariff (CET), 2010

	Average (%)	Max (%)	Share of extra-EU imports duty free
Animal products	23	162	10
Dairy products	49	163	0
Fruit, vegetables, plants	11	161	12
Coffee, tea	7	55	78
Cereals and preparations	18	111	2
Oilseeds, fats and oils	6	94	70
Sugars and confectionery	28	118	0
Beverages and tobacco	19	166	15
Cotton	0	0	100
Other agricultural products	5	117	68
Fish and fish products	12	26	5
Minerals and metals	2	12	56
Petroleum	3	5	84
Chemicals	5	13	43
Wood, paper, etc.	1	10	85
Textiles	7	12	2
Clothing	12	12	0
Leather, footwear, etc.	4	17	17
Non-electrical machinery	2	10	53
Electrical machinery	3	14	55
Transport equipment	4	22	17
Other manufactures	3	14	55

Source: WTO online database, 'World Tariff Profiles', www.wto.org

EU institutions for trade policy



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- The customs union was the EU's first big step towards economic integration. A customs union requires political coordination (i.e., a common external trade policy).
- The Treaty of Rome granted supranational powers to the EU's institutions (i.e., 'exclusive competence') and the various Treaties have granted the EU more power in the area of trade.
- In the twentieth century, the EU's power on trade policy was basically limited to tariffs. As the range of important trade barriers broadened, the competence of the EU extended: small steps in the Maastricht and Nice Treaties and a big step forward with the Lisbon Treaty:
 - it extended the Common Commercial Policy to explicitly include trade in services, foreign direct investment and some aspects of intellectual property rights (copyrights, patents, etc.).

EU institutions for trade policy



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- The European Commission has the task of negotiating trade matters with third nations on behalf of the Member States. The Commission also takes the lead in trade policy in the sense that it has the right of initiative on, for example, trade agreements.
- Negotiations are conducted in accordance with specific mandates defined by the Council and the Parliament (called 'Directives for Negotiation').
- Decisions are taken on the basis of the 'ordinary legislative procedure'. The Council must adopt any agreements negotiated by the Commission after the Parliament has given its consent.
- A big change from the Lisbon Treaty is that the European Parliament is now co-legislator with the Council on all basic EU trade legislation.
- The European Commission is also in charge for investigating dumping complaints and anti-subsidy measures.

EU trade policy: broad goals and means



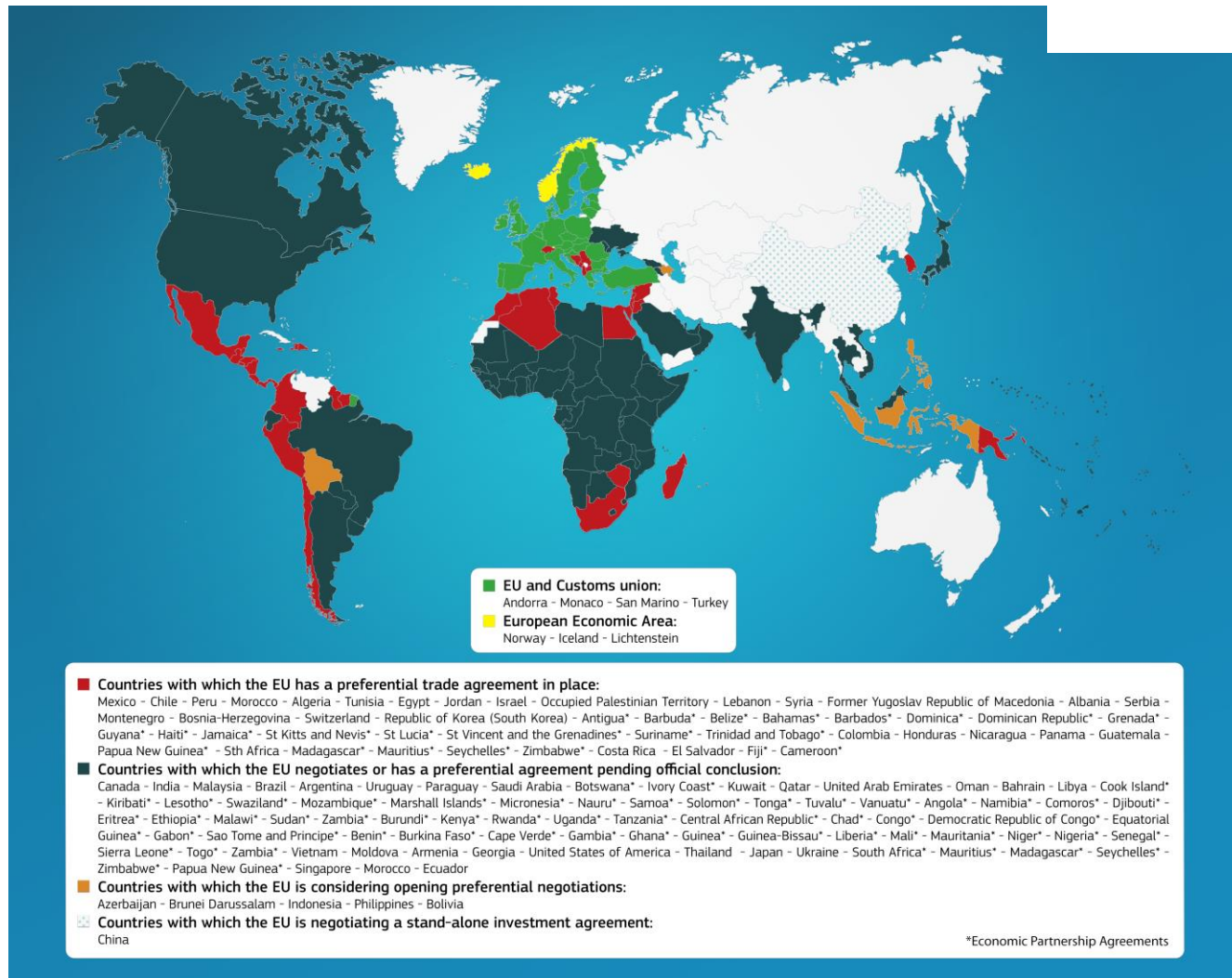
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- For most of its life, EU external trade policy meant negotiating.
 - reciprocal tariff cuts in FTAs with other Europeans;
 - reciprocal tariff cuts with non-European nations in the GATT/WTO;
 - unilateral tariff preferences for developing nations.
- This started to change with a 2006 landmark communication from the Commission known as Global Europe: it identified ASEAN, Korea, India and Mercosur as priority partners for new FTAs.
- There was also a shift towards deeper agreements that covered issues such as investment, public procurement, competition, IPR enforcement and regulatory convergence issues (to be dealt with FTAs since the WTO agenda does not include them).
- Recent EU trade strategy also includes to tackle market access for services and investment by opening up public procurement and removing restrictions of the supply of raw material and regulatory barriers.

EU trade policy: existing agreements



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EU trade policy: non-regional FTAs

- In recent years, a number of non-European nations have sought out FTAs with the EU. The EU is almost always open to FTAs (as long as they exclude agriculture).
- The EU has signed a number of these deals (as of late 2011):
 - Mexico, Chile, Mercosur (Brazil, Argentina, Uruguay and Paraguay), the Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates), India, the ASEAN nations (Indonesia, Malaysia, Philippines, Thailand, Singapore, Vietnam, Cambodia, Burma/Myanmar and Laos) and South Africa;
 - negotiations for an FTA between the EU and Colombia, Peru and Ecuador have started;
 - On the way: EU-USA arrangement (TTIP); EU-Japan arrangement; discussion with China on investment protection



EU trade policy with former colonies

- Colonial ties almost always involved important trade relations. To avoid imposing the CET on imports from former colonies, EEC6 signed agreements with many of them: asymmetric deals where EU tariffs were set to zero but the poor nations did not remove theirs.
- These agreements have been renegotiated various times and in 2000 the EU and the ACP nations agreed to modernize the deal (also because it was inconsistent with the WTO as it distinguished among developing nations on the basis of colonial ties).
- With the Cotonou Agreement, ACP nations commit to eventually removing their tariffs against EU exports by negotiating bilateral Economic Partnership Agreements (EPAs). Interim agreements have been signed with many of the ACP nations but only one final agreements has been implemented (with Caribbean countries).



EU trade policy with poor nations: GSP

Poor countries receive preferential treatment in the GATT/WTO:
'Generalized System of tariff Preferences' (GSP).

The EU was the first to implement a GSP scheme, in 1971, and it now grants GSP preferences to almost every developing nation in the world:

- general GSP for all developing nations at the EU's discretion;
- super GSP, which involves extra 'generous' EU unilateral preferences for nations that the EU wishes to encourage for some reason or another:
 - 'Everything but Arms' (EBA) for least developed nations, which grants (on paper) zero-tariff access all goods, except arms and munitions.



Chapter 15: Optimum currency areas

“The European countries could agree on a common piece of paper, . . . they could then set up a European monetary authority or central bank. . . . This is a possible solution, perhaps it is even an ideal solution. But it is politically very complicated, almost utopian.”

Robert Mundell (1973)

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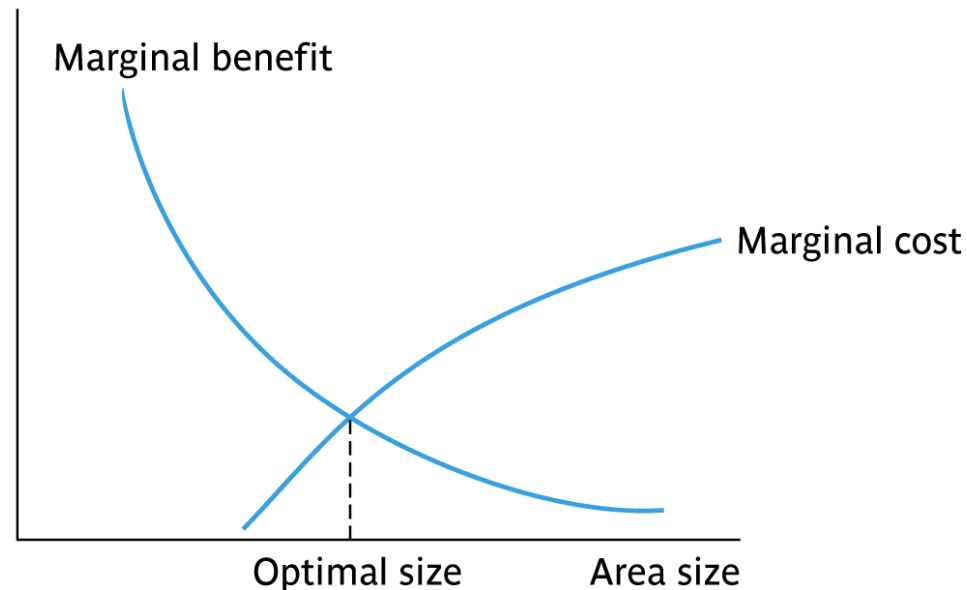
The question, the problem and the short answer

Should currency area borders coincide with national

- money makes transactions immensely easier: the more people accept a currency, the more useful it is;
- as a currency area grows larger, it becomes more diverse, which means more costly.

The solution has to involve trading off these costs and benefits:

Marginal costs and benefits



Benefits of a currency area



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- Elimination of transaction costs and comparability
if you started with one EU currency and exchanged it successively
in all the currencies of the EU (before the Euro) and than
exchanged it back into the initial currency, you would get less than
50% of the initial amount!
- Elimination of exchange rate risk (for transactions and FDI) = less
uncertainty.
- Price transparency and intensified competition (also affects wage
setting)
- Intensified trade
- More independent central bank and better quality of monetary
policy.

Costs of a currency area



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- Diversity in a currency area is costly because a common currency makes it impossible to react to each and every local particularity.
- The theory of optimum currency areas (OCA) aims at identifying these costs more precisely.
- We proceed in three steps:
 1. define and examine the effects of asymmetric shocks;
 2. study the problems of asymmetric shocks in a currency area;
 3. examine how the effects of asymmetric shocks can be mitigated when national exchange rates are no longer available.



The optimum currency area criteria

- The optimum currency area (OCA) theory derive practical criteria to understand which countries should share the same currency.
- Three classic (economic) criteria:
 - Mundell: labour mobility
 - Kenen: diversification
 - McKinnon: openness
- Three political criteria:
 - fiscal transfers;
 - homogeneous preferences;
 - solidarity vs. nationalism.

Criterion 1 (Mundell): labour mobility



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Caveats:

- labour mobility is easier within national borders (culture, language, legislation, welfare, etc.) than across countries;
- in presence of country specialization, skills also matter;
- capital mobility: difference between financial and physical capital.



Criterion 2 (Kenen): production diversification

Countries whose production and exports are widely diversified and of similar structure form an optimum currency area:

indeed, in that case, there are few asymmetric shocks and each of them is likely to be of small concern.

Caveat:

- a very broad statement



Criterion 3 (McKinnon): openness

Countries that are very open to trade and trade heavily with each other form an optimum currency area:

- traded good prices are set worldwide;
- if all goods are traded, domestic good prices must be flexible and the exchange rate does not matter for competitiveness.

Caveat:

- exchange rate can affect profits for exporters (but nowadays most goods have little national specificity).



Criterion 4: fiscal transfers

Countries that agree to compensate each other for adverse shocks form an optimum currency area:

- transfers can act as an insurance that mitigates the costs of an asymmetric shocks;
- transfers exist within national borders;

Caveat:

- the debt crisis has brought forward the issue of transfers (i.e., moral hazard).

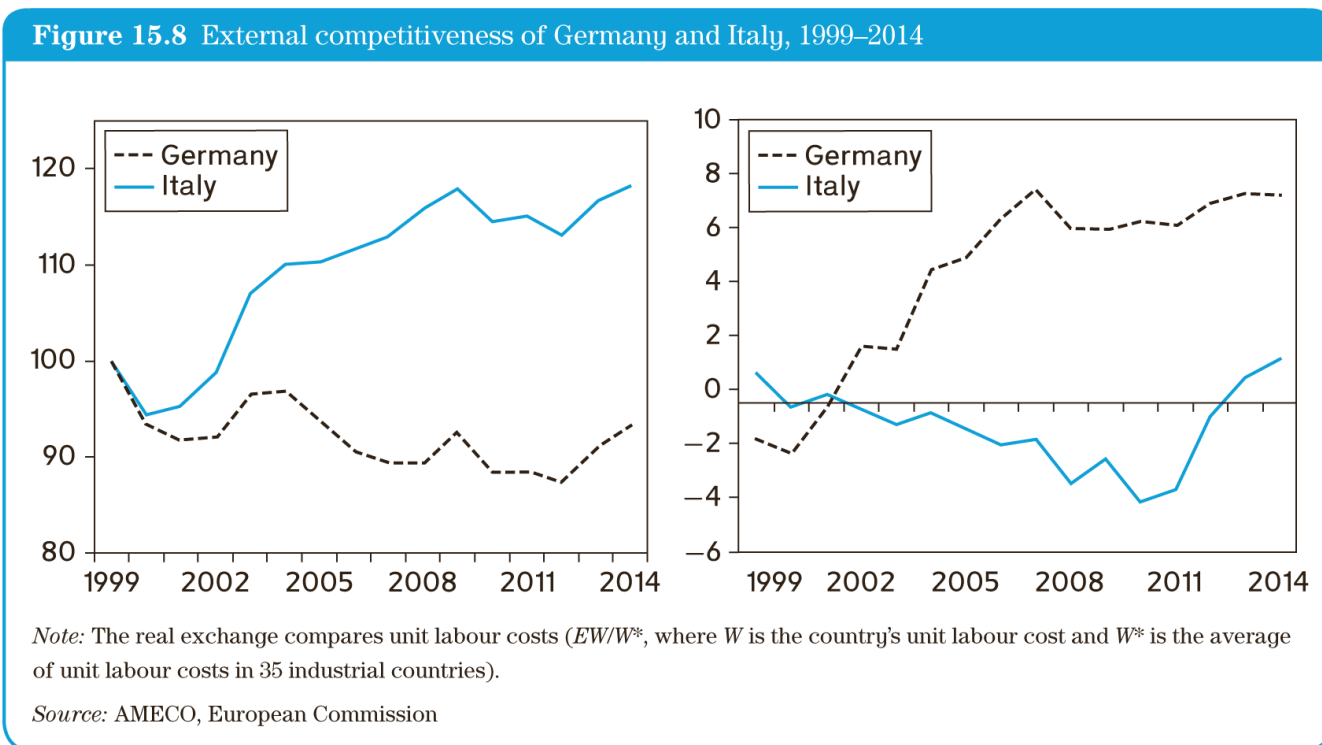
Criterion 5: homogeneous preferences



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Currency union member countries must share a wide consensus on the way to deal with shocks.

Germany and Italy: a difficult relationship: real exchange rate (Index 1999 = 100 left) and current account (right, as % of GDP)





Criterion 6: solidarity vs. nationalism

When the common monetary policy gives rise to conflicts of national interests, the countries that form a currency area need to accept the costs in the name of a common destiny:

it is unavoidable that there will be times when there will be disagreements and that these disagreements may follow national lines: people must accept that they will be living together and extend their sense of solidarity to the whole union.



Are the six criteria endogenous?

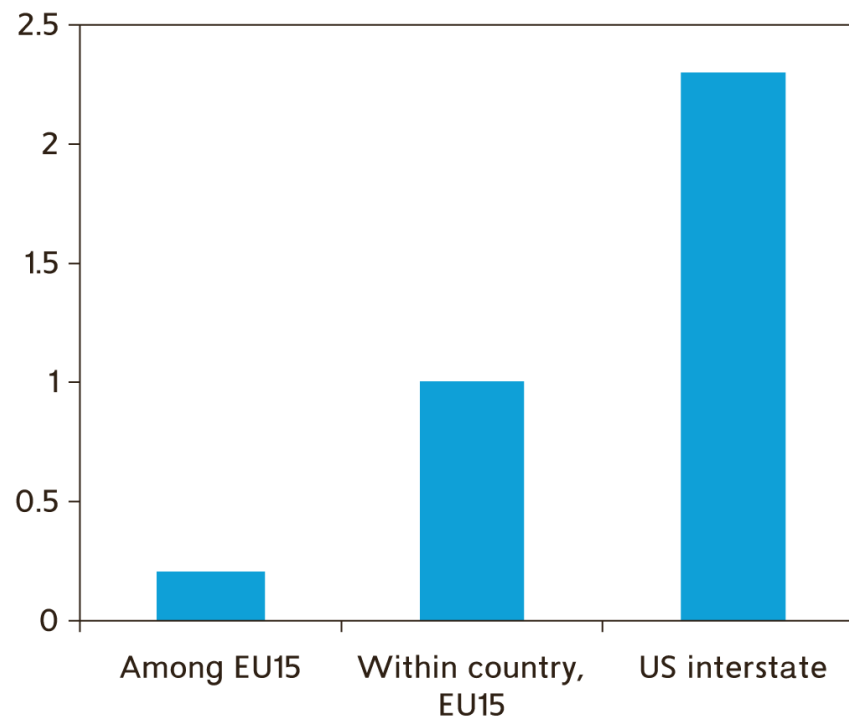
- The six criteria presented above refer to country characteristics, but these characteristics may change over time.
- A puzzling question is whether they can change because of membership of a currency area.
- Put differently, can an area that is not an optimum currency area become one as a consequence of being one?
- This possibility is called the endogeneity of the OCA criteria.



Is Europe an optimum currency area?

Labour mobility: Europeans move little!

Figure 15.9 Labour mobility in Europe and the USA, 2008



Note: Mobility is measured as the proportion of the population that has moved from another country in Europe, from another state in the USA. The EU15 refers to the 15 members of the Eurozone in 2008.

Source: European Commission, *Geographic Mobility in the European Union*, Directorate for Employment, Social Affairs and Equal Opportunities, April 2008

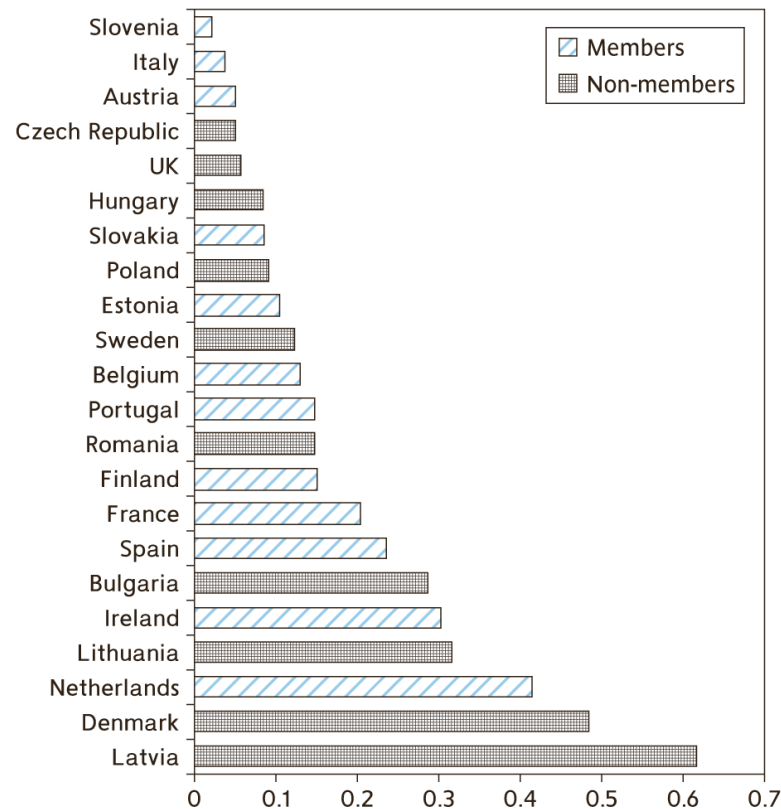
Is Europe an optimum currency area?



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Diversification and trade dissimilarity = trade dissimilarity index:

Figure 15.11 Trade dissimilarity index



Note: The index measures the difference between individual countries' trade structures and those of its partners.

Source: Horváth (2007)

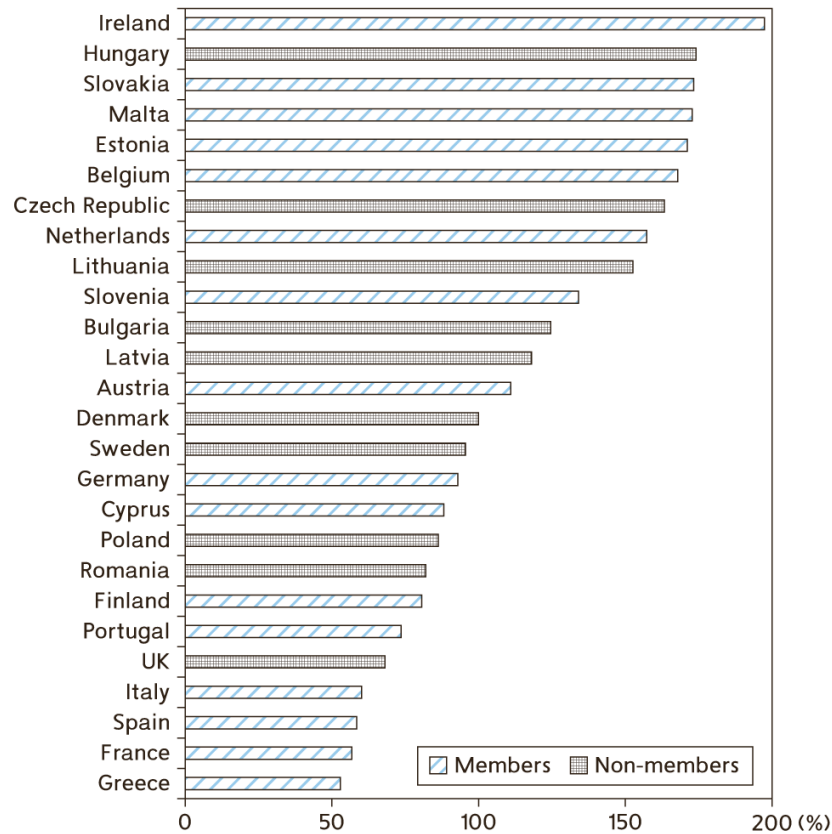
Is Europe an optimum currency area?



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Openness = openness to trade:

Figure 15.12 Openness to trade, 2011



Note: The index is the ratio of the sum of exports and imports to GDP.

Source: AMECO, European Commission

Is Europe an optimum currency area?



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Fiscal transfers:

- up until the debt crisis, there was no transfer system in the EU;
- EU budget is small (slightly above 1% of GDP) and almost entirely spent on operating expenses, CAP, and Structural Funds;
- crisis led to the creation of the European Financial Stability Fund (EFSF), which recognizes that monetary union needs transfers.

Homogeneous preferences:

- based on past inflation rates, it does not seem that country share similar views on monetary policy;
- similar story when looking at public debts.

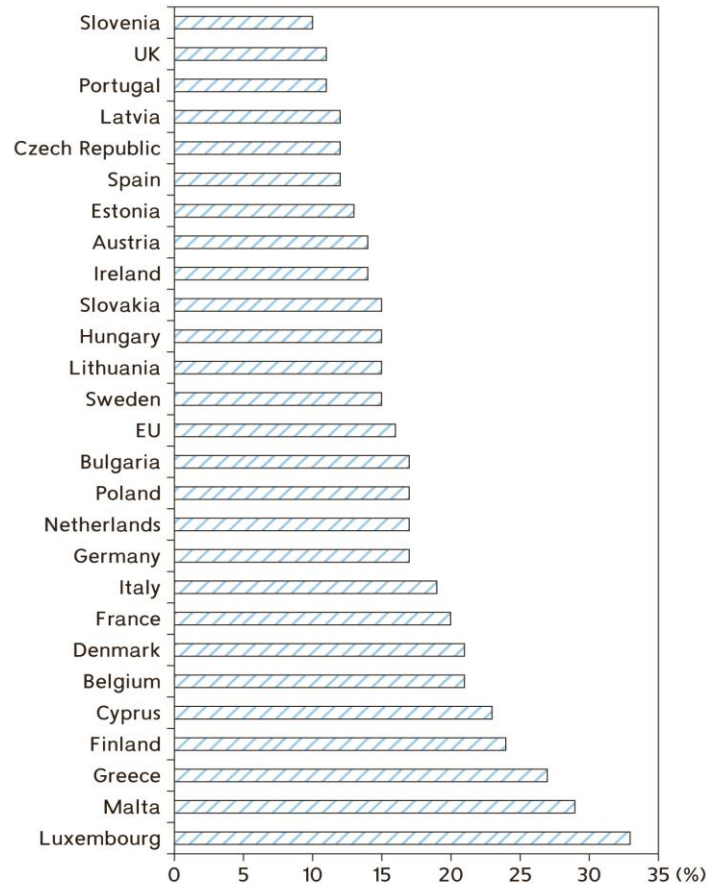
Is Europe an optimum currency area?



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Solidarity vs. nationalism = feeling European? (2006)

Figure 15.13 Feeling European?



Note: Percentage of people who respond 'often' when asked: 'Do you ever think of yourself as not only (nationality), but also European? Does this happen often, sometimes or never?'

Source: Eurobarometer (http://ec.europa.eu/public_opinion/cf/index.cfm)

Is Europe an optimum currency area?



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So, is Europe an optimum currency area? Mixed performance:

Table 15.1 OCA scorecard

Criterion	Satisfied?
Labour mobility	No
Trade openness	Yes
Product diversification	Yes
Fiscal transfers	No
Homogeneity of preferences	Partly
Commonality of destiny	?

- The single currency project has been and remains controversial.
- The partial fulfillment of the OCA criteria implies that, given that the decision to go ahead has been taken, there will be costs.

Is Europe becoming an optimum currency area?



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The fact that the single currency exists can change the situation:

- effects on trade: Baldwin et al. (2008) conclude that, so far, the euro has probably increased trade by some 5%;
- effects on labour markets: few expect labour mobility to increase dramatically in the near future but the single market may encourage reforms to make European labour markets more flexible;
- fiscal transfers: much the same applies to fiscal transfers.

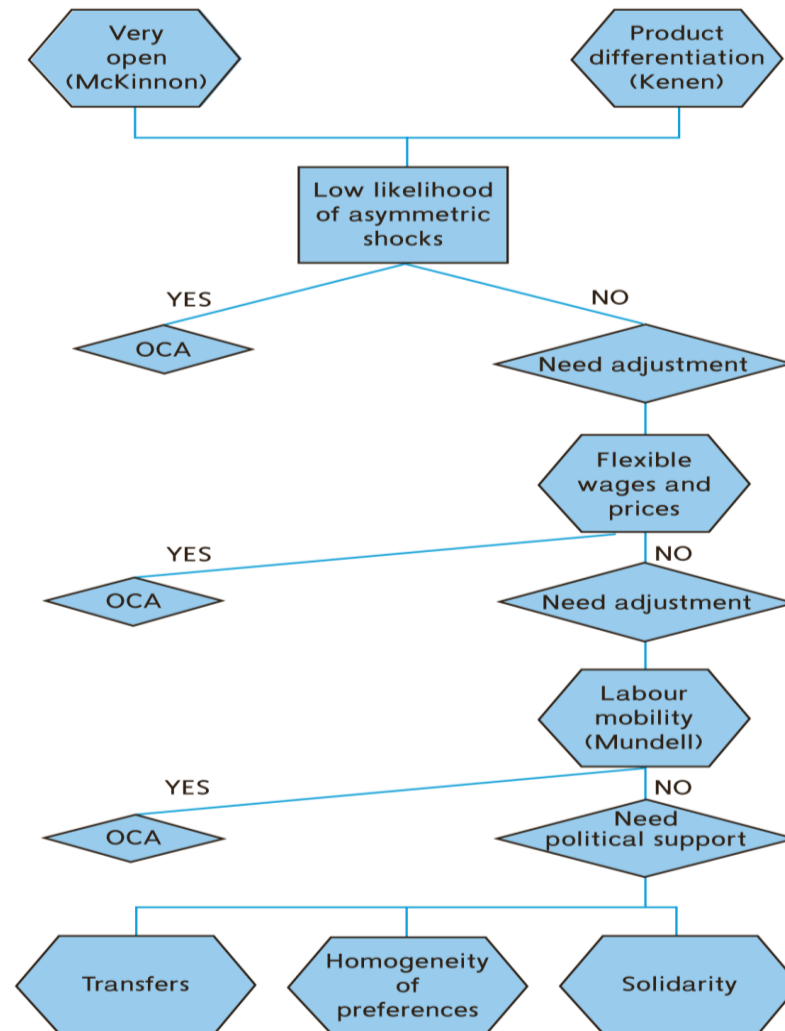
BUT monetary union is not only about economics!

Political considerations have been paramount in launching the euro: political leaders agreed on the monetary union without thinking in terms of the OCA theory. Their intention was to move one step further in the direction of an 'ever-closer union'.

The logic of the optimum currency area criteria



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Chapter 16: The European monetary union

*“A normal central bank is a monopolist. Today’s
Eurosystem is, instead, an archipelago of monopolists.”*
Tommaso Padoa-Schioppa (Former Executive Board
member of the ECB)

**THE
ECONOMICS
OF EUROPEAN
INTEGRATION**
RICHARD BALDWIN
CHARLES WYPLOSZ
FIFTH EDITION

The Maastricht Treaty



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- Monetary union is the outcome of a deal between Germany and the other countries. As part of it, the Maastricht Treaty included:
 - a firm commitment to launch the single currency by January 1999 at the latest;
 - a list of five criteria for admission to the monetary union;
 - a precise specification of central banking institutions;
 - additional conditions mentioned (e.g. the excessive deficit procedure).
- Maastricht Treaty introduced, for the first time, the idea that a major integration move could leave some countries out. It specifies that all countries are expected to join as soon as practical (Denmark and UK were given an exemption; Sweden does not have an exemption but acts as if it did as it is not member of the ERM II).

The Maastricht Treaty: Five Entry Conditions

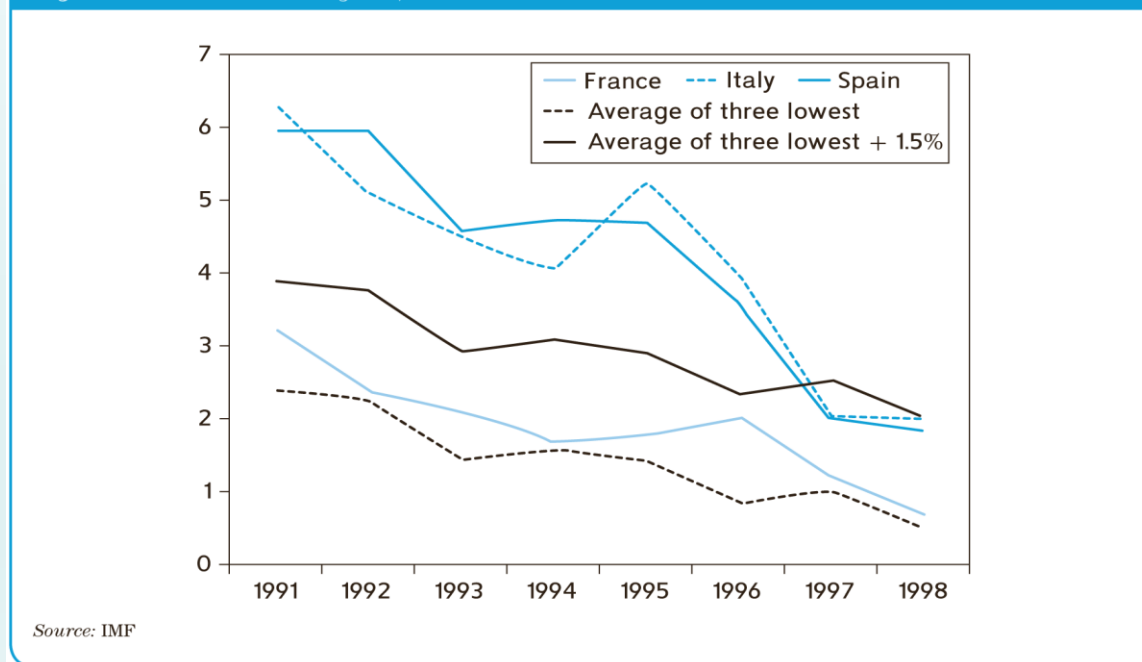


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A selection process to certify which countries had adopted a 'culture of price stability' (i.e., German-style low inflation): countries must fulfill five convergence criteria:

1. Inflation: not to exceed by more than 1.5 percentage points the average of the 3 lowest inflation rates among EU countries;

Figure 16.1 Inflation convergence, 1991–98



The Maastricht Treaty: Five Entry Conditions



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2. Long-term nominal interest rate: not to exceed by more than 2 percentage points the average interest rate in the 3 lowest inflation countries (long-term interest rates mostly reflect markets' assessment of long-term inflation);

3. ERM membership: at least 2 years in ERM without being forced to devalue;

4. Budget deficit: deficit less than 3% of GDP.
Historically, all big inflation episodes born out of runaway public deficits and debts!

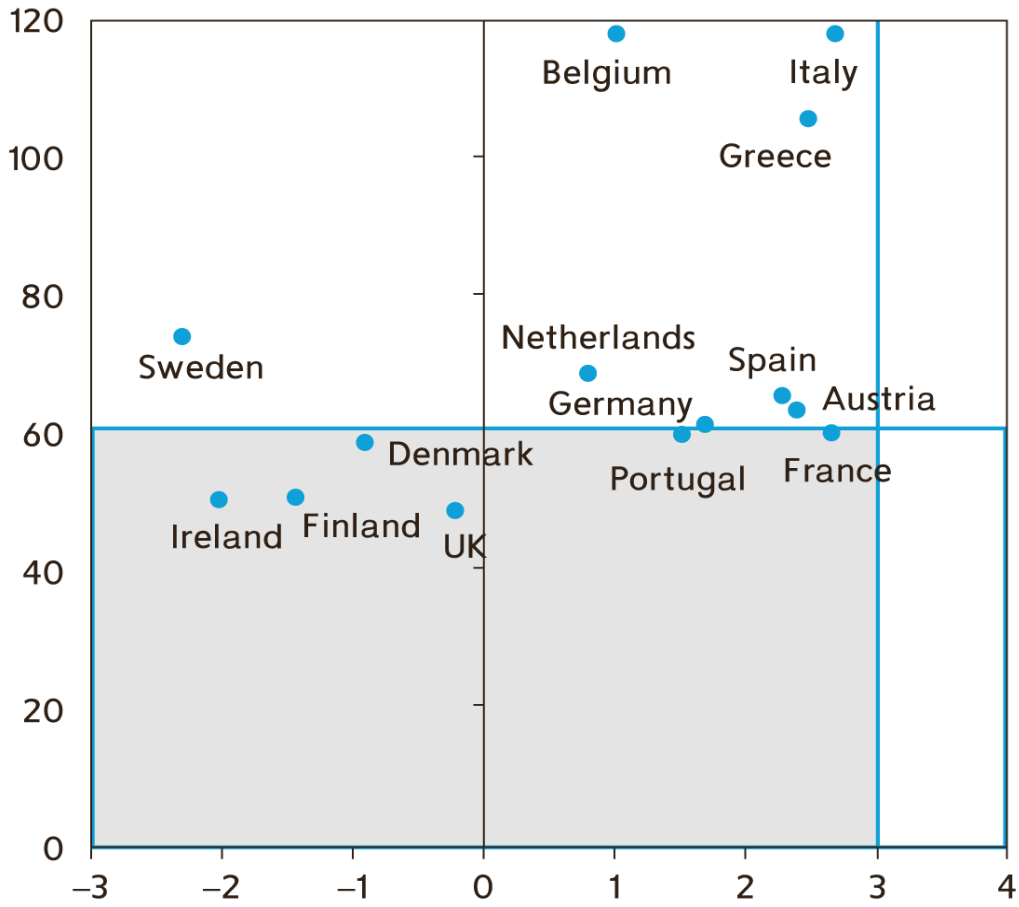
5. Public debt: debt less than 60% of GDP (average of countries).

The Maastricht Treaty: Five Entry Conditions



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Figure 16.2 Deficits and debts, 1998



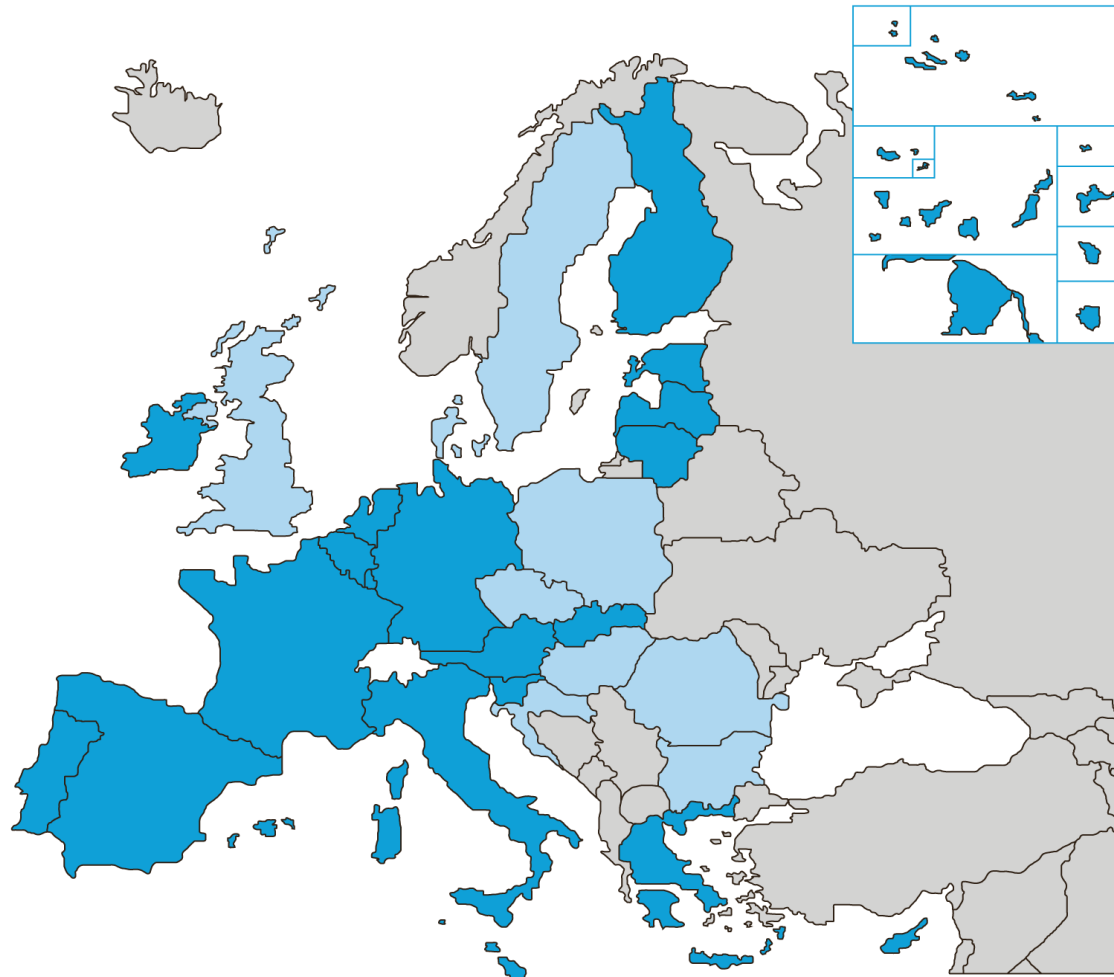
Source: AMECO, European Commission

Two-speed Europe



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Figure 16.3 The Eurozone inside the EU



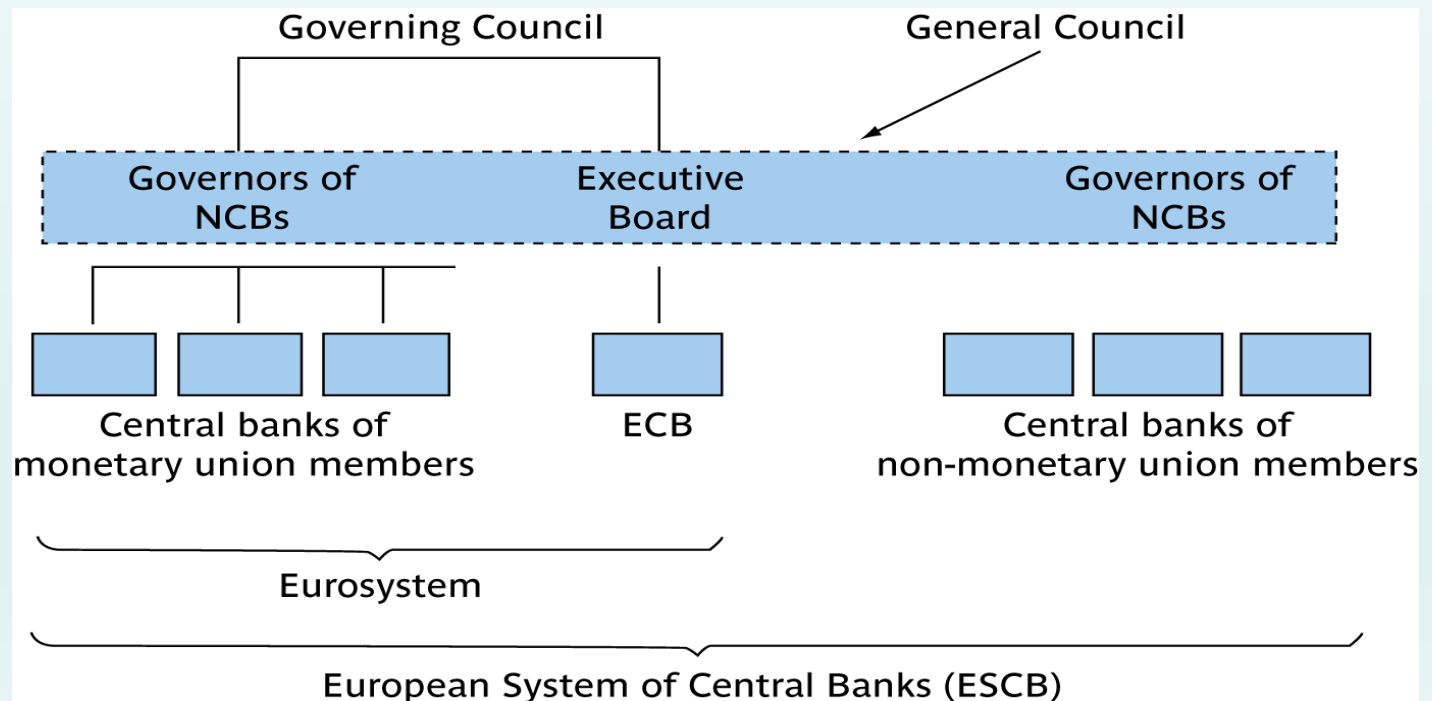
Source: European Central Bank

The Eurosystem



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- N countries with N National Central Banks (NCBs) and a new central bank at the center: the European Central Bank (ECB).
- The European System of Central Banks (ESCB): the ECB and all EU NCBs. The Eurosystem: the ECB and the NCBs of euro area member countries.

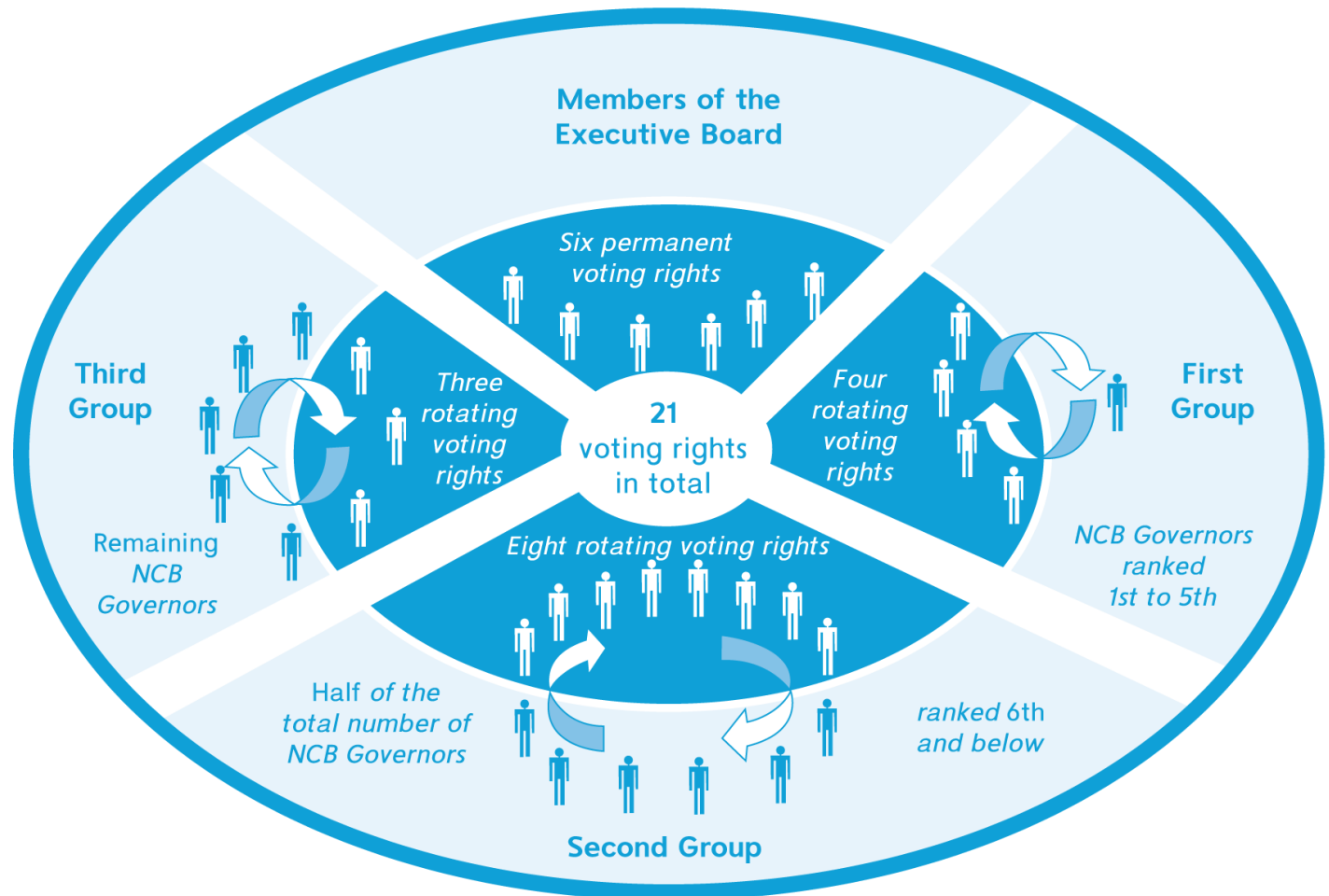


The Rotating Voting System (Since 2015)



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Figure 16.6 The rotation system



Source: © European Central Bank, Frankfurt am Main, Germany, *Monthly Bulletin*, May 2003, p. 80

Objectives



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“The primary objective of the ESCB shall be to maintain price stability. Without prejudice to that objective, it shall support the general economic policies in the Union in order to contribute to the achievement of the latter’s objectives.” (Article 282-2)

- Eurosystem has chosen to interpret it as follows: ‘Price stability is defined as a year-on-year increase in the Harmonized Index of Consumer Prices (HICP) for the Eurozone of below but close to two per cent. Price stability is to be maintained over the medium term.’
- commonly understood as between 1.5 and 2%;
- commonly understood to refer to a 2–3 year horizon.



ECB's Monetary Policy Strategy

Strategy relies on:

1. **Definition of price stability** as the primary goal:
“change in HICP below but close to two per cent”

two ‘pillars’ to identify risks to price stability:

2. First pillar = ‘**economic analysis**’. It consists of a broad review of recent evolution and likely prospects of economic conditions (e.g., growth, employment, prices, exchange rates, foreign conditions);
3. Second pillar = ‘**monetary analysis**’. It studies the evolution of monetary aggregates (M3, in particular) and credit.



Independence and accountability

- A central bank must be free to operate without outside interference but delegation to unelected officials needs to be counterbalanced by democratic accountability.
- Eurosystem is characterized by a great degree of independence (probably the world's most independent central bank).
- Eurosystem operates under the control of the European Parliament. Transparency contributes powerfully to accountability.

Transparency



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Table 16.1 Provision of information on monetary policy meetings

	Public debt	ESCB	Bank of Japan	Bank of England	Bank of Canada	Swedish Riksbank
Interest-rate decision immediately announced	Yes (after 1994)	Yes	Yes	Yes	Yes	Yes
Supporting statement providing some rationale for change	Yes	Yes	Yes	Sometimes	Yes	Yes
Release of minutes	5–8 weeks ^a	No	1 month	13 days	n.a.	2–4 weeks
Official minutes provide full details of:	Yes	No	Yes	Yes	n.a.	No
Internal debate	Yes	No	No	Yes	No	No
Individuals' views						
Verbatim records of MP meetings are kept	No	Yes	No	No	No	Yes
Verbatim records released to the public after:	5 years	n.a.	10 years	n.a.	n.a.	n.a.

^a The minutes are released after the following FOMC meeting.

Source: Blinder et al. (2001)

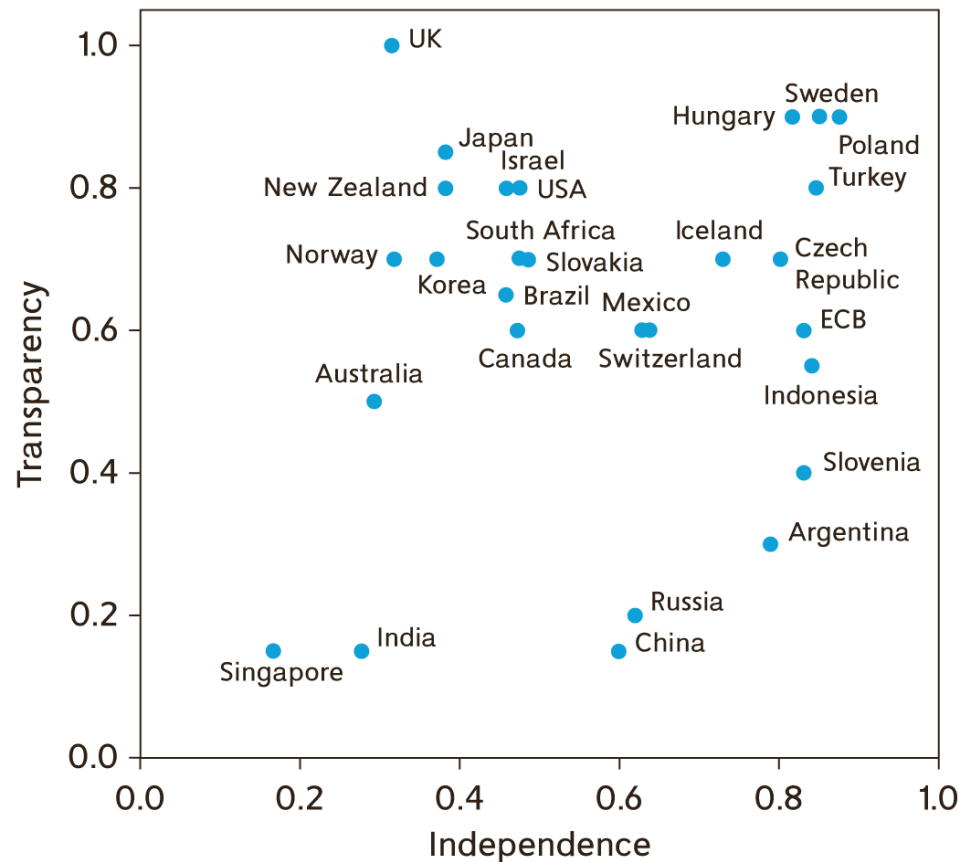
Independence and accountability



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Independence and transparency indices:

Figure 16.9 Independence and transparency indices, 2008



Source: Crowe and Meade (2008)

The first years (until the Great Crisis)



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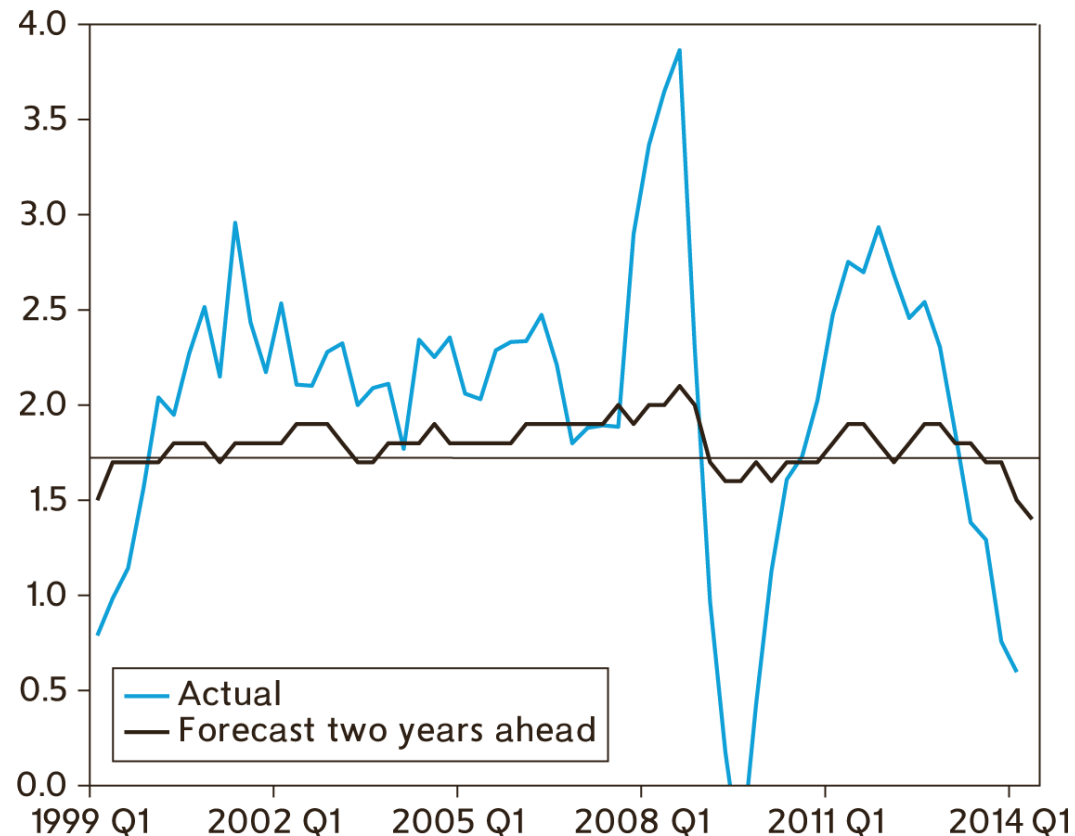
- A difficult period:
 - oil shock in 2000;
 - September 11 in 2001;
 - oil prices to record level and US financial crisis start in mid-2007
- Result: inflation almost always above 2% but close to target (until 2007) and lower than perceived.
- Growth has been generally slow in the Eurozone, prompting criticism of the ECB, including by some member governments.

The first years (until the Great Crisis)



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Figure 16.11 Inflation in the Eurozone (%), 1999Q1–2014Q2



Note: The figure shows for each quarter the actual inflation rate (over the previous four quarters) and forecast inflation over a two-year horizon, computed by the ECB as the average of forecasts produced by professional forecasters.

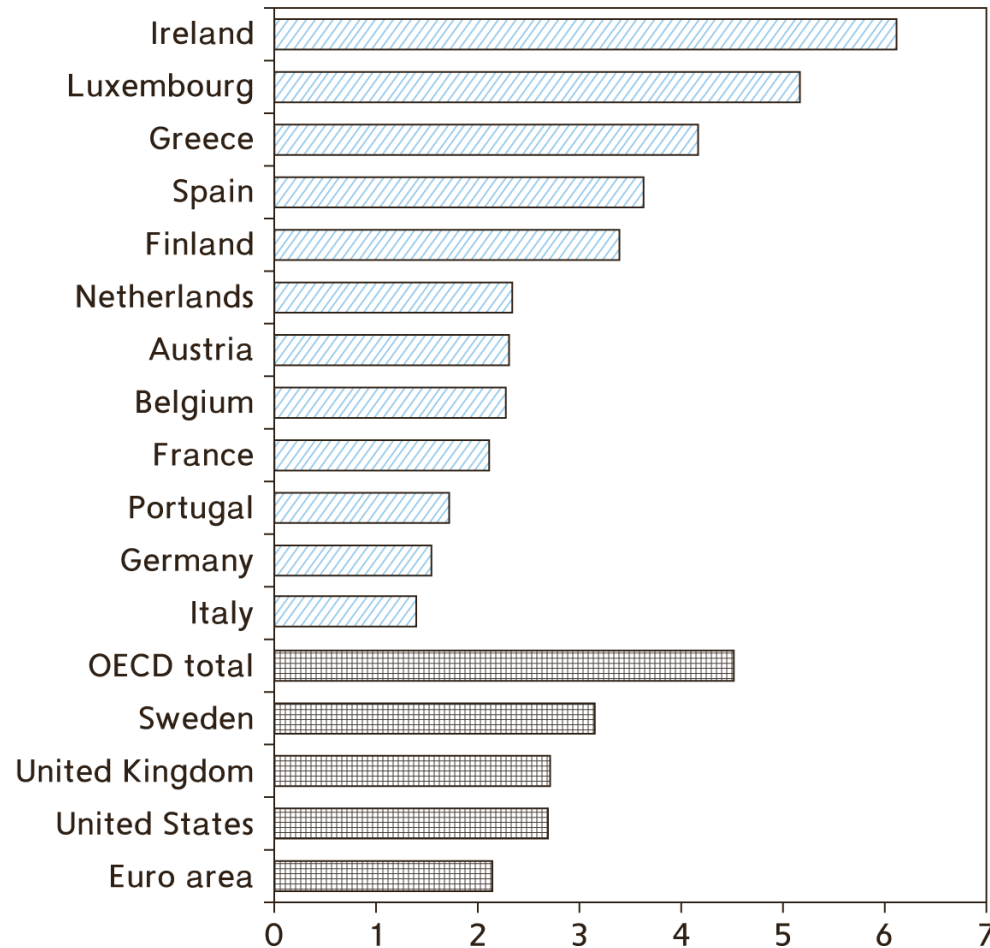
Sources: IMF and *Survey of Professional Forecasters*, ECB

The first years (until the Great Crisis)



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Figure 16.13 Average annual GDP growth rate (%), 1999–2008



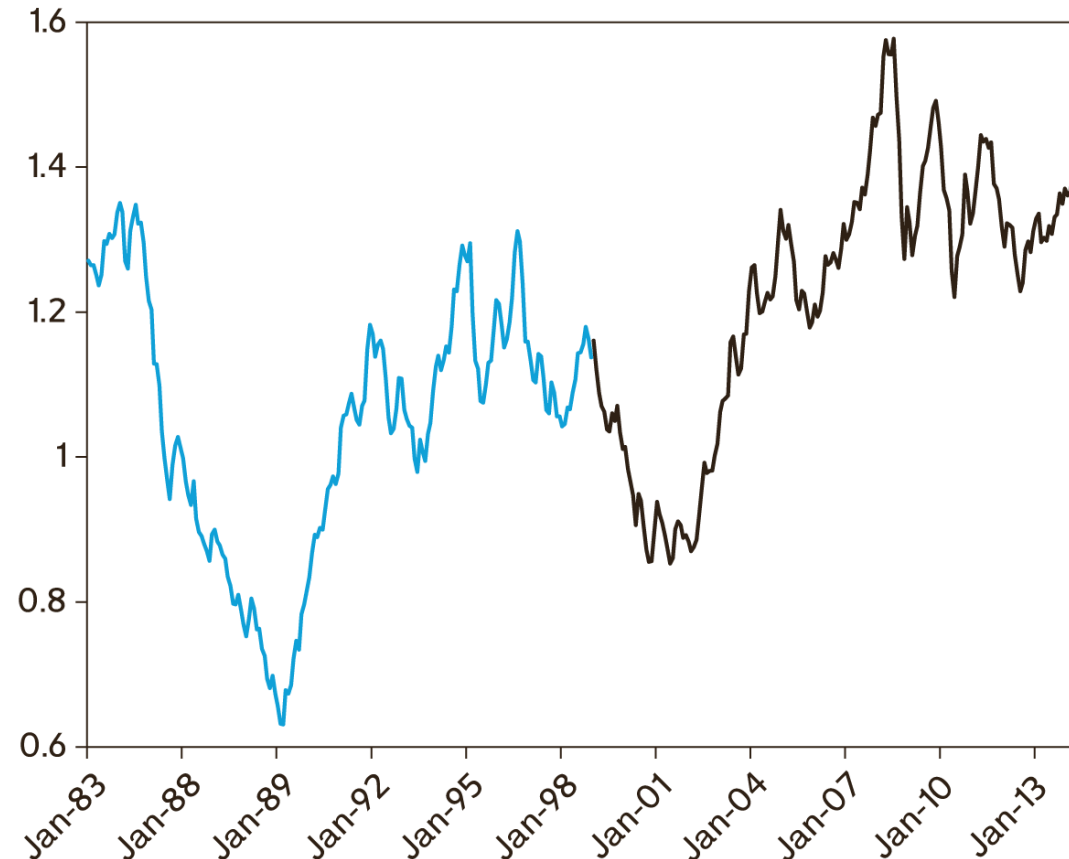
Source: *Economic Outlook*, OECD

The first years (until the Great Crisis)



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Figure 16.14 The dollar/euro exchange rate, January 1983–June 2014



Note: Before 1999, there was no euro. The 'synthetic euro' used here is the value of the ECU, a basket of EU currencies. An increase of the index indicates a euro appreciation.

Source: European Central Bank

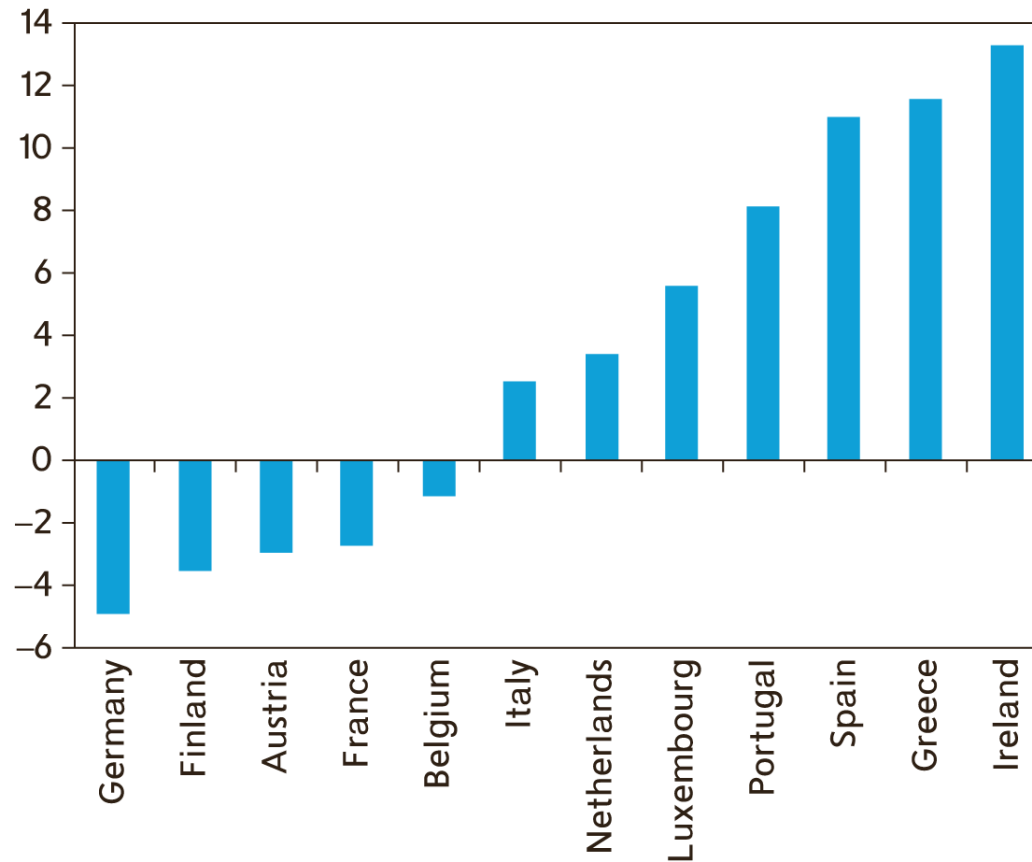
The first years (until the Great Crisis)



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Lasting differences in inflation:

Figure 16.15 Change in price levels relative to the Eurozone, 1999–2008





The first years (until the Great Crisis)

Still, large inflation differentials have occurred:

- lower than average: Germany, France and Finland;
- higher than average: Ireland, Spain, Portugal, Netherlands and Italy.

Possible causes:

- catching up in productivity levels;
- wrong initial conversion rates;
- autonomous wage and price setting;
- policy mistakes, such as fiscal expansion;
- asymmetric shocks, such as oil price effects.

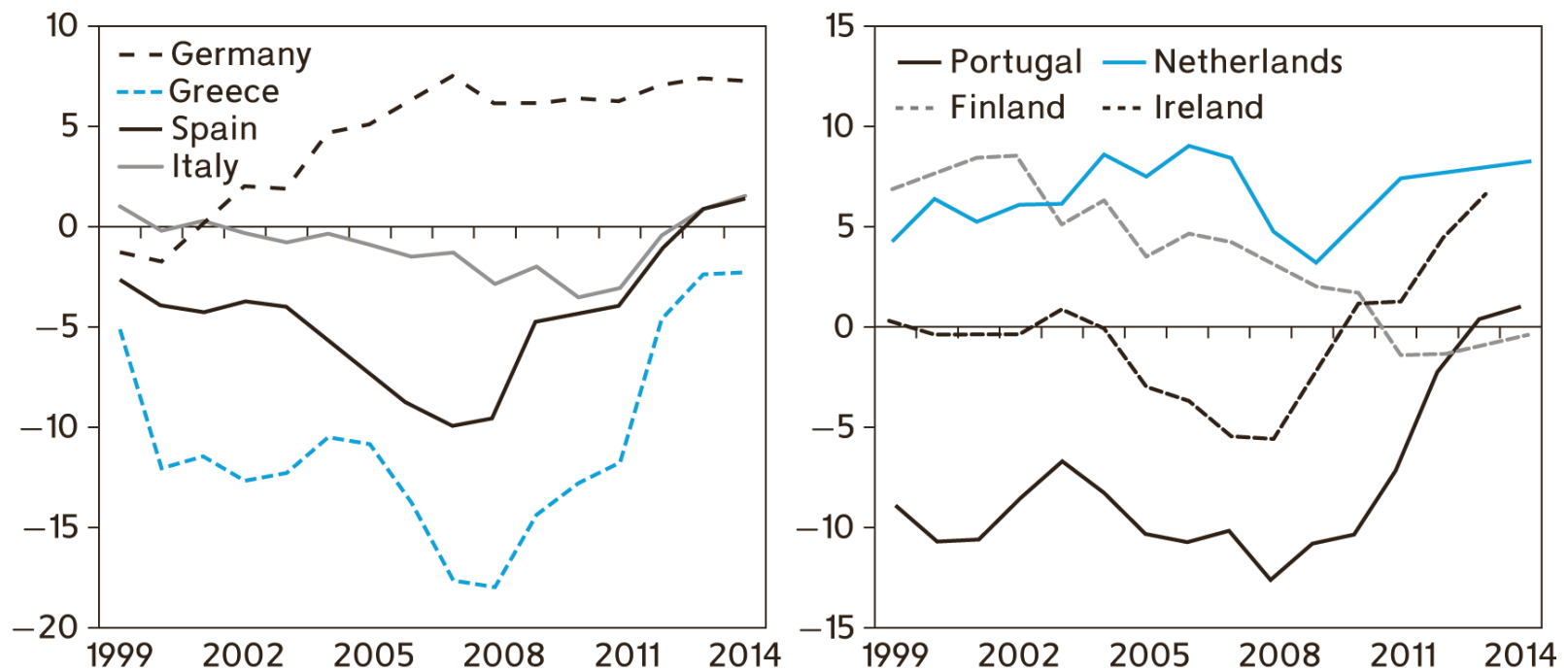
The first years (until the Great Crisis)



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Diverging current account:

Figure 16.16 Current accounts (% of GDP)



Source: AMECO, European Commission