
European Commission

Directorate General for Economic and Financial Affairs

Use of survey data

Inflation perceptions: a cross country analysis

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Motivation

- Until 2002, inflation perception was highly correlated with actual inflation as measured by the Harmonized Index of Consumer Prices (HICP).
 - In 2002, development in perceived inflation began to differ from the HICP inflation series.
- This divergence generated a lot of interest as this could have negative consequences both from a macroeconomic and from a political point of view



Motivation

The purpose of this presentation is:

- to give an overview of the possible causes explaining the decoupling of the two series
- to report on factors that can explain the different patterns observed across euro area countries
- to see if the above explanations are confirmed by what is happening in Slovenia
- to investigate possible implications for Malta and Cyprus

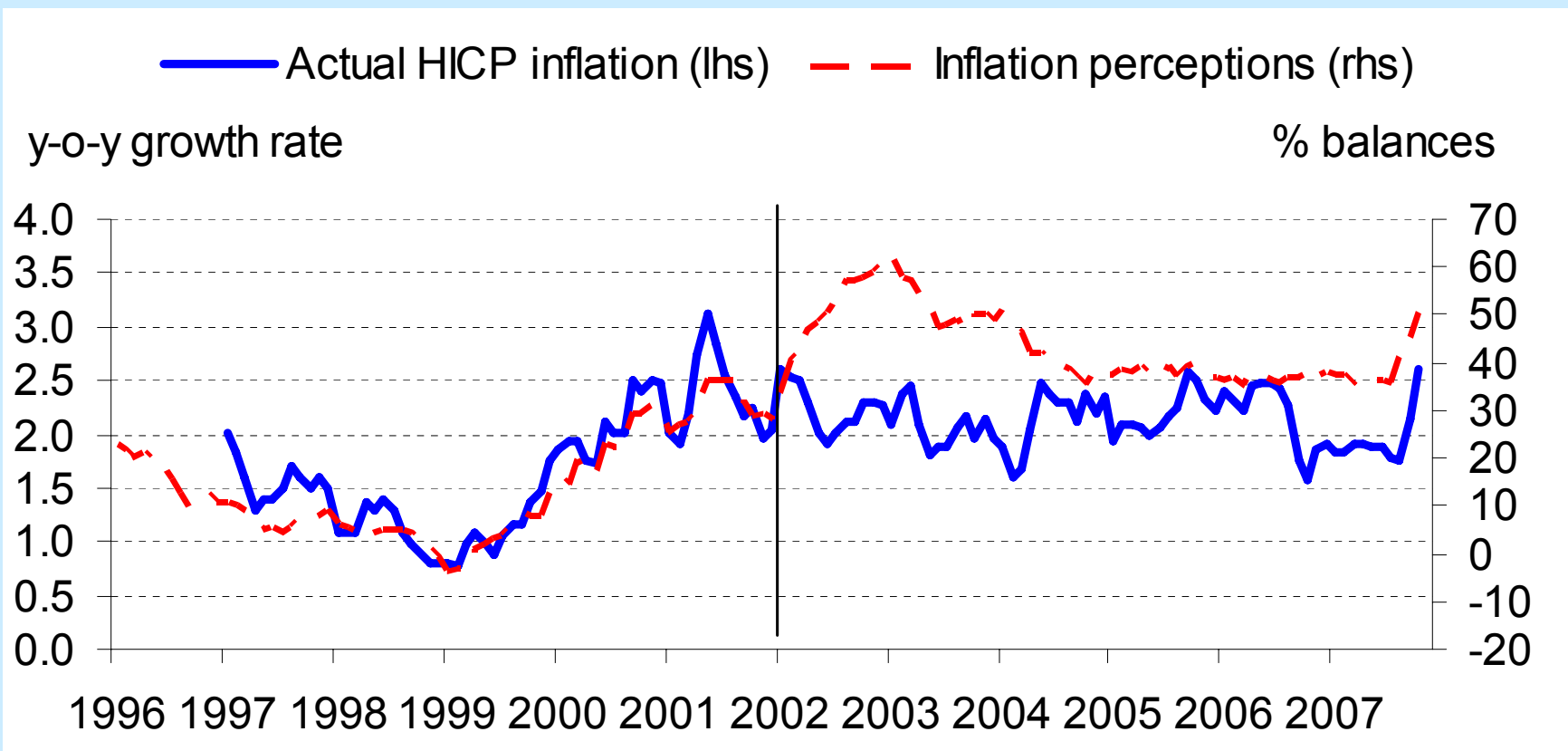


Outline

1. Overview of the data at euro area level
2. Review of possible explanations for the divergence
3. Cross-country perspective
4. Inflation perceptions in Slovenia
5. Possible implications for Malta and Cyprus
6. Conclusions



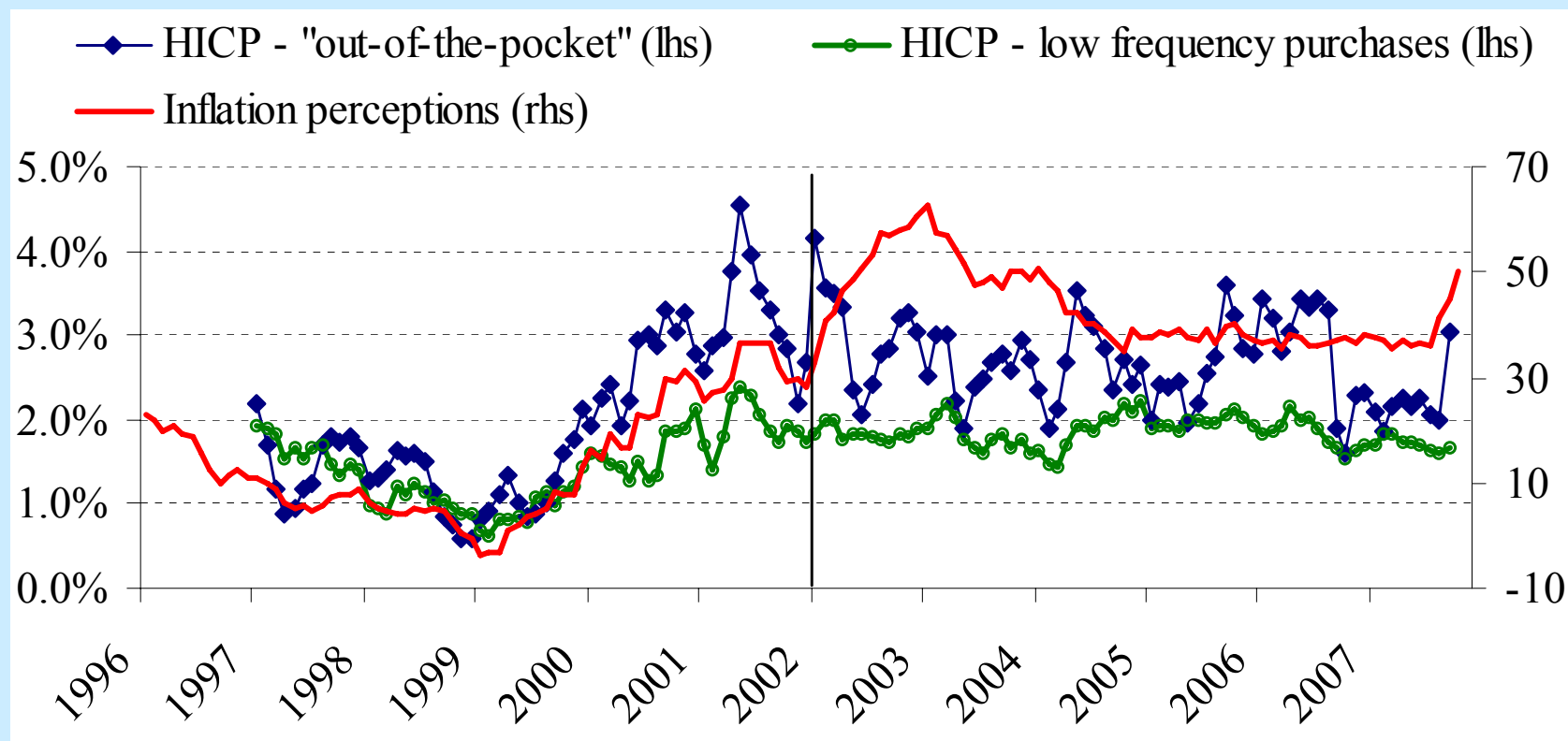
Perceived and actual HICP inflation in the euro area



- In 2002 actual inflation remained stable: 2.3% as in 2001
- Estimated contribution of the euro cash changeover to the euro area inflation rate: between 0.12 and 0.29 percentage points
- But the share of consumers replying that inflation increased a lot, rose from around 18% in December 2001 to more than 40% in June 2002

- Consumers attach very high importance to price developments for goods and services that they buy more frequently

➤ “Out-of-the-pocket” index



Consumers are more influenced by:

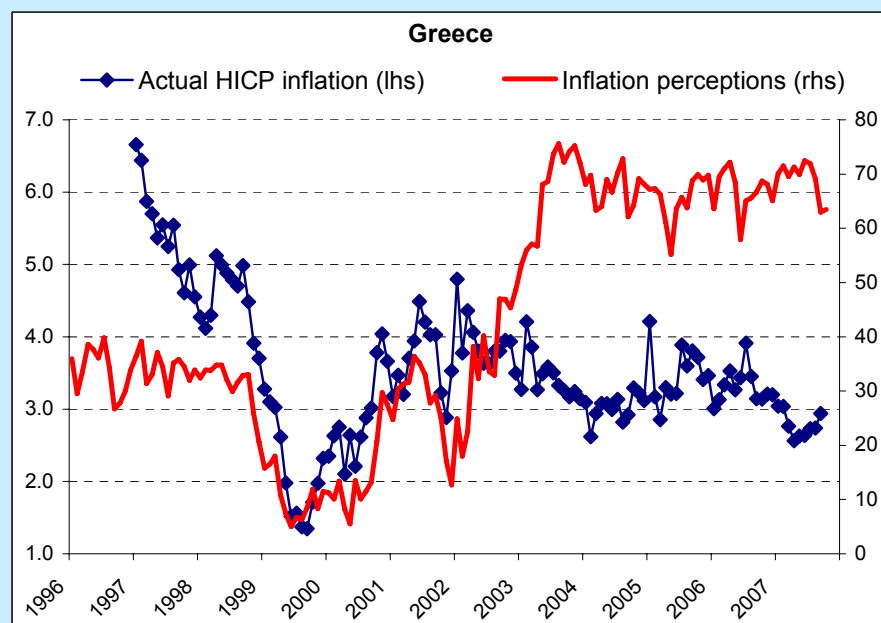
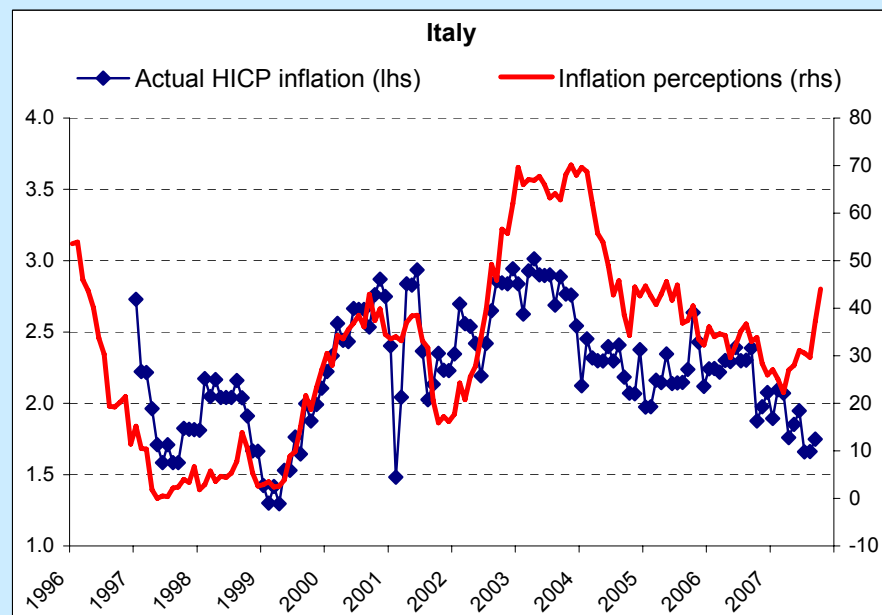
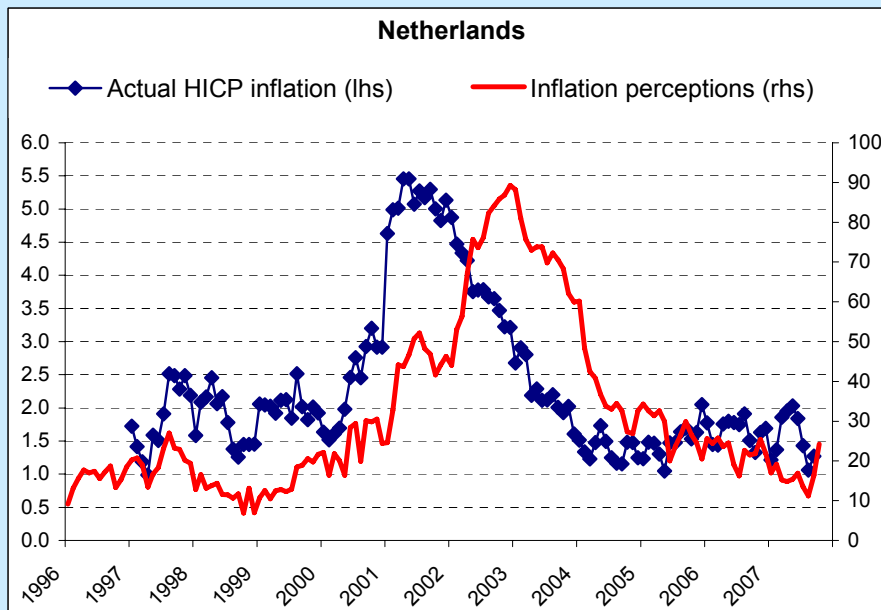
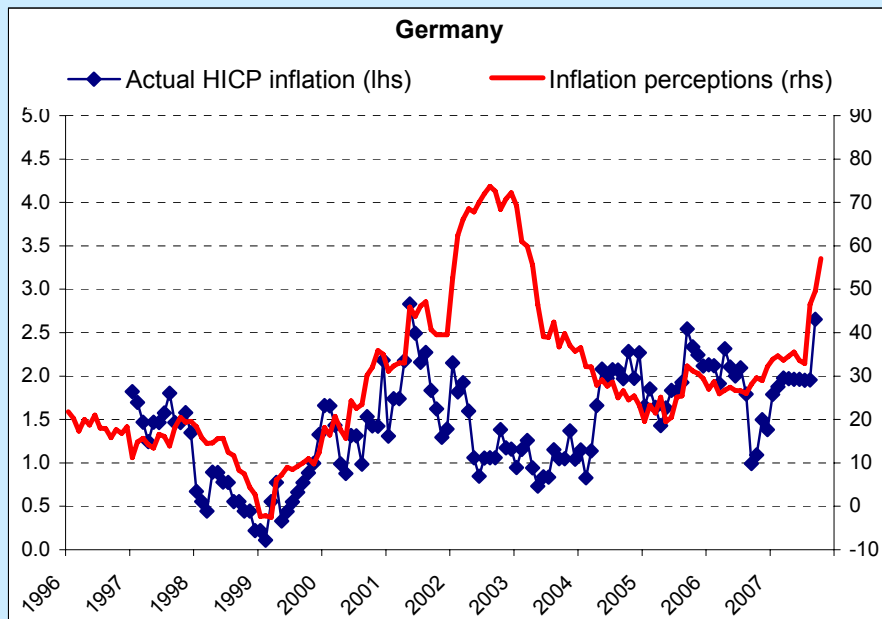
- upward movements than by downward movements
 - an exceptional high increase of a product with a very low-weight than a small decrease in a product that has a higher weight
 - the number of price changes rather than by the direction of the changes
- ! These effects could have been amplified by large media coverage of the event and a bias of euro area consumers against the euro

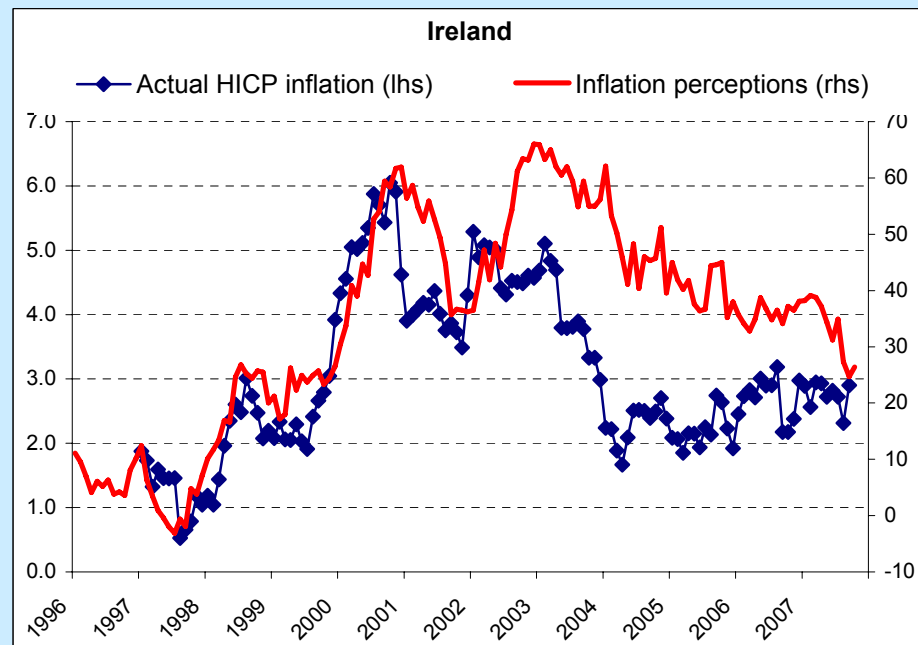
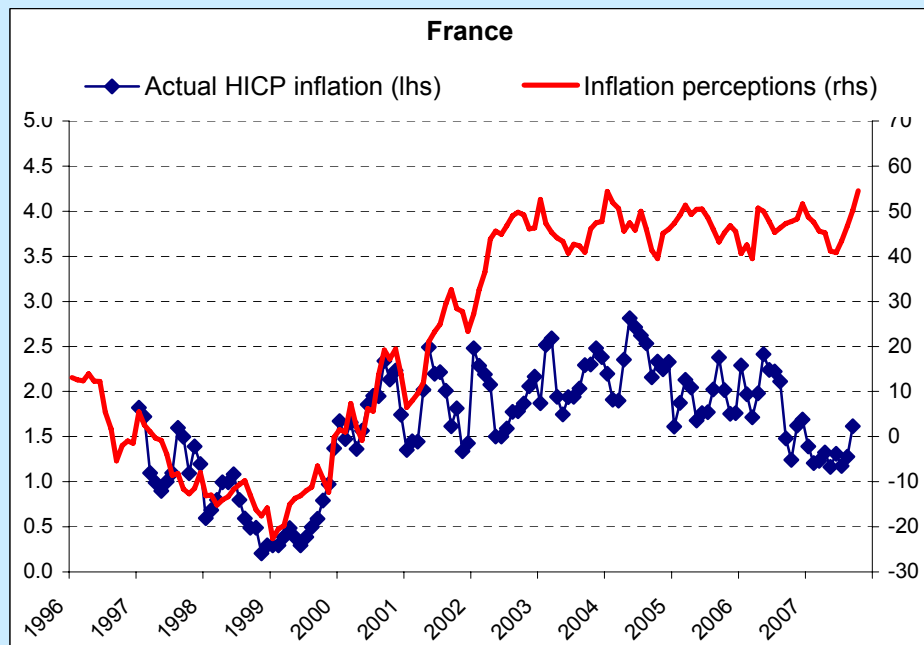
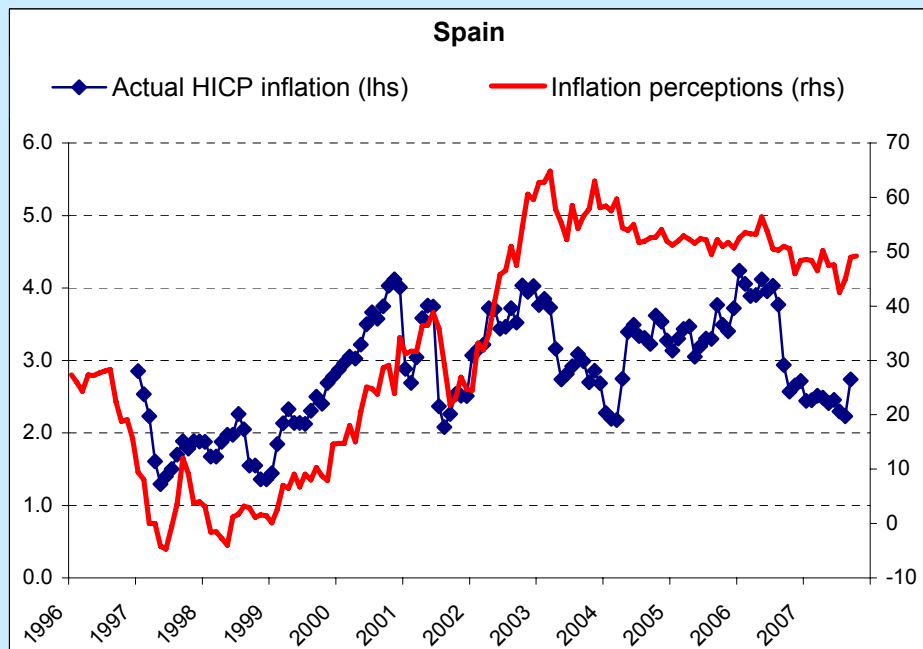
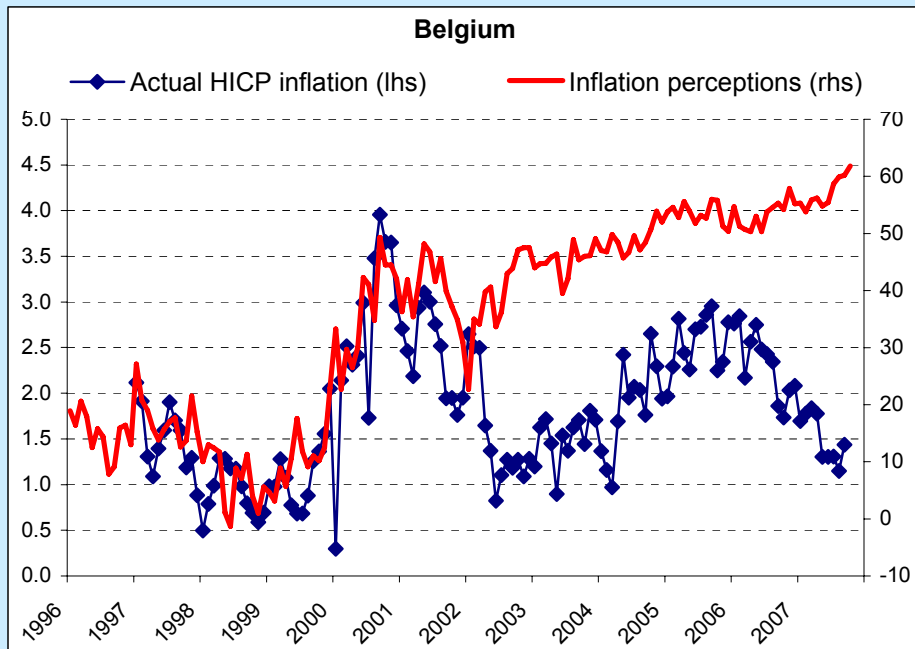
- Slowdown in the growth of disposable income due to factors other than HICP inflation
 - slowdown in economic activity in 2002
 - price increases of some items that are not included in the HICP basket

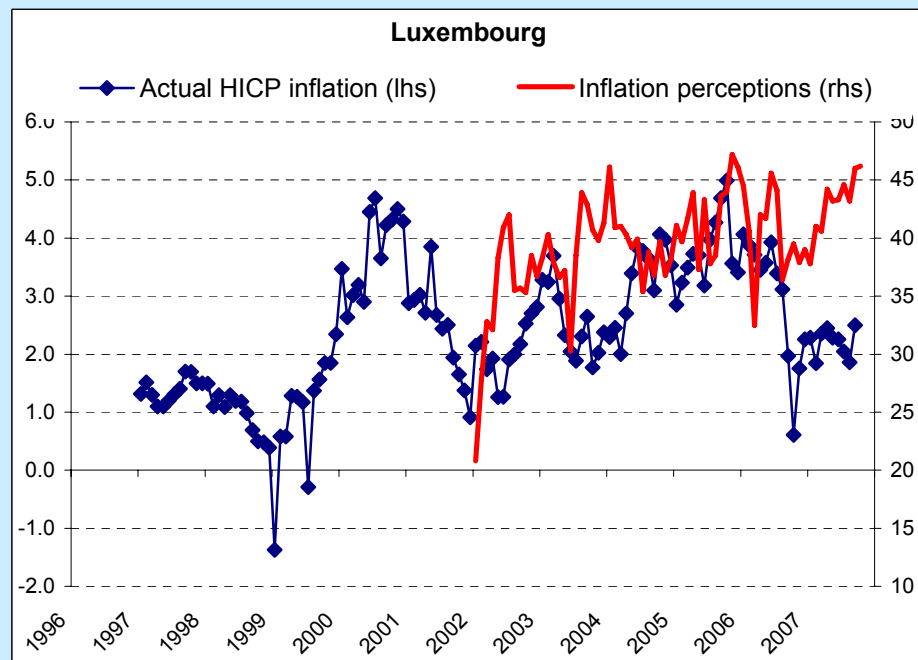
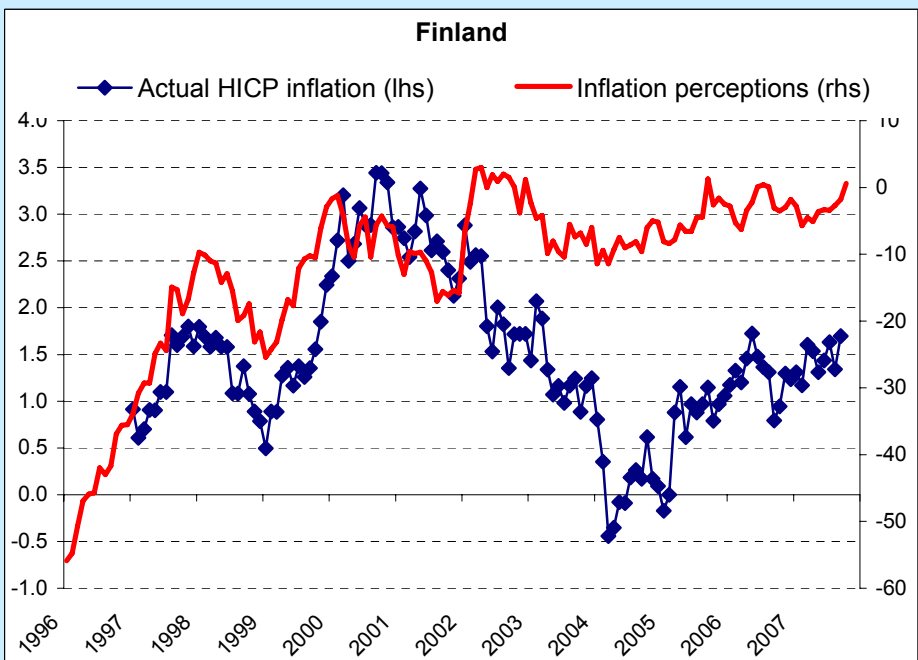
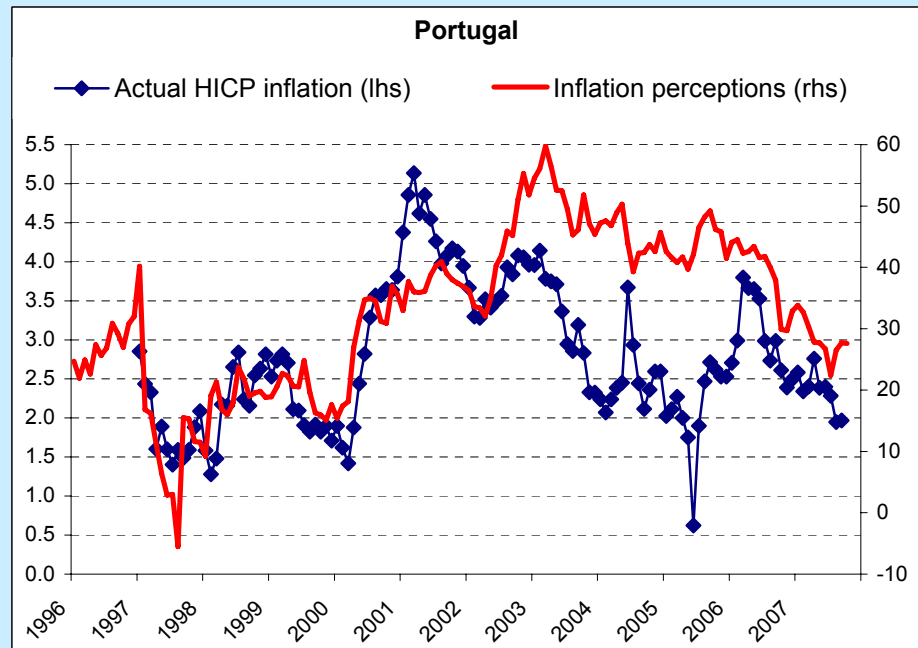
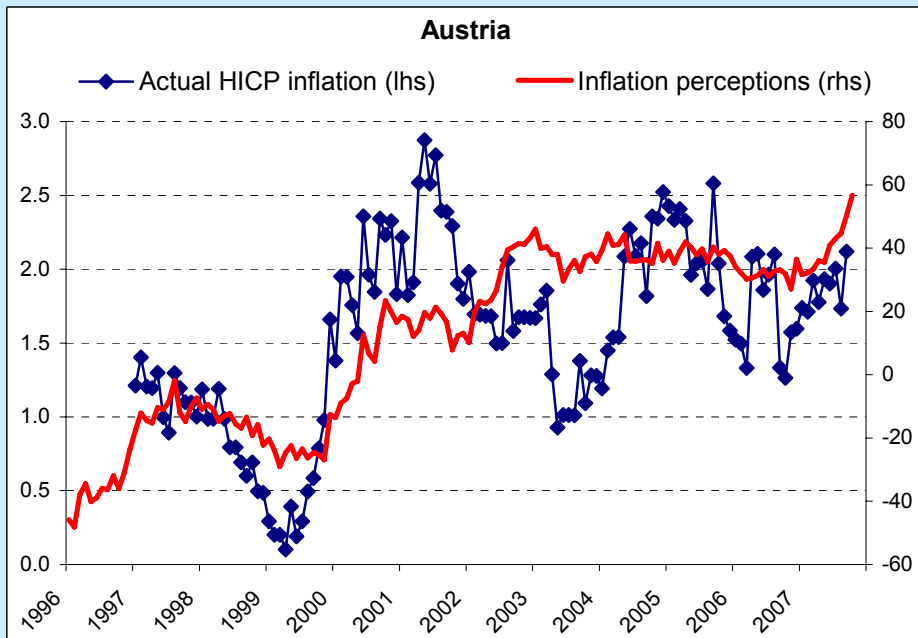
- 2001 "frozen" prices: the national currency remains a very strong reference point for a major share of euro area consumers

Cross-country perspective









Differences registered across euro area countries are mainly explained by:

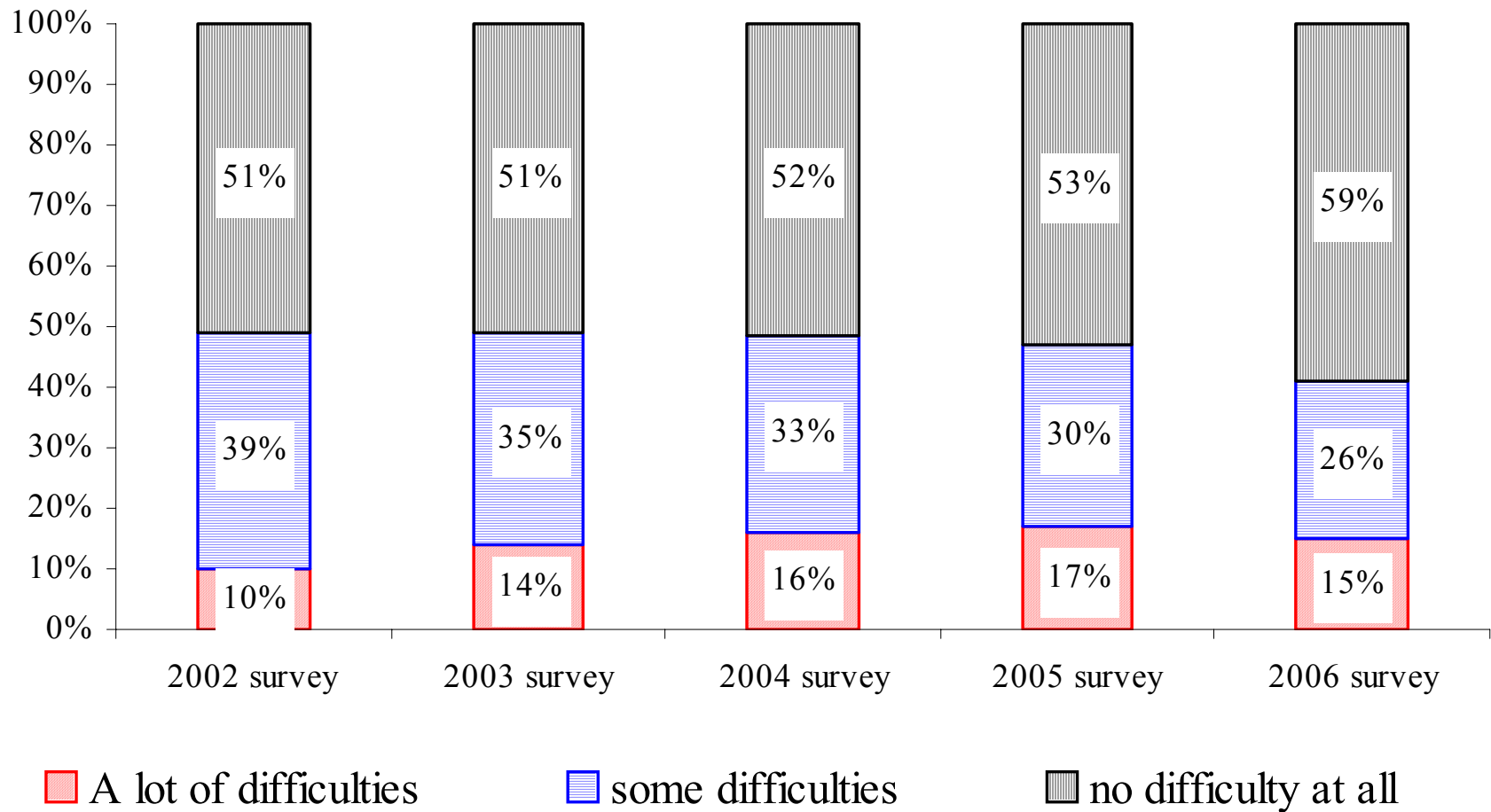
- differences in actual inflation developments
- complexity of the conversion rate
- the difficulty in handling the euro
- others (dual display of prices, media/communication campaigns, market structure)

Possible classification of the euro conversion rates

Country	Official conversion rate	Inverse conversion rate	Possible rule of thumb	Margin of error in %	Mathematical operation required	Classification
AT	13.7603	0.07267	7 euro ~ 100 schilling	3.68	divide by 7	Complex
BE	40.3399	0.02479	1 euro ~ 40 francs	-0.84	multiply by 4, multiply by 10	Medium
DE	1.95583	0.51129	1 euro ~ 2 DM	2.26	multiply by 2	Simple
FR	6.55957	0.15245	1 euro ~ 7 francs	6.71	multiply by 7	Complex
FI	5.94573	0.16819	1 euro ~ 6 markka	0.91	multiply by 6	Complex
GR	340.75	0.00293	3 euro ~ 1000 drachmas	-2.23	divide by 3, multiply by 1000	Medium
IE	0.787564	1.26974	0.8 euro ~ 1 punt	1.58	divide by 5, multiply by 4	Complex
IT	1936.27	0.00052	1 euro ~ 2000 lire	3.29	multiply by 2, multiply by 1000	Simple
LU	40.3399	0.02479	1 euro ~ 40 francs	-0.84	multiply by 4, multiply by 10	Medium
NL	2.20371	0.45378	1 euro ~ 2.2 guilders	-0.17	multiply by 2, divide by 10, add the 2 numbers	Complex
PT	200.482	0.00499	1 euro ~ 200 escudos	-0.24	multiply by 2, multiply by 100	Simple
ES	166.386	0.00601	6 euro ~ 1000 pesetas	0.17	divide by 6, multiply by 1000	Complex

Source: Ehrmann (2006).

Difficulties encountered with the euro by euro area citizens



Others:

- dual display of prices
- media/communication campaigns
- market structure

Inflation perceptions in Slovenia



Slovenia

1 euro = 239.64 Slovenian tolar

Possible rule of thumb:

1 euro = 250 Slovenian tolar

4 euro = 1000 Slovenian tolar

➤ *complex mental calculation*

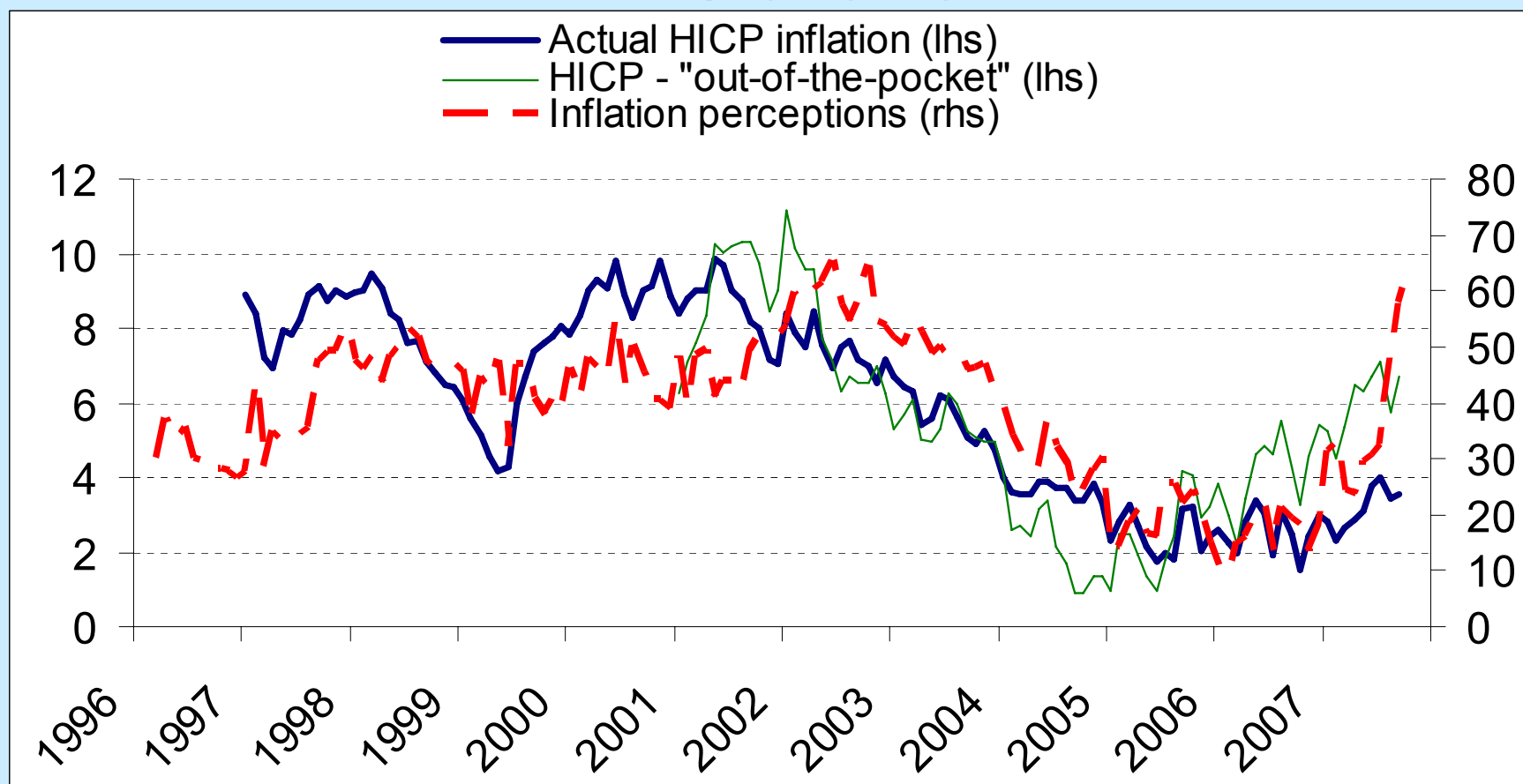
(dividing by 4 and multiply by 1000)

➤ *overestimation of the price by 4.3%*

⇒ *risk of a decoupling between actual and perceived inflation*

- Other risk: bias of consumers against the euro
- Factors reducing the risk:
 - general economic situation in Slovenia remained buoyant
 - retail trade market structure
 - dual display of prices (until June 2007)
 - detailed information on retail prices are available in internet
 - the euro was not completely new to the Slovenian population

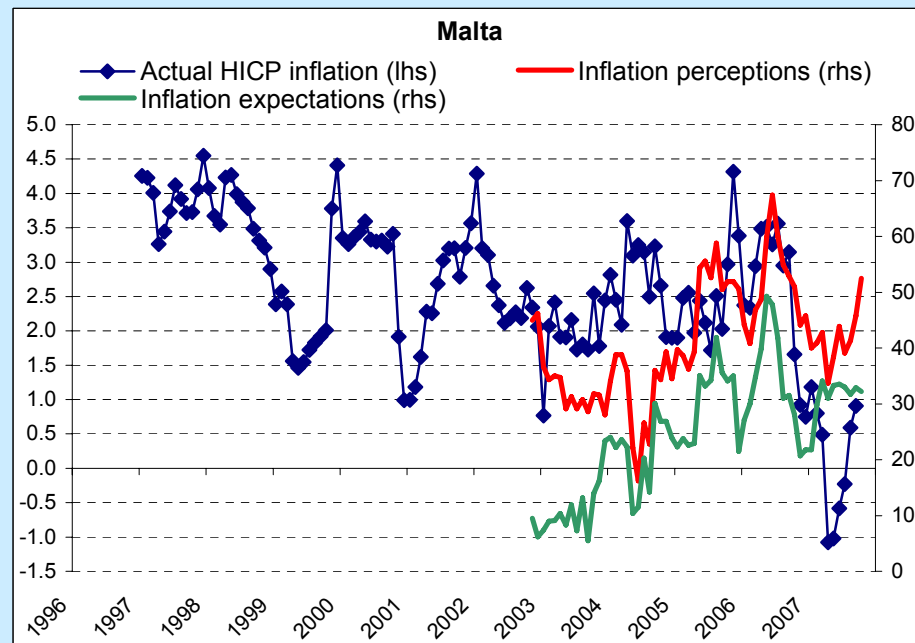
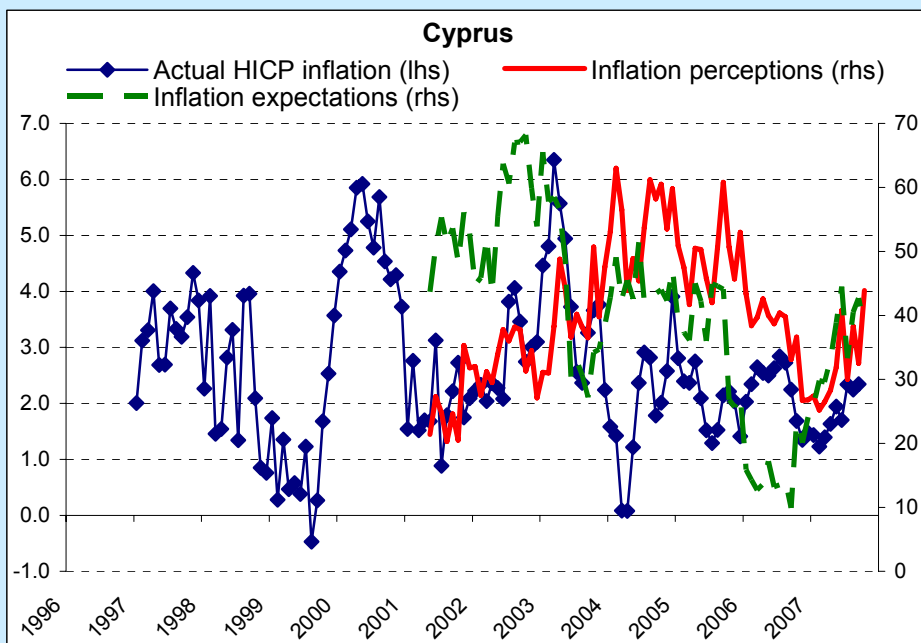
Perceived and actual HICP inflation in Slovenia



Cyprus and Malta



Perceived, expected and actual HICP inflation in Cyprus and Malta



Exchange rates

Cyprus

1 euro = 0.585274 CYP

Possible rule of thumb:

1 euro = 0.5 CYP

Divide by 2

- **Simple mental calculation** but underestimation of the price by more than 14%

or

1 euro = 0.6 CYP

Multiply by 6 then divide by 10

- **Complex mental calculation** and overestimation of around 3%

⇒ *medium risk of a decoupling between actual and perceived inflation*

Malta

1 euro = 0.429300 MTL

Possible rule of thumb:

1 euro = 0.5 MTL

Divide by 2

- **Simple mental calculation** but overestimation of the price by more than 16%

or

1 euro = 0.4 CYP

Multiply by 4 then divide by 10

- **Medium mental calculation** and underestimation of around 7%

⇒ *medium risk of a decoupling between actual and perceived inflation*

Cyprus:

- Dual display of prices 1st September 2007 to 30 September 2008
- Agreement with retailers (Fair Pricing Code)
- Euro-Observatories
- Toll-free telephone line for the euro

Malta:

- Dual display of prices up to 30 June 2008
- Agreement with retailers (FAIR)

! the euro is not completely new to the Cypriot and Maltese populations

Conclusions

- Euro cash changeover did affect inflation perceptions in the euro area
- Psychological factors can have an important impact on inflation perceptions
- Communication on non-technical issues of the euro cash changeover is very important
 - Information on the HICP basket
 - Dual display
 - Media campaign

