



OESTERREICHISCHE NATIONALBANK

EUROSYSTEM

The trinity of wage setting in EMU – A policy proposal

Toward a Genuine Economic and Monetary Union
September 11, 2015
OeNB

Martin Gächter, Paul Ramskogler and Aleksandra Riedl

Structure

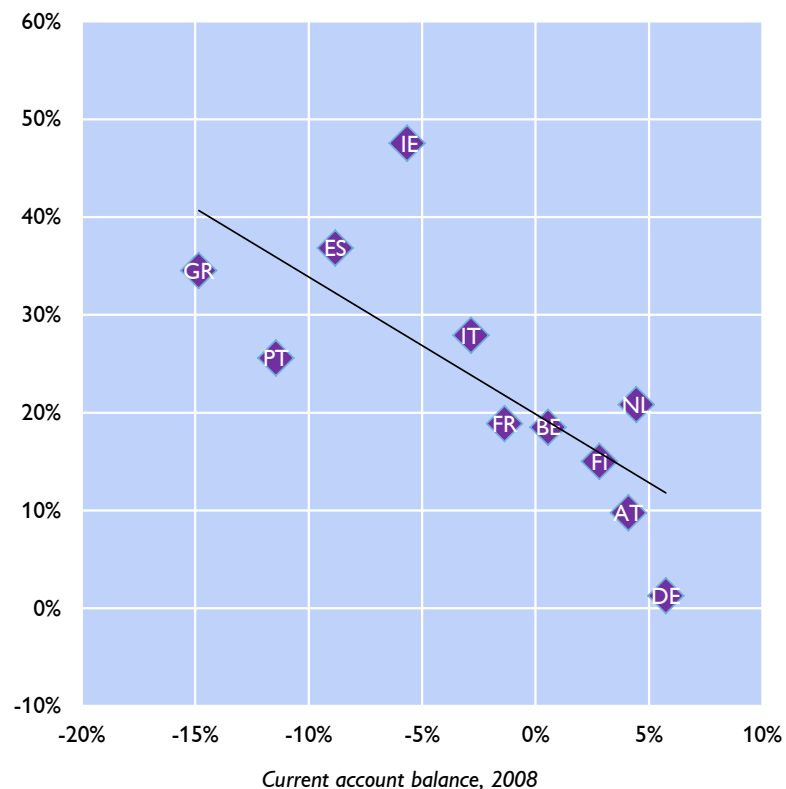
- **Wage developments are crucial for the functioning of a monetary union**
- **Theoretical thoughts on optimal wage growth (I): internal stability**
- **The empirical view: a focus on internal stability alone is insufficient**
- **Theoretical thoughts on optimal wage growth (II): Extending the benchmark by an external factor**
- **Achieving a trinity of internal stability, price stability and external stability**

Wage developments are crucial for the functioning of a monetary union

External and domestic effects of wage divergence in a currency union

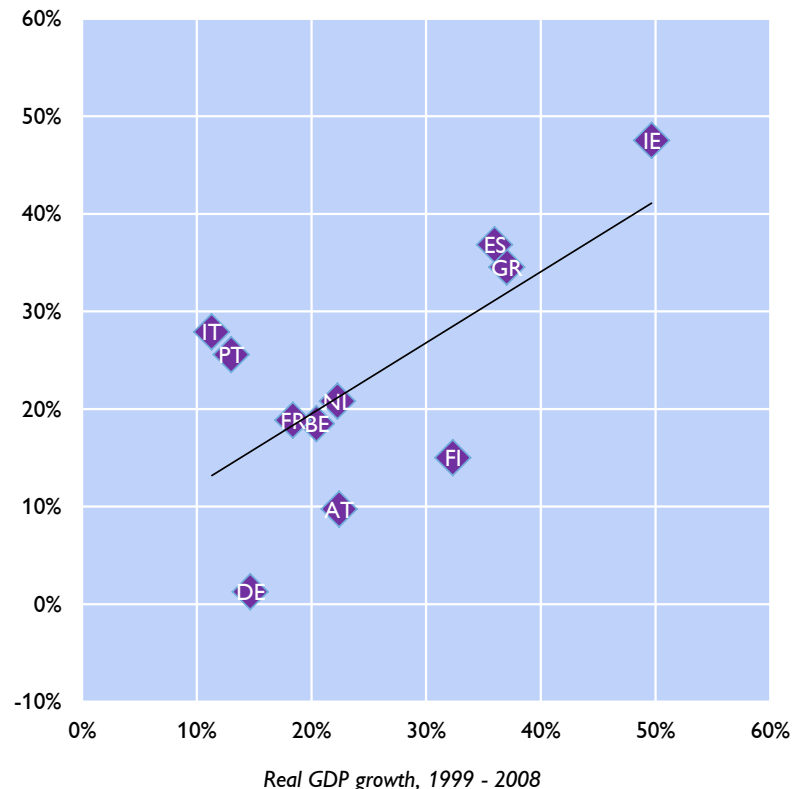
External view: wages and external balance

Change in nominal unit labor costs (NULC), 1999-2008



Internal view: wages and domestic demand

Change in nominal unit labor costs (NULC), 1999 - 2008



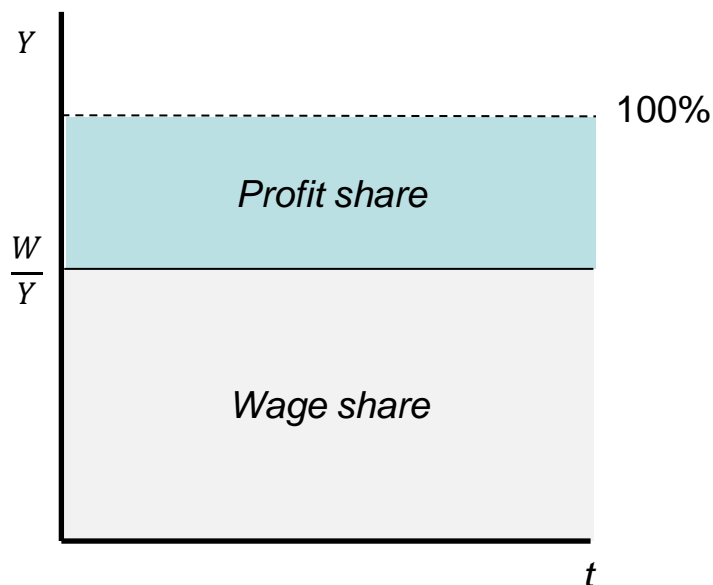
Source: European Commission, AMECO.

Is there an optimal rate of wage growth? Stabilizing the functional income distribution and inflation

Steady-state distribution of functional income:

Constant real unit labor costs (wage share):

Functional income distribution



$$\Delta \frac{W}{Y} = \Delta W - \Delta PROD$$

$$\Delta \frac{W}{Y} = 0$$

$$\rightarrow \Delta W = \Delta PROD$$

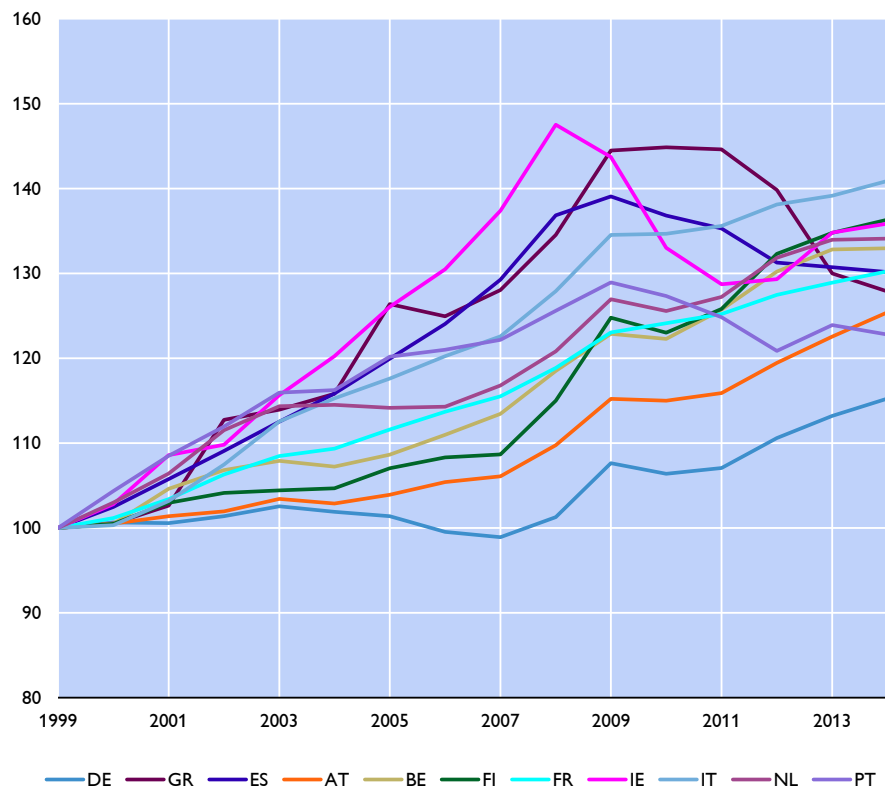
Nominal internal wage target (Golden Rule of wage setting):

$$\Delta W + \Delta P = \Delta PROD + \Delta P^{Target}$$

Actual wage developments coincided with large and growing external imbalances in EMU

Nominal unit labour costs - actual values

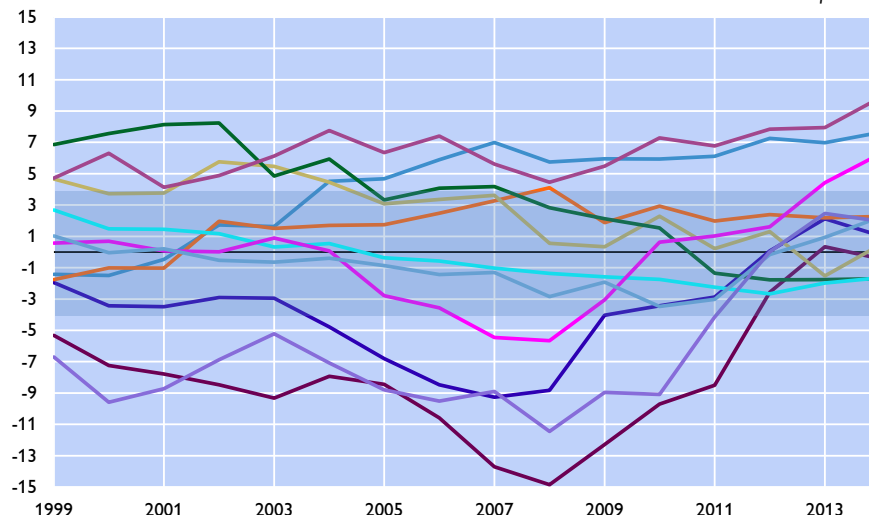
Index 2009=100



Source: AMECO Database, authors' calculations.

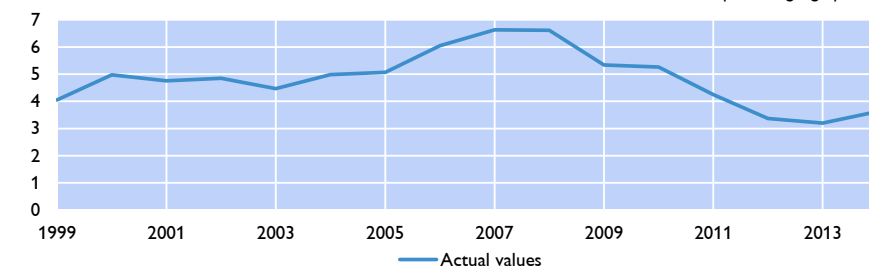
Current account - actual values

% of GDP



Standard deviation

percentage points

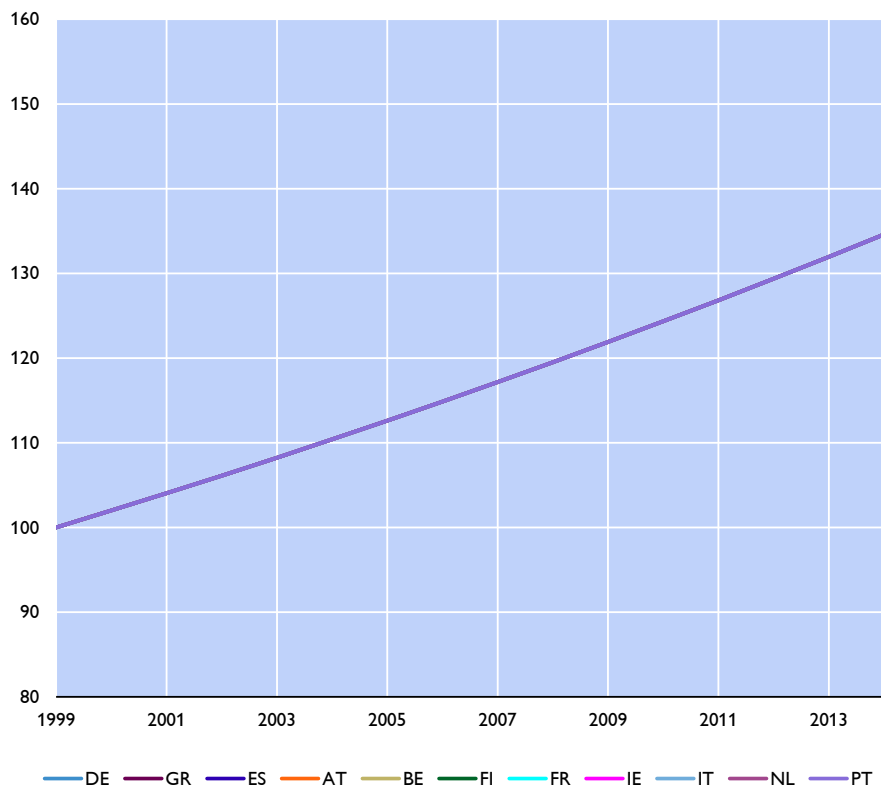


Source: AMECO Database, authors' calculations.

Does internal stability also imply external stability? The Golden Rule seems insufficient

Nominal unit labour costs - Golden Rule

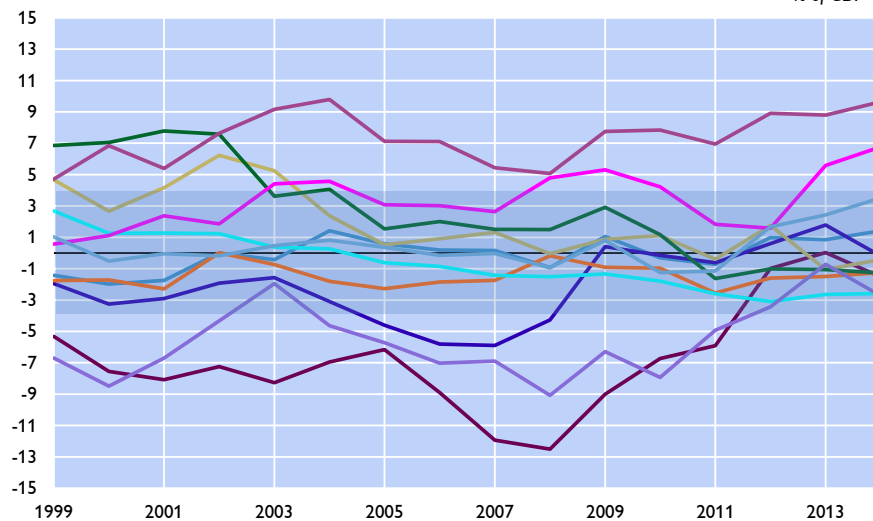
Index 2009=100



Source: AMECO Database, authors' calculations.

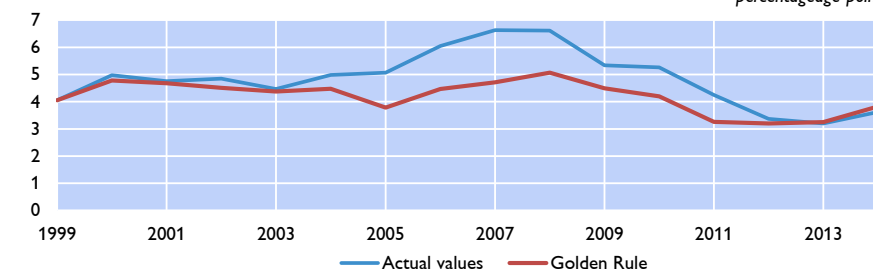
Current Account - Golden Rule

% of GDP



Standard deviation

percentage points

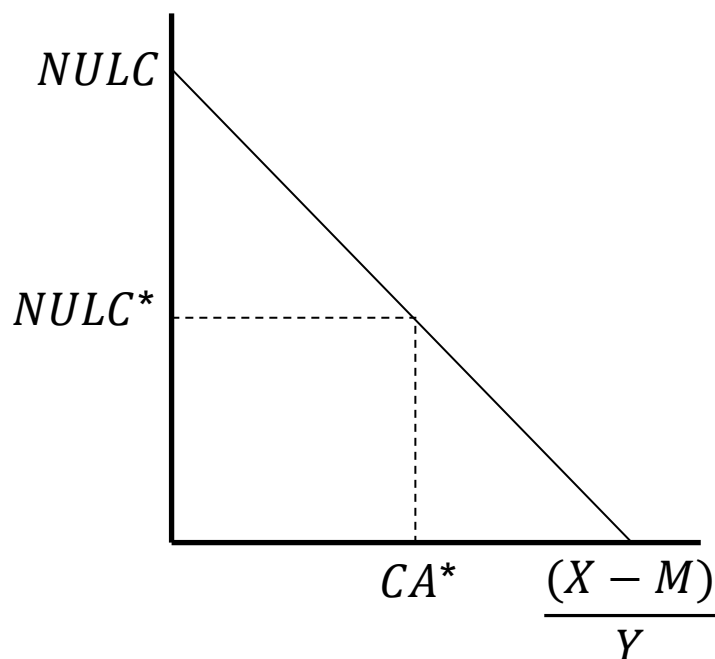


Source: AMECO Database, authors' calculations.

Is there an optimal rate of wage growth? Stabilizing the external balance of the economy

Sustainable current account: implied NULC*

Sustainability-corrected wage growth:



→ Correction term for external wage target

$$NULC^* - NULC$$

A trinity of internal stability, price stability and external stability

→ **Internal wage target**

$$\Delta W = \Delta PROD$$

Steady state

→ **Golden Rule with price stability**

$$\Delta W + \Delta P = \Delta PROD + \Delta P^{Target}$$

ECB target

→ **Optimal overall wage benchmark**

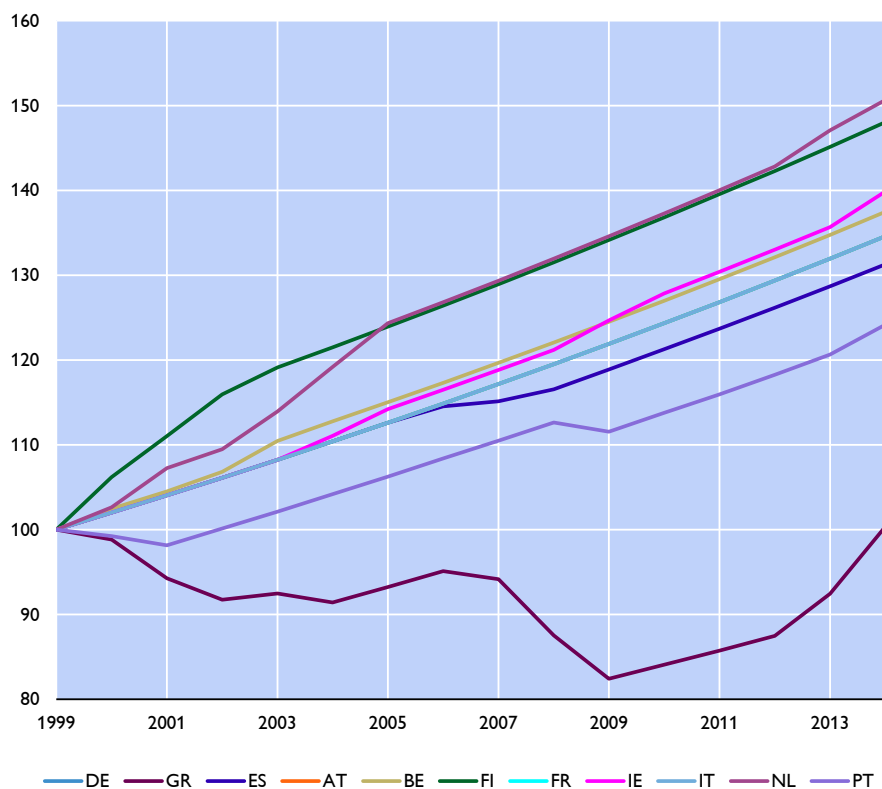
$$\Delta W + \Delta P = \Delta PROD + \Delta P^{Target} + (NULC^* - NULC)$$

MIB scoreboard

The trinity benchmark as an automatic stabilizer of current account imbalances in EMU

Nominal unit labour costs - Trinity Benchmark

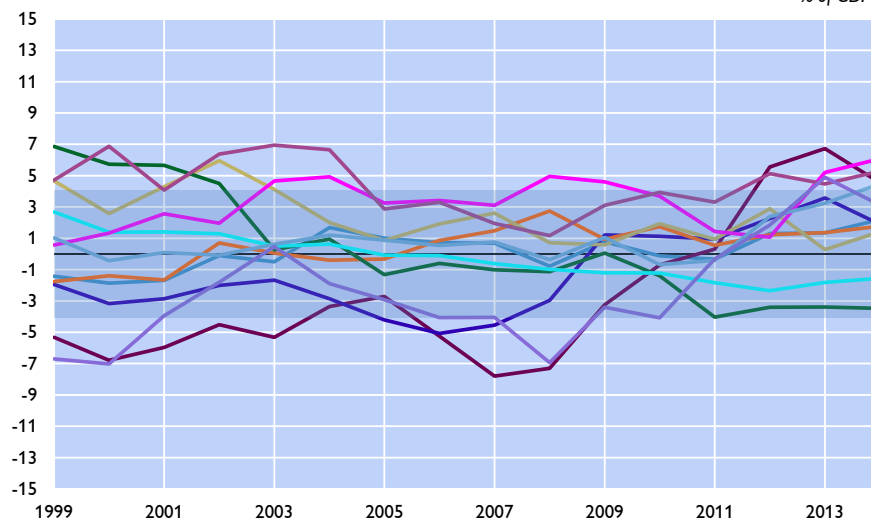
Index 2009=100



Source: AMECO Database, authors' calculations.

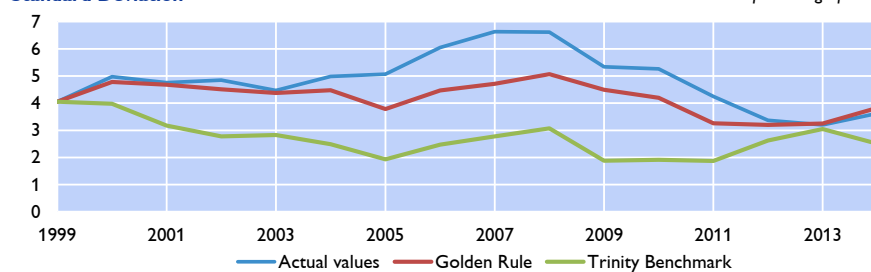
Current Account - Trinity Benchmark

% of GDP



Standard Deviation

percentage points



Source: AMECO Database, authors' calculations.

Caveats and limitations

- **Wage autonomy**
- **Downward nominal wage rigidity**
- **Nonprice factors of competitiveness**

Conclusions

- **Wage growth plays a crucial role in the functioning of a monetary union**
- **Even the Golden Rule of wage setting cannot prevent dangerous imbalances**
- **A simple extension of the Golden Rule by an external factor helps achieving transnational stability within a currency union**



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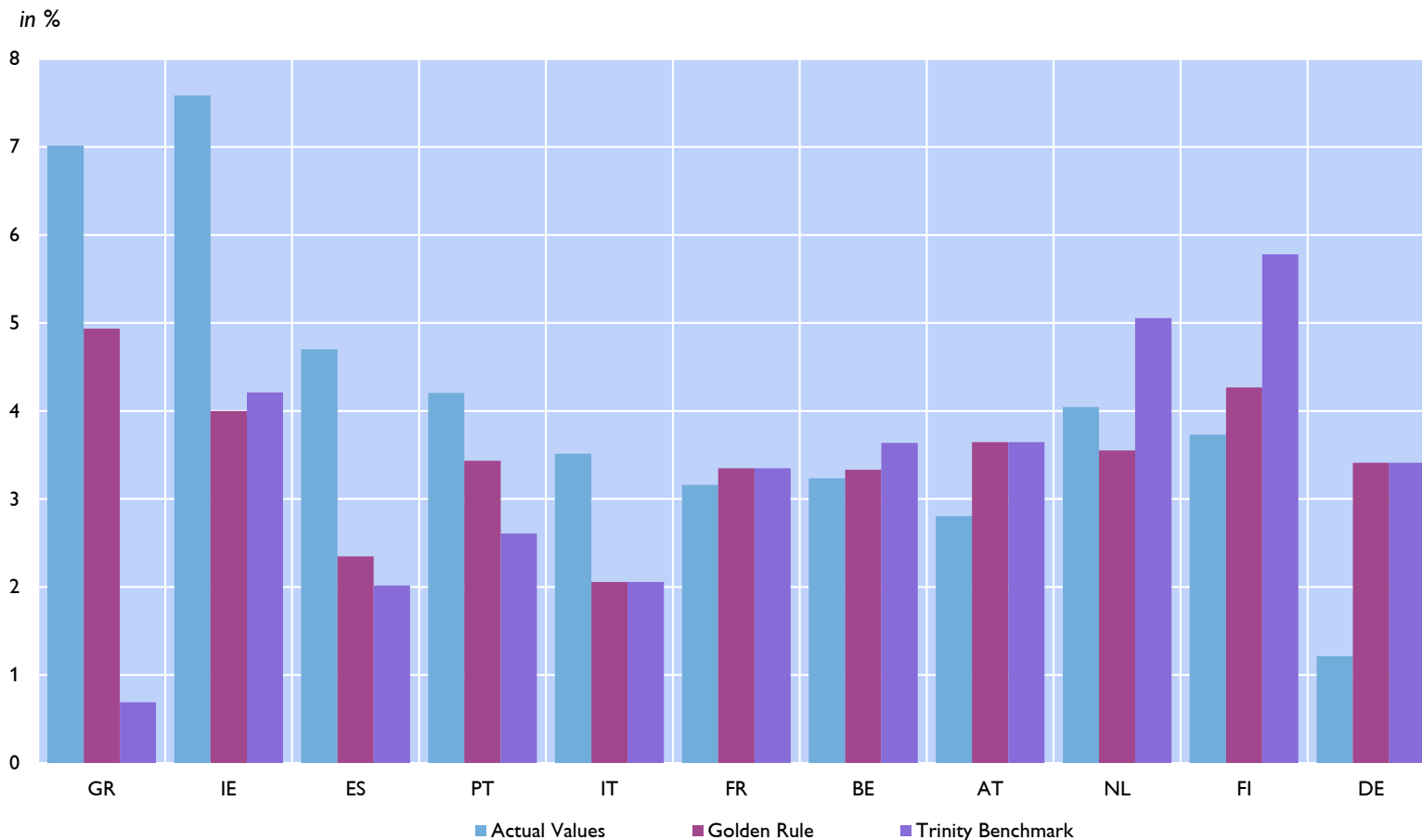
Appendix

A photograph of the facade of the Oesterreichische Nationalbank building, showing a large, ornate stone relief sculpture above a sign that reads 'OESTERREICHISCHE NATIONALBANK'. The image is dimly lit and has a blue tint.

OESTERREICHISCHE
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Difference in actual and implied average annual wage growth rates 1999-2008

Average yearly growth rate of compensation per employee, 1999 - 2008

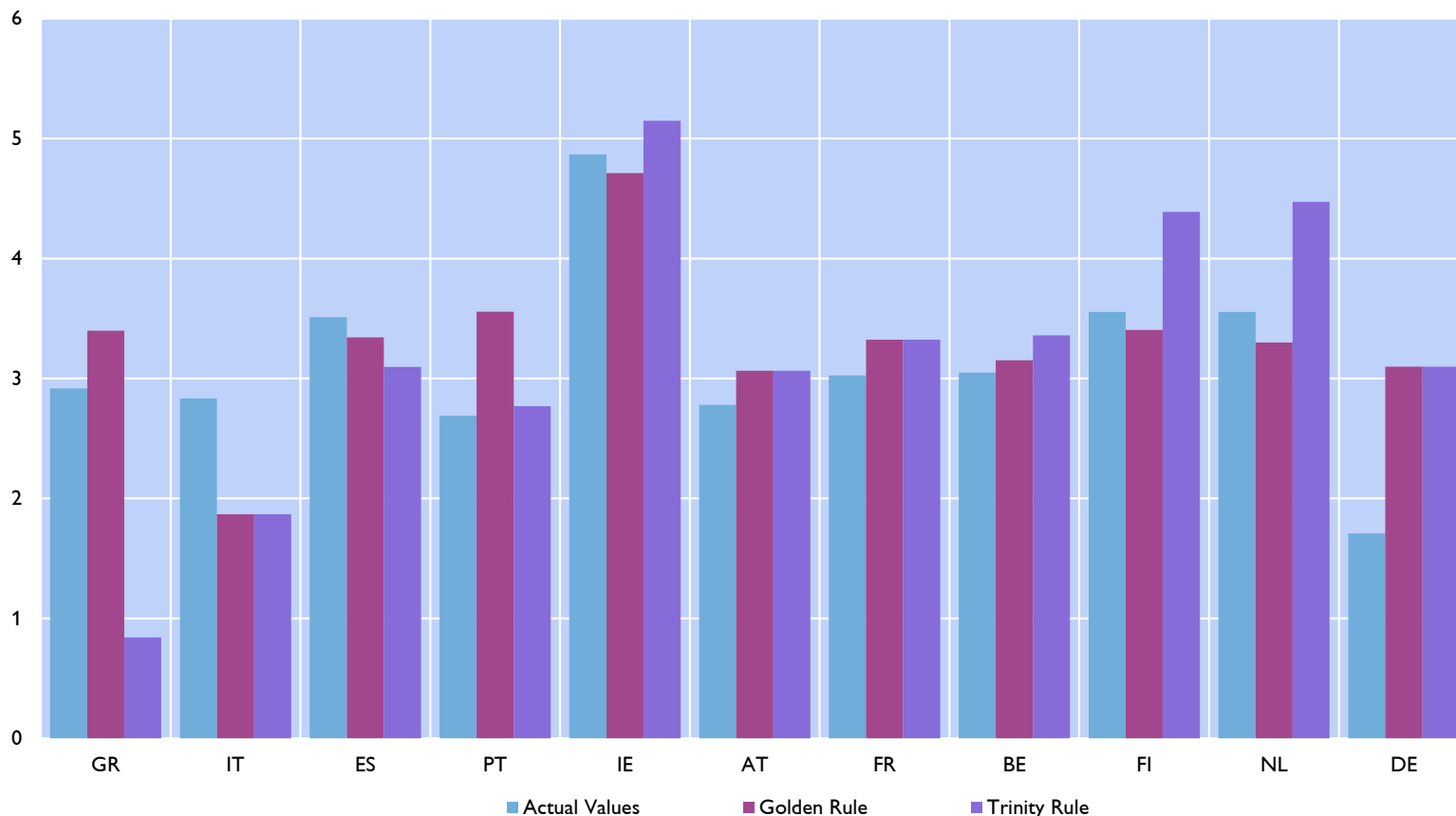


Source: AMECO Database, IMF, authors' calculations. Note: Rule assume actual productivity values

Difference in actual and implied average annual wage growth rates 1999-2014

Average yearly growth rate of compensation per employee, 1999 - 2014

in %

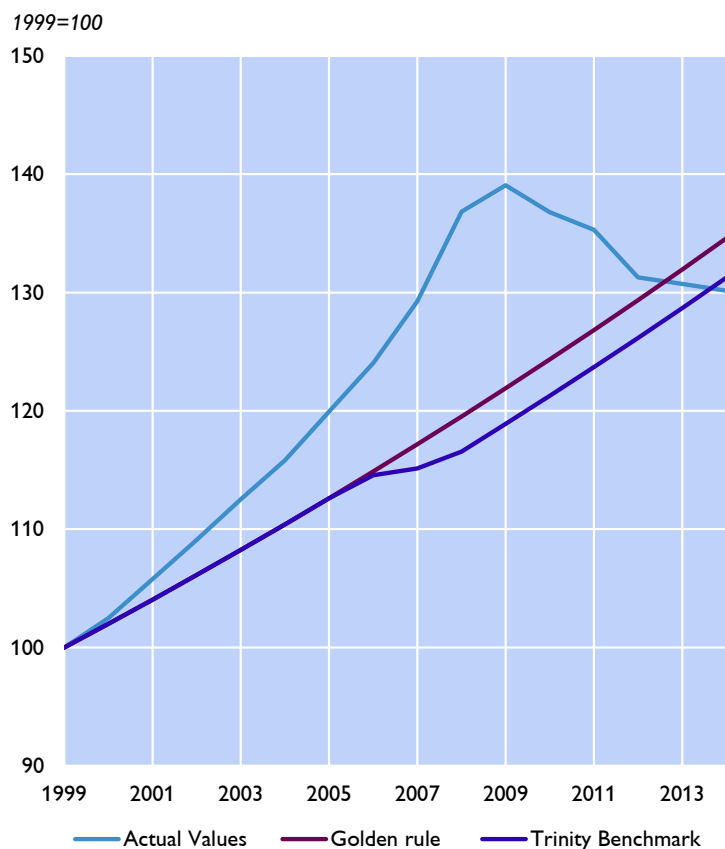


Source: AMECO Database, IMF, authors' calculations. Notes: Rules assume actual productivity values.

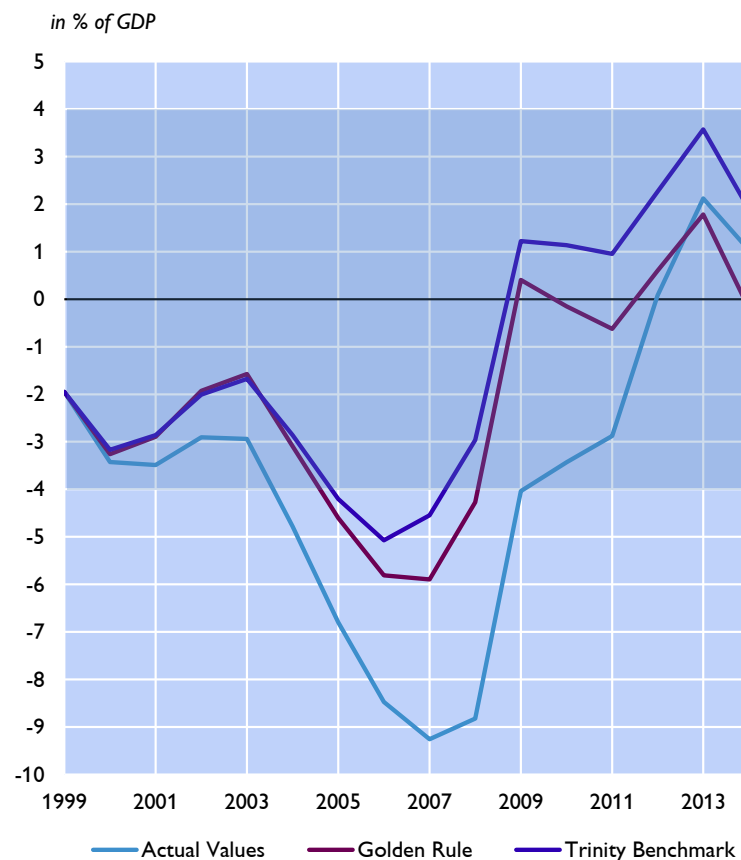
The case of Spain

Spain

Unit labor costs, 1999-2014



Current Account

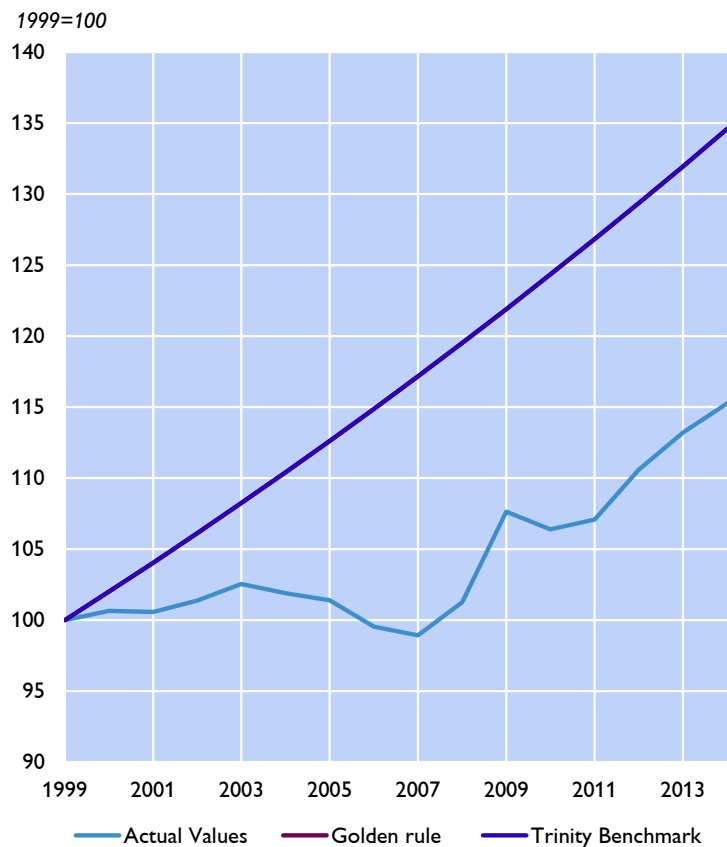


Quelle: AMECO Database, IMF, authors' calculations.

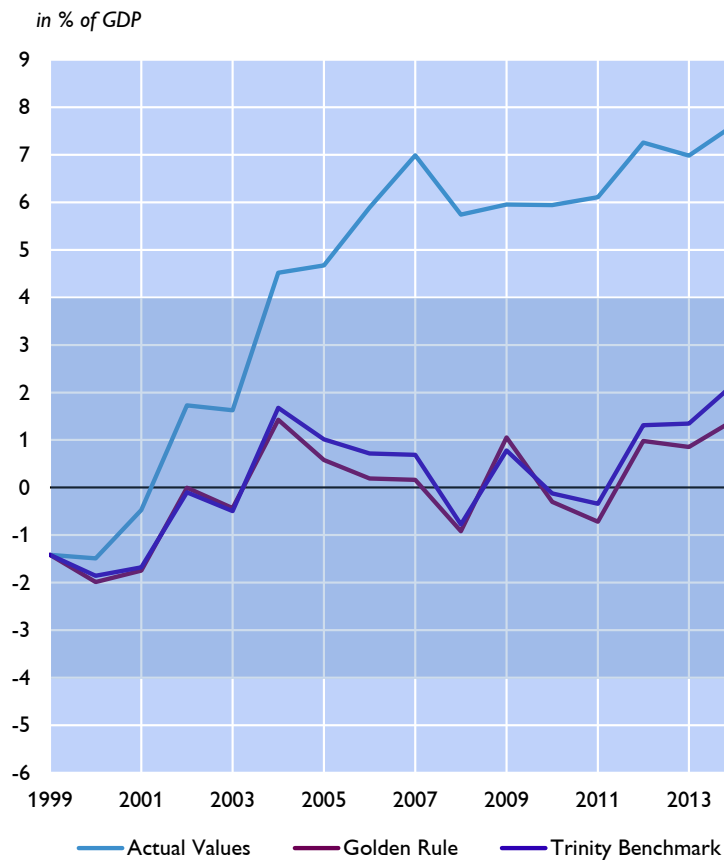
The case of Germany

Germany

Unit labor costs, 1999-2014



Current account



Quelle: AMECO Database, IMF, authors' calculations.

Variables

<i>W</i>	Real wages
<i>Y</i>	Real output
<i>PROD</i>	Productivity
<i>CA</i>	Current account
<i>NULC</i>	Nominal unit labor costs
<i>NULC*</i>	Nominal unit labor costs associated with a sustainable current account