Lecture 7: Intermediate macroeconomics, autumn 2009

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Topics

- **The origins of the Economic and Monetary Union (EMU)**
- **Costs and benefits of EMU membership**
- **The theory of Optimal Currency Areas (OCA)**
- **Efficiency gains**
- **The euro and trade**
- **Cost of restricting the scope for stabilisation policy**
- **Symmetric and asymmetric shocks**
- **Which countries benefit the most from monetary unification?**
- **Should Sweden join the EMU now?**

Literature: Krugman-Obstfeld chapter 20

The European Union (EU)

- **System of international institutions**
- **The Treaty of Rome, 1957**
- **Currently: 27 European countries**
- **Single market**
- **Free movement of people, goods, services and capital**

EMU – Economic and Monetary Union

- **An old idea in the European Union**
- **1989: Delors report**
- **1991: Maastricht treaty**
- **1997: Stability pact**
- **Eleven of then 15 EU countries joined from the start (Denmark and the UK have the formal right to stay out according to the Maastricht treaty, Sweden has no such formal right but chose to stay outside all the same, Greece did not meet the entry requirements)**
- **1 January 1999: the euro was introduced in ”electronic” form (shares, bonds, bank transactions etc. and ECB (European Central Bank) in Frankfurt became responsible for the common monetary policy in the euro area**
- **1 January 2001: Greece entered (twelve members)**
- **1 January 2002: the euro was introduced as a physical means of payments (bills and coins)**
- **1 January 2007: Slovenia entered (13 members)**
- **1 January 2008: Cyprus and Malta entered (15 members)**
- **1 January 2009: Slovak Republic entered (16 members)**
- **Estonia, Latvia and Lithuania?**
  - Lithuania’s application rejected 2006

Fig. 20-1: Members of the Euro Zone as of January 1, 2008

Swedish decision process

- **Government Commission on the EMU 1995-96 (Calmfors Commission)**
- **Parliamentary decision not to join 1997**
- **Government Commission on Stabilisation Policy in the Event of Swedish Membership 2000-02**
- **No vote in euro referendum 2003**
  - **High voter turnout: 82.6 percent of eligible voters**
  - **No: 55.9 percent**
  - **Yes: 42.0 percent**
- **The issue of a new referendum is being raised again now**

Evaluation of benefits and costs of EMU membership

- **Theory of Optimal Currency Areas (OCA)**
- **Robert Mundell (1961)**
- **Mundell was awarded the 1999 Riksbanken Prize in Economic Sciences in Memory of Alfred Nobel ("Nobel Prize" in Economics)**
- **An optimal currency area should consist of economically highly integrated economies**
  - **goods and services**
  - **financial and physical capital**
  - **labour**
- **Trade-off between social efficiency aspects and stabilisation policy aspects**

Analysis of the Swedish Government Commission on the EMU

- **Social efficiency aspects**
- **Stabilisation policy aspects**
- **Political (political science) aspects**

Social efficiency

- **Lower transaction costs in the case of international payments**
  - **resource savings of 0,1 – 0,2 per cent of GDP in banking sector. Additional savings (but probably smaller) in the rest of the economy.**
- **No exchange rate risk when payments are made within the euro area**
  - **Positive effect on foreign trade and cross-border (financial and direct) investment**
  - **Intensive debate on how large these effects are**
- **More intensive competition**
  - **price comparisons become easier to make**
  - **higher price elasticities of demand (firms' price mark-ups over marginal costs fall)**
  - $P = \varepsilon / (\varepsilon - 1)\, MC$
- **But no reason to expect lower inflation inside the EMU than outside for a country like Sweden (more or less the same monetary policy)**
- **Possibly lower real rate of interest because of lower risk premium**

Trade effects of a common currency

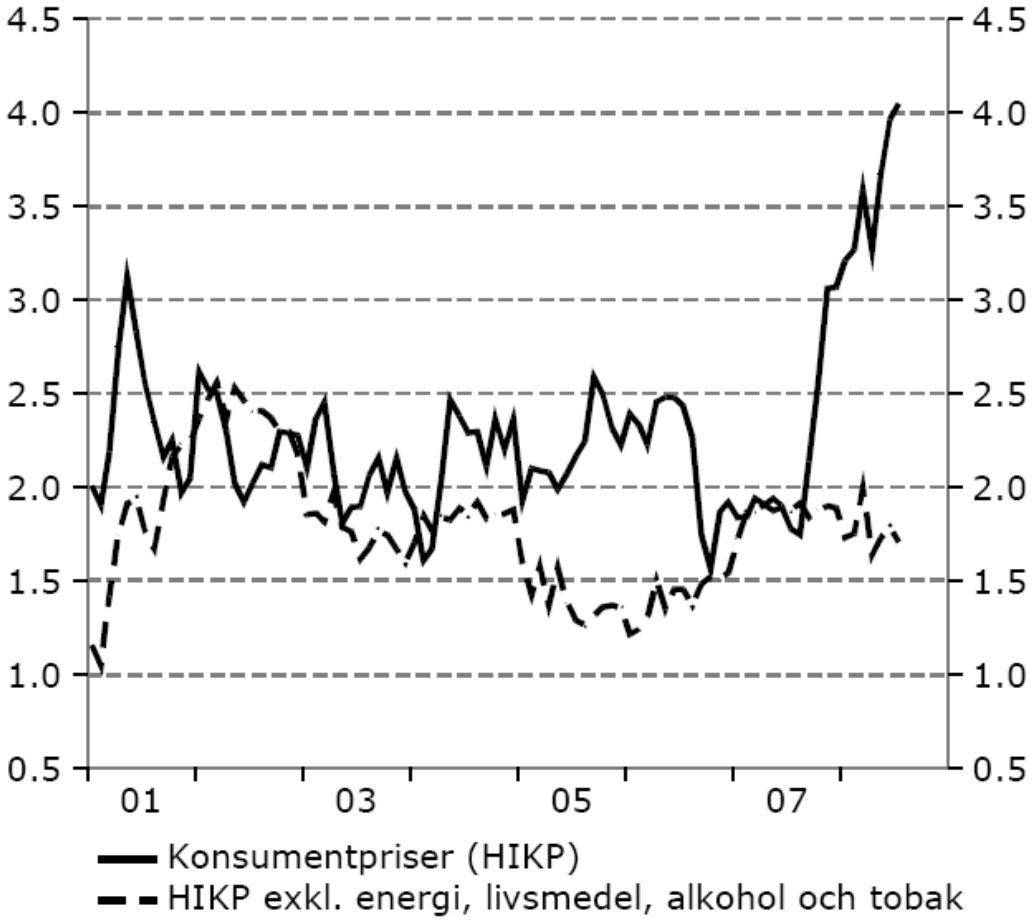
- **Earlier large difficulties find empirical support for more foreign trade with smaller exchange rate fluctuations**
- **But a common currency may represent a more fundamental change of the monetary regime than a reduction of exchange rate fluctuations between different currencies**
- **Studies by Andy Rose and others: *huge* trade effects of a common currency (+ 100-200 %) in the long run**
  - **panel data from 1970: variation both across countries and over time**
  - **limited number of countries with observations of common currencies**
  - **non-representative observations (poor countries, earlier colonies, small countries or regions like Monaco, the Vatican and Pitcairn)**
  - **other factors?**
- **Studies of what actually happened after the start of the EMU**
  - **+ 5–15 % in most studies**

Trade and growth

- **Increased trade because of lower trade barriers imply a more efficient use of resources**
  - **traditional trade theory: better use of comparative advantages**
  - **new trade theory: more specialisation allows economies of scale to be exploited to a larger extent**
- **Neoclassical growth theory (Solow model): GDP per capita increases from one level to another – temporarily higher growth during an adjustment period (20-30 years))**
- **Endogenous growth theory: permanently higher growth**
  - **more intense competition ⇒ higher rate of innovation**
  - **faster diffusion of innovations through trade**
- **Empirical research seems to confirm that more trade implies higher growth**
  - **Frankel and Rose (2000): each percentage point rise of trade intensity (exports + imports/ /2 · GDP ⇒ GDP per capita ↑ 1/3 per cent**
  - **UK report on euro membership: long-run rise of GDP per capita by med 0.5 – 9 %**
  - **but recently much faster productivity growth in Sweden and the UK than in France, Germany and Italy**
  - **other factors than a common currency are probably far more important for productivity growth than a common currency**

Diagram 44 Inflation i euroområdet

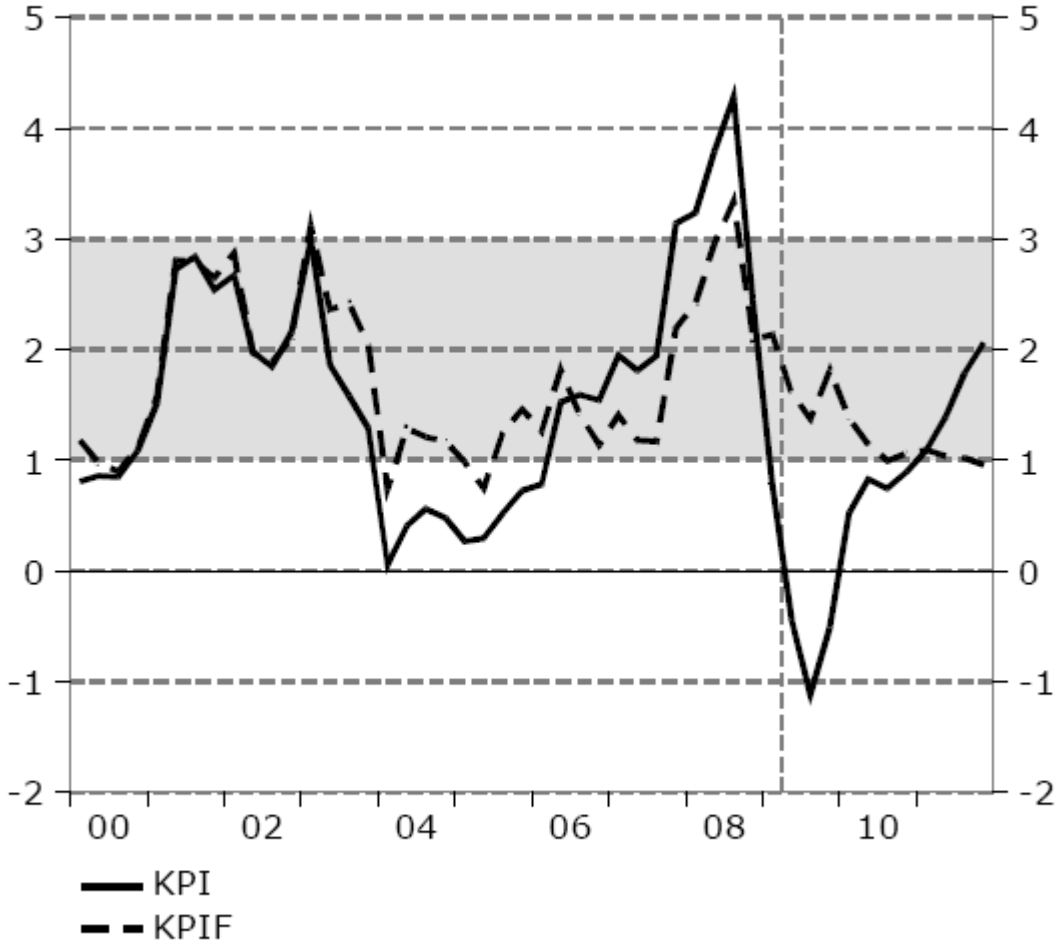
Procent, månadsvärden



Källa: Eurostat.

Diagram 156 Konsumentpriser

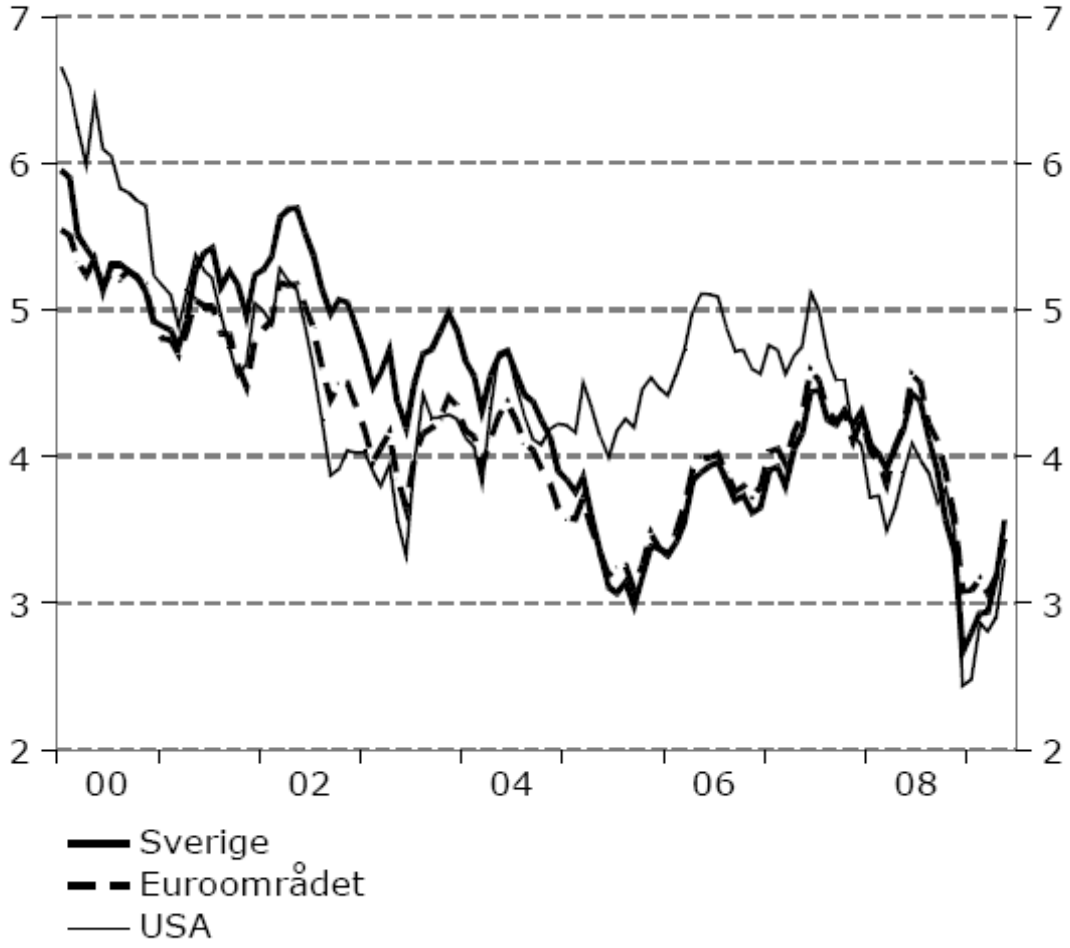
Årlig procentuell förändring, kvartalsvärden



Källor: SCB och Konjunkturinstitutet.

Diagram 47 Långräntor, tioåriga statsobligationer

Procent, månadsvärden



Källa: Riksbanken.

Government bond yields

10 years to maturity - percent, monthly values

Source: IMF

Potential stabilisation policy costs of a common currency

- **Asymmetric (country specific) cyclical shocks versus symmetric (common) shocks**
- **A large frequency of asymmetric shocks imply large stabilisation policy costs because exchange rate movements can then no longer function as automatic shock absorbers (cf the AA-DD analysis in Krugman-Obstfeld) and monetary policy can no longer be adjusted to the country-specific conditions**
- **A common monetary policy may also cause problems if different economies respond in different ways to common macroeconomic shocks or the common monetary policy**
- **Asymmetric recessionary shocks are an obvious problem**
- **But asymmetric booms are also a problem**
  - **Inflation adjusts only gradually and causes ultimately an ”overshooting” of the real exchange rate (the real exchange rate appreciates too much in the end because of higher inflation at home than abroad): Ireland and Spain**
  - **”Walter’s critique”: expected future inflation reduces the real interest rate (the nominal interest rate less inflation) in a boom and therefore exacerbates the boom in the short run**
  - **interaction with house prices**
- **But a common currency also reduces the risks of pure exchange rate shocks**
  - **However, pure exchange rate shocks do not seem in the past to have caused large fluctuations in output and employment in most OECD economies**

TABLE 13 : Output gap relative to potential GDP (deviation of actual output from potential output as % of potential GDP, 1992-2010) [1] 22.04.2009

	5-year averages							2008		2009		2010	
	1992-96	1997-01	2002-06	2004	2005	2006	2007	*X-2008*	IV-2009	*X-2008*	IV-2009	*X-2008*	IV-2009
Belgium	-0.7	0.2	0.2	0.3	0.5	1.6	2.5	*0.6*	1.9	*-1.1*	-2.6	*-1.9*	-3.8
Germany	0.2	0.1	-0.4	-0.9	-0.9	1.1	2.7	*1.6*	3.0	*0.2*	-3.2	*-0.2*	-3.7
Ireland	-3.1	2.2	1.9	0.8	1.9	2.7	5.0	*-1.4*	0.8	*-3.8*	-7.2	*-2.9*	-8.5
Greece	-1.8	-1.2	1.2	2.2	1.3	2.0	2.5	*1.5*	2.5	*0.7*	-0.5	*0.2*	-2.4
Spain	-2.5	0.0	-0.1	-0.5	-0.3	0.6	1.4	*-0.2*	0.9	*-2.1*	-2.5	*-3.1*	-3.6
France	-2.1	-0.2	1.0	1.0	1.2	1.7	2.2	*0.3*	1.7	*-1.1*	-2.2	*-1.6*	-3.1
Italy	-1.4	-0.1	0.7	0.5	0.6	1.9	2.6	*-0.3*	0.9	*-1.3*	-3.7	*-1.8*	-4.0
Cyprus	:	0.1	0.1	-0.4	-0.3	0.5	1.9	*0.2*	2.2	*-0.3*	0.4	*-0.4*	-1.3
Luxembourg	-0.8	0.0	0.9	-0.5	0.9	3.9	5.6	*0.7*	1.2	*-1.6*	-4.2	*-2.6*	-5.9
Malta	:	2.0	-1.6	-3.4	-1.5	-0.2	1.4	*0.6*	1.8	*0.2*	-0.2	*-0.1*	-1.1
Netherlands	-1.0	1.0	-0.9	-1.4	-0.9	0.7	2.4	*1.4*	2.7	*0.0*	-2.0	*-0.9*	-3.3
Austria	-0.6	0.7	-0.6	-1.4	-0.5	1.2	2.7	*1.3*	2.9	*0.0*	-2.2	*-0.5*	-3.3
Portugal	-1.5	1.5	-0.5	-1.1	-0.9	-0.2	1.3	*-0.6*	0.8	*-1.4*	-2.7	*-1.7*	-3.5
Slovenia	:	0.2	-0.4	-1.1	-0.4	1.7	4.5	*1.7*	3.2	*0.1*	-1.3	*-0.6*	-2.7
Slovakia	:	-1.7	-1.0	-1.6	-0.7	1.8	6.5	*2.9*	8.0	*0.8*	0.9	*-0.7*	-2.2
Finland	-4.0	1.8	0.1	-0.3	-0.1	2.4	4.1	*0.9*	2.7	*-0.6*	-3.1	*-1.1*	-3.9
Euro area	-1.3	0.1	0.2	-0.1	0.0	1.4	2.5	*0.6*	2.0	*-0.7*	-2.8	*-1.3*	-3.6
Bulgaria	:	-3.0	2.5	2.7	2.9	3.3	3.6	*1.5*	3.7	*-0.1*	-2.0	*-1.2*	-5.4
Czech Republic	:	-2.8	-0.4	-1.6	0.9	3.8	5.9	*2.4*	5.3	*1.2*	-0.7	*0.3*	-3.3
Denmark	-1.1	1.1	0.3	-0.2	0.8	2.4	2.4	*0.1*	-0.2	*-1.2*	-4.0	*-1.6*	-4.5
Estonia	:	-1.2	3.3	1.6	4.4	8.8	10.4	*1.1*	3.3	*-4.1*	-8.6	*-5.4*	-10.3
Latvia	:	-1.5	3.0	1.3	4.6	10.1	15.0	*3.6*	6.6	*-2.9*	-7.9	*-5.0*	-10.6
Lithuania	:	-3.8	3.1	3.5	4.7	6.1	8.9	*4.4*	7.6	*0.3*	-6.1	*-3.8*	-11.7
Hungary	:	-0.9	1.1	0.9	1.6	3.6	3.3	*1.2*	3.0	*0.0*	-3.7	*0.0*	-4.1
Poland	:	0.4	-0.1	0.6	0.1	1.7	3.4	*1.5*	3.5	*-0.1*	-1.5	*-1.0*	-3.8
Romania	:	-5.5	0.9	2.2	2.1	5.4	6.6	*4.8*	8.5	*3.4*	0.2	*2.8*	-3.0
Sweden	-3.8	-0.8	0.9	0.8	1.7	3.2	3.3	*0.4*	0.9	*-1.4*	-3.8	*-1.4*	-3.4
United Kingdom	-1.7	0.5	0.8	1.0	0.8	1.4	2.4	*1.0*	1.6	*-1.4*	-3.1	*-2.5*	-3.8
EU	:	0.1	0.3	0.1	0.3	1.5	2.6	*0.7*	2.0	*-0.8*	-2.9	*-1.5*	-3.7

[1] When comparing output gaps between the spring and the autumn forecast it has to be taken into account that the overall revisions to the forecast may have led to changes in the estimates for potential output.

Graph 2.7.1: **Ireland - GDP growth, unemployment rate and general government balance**

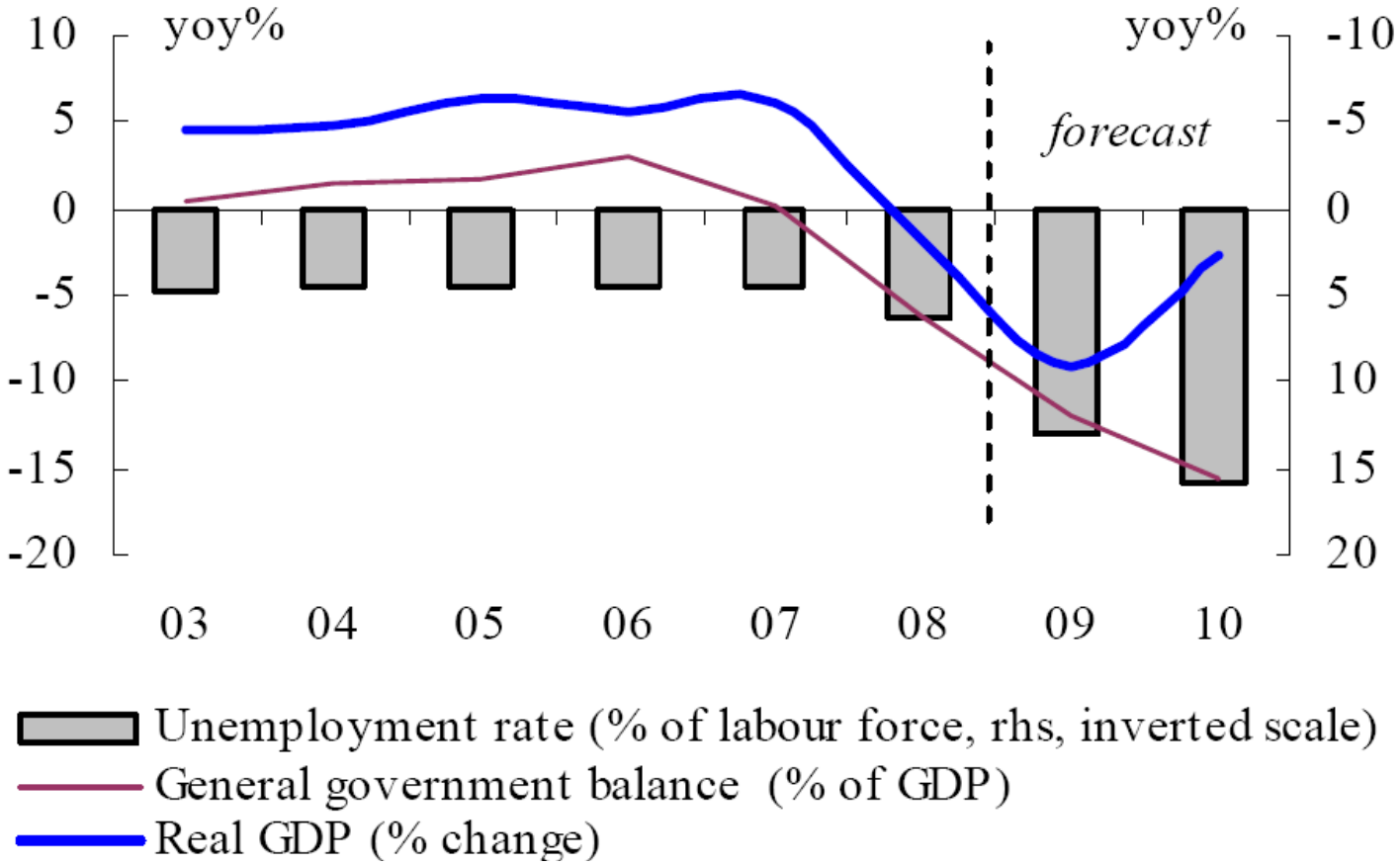


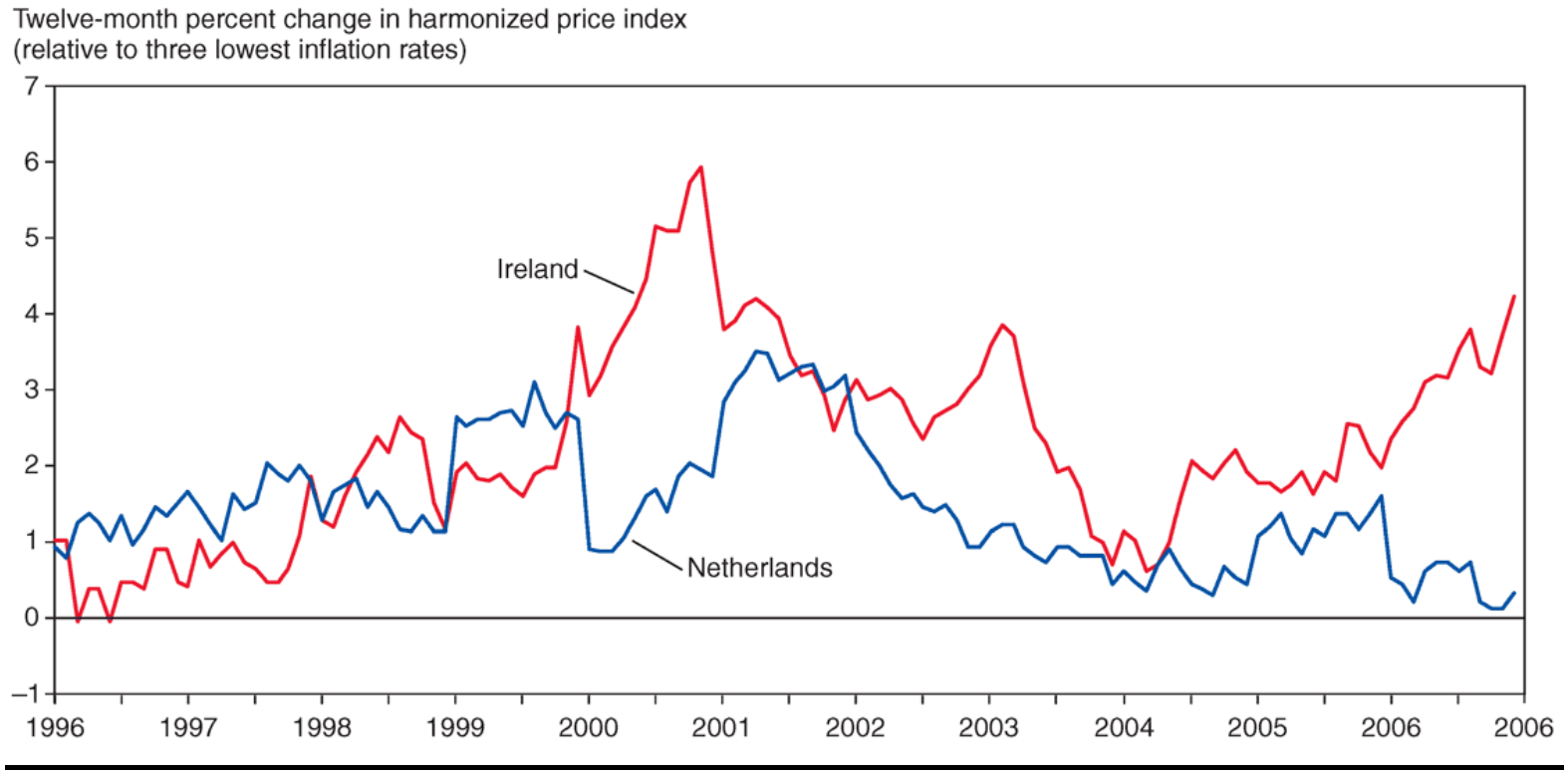
TABLE 27 : Unit labour costs, whole economy [1] (percentage change on preceding year, 1992-2010) 22.04.2009

	5-year averages							2008		2009		2010	
	1992-96	1997-01	2002-06	2004	2005	2006	2007	*X-2008*	IV-2009	*X-2008*	IV-2009	*X-2008*	IV-2009
Belgium	2.1	1.5	1.1	-0.4	1.5	1.7	2.8	*3.6*	3.7	*2.7*	4.5	*1.8*	0.6
Germany	2.5	0.3	-0.1	-0.2	-0.8	-1.2	0.4	*2.0*	2.1	*2.8*	5.1	*1.6*	-1.5
Ireland	1.0	2.5	3.0	3.7	4.7	3.2	3.6	*5.0*	7.0	*2.2*	-4.0	*0.9*	-3.9
Greece	10.7	3.8	2.9	2.5	2.9	-1.3	6.3	*5.9*	5.7	*5.7*	4.1	*5.4*	1.7
Spain	4.1	2.3	3.0	2.4	3.3	3.2	2.9	*3.4*	3.4	*1.4*	1.1	*1.0*	0.9
France	1.1	0.9	1.9	1.1	1.8	2.0	2.1	*2.6*	2.7	*2.0*	2.0	*1.6*	0.4
Italy	2.6	1.2	3.0	2.1	2.7	2.2	1.5	*5.1*	4.2	*2.2*	3.3	*2.3*	0.8
Cyprus	:	1.9	3.5	1.5	1.4	0.6	0.9	*3.8*	3.0	*4.2*	4.7	*2.8*	3.7
Luxembourg	3.8	1.7	1.4	1.4	1.4	0.4	3.6	*4.9*	7.2	*3.4*	5.4	*1.7*	0.6
Malta	4.2	1.9	1.5	-0.4	-0.2	1.2	1.0	*2.1*	3.3	*1.9*	3.4	*1.5*	2.7
Netherlands	1.5	2.7	1.6	0.2	-0.4	0.9	2.0	*3.1*	3.4	*3.6*	6.2	*3.4*	0.0
Austria	2.0	0.1	0.6	-0.6	0.8	1.0	0.8	*2.7*	3.0	*2.5*	4.1	*1.5*	0.6
Portugal	5.7	3.8	2.5	1.0	3.4	1.3	1.4	*3.4*	3.6	*2.6*	1.7	*1.9*	2.3
Slovenia	:	6.2	3.3	3.7	0.8	1.1	2.5	*6.0*	7.9	*4.6*	1.0	*3.6*	1.7
Slovakia	:	6.3	3.4	2.9	4.3	1.5	0.6	*4.0*	5.2	*3.4*	5.9	*2.4*	5.2
Finland	-1.1	1.0	0.9	0.3	2.3	-0.2	1.5	*4.6*	6.2	*3.2*	5.7	*2.3*	2.5
Euro area	2.5	1.1	1.6	1.0	1.3	1.0	1.7	*3.3*	3.3	*2.5*	3.4	*1.9*	0.1
Bulgaria	:	69.7	2.5	1.0	2.4	4.4	14.2	*15.3*	16.2	*10.4*	5.9	*7.6*	3.3
Czech Republic	:	5.7	2.4	1.3	-0.4	1.3	3.1	*4.2*	4.2	*4.9*	4.2	*4.3*	1.8
Denmark	0.6	2.3	2.1	0.4	2.2	2.2	4.2	*4.3*	7.0	*3.5*	4.1	*1.8*	0.2
Estonia	:	4.6	4.9	3.5	3.5	9.1	19.4	*17.5*	19.3	*6.2*	4.1	*1.4*	-5.9
Latvia	:	1.3	8.2	6.4	15.2	15.3	27.0	*23.3*	23.2	*4.8*	-4.6	*1.2*	-3.1
Lithuania	:	1.8	4.4	3.3	6.0	10.1	10.3	*13.2*	10.6	*8.0*	-7.0	*4.8*	-6.6
Hungary	:	10.4	5.0	5.5	3.4	1.3	4.9	*5.9*	6.0	*5.6*	5.1	*4.3*	4.0
Poland	:	7.9	-1.7	-2.1	0.3	-1.1	1.2	*5.8*	6.9	*3.3*	2.4	*1.2*	-0.2
Romania	108.4	69.0	12.8	3.1	21.6	4.9	15.7	*14.3*	14.3	*10.6*	10.5	*8.8*	8.1
Sweden	1.6	2.1	0.0	-0.8	0.1	-0.4	4.7	*3.4*	2.7	*3.1*	3.7	*1.3*	-1.1
United Kingdom	1.1	2.9	2.5	2.4	2.7	2.5	1.4	*2.4*	2.4	*2.1*	2.4	*2.7*	0.4
EU	:	2.2	1.8	1.1	1.7	1.3	2.0	*3.4*	3.5	*2.7*	3.3	*2.1*	0.2
USA	1.5	2.4	1.8	1.6	2.0	3.3	2.8	*1.9*	1.7	*1.9*	2.9	*0.1*	-1.5
Japan	0.1	-1.1	-2.6	-3.7	-1.6	-1.1	-2.4	*-0.4*	0.7	*-0.7*	1.7	*-0.4*	-0.9

[1] Compensation of employees per head divided by labour productivity per head, defined as GDP in volume divided by total employment.

Note : See note 6 on concepts and sources where countries using full time equivalents are listed.

Fig. 20-8: Divergent Inflation in the Euro Zone



Factors that determine the magnitude of stabilisation policy costs of a common currency

- **Extent of trade**
  - **Rose & Frenkel: more trade means that cyclical shocks are transmitted among countries to a larger extent and increases the synchronisation of business cycles among countries: common shocks thus become more frequent**
  - **Krugman: more trade causes more specialisation and therefore imply less synchronisation of business cycles across countries if shocks are sector specific**
  - **much stronger empirical support for the first hypothesis**

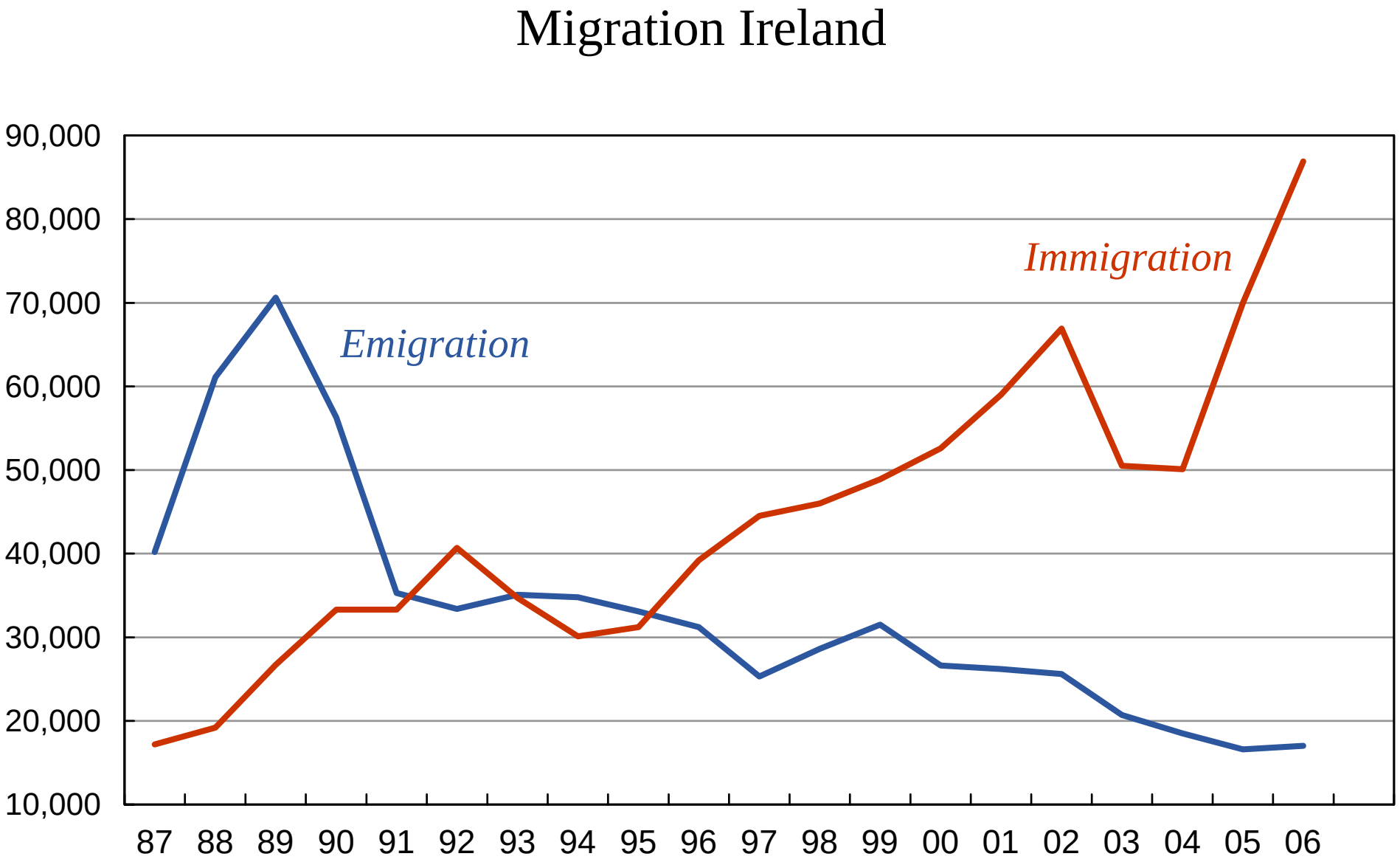
- **How diversified is the economy?**
  - **a well diversified economy reduces the impact on the economy of sectoral shocks**

- **Mobility of labour between countries**
  - **unemployed in one country can move to a country with excess demand for labour**
  - **prime example: Ireland (but also the UK and Spain)**

Factors that determine the magnitude of stabilisation policy costs of a common currency (cont.)

- **To what extent can the real exchange rate, q = EP*/P, change through relative price changes (in P/P*) instead of through nominal exchange rate changes (in E)?**
  - **the scope for relative price changes is determined by the flexibility of nominal wages**
  - **in the case of an asymmetric recession nominal wages must fall relative to other eurozone countries if the real exchange rate is to depreciate**
  - **strong resistance to reductions of the *nominal wage level***
  - **adjustments through nominal wage restraint has worked in Germany but not in Italy**
- **Fiscal transfers from other EMU members**
  - **fiscal federalism**
  - **other ”currency areas” (large countries like the US and Canada) have a large federal budget which works like an automatic stabiliser (20 – 40 % dampening of cyclical swings in output)**
  - **the EU budget (around 1.1 % of GDP) is too small to be an automatic stabiliser and its composition makes it unsuitable for that purpose (agricultural and regional support**
- **National fiscal policy instead of national monetary policy**
  - **but fiscal policy is a less appropriate stabilisation policy tool (longer decision lags, distributional concerns in addition to stabilisation motives, risks of too large budget deficits)**

Fig. 2.4



Source: Central Statistics Office Ireland (2006).

ULC = Unit labour cost (wage cost per unit of output)

- $\frac{WL}{Q} = \frac{W}{(Q/L)}$ = Nominal wage/Productivity

- **Percentage change of ULC = Percentage wage increase – Percentage increase of productivity**

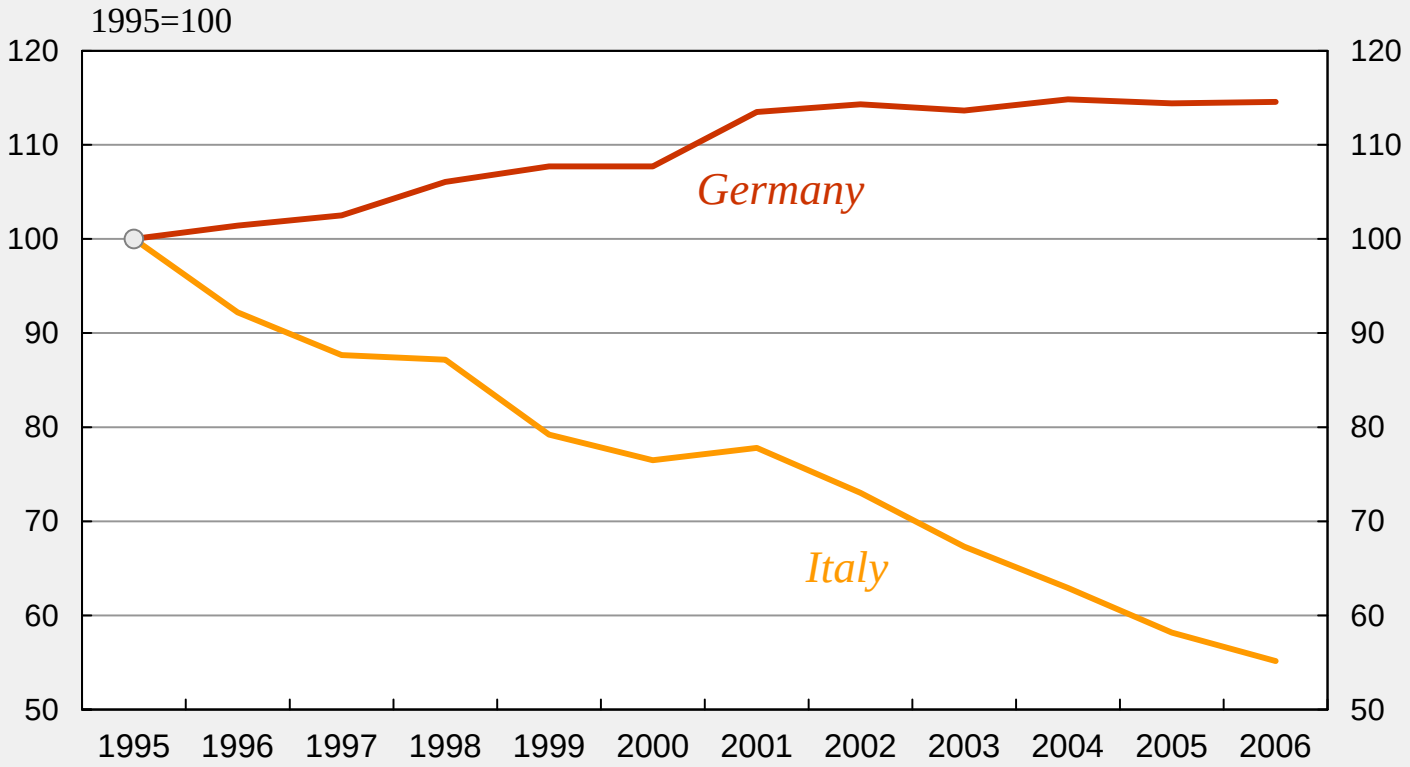
- **Percentage rate of change of producer price level ≈ Percentage rate of change of ULC**

- **Relative unit labour cost = RULC = Own unit labour cost / unit labour cost in the rest of the world (among main competitor countries in world markets)**

$$q = \frac{EP^*}{P} \approx \frac{E \cdot ULC^*}{ULC}$$

Fig. 2.5

Share in world merchandise exports in volume terms



Source: Banca d'Italia (2006b).

The theory of Optimal Currency Areas (cont.)

- **Costs and benefits for countries deciding whether to join a monetary union**

- **Monetary efficiency gain: eliminate exchange rate uncertainty and international transaction costs involved in floating exchange rates (the GG-schedule)**

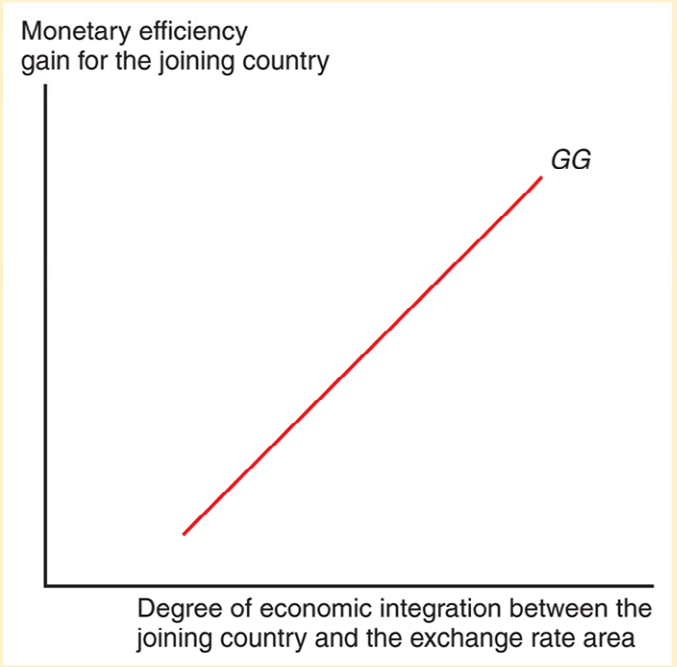
- **Economic stability loss: loss of independent monetary policy, ability to stabilise the economy limited with a common currency (the LL-schedule)**

Theory of Optimum Currency Areas (cont.)

Figure 20-3

The *GG* Schedule

The upward-sloping *GG* schedule shows that a country's monetary efficiency gain from joining a fixed exchange rate area rises as the country's economic integration with the area rises.

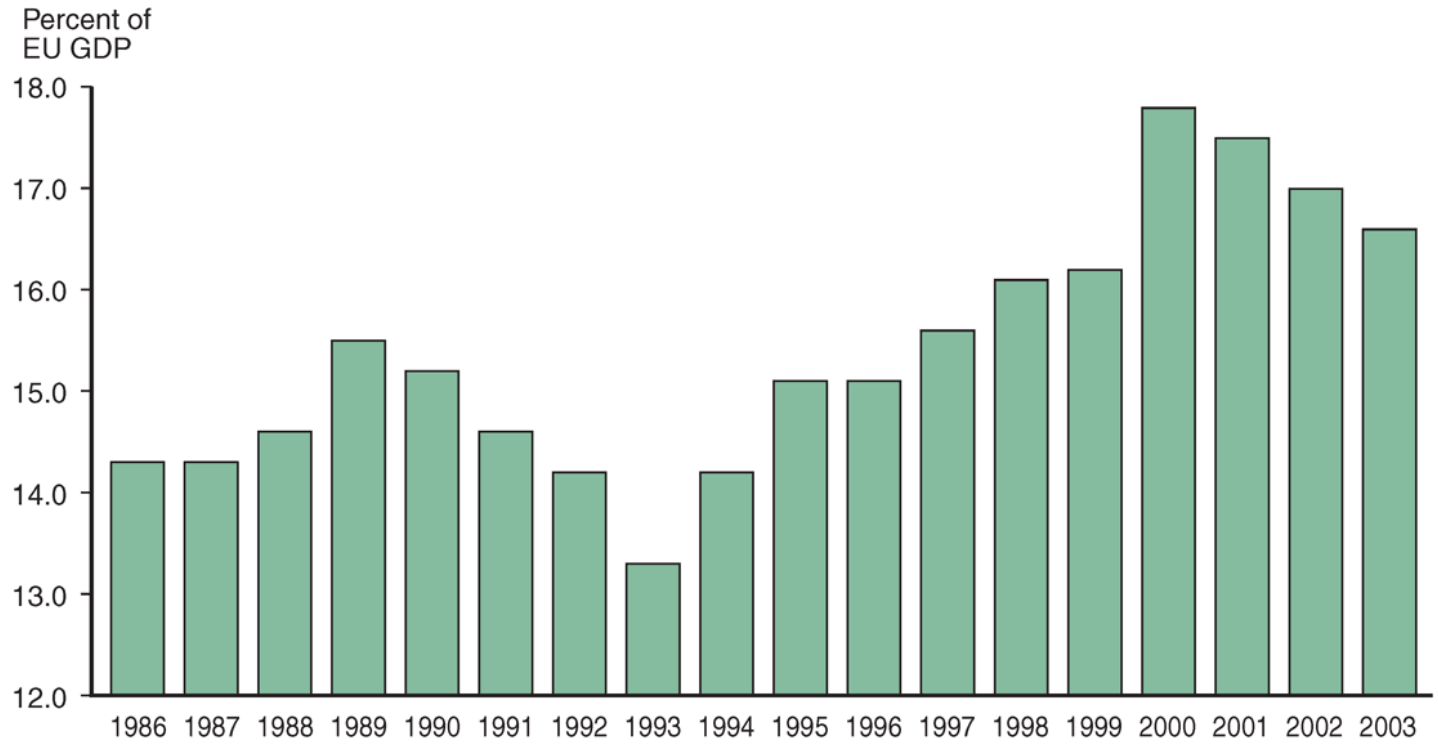


Stabilisation policy cost and the degree of integration

More integration tends to reduce the stabilisation policy cost

- **Larger labour mobility**
- **With a larger volume of trade, a given effect on domestic GDP can be achieved via a smaller change in the real exchange rate**
- **Larger trade means that a nominal exchange rate depreciation is a less efficient means of depreciating the real exchange rate:**
  - **if imports have a large weight in the CPI, the import price rises following from a nominal depreciation cause large rises in the CPI and are likely to trigger large compensating wage increases that increase domestic producer prices: if so a nominal depreciation has only a small effect on the real exchange rate**
  - $q = EP^*/P$**. Both** $E\uparrow$ **and** $P\uparrow$**.**

Fig. 20-7: Intra-EU Trade as a Percent of EU GDP



Source: *OECD Statistical Yearbook* and Eurostat.

Table 20-2: People Changing Region of Residence in the 1990s (percent of total population)

Britain	Germany	Italy	United States
1.7	1.1	0.5	3.1

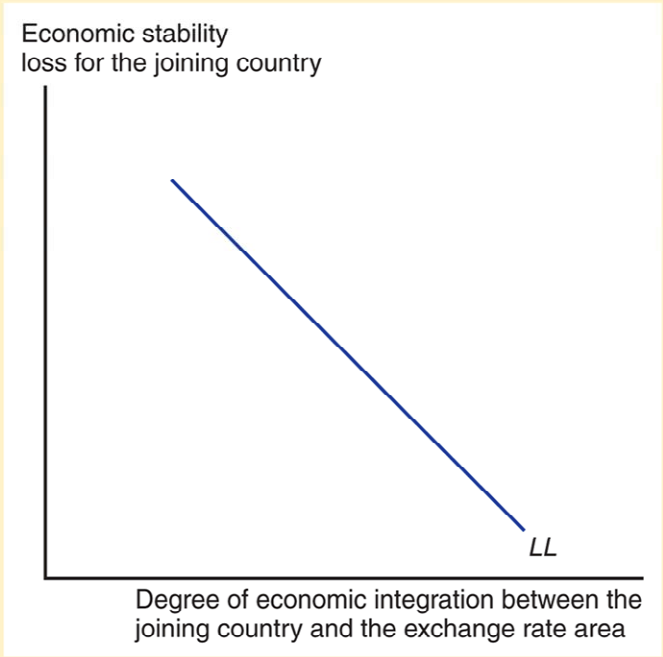
Source: Peter Huber, "Inter-regional Mobility in Europe: A Note on the Cross-Country Evidence," *Applied Economics Letters* 11 (August 2004), pp. 619–624; and "Geographical Mobility, 2003–2004," U.S. Department of Commerce, March 2004. Table data are for Britain in 1996, Germany in 1990, Italy in 1999, and the United States in 1999.

Theory of Optimum Currency Areas (cont.)

Figure 20-4

The *LL* Schedule

The downward-sloping *LL* schedule shows that a country's economic stability loss from joining a fixed exchange rate area falls as the country's economic integration with the area rises.



Theory of Optimum Currency Areas (cont.)

Figure 20-5

Deciding When to Peg the Exchange Rate

The intersection of *GG* and *LL* at point 1 determines a critical level of economic integration θ_1 between a fixed exchange rate area and a country considering whether to join. At any level of integration above θ_1, the decision to join yields positive net economic benefits to the joining country.

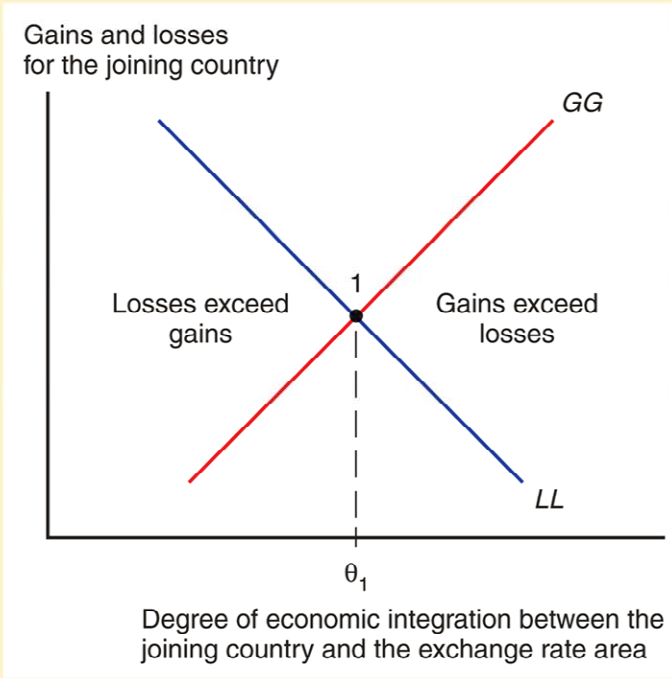
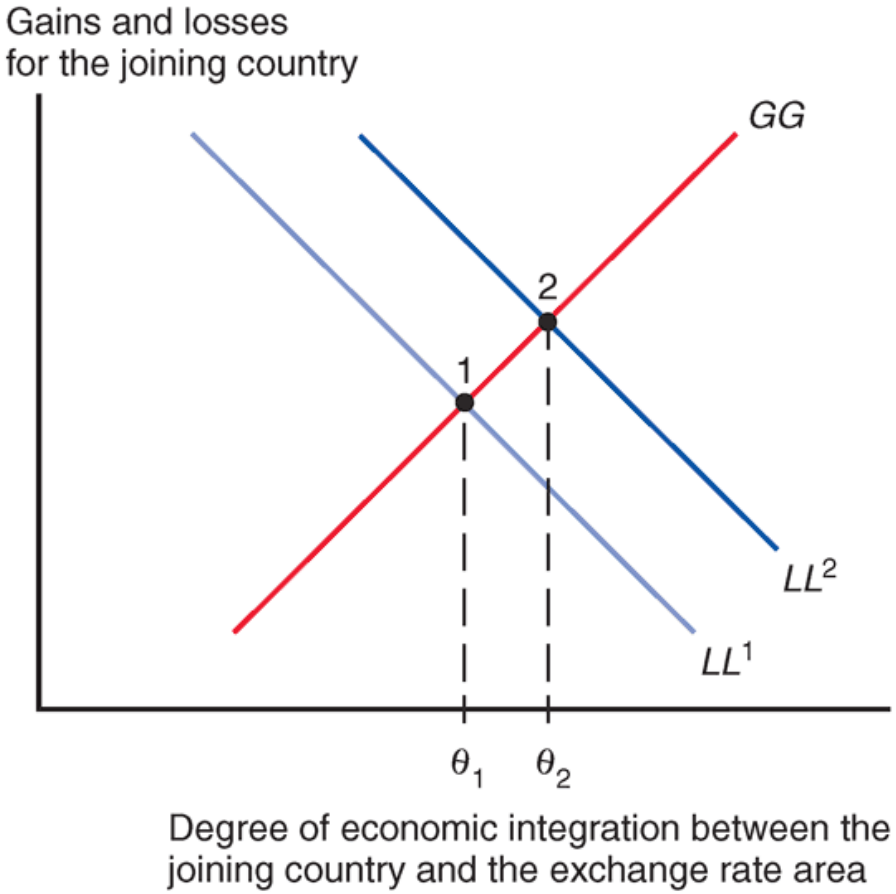


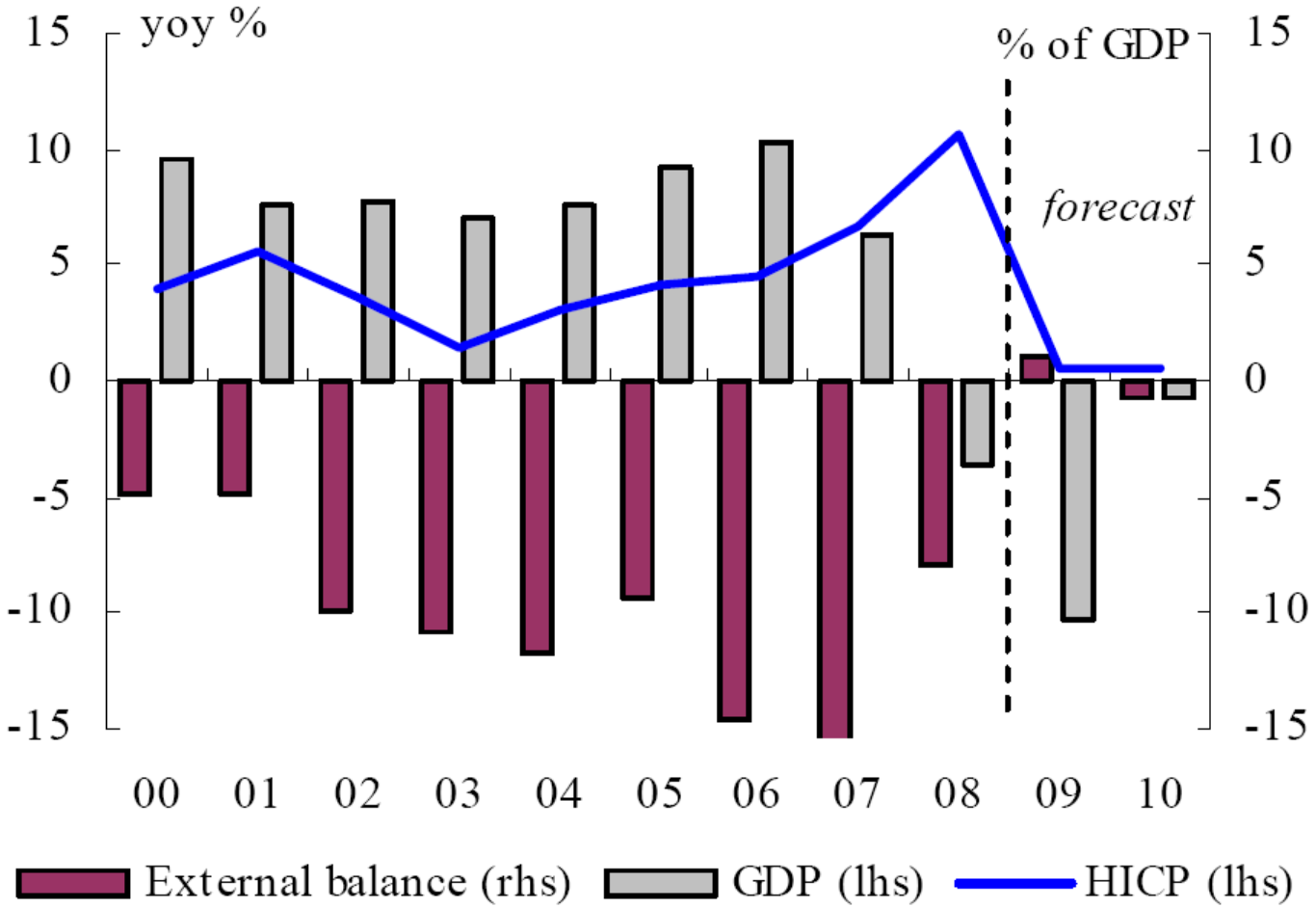
Fig. 20-6: An Increase in Output Market Variability



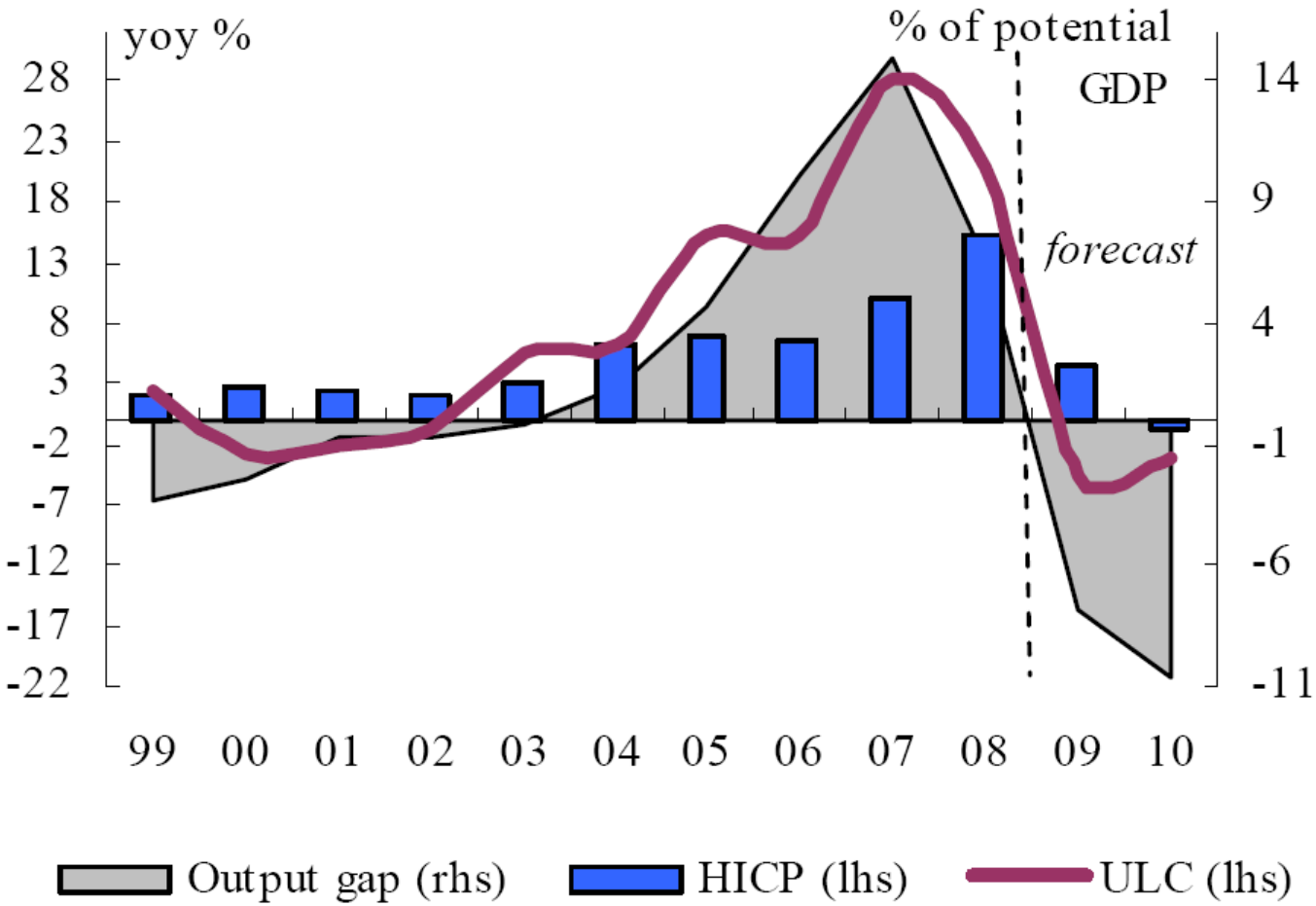
Greater benefits from adopting the euro for the new EU countries than for Sweden and the UK

- Growth considerations are more important than stabilisation considerations
- Larger labour market flexibility reduces the need for an own monetary policy
  - higher nominal wage growth means larger possibilities to reduce relative unit labour costs and achieve a real depreciation this way (smaller probability that downward nominal wage rigidity will bite)
  - weaker trade unions and less coverage of collective agreements
  - larger migration flows that can be affected by cyclical conditions
- Current situation implies large risks of financial turbulence
  - typical “emerging markets”
  - the largest risk is for ERM-2 countries, smaller risks for those with floating rates (Poland, Czech Republic, Hungary)
  - “capital flow reversals”
  - large and sudden exchange rate depreciations – increased value in domestic currency of loans in foreign currency
    “currency mismatch”, insolvency and bankruptcies
- Larger need to establish credibility for low inflation

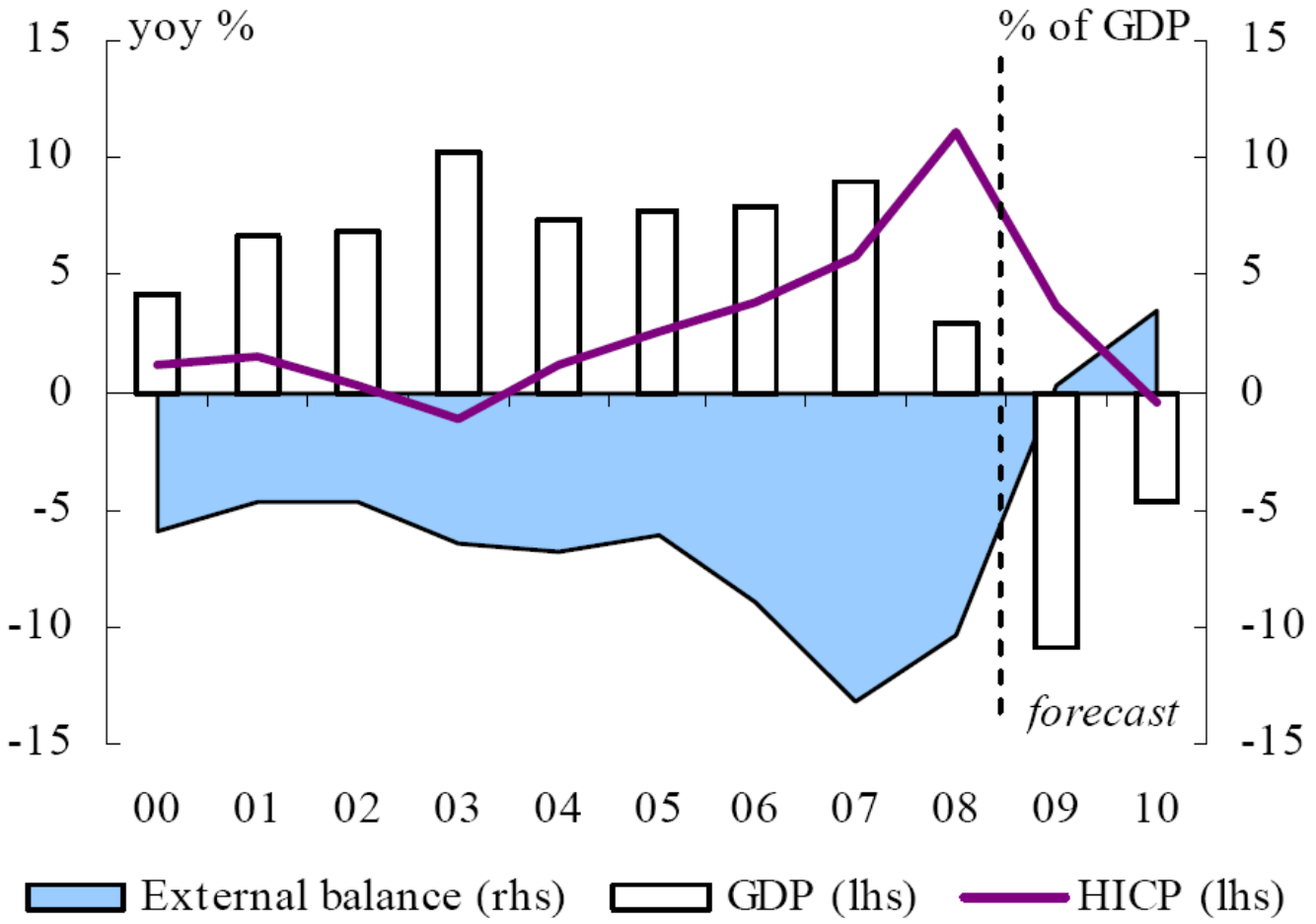
Graph 2.6.1: **Estonia - External balance, GDP and inflation**



Graph 2.13.1: **Latvia - Output gap, inflation, unit labour cost**



Graph 2.14.1: **Lithuania - External balance, GDP and inflation**



Box 3.1

Criteria for EMU entry

- The deficit of the general government must be below three percent of GDP. Gross debt of the general government must be below 60 percent of GDP or declining toward 60 percent of GDP at a satisfactory rate.
- Inflation must not exceed the average rate of inflation in the three EU countries with the lowest inflation rate by more than 1.5 percentage points.
- The long-term interest rate must not exceed the average rate in the three EU countries with the lowest interest rate by more than two percentage points.
- Two years of participation in the Exchange Rate Mechanism II (ERM II)[a)] without major tensions in the foreign exchange market are required.

[a)] ERM II replaced the earlier ERM when the euro was introduced. It is a multilateral exchange rate arrangement with a fixed, but adjustable, central parity for the exchange rate of the currency of a member country to the euro and a fluctuation band around the parity.

Should Sweden join the EMU? – the Calmfors Commission in 1996

- **No in the short term, yes in the long term**
- **Stabilisation policy costs were deemed to be large**
  - **high unemployment in the wake of the 1990s crisis: awkward if new asymmetric shocks would raise unemployment further, thus need for own monetary policy**
  - **fiscal policy could not be used to raise aggregate demand in recession because of large debt**
- **Trade effects deemed to be small**

Should Sweden join the EMU? – Evaluation today

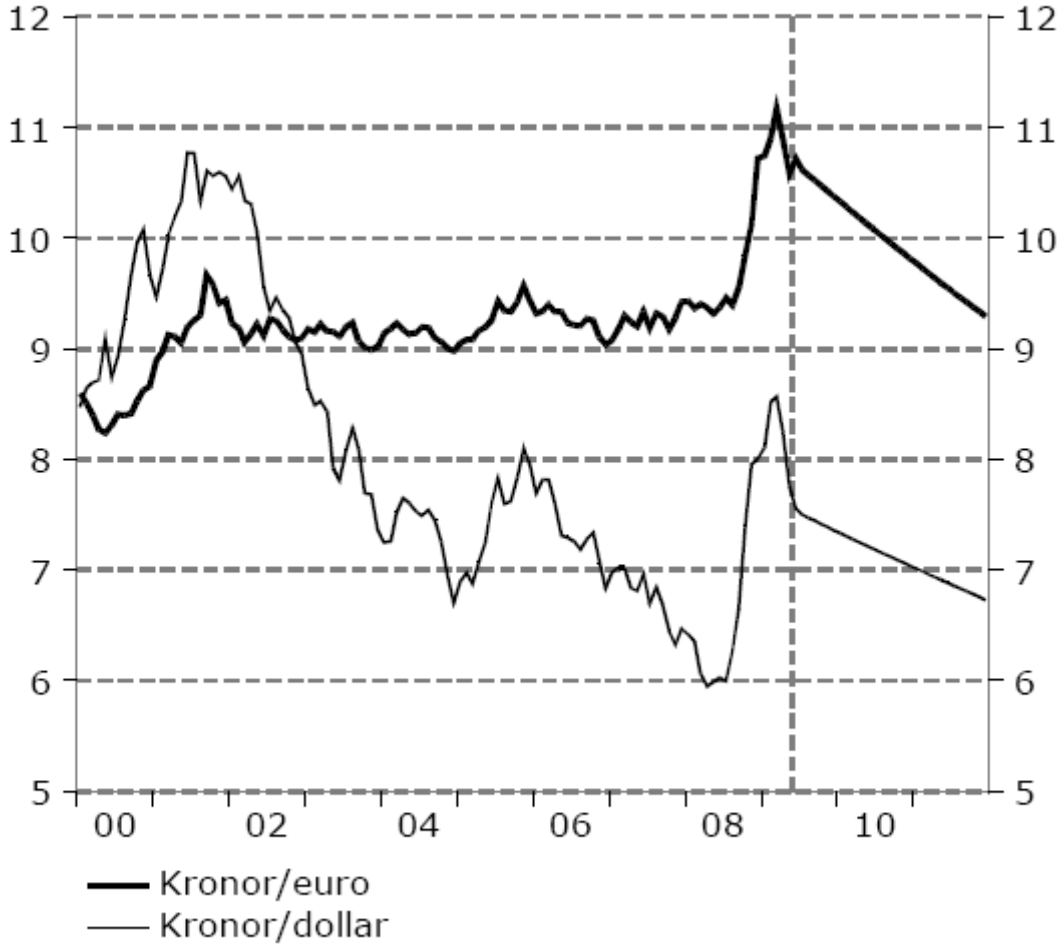
- **Lower stabilisation policy costs than in the 1990s**
  - **employment rose again (but is now falling)**
  - **fiscal consolidation has reduced government debt: larger scope to use fiscal policy to raise aggregate demand in recession**
- **New research has found larger trade effects than believed earlier**

The current crisis and EMU membership

- **Large depreciation of the Swedish krona**
- **This has helped our export (cf Finland)**
- **Response to symmetric (common) shock**
- **Recurrent pattern in downturns**
  - **Asian crisis (late 1990s)**
  - **bursting of IT bubble (early 2000s)**
  - **global financial crisis (2008-09)**
- **Good for Sweden – but is it fair?**
  - **beggar-thy-neighbour policy?**
  - **But it is not policy, it is a market reaction**

Diagram 44 Växelkurser

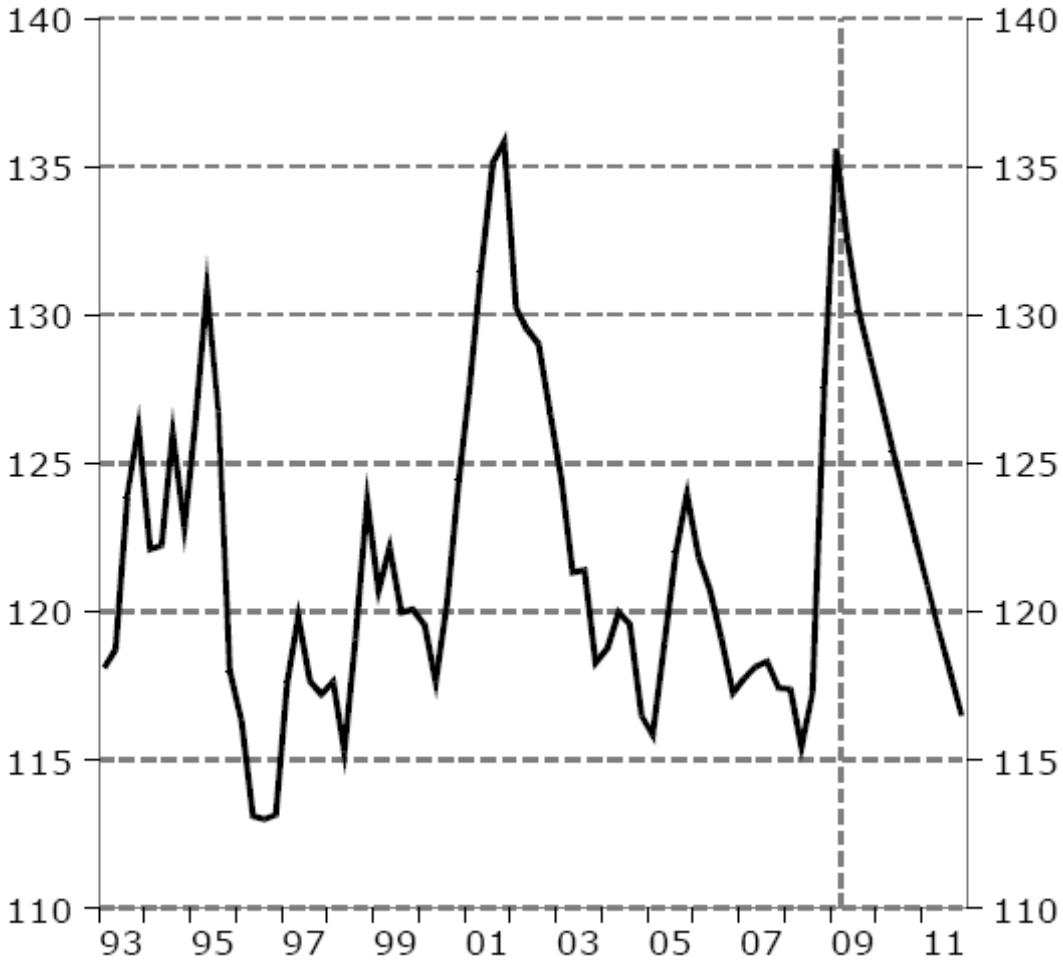
Månadsvärden



Källa: Reuters.

Diagram 85 Nominell växelkurs, exportvägd

Kvartalsvärden



Källor: Riksbanken och Konjunkturinstitutet.