

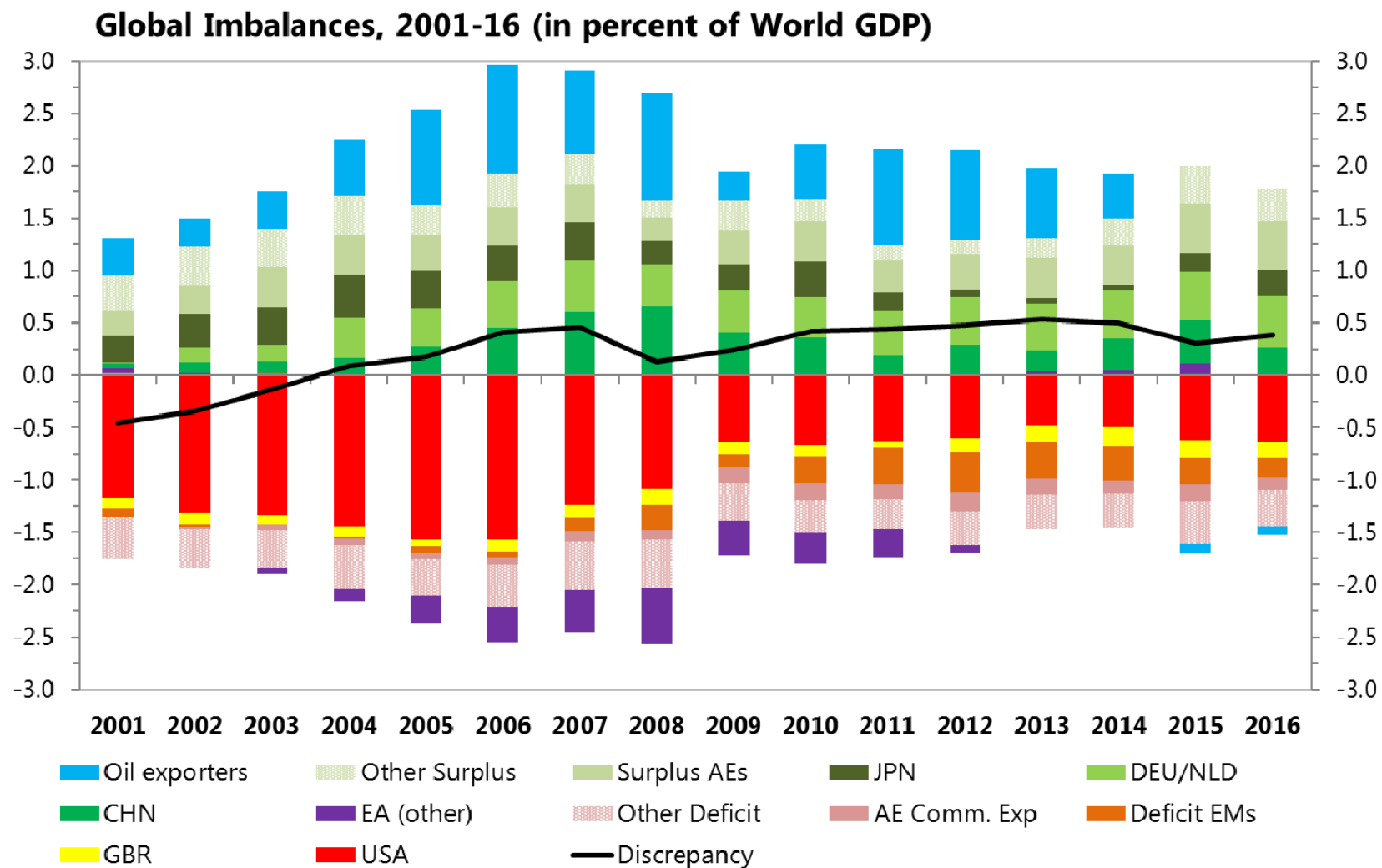


**International Monetary Fund**

# **Global External Imbalances: IMF Assessment of External Positions**

*April 18, 2017*

# Global imbalances narrowed with the GFC and have remained stable since...



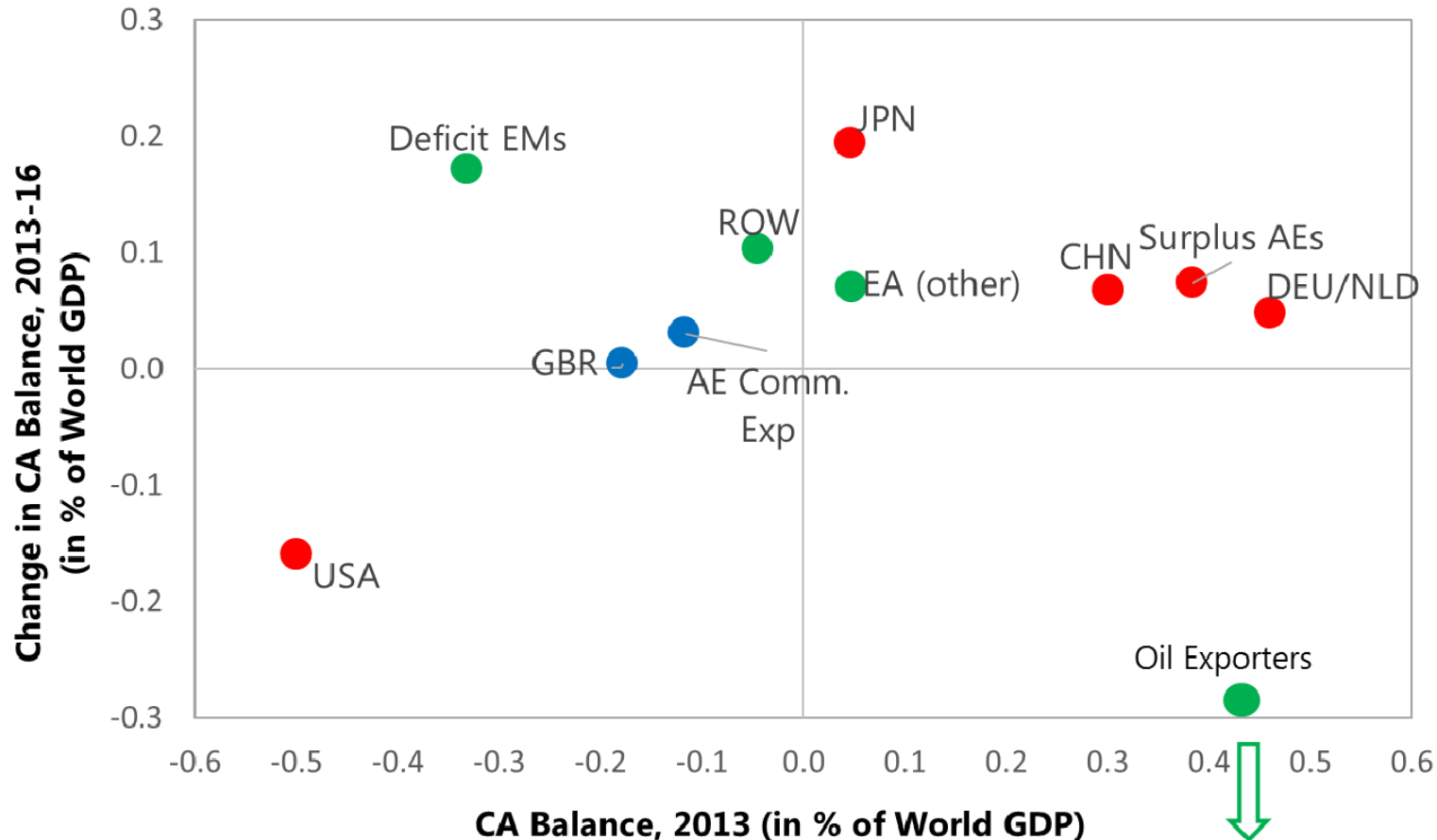
Sources: IMF, World Economic Outlook Database and Fund Staff calculations.

1/ Surplus AEs: Korea, Hong Kong SAR, Singapore, Sweden, Switzerland, Taiwan POC; AE Commodity Exporters: Australia, Canada, New Zealand; Deficit EMs: Brazil, India, Indonesia, Mexico, South Africa, Turkey; Oil Exporters: WEO definition plus Norway.

# ... with some reconfiguration since 2013, reflecting the commodity price drop and asymmetric AE recoveries

## Reconfiguration of Imbalances: Current Account Balances, 2013-16

(in percent of World GDP)

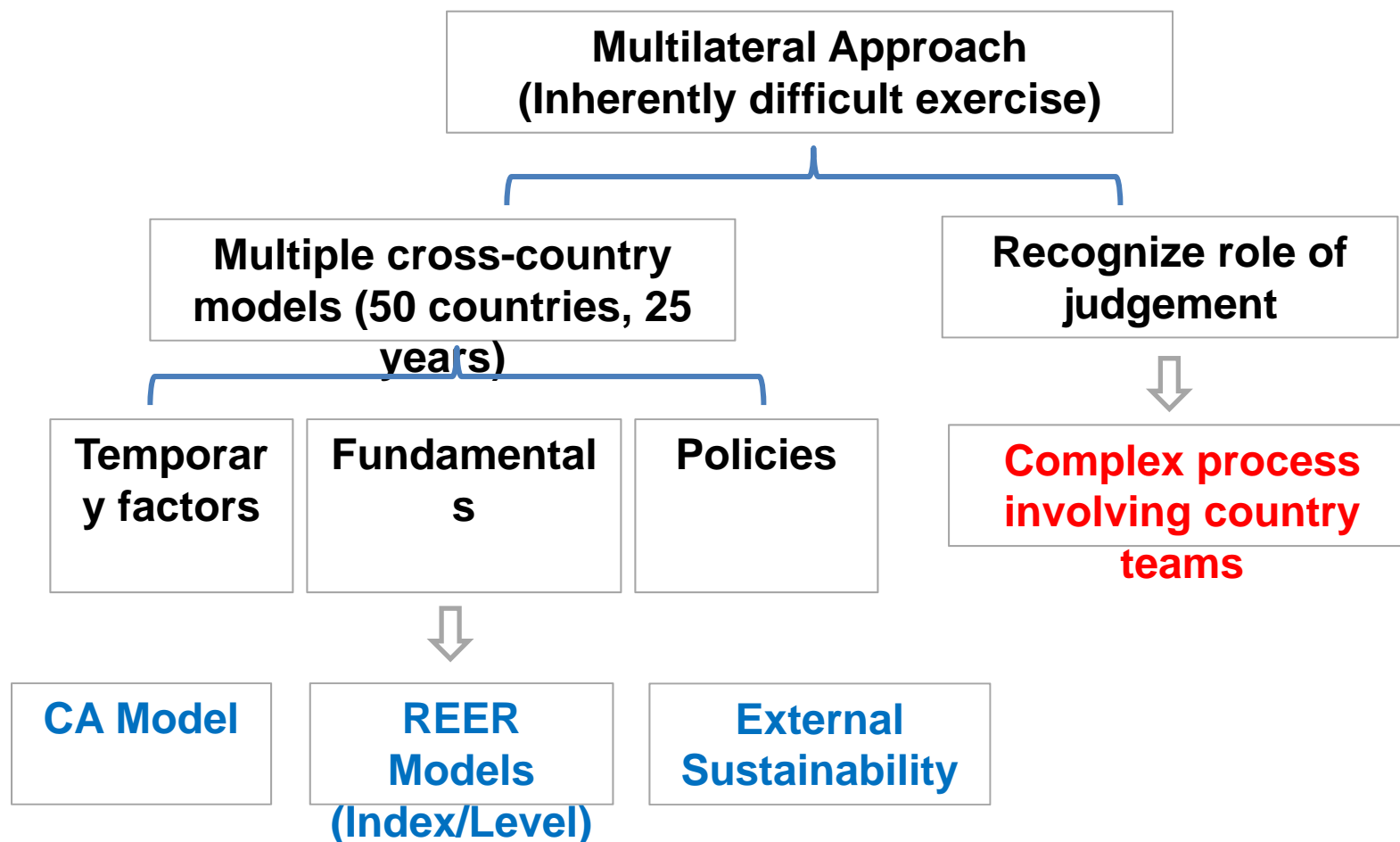


Sources: IMF, World Economic Outlook Database and Fund Staff calculations.

1/ Between 2013 and 2016, imbalances widened in countries located in the upper right and lower left quadrants (red), yet narrowed for those in the upper left and lower right quadrant (green). Meanwhile, imbalances were unchanged in a few cases (blue).

2/ Surplus AEs: Korea, Hong Kong SAR, Singapore, Sweden, Switzerland, Taiwan POC; AE Commodity Exporters: Australia, Canada, New Zealand; Deficit EMs: Brazil, India, Indonesia, Mexico, South Africa, Turkey; Oil Exporters: WEO definition + Norway.

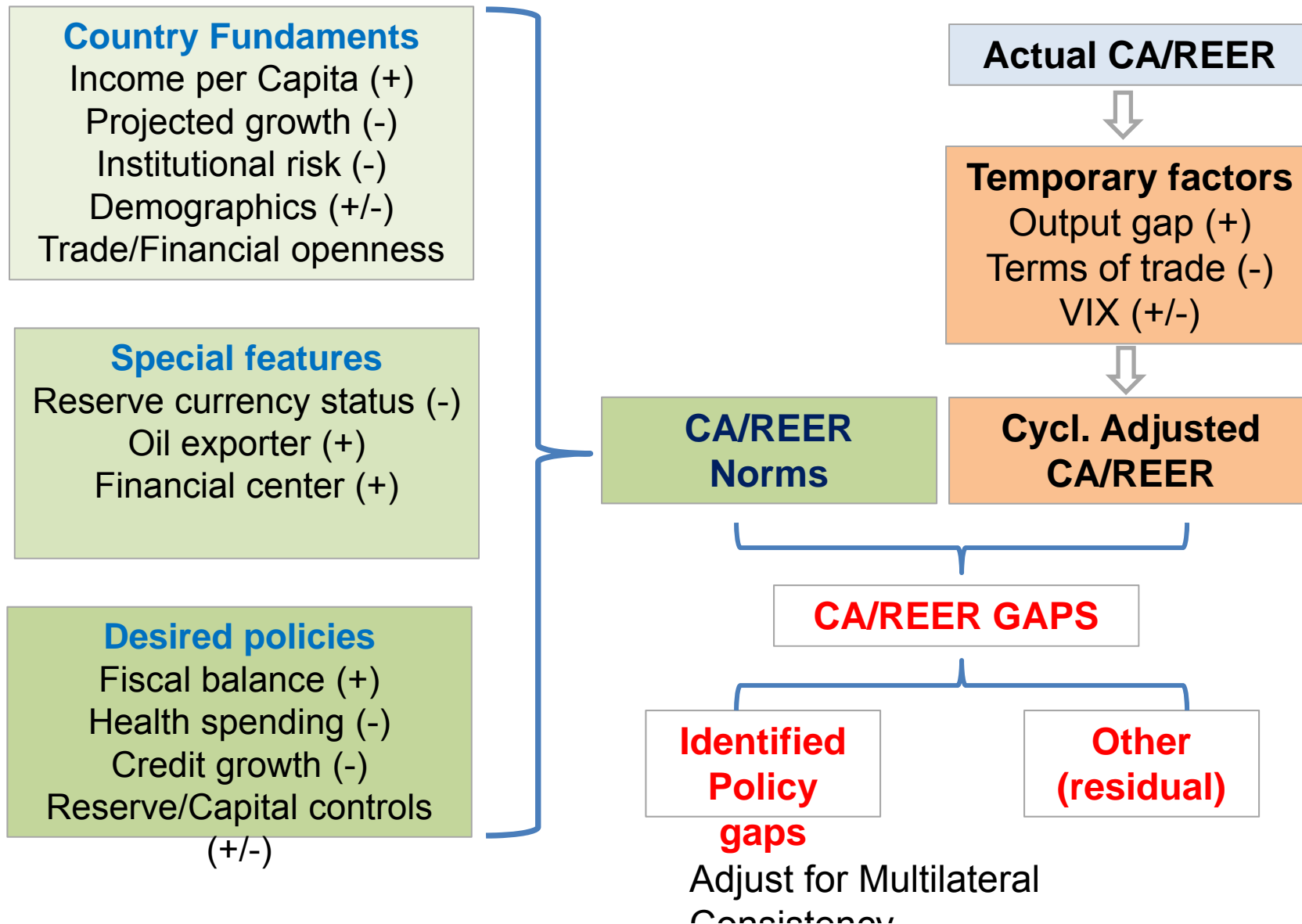
# But how “excessive” are global imbalances? Fund has been conducting external assessments since 2012



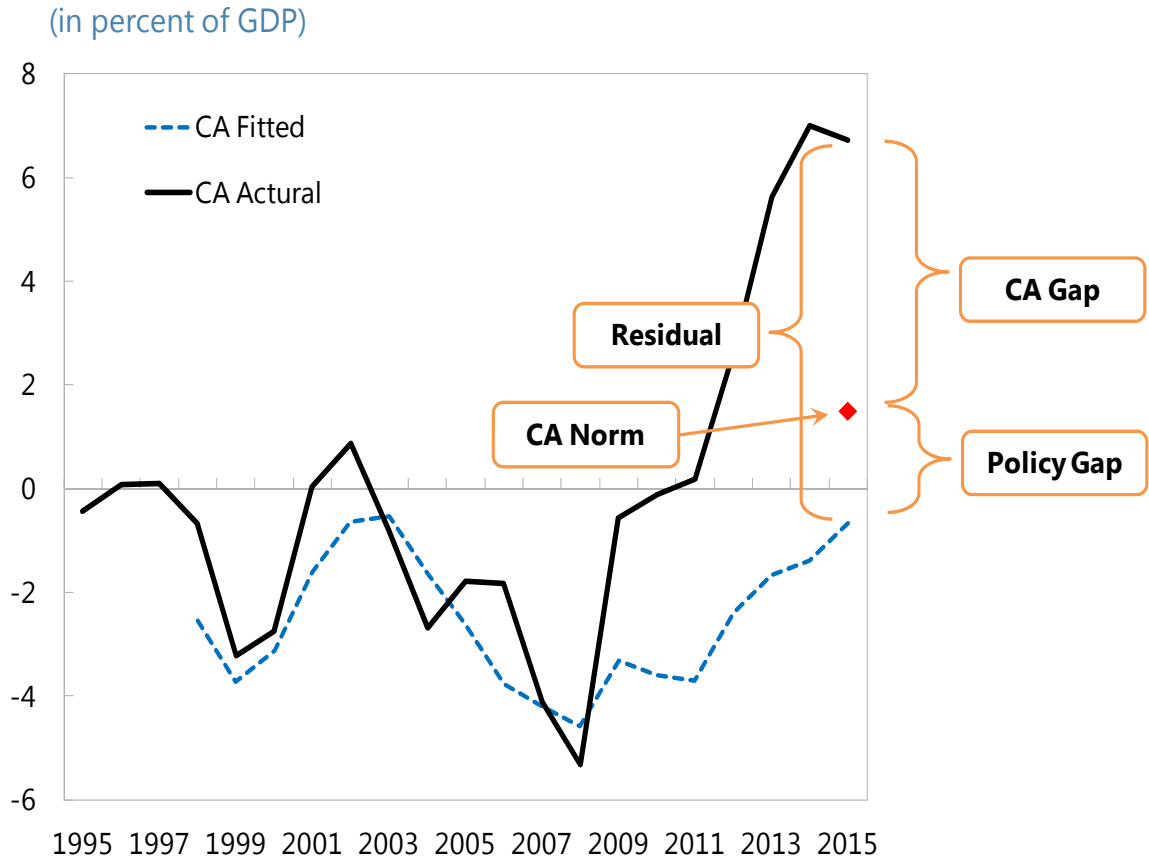
**EBA methodology:** <http://www.imf.org/external/pubs/ft/wp/2013/wp13272.pdf>

**ESR:** <http://www.imf.org/en/Publications/SPROLLs/External-Sector-Reports>

# External Balance Assessments (EBA) Model: Provide multilaterally consistent numerical inputs



# Interpreting the EBA Gaps



## CA norm

$CA\ norm = Fitted\ CA\ at\ P^*$

## CA gap

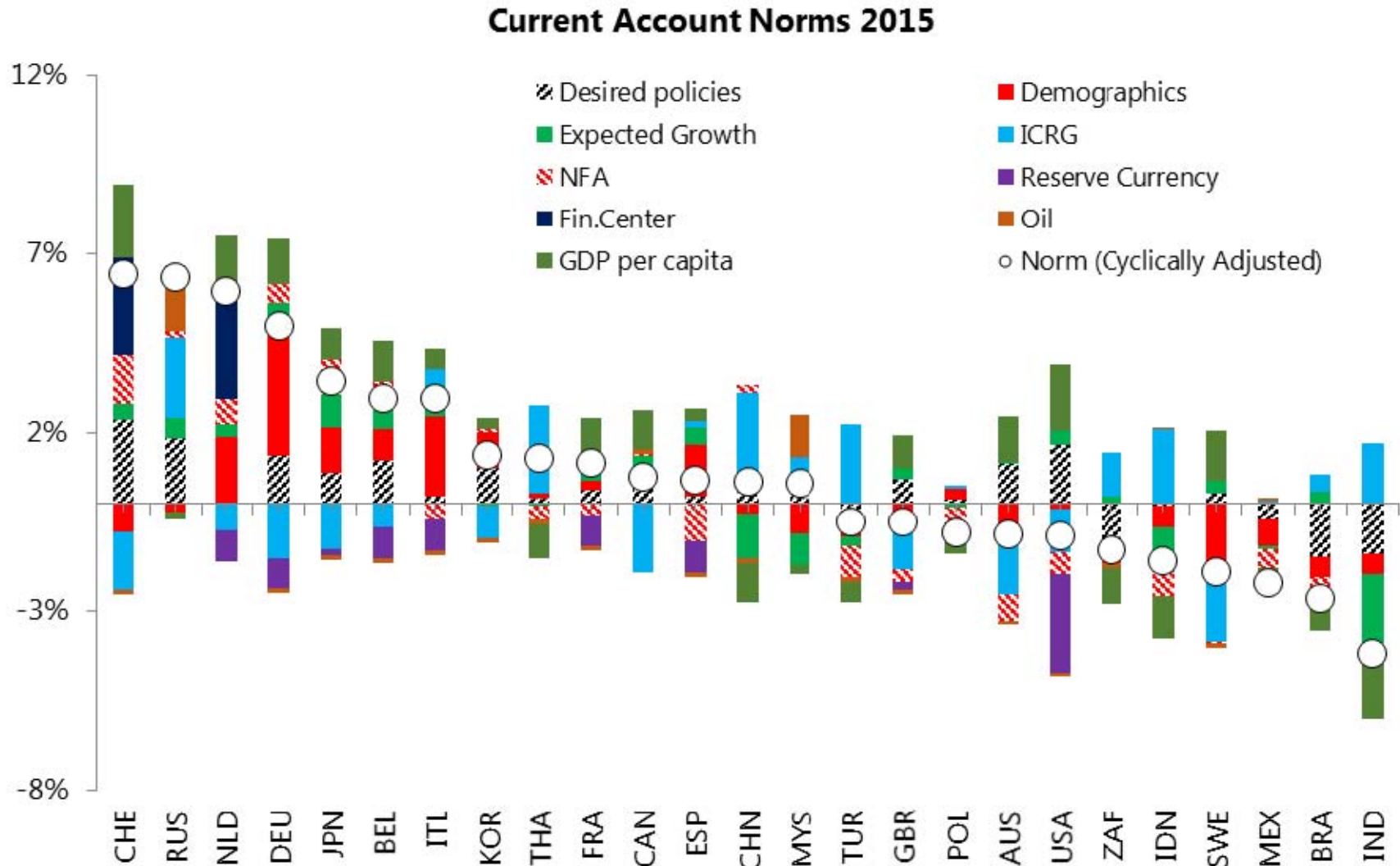
$CA\ gap = CA - CA\ norm$   
 $= CA - Fitted\ CA\ at\ P + \alpha \times (P - P^*)$

$= residual + policy$

## P\* — Desired policies

- Fiscal balance
- Health spending
- Private credit
- Reserves/Capital controls

# CA norms vary reflecting fundamentals and desired policies

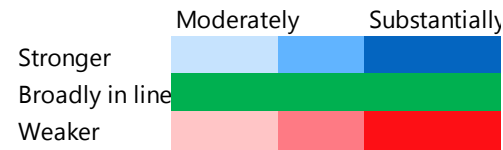
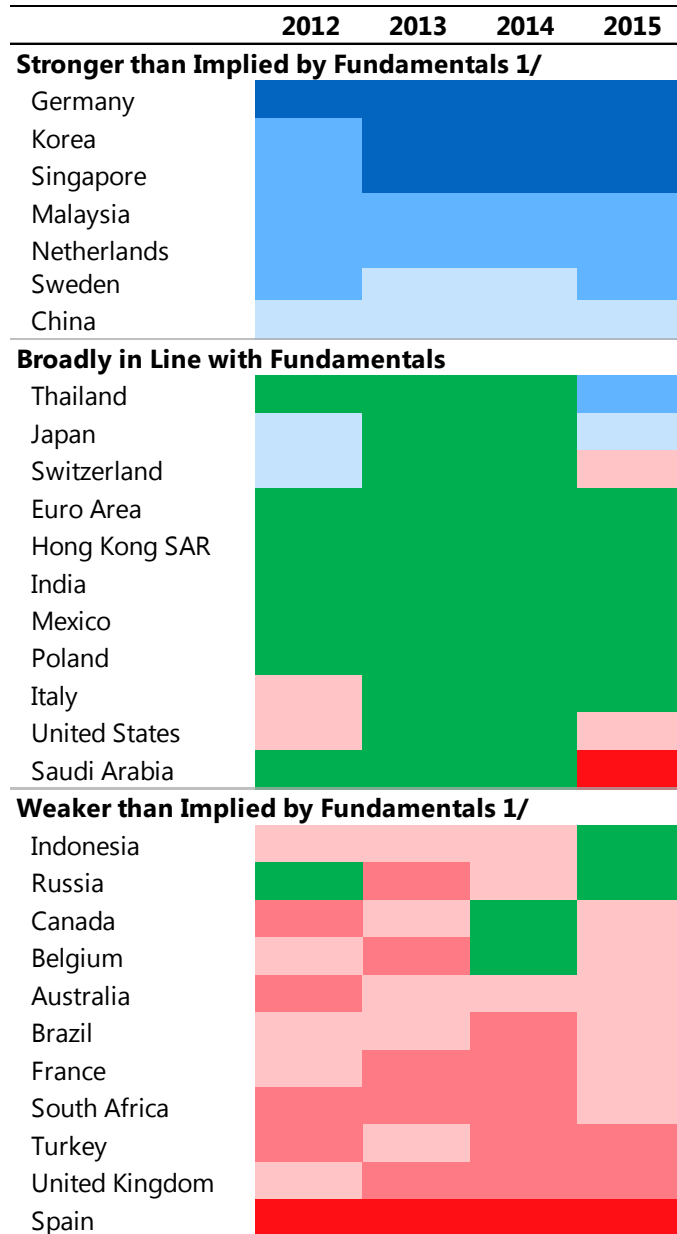


## **Staff Assessments = EBA Model Inputs + Staff Judgement**

- Model provides multilaterally consistent estimates, yet not all relevant country-specific features can be captured.
- Country-specific insights are necessary to arrive at overall assessment.
- Adjustments need to be well justified, applied in evenhanded fashion, and add up (multilaterally consistent).
- Types of adjustments:
  - Temporary factors (cyclical factors don't capture everything)
  - Measurement issues (CA balance  $\neq$  Change in net wealth)
  - Norm (e.g. demographics, external financing risk)



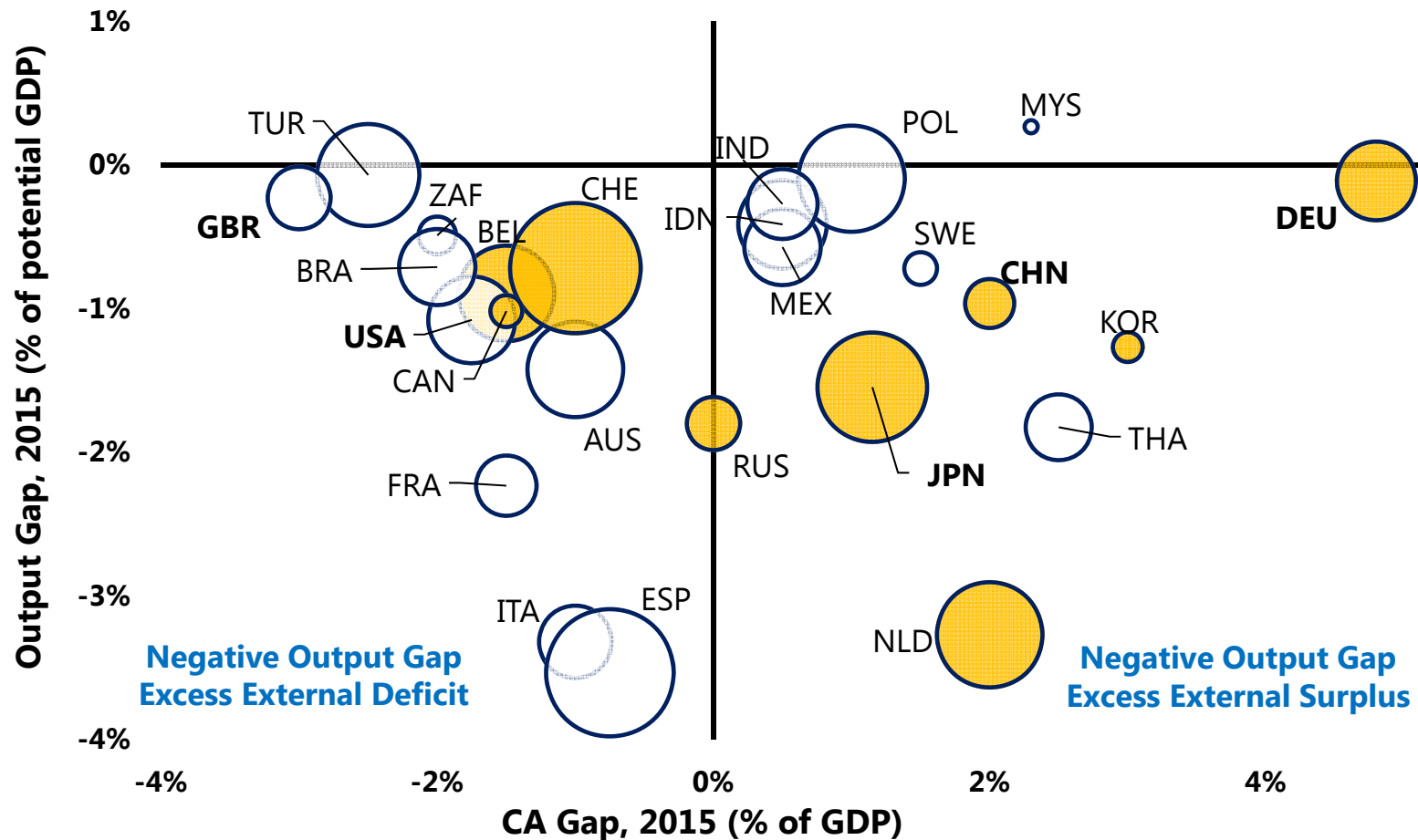
# Results: Persistent of excess imbalances, especially among surplus economies



1/ Stronger (weaker) implies 'undervaluation' ('overvaluation'). Grouping based on countries' prevailing assessment during 2012-15.

# Policy Challenge: Balancing External/Domestic Objectives

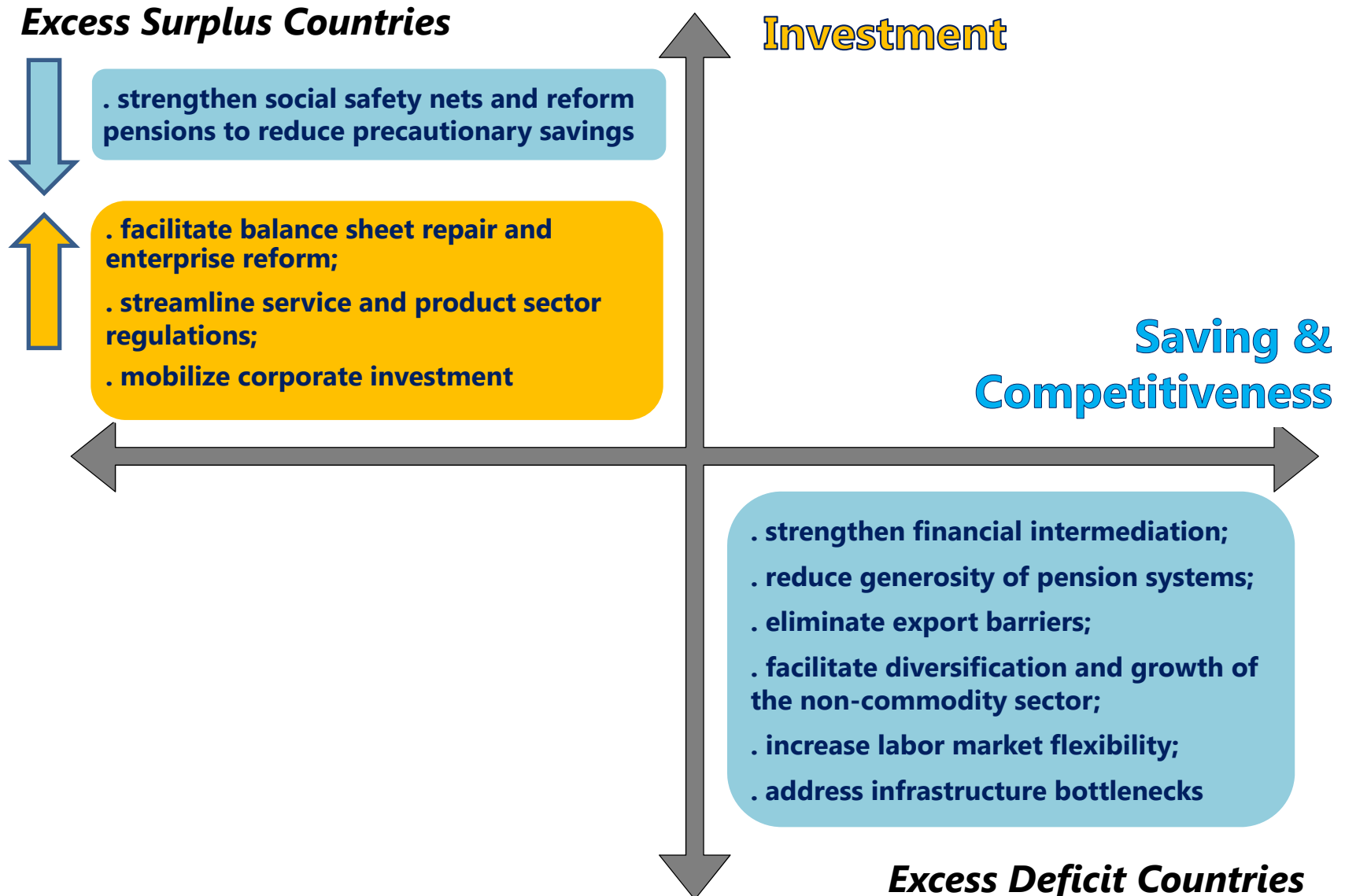
**ESR Economies: Current Account Gaps and Output Gap, 2015-16**  
(percent of GDP)



Source: World Economic Outlook and Fund staff estimations.

1/ Area of bubble is proportional to the country's NFA level in percent of GDP. Orange (white) bubbles denote creditor (debtor) position.

# Policy Challenge: Structural Reforms





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# CA Model

Most reliable; limitations in resource rich countries and financial centers

- Panel regression: 50 AEs and EMs; over last 20-25 year
- No country dummies; no (country-specific) interaction terms. Deal with country heterogeneity with interaction terms corresponding to hypotheses.
- Allows shocks to affect economies differently.
  - Economic size--country weighting scheme
  - Trade openness (TOT)
  - Financial openness (VIX)
- Multilateral consistency: Norm for each country depends on its own characteristics, but also on an average of other countries' characteristics (determinants are defined on a relative basis)
  - Policy gaps include domestic- and foreign-contributed parts

# EBA Real Exchange Rate Models

## REER Index Model

- Based on CPI REER
- Conducted with fixed effects; no cross-country information
- Results less reliable from countries with small sample or large structural changes
- Other variables: monetary policy, share of administered prices, and trade openness

## REER Level Model

- Based on PPP REER
- Useful to explain variations in the REER between countries
- Includes variables that explain cross-country variation of REER: tradable/non-tradable productivity, K/L ratio, VAT/GDP.

# External Sustainability Approach

Relevant for countries with large stock imbalances, or for which there is a clearer view on the appropriate NFA level

**NFA dynamics:**

$$NFA_t - NFA_{t-1} = CA_t + VE_t$$

$$Y_t = Y_{t-1}(1 + g)(1 + \pi)$$

$$nfa_t - nfa_{t-1} = ca_t + ve_t - \frac{g + \pi(1 + g)}{(1 + g)(1 + \pi)} nfa_{t-1}$$

**NFA stabilizing current account  
(VE=0):**

$$ca_s = \frac{g + \pi(1 + g)}{(1 + g)(1 + \pi)} nfa_s$$