

EBA ESTIMATES: ANALYSIS OF 2019 CURRENT ACCOUNTS AND REAL EFFECTIVE EXCHANGE RATES¹

Introduction

The attached tables contain estimates from the External Balance Assessment (EBA) analysis of 2019 current accounts and real exchange rates, computed in June 2020 by the Research Department. The estimates are based on the latest vintage of the EBA methodology, which can be found in the IMF working paper (WP/19/65) "[The External Balance Assessment Methodology: 2018 Update](#)".

These EBA estimates are used as input in the *2020 External Sector Report* and the *2020 External Sector Report: Individual Economy Assessments*.

The EBA analysis is of the 2019 outturns of the current account (CA) and 2019 year-average real effective exchange rates (REER). The external sustainability (ES) analysis is with reference to the 2019 current accounts.

EBA estimates presented in the attached tables are provided for the 26 economies that are analyzed in the 2020 External Sector Report². In addition, estimates are also shown for the euro area aggregate, which are constructed using weighted averages of the EBA estimates for the 11 largest euro area economies.

Data Vintage

The individual economy assessments for 2019 are based on data and IMF staff projections as of July 6, 2020, except for cyclical and medium-term variables, which are based on data as of January 31, 2020, preceding the COVID-19 pandemic. The analyses draw on the following data sources:

- [World Economic Outlook \(WEO\)](#) database as of June 2020.
- Demographic data from [UN World Population Prospects \(2017\)](#).
- The capital control index from [Quinn \(1997\)](#) and [Quinn and Toyoda \(2008\)](#), updated through 2017.
- Other third-party indicators (for example, [ICRG](#)) updated accordingly.

Organization

The attached tables are organized in four sections. As with past External Sector Reports, these correspond to four sets of estimates:

| | |
|--------------|--|
| Section I: | Regression-based analysis of 2019 Current Accounts |
| Section II: | Regression-based analysis of the 2019 REER Index |
| Section III: | Regression-based analysis of the 2019 REER Level |
| Section IV: | External Sustainability Analysis |

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² REER level model includes 25 economies.

SECTION I—CURRENT ACCOUNT REGRESSION-BASED ANALYSIS

The tables on the following pages contain results from the EBA analysis of 2019 current account balances (CA, as percent of GDP).

The first table decomposes the 2019 CAs into a cyclical component (related to both the business cycle and commodity price cycle) and a cyclically-adjusted component. The latter is further decomposed into a cyclically-adjusted CA “norm” (calculated using desirable P* policy settings), a gap that arises from the estimated contributions of five policy gaps, and a regression residual. The last column is the Total CA Gap, the sum of the overall policy gaps and the residual.

The CA numbers in the first table include small adjustments that have been applied uniformly across economies (in terms of an economy’s own GDP) to ensure multilateral consistency. Thus, the cross-economy sum of the CA norm levels, when measured in U.S. dollars, matches the sum of the actual 2019 CA levels of all 49 EBA economies.

The second table breaks down the policy gap contributions by the five policies covered in the EBA CA analysis. For each policy gap, the reported estimates include both the total contribution and the subcomponent that is “domestic” (i.e., arising from an economy’s own policies).

The five subsequent tables (Table 3-7) show further detail on the derivation of the policy gap contributions. The abbreviation “wo” is used to denote the world average counterparts of the variables (in all cases, world averages are obtained as GDP-weighted averages of the relevant variables).

The final table of this section (Table 8) shows the derivation of the cyclical component of the CA.

Finally, Table 9 shows the estimated coefficients of the EBA CA model.

Table 1. EBA Regression Analysis of 2019 Current Accounts

(In percent of GDP, includes multilateral consistency adjustments)

| | Actual CA | Cyclical Contributions (incl. ToT) 1/ | Cyclically Adjusted 2018 CA | Cyclically Adjusted CA Norm 2/ | Contribution of Identified Policy Gaps | Unexplained Residual | Total Gap, including Residual |
|-----------------------|-----------|---------------------------------------|-----------------------------|--------------------------------|--|----------------------|-------------------------------|
| Argentina | -0.8% | 0.9% | -1.7% | -1.2% | -5.5% | 5.0% | -0.5% |
| Australia | 0.6% | 0.2% | 0.3% | -0.1% | 0.2% | 0.2% | 0.5% |
| Belgium | -1.2% | -0.1% | -1.1% | 2.3% | -0.8% | -2.7% | -3.5% |
| Brazil | -2.7% | 1.0% | -3.7% | -2.5% | 0.7% | -1.9% | -1.2% |
| Canada | -2.0% | -0.1% | -1.9% | 2.2% | 0.3% | -4.4% | -4.1% |
| China | 1.0% | 0.2% | 0.8% | -0.4% | -0.1% | 1.3% | 1.2% |
| France | -0.7% | -0.1% | -0.5% | 0.6% | -0.6% | -0.5% | -1.1% |
| Germany | 7.1% | -0.1% | 7.3% | 2.5% | 1.1% | 3.7% | 4.7% |
| India | -0.9% | 0.5% | -1.4% | -3.0% | 2.1% | -0.5% | 1.6% |
| Indonesia | -2.7% | 0.0% | -2.7% | -0.8% | 1.5% | -3.4% | -1.9% |
| Italy | 3.0% | 0.3% | 2.7% | 2.6% | 1.1% | -1.1% | 0.0% |
| Japan | 3.6% | 0.1% | 3.5% | 3.5% | -1.4% | 1.3% | 0.0% |
| Korea | 3.6% | 0.4% | 3.3% | 3.3% | 0.9% | -0.9% | 0.0% |
| Malaysia | 3.4% | -0.1% | 3.5% | -0.2% | 1.9% | 1.7% | 3.7% |
| Mexico | -0.3% | 0.4% | -0.7% | -2.2% | 1.0% | 0.5% | 1.5% |
| Netherlands | 10.2% | -0.3% | 10.5% | 3.3% | 2.6% | 4.6% | 7.2% |
| Poland | 0.5% | -0.1% | 0.6% | -2.1% | 1.7% | 0.9% | 2.7% |
| Russia | 3.8% | 0.0% | 3.8% | 3.7% | 2.6% | -2.5% | 0.1% |
| South Africa | -3.0% | 0.2% | -3.2% | 0.9% | 0.0% | -4.0% | -4.0% |
| Spain | 2.0% | -0.2% | 2.2% | 1.1% | -0.2% | 1.3% | 1.1% |
| Sweden | 4.2% | -0.3% | 4.5% | 1.2% | 0.1% | 3.2% | 3.2% |
| Switzerland | 11.5% | 0.0% | 11.5% | 6.3% | 0.0% | 5.2% | 5.3% |
| Thailand | 7.0% | 0.4% | 6.6% | 0.4% | 2.2% | 4.0% | 6.1% |
| Turkey | 1.2% | 0.3% | 0.8% | -1.7% | -1.7% | 4.2% | 2.5% |
| United Kingdom | -3.8% | 0.0% | -3.8% | 0.4% | 0.2% | -4.4% | -4.2% |
| United States | -2.3% | -0.3% | -2.0% | -0.7% | -0.9% | -0.4% | -1.3% |
| Euro Area 3/ | 2.7% | -0.1% | 2.7% | 1.4% | 0.6% | 0.7% | 1.3% |

1/ Sum of estimated contributions of output cycle and commodity terms of trade cycle.

2/ Current account norm determined by regression evaluated at observed fundamentals and desirable policy settings (and zero cyclical contributions).

3/ Euro area current account gaps and policy gap contributions are calculated as GDP-weighted averages of values for the 11 largest Euro area economies. The CA norm is corrected for reporting discrepancies in intra-area transactions, since the CA of the entire Euro area is about 0.39 percent of GDP less than the sum of the individual 11 countries' CA balances (for which no such correction is available).

Table 2. EBA-Estimated Policy Gap Contributions to 2019 Current Accounts

| | All (sum) | | Fiscal Balance | | Health Exp. | | Δ Reserves | | Credit | | K-Controls | |
|---------------------------|-----------|-------|----------------|-------|-------------|-------|------------|-------|--------|-------|------------|-------|
| | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. |
| Argentina | -5.5% | -6.0% | 0.5% | -0.5% | -0.1% | 0.0% | -5.2% | -5.1% | -0.1% | 0.0% | -0.6% | -0.5% |
| Australia | 0.2% | -0.3% | -0.2% | -1.2% | 0.1% | 0.2% | 0.0% | 0.0% | 0.4% | 0.6% | -0.1% | 0.0% |
| Belgium | -0.8% | -1.3% | -0.1% | -1.0% | -0.2% | -0.1% | 0.0% | 0.0% | -0.3% | -0.2% | -0.1% | 0.0% |
| Brazil | 0.7% | 0.2% | 0.6% | -0.4% | 0.1% | 0.2% | -0.2% | -0.1% | 0.2% | 0.3% | 0.0% | 0.1% |
| Canada | 0.3% | -0.3% | 1.0% | 0.1% | -0.1% | 0.0% | 0.0% | 0.0% | -0.4% | -0.3% | -0.1% | 0.0% |
| China | -0.1% | -0.6% | -0.4% | -1.3% | 0.1% | 0.2% | 0.0% | 0.0% | -0.1% | 0.0% | 0.3% | 0.4% |
| France | -0.6% | -1.1% | 0.3% | -0.7% | -0.2% | -0.1% | 0.0% | 0.0% | -0.5% | -0.4% | -0.1% | 0.0% |
| Germany | 1.1% | 0.6% | 1.5% | 0.6% | -0.1% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | -0.1% | 0.0% |
| India | 2.1% | 1.6% | 0.3% | -0.6% | 0.0% | 0.1% | 0.8% | 0.9% | 0.4% | 0.6% | 0.5% | 0.7% |
| Indonesia | 1.5% | 1.0% | 1.0% | 0.1% | 0.5% | 0.6% | 0.2% | 0.2% | -0.3% | -0.2% | 0.2% | 0.3% |
| Italy | 1.1% | 0.6% | 0.3% | -0.6% | 0.0% | 0.1% | 0.0% | 0.0% | 1.0% | 1.1% | -0.1% | 0.0% |
| Japan | -1.4% | -1.9% | -0.1% | -1.0% | -0.1% | 0.0% | 0.0% | 0.0% | -1.0% | -0.9% | -0.1% | 0.0% |
| Korea | 0.9% | 0.4% | 1.1% | 0.2% | 0.3% | 0.4% | 0.0% | 0.0% | -0.3% | -0.2% | -0.1% | 0.0% |
| Malaysia | 1.9% | 1.4% | 0.7% | -0.2% | 0.7% | 0.8% | 0.8% | 0.8% | -0.2% | -0.1% | -0.1% | 0.1% |
| Mexico | 1.0% | 0.5% | 0.8% | -0.1% | 0.4% | 0.5% | 0.0% | 0.1% | -0.3% | -0.2% | 0.1% | 0.2% |
| Netherlands | 2.6% | 2.0% | 1.4% | 0.5% | 0.1% | 0.3% | 0.0% | 0.0% | 1.2% | 1.3% | -0.1% | 0.0% |
| Poland | 1.7% | 1.2% | 0.9% | -0.1% | 0.0% | 0.1% | 0.3% | 0.3% | 0.7% | 0.8% | -0.1% | 0.0% |
| Russia | 2.6% | 2.1% | 0.5% | -0.4% | 0.8% | 0.9% | 0.7% | 0.7% | 0.7% | 0.8% | -0.1% | 0.0% |
| South Africa | 0.0% | -0.6% | -0.1% | -1.0% | -0.1% | 0.0% | 0.0% | 0.1% | 0.2% | 0.3% | 0.0% | 0.1% |
| Spain | -0.2% | -0.7% | -0.1% | -1.1% | -0.1% | 0.0% | 0.0% | 0.0% | 0.2% | 0.3% | -0.1% | 0.0% |
| Sweden | 0.1% | -0.5% | 0.6% | -0.3% | -0.2% | -0.1% | 0.0% | 0.0% | -0.1% | 0.0% | -0.1% | 0.0% |
| Switzerland | 0.0% | -0.5% | 1.4% | 0.5% | -0.2% | -0.1% | 0.0% | 0.0% | -1.0% | -0.9% | -0.1% | 0.0% |
| Thailand | 2.2% | 1.7% | 1.1% | 0.2% | 0.4% | 0.5% | 0.9% | 0.9% | -0.4% | -0.3% | 0.3% | 0.4% |
| Turkey | -1.7% | -2.2% | 0.3% | -0.6% | 0.0% | 0.1% | -0.3% | -0.3% | -1.6% | -1.5% | -0.1% | 0.0% |
| United Kingdom | 0.2% | -0.3% | 0.5% | -0.4% | 0.0% | 0.1% | 0.0% | 0.0% | -0.1% | 0.0% | -0.1% | 0.0% |
| United States | -0.9% | -1.4% | -0.9% | -1.8% | -0.2% | -0.1% | 0.0% | 0.0% | 0.3% | 0.4% | -0.1% | 0.0% |
| Euro Area (agg) 1/ | 0.6% | 0.1% | 0.8% | -0.2% | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | -0.1% | 0.0% |

1/ Euro area policy gap contributions are GDP-weighted averages of the 11 largest Euro area economies.

Table 3. Breakdown of 2019 Policy Gap Contribution: Fiscal Balance/GDP

| | Overall Contribution | Beta | Policy Gap 1/ | (P-P*) | P | P* | P_wo | P*_wo |
|------------------------|----------------------|------|---------------|--------|-------|-------|-------|-------|
| Argentina | 0.5% | 0.33 | 1.4% | -1.4% | -2.9% | -1.5% | -4.1% | -1.3% |
| Australia | -0.2% | 0.33 | -0.7% | -3.5% | -3.5% | 0.0% | -4.1% | -1.3% |
| Belgium | -0.1% | 0.33 | -0.3% | -3.2% | -3.2% | 0.0% | -4.1% | -1.3% |
| Brazil | 0.6% | 0.33 | 1.7% | -1.1% | -5.1% | -4.0% | -4.1% | -1.3% |
| Canada | 1.0% | 0.33 | 3.0% | 0.2% | -0.5% | -0.7% | -4.1% | -1.3% |
| China | -0.4% | 0.33 | -1.2% | -4.0% | -6.0% | -2.0% | -4.1% | -1.3% |
| France | 0.3% | 0.33 | 0.8% | -2.0% | -2.4% | -0.4% | -4.1% | -1.3% |
| Germany | 1.5% | 0.33 | 4.6% | 1.7% | 1.2% | -0.5% | -4.1% | -1.3% |
| India | 0.3% | 0.33 | 0.9% | -1.9% | -7.6% | -5.8% | -4.1% | -1.3% |
| Indonesia | 1.0% | 0.33 | 3.1% | 0.3% | -2.2% | -2.5% | -4.1% | -1.3% |
| Italy | 0.3% | 0.33 | 1.0% | -1.8% | -1.3% | 0.5% | -4.1% | -1.3% |
| Japan | -0.1% | 0.33 | -0.3% | -3.1% | -3.0% | 0.1% | -4.1% | -1.3% |
| Korea | 1.1% | 0.33 | 3.4% | 0.6% | 0.6% | 0.0% | -4.1% | -1.3% |
| Malaysia | 0.7% | 0.33 | 2.1% | -0.7% | -2.7% | -2.0% | -4.1% | -1.3% |
| Mexico | 0.8% | 0.33 | 2.6% | -0.3% | -2.6% | -2.3% | -4.1% | -1.3% |
| Netherlands | 1.4% | 0.33 | 4.3% | 1.5% | 1.0% | -0.5% | -4.1% | -1.3% |
| Poland | 0.9% | 0.33 | 2.6% | -0.2% | -1.7% | -1.5% | -4.1% | -1.3% |
| Russia | 0.5% | 0.33 | 1.5% | -1.3% | 2.0% | 3.3% | -4.1% | -1.3% |
| South Africa | -0.1% | 0.33 | -0.3% | -3.1% | -4.7% | -1.6% | -4.1% | -1.3% |
| Spain | -0.1% | 0.33 | -0.4% | -3.2% | -3.2% | 0.0% | -4.1% | -1.3% |
| Sweden | 0.6% | 0.33 | 1.8% | -1.0% | -0.7% | 0.3% | -4.1% | -1.3% |
| Switzerland | 1.4% | 0.33 | 4.2% | 1.4% | 1.4% | 0.0% | -4.1% | -1.3% |
| Thailand | 1.1% | 0.33 | 3.3% | 0.5% | -0.7% | -1.2% | -4.1% | -1.3% |
| Turkey | 0.3% | 0.33 | 1.0% | -1.8% | -5.8% | -4.0% | -4.1% | -1.3% |
| United Kingdom | 0.5% | 0.33 | 1.6% | -1.2% | -2.0% | -0.8% | -4.1% | -1.3% |
| United States | -0.9% | 0.33 | -2.6% | -5.4% | -6.6% | -1.2% | -4.1% | -1.3% |
| Euro Area (agg) | 0.8% | 0.33 | 2.3% | -0.5% | -0.7% | -0.2% | -4.1% | -1.3% |

1/ (P-P_wo) - (P*-P*_wo).

Table 4. Breakdown of 2019 Policy Gap Contribution: Public Expenditure on Health/GDP 1/

| | Overall Contribution | Beta | Policy Gap 2/ | (P-P*) | P | P* | P_wo | P*_wo | P* Benchmark from Regression 3/ |
|------------------------|----------------------|-------|---------------|--------|------|------|------|-------|---------------------------------|
| Argentina | -0.1% | -0.40 | 0.3% | 0.0% | 6.5% | 6.5% | 6.3% | 6.6% | 4.6% |
| Australia | 0.1% | -0.40 | -0.3% | -0.6% | 6.3% | 6.9% | 6.3% | 6.6% | 7.0% |
| Belgium | -0.2% | -0.40 | 0.6% | 0.3% | 8.0% | 7.7% | 6.3% | 6.6% | 7.2% |
| Brazil | 0.1% | -0.40 | -0.3% | -0.5% | 3.9% | 4.4% | 6.3% | 6.6% | 3.5% |
| Canada | -0.1% | -0.40 | 0.3% | 0.0% | 7.1% | 7.0% | 6.3% | 6.6% | 7.0% |
| China | 0.1% | -0.40 | -0.4% | -0.6% | 3.4% | 4.0% | 6.3% | 6.6% | 3.9% |
| France | -0.2% | -0.40 | 0.6% | 0.3% | 9.4% | 9.1% | 6.3% | 6.6% | 7.8% |
| Germany | -0.1% | -0.40 | 0.3% | 0.0% | 9.6% | 9.5% | 6.3% | 6.6% | 8.0% |
| India | 0.0% | -0.40 | 0.0% | -0.3% | 1.4% | 1.6% | 6.3% | 6.6% | 1.8% |
| Indonesia | 0.5% | -0.40 | -1.1% | -1.4% | 1.6% | 3.0% | 6.3% | 6.6% | 2.5% |
| Italy | 0.0% | -0.40 | 0.0% | -0.2% | 6.6% | 6.8% | 6.3% | 6.6% | 7.8% |
| Japan | -0.1% | -0.40 | 0.3% | 0.0% | 9.0% | 9.0% | 6.3% | 6.6% | 9.0% |
| Korea | 0.3% | -0.40 | -0.6% | -0.9% | 4.8% | 5.7% | 6.3% | 6.6% | 5.7% |
| Malaysia | 0.7% | -0.40 | -1.8% | -2.1% | 2.0% | 4.1% | 6.3% | 6.6% | 4.4% |
| Mexico | 0.4% | -0.40 | -0.9% | -1.1% | 2.8% | 3.9% | 6.3% | 6.6% | 3.7% |
| Netherlands | 0.1% | -0.40 | -0.4% | -0.6% | 8.2% | 8.8% | 6.3% | 6.6% | 7.7% |
| Poland | 0.0% | -0.40 | -0.1% | -0.3% | 5.1% | 5.4% | 6.3% | 6.6% | 6.0% |
| Russia | 0.8% | -0.40 | -2.1% | -2.3% | 3.2% | 5.5% | 6.3% | 6.6% | 5.5% |
| South Africa | -0.1% | -0.40 | 0.4% | 0.1% | 4.2% | 4.1% | 6.3% | 6.6% | 2.9% |
| Spain | -0.1% | -0.40 | 0.3% | 0.0% | 6.2% | 6.2% | 6.3% | 6.6% | 6.8% |
| Sweden | -0.2% | -0.40 | 0.6% | 0.3% | 9.3% | 9.0% | 6.3% | 6.6% | 8.2% |
| Switzerland | -0.2% | -0.40 | 0.4% | 0.1% | 7.6% | 7.5% | 6.3% | 6.6% | 7.6% |
| Thailand | 0.4% | -0.40 | -0.9% | -1.2% | 2.9% | 4.1% | 6.3% | 6.6% | 4.1% |
| Turkey | 0.0% | -0.40 | 0.0% | -0.3% | 3.3% | 3.6% | 6.3% | 6.6% | 4.4% |
| United Kingdom | 0.0% | -0.40 | 0.0% | -0.3% | 7.6% | 7.9% | 6.3% | 6.6% | 7.4% |
| United States | -0.2% | -0.40 | 0.4% | 0.1% | 8.4% | 8.2% | 6.3% | 6.6% | 7.4% |
| Euro Area (agg) | -0.1% | -0.40 | 0.3% | 0.0% | 8.2% | 8.2% | 6.3% | 6.6% | 7.7% |

1/ This variable is lagged in estimation, thus 2018 values are shown ; before small M.C. adjustment.

2/ $(P - P_{wo}) - (P^* - P^*_{wo})$.

3/ Fitted value from cross-country regression of public health expenditure on relative per capita income, old age dependency, and income inequality (Gini coefficient). For reference; desk value may differ.

Table 5. Breakdown of 2019 Policy Gap Contribution: (Change in FX Reserves)/GDP 1/

| | Overall Contribution | Beta | Policy Gap 2/ | (P_KC)-(P_KC)* | (P_KC) | (P_KC)* | (P_KC)_wo | (P_KC)*_wo | Components | | | |
|------------------------|----------------------|------|---------------|----------------|--------|---------|-----------|------------|------------|------|------|------|
| | | | | | | | | | P | P* | KC | KC* |
| Argentina | -5.2% | 0.75 | -6.9% | -6.8% | -6.3% | 0.5% | 0.1% | 0.0% | -8.4% | 1.0% | 0.75 | 0.50 |
| Australia | 0.0% | 0.75 | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.5% | 0.0% | 0.13 | 0.13 |
| Belgium | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.3% | 0.0% | 0.00 | 0.00 |
| Brazil | -0.2% | 0.75 | -0.2% | -0.2% | -0.2% | 0.0% | 0.1% | 0.0% | -0.6% | 0.0% | 0.25 | 0.15 |
| Canada | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.1% | 0.0% | 0.00 | 0.00 |
| China | 0.0% | 0.75 | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.50 | 0.15 |
| France | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.00 | 0.00 |
| Germany | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |
| India | 0.8% | 0.75 | 1.1% | 1.2% | 1.2% | 0.0% | 0.1% | 0.0% | 2.3% | 0.0% | 0.50 | 0.15 |
| Indonesia | 0.2% | 0.75 | 0.2% | 0.3% | 0.3% | 0.0% | 0.1% | 0.0% | 0.7% | 0.0% | 0.38 | 0.15 |
| Italy | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.2% | 0.0% | 0.00 | 0.00 |
| Japan | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.3% | 0.0% | 0.00 | 0.00 |
| Korea | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |
| Malaysia | 0.8% | 0.75 | 1.0% | 1.1% | 1.1% | 0.0% | 0.1% | 0.0% | 2.9% | 0.0% | 0.38 | 0.15 |
| Mexico | 0.0% | 0.75 | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.2% | 0.0% | 0.38 | 0.15 |
| Netherlands | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.5% | 0.0% | 0.00 | 0.00 |
| Poland | 0.3% | 0.75 | 0.4% | 0.4% | 0.4% | 0.0% | 0.1% | 0.0% | 1.7% | 0.0% | 0.25 | 0.15 |
| Russia | 0.7% | 0.75 | 0.9% | 1.0% | 1.0% | 0.0% | 0.1% | 0.0% | 3.9% | 0.0% | 0.25 | 0.15 |
| South Africa | 0.0% | 0.75 | 0.1% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.4% | 0.0% | 0.25 | 0.15 |
| Spain | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.00 | 0.00 |
| Sweden | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -1.2% | 0.0% | 0.00 | 0.00 |
| Switzerland | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 2.5% | 0.0% | 0.00 | 0.00 |
| Thailand | 0.9% | 0.75 | 1.1% | 1.2% | 1.2% | 0.0% | 0.1% | 0.0% | 2.4% | 0.0% | 0.50 | 0.15 |
| Turkey | -0.3% | 0.75 | -0.5% | -0.4% | -0.3% | 0.1% | 0.1% | 0.0% | -1.3% | 0.6% | 0.25 | 0.15 |
| United Kingdom | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.1% | 0.0% | 0.00 | 0.00 |
| United States | 0.0% | 0.75 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |
| Euro Area (agg) | 0.0% | 0.75 | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.01 | 0.00 |

1/ Before small Multilateral Consistency adjustment.

2/ $[(P_KC)-(P_KC)_wo] - [(P_KC)^*-(P_KC)^*_wo]$.

Table 6. Breakdown of 2019 Policy Gap Contribution : Private Credit/GDP (HP detrended)

| | Overall Contribution | Beta | Policy Gap 1/ | (P-P*) | P | P* | P_wo | P*_wo |
|------------------------|----------------------|--------|---------------|--------|--------|-------|-------|-------|
| Argentina | -0.1% | -0.104 | 1.0% | -0.3% | -0.3% | 0.0% | -1.4% | -0.2% |
| Australia | 0.4% | -0.104 | -4.2% | -5.5% | -5.5% | 0.0% | -1.4% | -0.2% |
| Belgium | -0.3% | -0.104 | 2.7% | 1.5% | 1.5% | 0.0% | -1.4% | -0.2% |
| Brazil | 0.2% | -0.104 | -1.6% | -2.9% | -2.9% | 0.0% | -1.4% | -0.2% |
| Canada | -0.4% | -0.104 | 4.3% | 3.1% | 3.1% | 0.0% | -1.4% | -0.2% |
| China | -0.1% | -0.104 | 1.4% | 0.2% | 0.2% | 0.0% | -1.4% | -0.2% |
| France | -0.5% | -0.104 | 4.7% | 3.5% | 3.5% | 0.0% | -1.4% | -0.2% |
| Germany | -0.1% | -0.104 | 1.2% | 0.0% | -2.0% | -2.0% | -1.4% | -0.2% |
| India | 0.4% | -0.104 | -4.3% | -5.5% | -5.5% | 0.0% | -1.4% | -0.2% |
| Indonesia | -0.3% | -0.104 | 3.2% | 2.0% | 2.0% | 0.0% | -1.4% | -0.2% |
| Italy | 1.0% | -0.104 | -9.2% | -10.4% | -10.4% | 0.0% | -1.4% | -0.2% |
| Japan | -1.0% | -0.104 | 9.6% | 8.4% | 8.4% | 0.0% | -1.4% | -0.2% |
| Korea | -0.3% | -0.104 | 3.3% | 2.1% | 2.1% | 0.0% | -1.4% | -0.2% |
| Malaysia | -0.2% | -0.104 | 1.9% | 0.6% | 0.6% | 0.0% | -1.4% | -0.2% |
| Mexico | -0.3% | -0.104 | 2.7% | 1.5% | 1.5% | 0.0% | -1.4% | -0.2% |
| Netherlands | 1.2% | -0.104 | -11.2% | -12.4% | -12.4% | 0.0% | -1.4% | -0.2% |
| Poland | 0.7% | -0.104 | -6.5% | -7.7% | -7.7% | 0.0% | -1.4% | -0.2% |
| Russia | 0.7% | -0.104 | -6.4% | -7.6% | -7.6% | 0.0% | -1.4% | -0.2% |
| South Africa | 0.2% | -0.104 | -1.5% | -2.8% | -2.8% | 0.0% | -1.4% | -0.2% |
| Spain | 0.2% | -0.104 | -1.8% | -3.0% | -7.0% | -4.0% | -1.4% | -0.2% |
| Sweden | -0.1% | -0.104 | 1.2% | 0.0% | 0.0% | 0.0% | -1.4% | -0.2% |
| Switzerland | -1.0% | -0.104 | 9.9% | 8.7% | 8.7% | 0.0% | -1.4% | -0.2% |
| Thailand | -0.4% | -0.104 | 4.1% | 2.8% | 2.8% | 0.0% | -1.4% | -0.2% |
| Turkey | -1.6% | -0.104 | 15.6% | 14.4% | 14.4% | 0.0% | -1.4% | -0.2% |
| United Kingdom | -0.1% | -0.104 | 1.2% | 0.0% | 0.0% | 0.0% | -1.4% | -0.2% |
| United States | 0.3% | -0.104 | -2.8% | -4.0% | -4.0% | 0.0% | -1.4% | -0.2% |
| Euro Area (agg) | 0.1% | -0.104 | -1.0% | -2.2% | -3.3% | -1.0% | -1.4% | -0.2% |

1/ (P-P_wo) - (P*-P*_wo).

Table 7. Breakdown of 2019 Policy Gap Contribution: Capital Controls 1/

| | Overall Contribution | Lagged [demeaned PPP GDP per working pop. relative to (US+JPN+DEU)*(1- Capital Control)] | | | | | | Lagged [VIX * (1-Capital Control)] | | | | | Lagged [VIX * (1-Capital Control) * share of own currency in world reserve] | | | | |
|------------------------|----------------------|---|------|--------|--------|--------|------------|------------------------------------|------|--------|-------|-------|---|------|--------|------|-------|
| | | Contribution | beta | (P-P*) | P | P* | PPP GDP 2/ | Contribution | beta | (P-P*) | P | P* | Contribution | beta | (P-P*) | P | P* |
| Argentina | -0.5% | -0.4% | 0.04 | -10.2% | -20.5% | -10.2% | -20.5% | 0.0% | 0.02 | -2.5% | -5.0% | -2.5% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Australia | 0.0% | 0.0% | 0.04 | 0.0% | 32.4% | 32.4% | 37.1% | 0.0% | 0.02 | 0.0% | -4.4% | -4.4% | 0.0% | 0.00 | 0.0% | 0.0% | -0.1% |
| Belgium | 0.0% | 0.0% | 0.04 | 0.0% | 32.1% | 32.1% | 32.1% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -1.0% |
| Brazil | 0.1% | 0.1% | 0.04 | 3.0% | -23.4% | -26.4% | -31.1% | 0.0% | 0.02 | 0.5% | -3.8% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Canada | 0.0% | 0.0% | 0.04 | 0.0% | 30.7% | 30.7% | 30.7% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -0.1% |
| China | 0.4% | 0.4% | 0.04 | 9.9% | -14.2% | -24.1% | -28.5% | 0.0% | 0.02 | 1.7% | -2.5% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | -0.1% |
| France | 0.0% | 0.0% | 0.04 | 0.0% | 29.8% | 29.8% | 29.8% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -1.0% |
| Germany | 0.0% | 0.0% | 0.04 | 0.0% | 37.2% | 37.2% | 37.2% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -1.0% |
| India | 0.7% | 0.6% | 0.04 | 15.7% | -22.6% | -38.2% | -45.1% | 0.0% | 0.02 | 1.7% | -2.5% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Indonesia | 0.3% | 0.3% | 0.04 | 7.9% | -22.2% | -30.1% | -35.5% | 0.0% | 0.02 | 1.1% | -3.1% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Italy | 0.0% | 0.0% | 0.04 | 0.0% | 16.3% | 16.3% | 16.3% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -1.0% |
| Japan | 0.0% | 0.0% | 0.04 | 0.0% | 29.5% | 29.5% | 29.5% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -0.3% |
| Korea | 0.0% | 0.0% | 0.04 | 0.0% | 9.6% | 9.6% | 9.6% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Malaysia | 0.1% | 0.0% | 0.04 | 1.1% | -3.1% | -4.2% | -5.0% | 0.0% | 0.02 | 1.1% | -3.1% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Mexico | 0.2% | 0.2% | 0.04 | 5.0% | -14.0% | -19.0% | -22.4% | 0.0% | 0.02 | 1.1% | -3.1% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Netherlands | 0.0% | 0.0% | 0.04 | 0.0% | 45.8% | 45.8% | 45.8% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -1.0% |
| Poland | 0.0% | 0.0% | 0.04 | 0.2% | -1.7% | -2.0% | -2.3% | 0.0% | 0.02 | 0.5% | -3.8% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Russia | 0.0% | 0.0% | 0.04 | 0.7% | -5.6% | -6.3% | -7.5% | 0.0% | 0.02 | 0.5% | -3.8% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| South Africa | 0.1% | 0.1% | 0.04 | 3.3% | -25.6% | -28.9% | -34.2% | 0.0% | 0.02 | 0.5% | -3.8% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Spain | 0.0% | 0.0% | 0.04 | 0.0% | 13.8% | 13.8% | 13.8% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -1.0% |
| Sweden | 0.0% | 0.0% | 0.04 | 0.0% | 44.0% | 44.0% | 44.0% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Switzerland | 0.0% | 0.0% | 0.04 | 0.0% | 58.2% | 58.2% | 58.2% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Thailand | 0.4% | 0.4% | 0.04 | 9.3% | -13.5% | -22.8% | -26.9% | 0.0% | 0.02 | 1.7% | -2.5% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| Turkey | 0.0% | 0.0% | 0.04 | 0.9% | -6.7% | -7.5% | -8.9% | 0.0% | 0.02 | 0.5% | -3.8% | -4.2% | 0.0% | 0.00 | 0.0% | 0.0% | 0.0% |
| United Kingdom | 0.0% | 0.0% | 0.04 | 0.0% | 28.0% | 28.0% | 28.0% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -0.2% |
| United States | 0.0% | 0.0% | 0.04 | 0.0% | 56.4% | 56.4% | 56.4% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -3.1% |
| Euro Area (agg) | 0.0% | 0.0% | 0.04 | 0.0% | 30.2% | 30.2% | 30.2% | 0.0% | 0.02 | 0.0% | -5.0% | -5.0% | 0.0% | 0.00 | 0.0% | 0.0% | -1.0% |

1/ Before small Multilateral Consistency adjustment.

2/ Lagged PPP GDP per working population(15-64) relative to average of (US+Japan+Germany), demeaned of overall sample mean.

Table 8. Estimated Contribution to Current Account of Output Gap and TOT Gap in 2019

| | Relative output gap coefficient = -0.3564 | | | | ToT Gap * Openness Coefficient = 0.1608 | | | | Contribution Sum |
|------------------------|--|-----------|-------|---------|--|-----------|-------|--------|------------------|
| | Contribution | Data | | | Contribution | Data | | | |
| | rel. ygap | rel. ygap | ygap | ygap_wo | tgap*open | tgap*open | tgap | open2y | |
| Argentina | 1.0% | -2.9% | -3.1% | -0.1% | -0.1% | -0.8% | -5.0% | 16.2% | 0.9% |
| Australia | 0.2% | -0.7% | -0.8% | -0.1% | 0.0% | 0.0% | 0.0% | 23.0% | 0.2% |
| Belgium | -0.1% | 0.4% | 0.3% | -0.1% | 0.0% | 0.3% | 0.4% | 81.5% | -0.1% |
| Brazil | 1.0% | -2.8% | -3.0% | -0.1% | 0.0% | -0.2% | -1.3% | 14.0% | 1.0% |
| Canada | -0.1% | 0.2% | 0.1% | -0.1% | 0.0% | -0.1% | -0.4% | 32.5% | -0.1% |
| China | 0.2% | -0.5% | -0.7% | -0.1% | 0.0% | 0.0% | -0.1% | 17.4% | 0.2% |
| France | -0.2% | 0.4% | 0.3% | -0.1% | 0.0% | 0.2% | 0.5% | 33.3% | -0.1% |
| Germany | -0.2% | 0.5% | 0.4% | -0.1% | 0.1% | 0.4% | 0.9% | 44.2% | -0.1% |
| India | 0.5% | -1.4% | -1.6% | -0.1% | 0.0% | 0.2% | 1.0% | 18.7% | 0.5% |
| Indonesia | 0.1% | -0.2% | -0.3% | -0.1% | -0.1% | -0.7% | -3.8% | 18.1% | 0.0% |
| Italy | 0.2% | -0.7% | -0.8% | -0.1% | 0.1% | 0.4% | 1.3% | 30.1% | 0.3% |
| Japan | 0.1% | -0.2% | -0.3% | -0.1% | 0.1% | 0.4% | 2.3% | 17.8% | 0.1% |
| Korea | 0.3% | -0.8% | -0.9% | -0.1% | 0.1% | 0.7% | 1.7% | 39.0% | 0.4% |
| Malaysia | 0.0% | -0.1% | -0.2% | -0.1% | -0.1% | -0.9% | -1.5% | 61.5% | -0.1% |
| Mexico | 0.4% | -1.0% | -1.2% | -0.1% | 0.0% | -0.1% | -0.4% | 39.3% | 0.4% |
| Netherlands | -0.3% | 0.8% | 0.7% | -0.1% | 0.0% | 0.0% | 0.0% | 77.2% | -0.3% |
| Poland | -0.1% | 0.4% | 0.3% | -0.1% | 0.0% | 0.1% | 0.2% | 53.1% | -0.1% |
| Russia | 0.0% | -0.1% | -0.2% | -0.1% | -0.1% | -0.5% | -2.2% | 24.5% | 0.0% |
| South Africa | 0.1% | -0.4% | -0.5% | -0.1% | 0.0% | 0.1% | 0.2% | 29.6% | 0.2% |
| Spain | -0.3% | 0.7% | 0.6% | -0.1% | 0.0% | 0.3% | 0.8% | 33.5% | -0.2% |
| Sweden | -0.3% | 0.9% | 0.7% | -0.1% | 0.0% | 0.3% | 0.7% | 45.6% | -0.3% |
| Switzerland | -0.1% | 0.2% | 0.1% | -0.1% | 0.0% | 0.3% | 0.4% | 59.3% | 0.0% |
| Thailand | 0.4% | -1.1% | -1.2% | -0.1% | 0.0% | 0.1% | 0.2% | 55.2% | 0.4% |
| Turkey | 0.3% | -1.0% | -1.1% | -0.1% | 0.0% | 0.0% | 0.1% | 31.5% | 0.3% |
| United Kingdom | 0.0% | -0.1% | -0.2% | -0.1% | 0.0% | 0.0% | 0.1% | 32.1% | 0.0% |
| United States | -0.4% | 1.0% | 0.9% | -0.1% | 0.0% | 0.1% | 0.4% | 13.1% | -0.3% |
| Euro Area (agg) | -0.1% | 0.3% | 0.2% | -0.1% | 0.0% | 0.3% | 0.7% | 44.8% | -0.1% |

Table 9. EBA Analysis of 2019 CA: Coefficients

| VARIABLES | Refined Model (1986-2016) |
|--|------------------------------|
| L. NFA/Y | 0.023*** |
| L. NFA/Y*(dummy if NFA/Y < -60%) | -0.006 |
| L.Output per worker, relative to top 3 economies | 0.023 |
| L.Relative output per worker*K openness | 0.041* |
| Oil and Natural Gas Trade Balance * resource temporariness # | 0.310*** |
| GDP growth, forecast in 5 years # | -0.302*** |
| L.Public Health Spending/GDP # | -0.399*** |
| L.demeaned VIX*K openness | 0.020 |
| L.demeaned VIX*K openness*share in world reserves | 0.002 |
| Own currency's share in world reserves | -0.030*** |
| Output Gap # | -0.356*** |
| Commodity ToTgap*Trade Openness | 0.161*** |
| Detrended Private Credit/GDP # | -0.104*** |
| Cyclically adjusted Fiscal Balance, instrumented # | 0.329*** |
| (ΔReserves)/GDP* K controls, instrumented # (New) | 0.754*** |
| Institutional/Political Environment (ICGR-12) # | -0.047** |
| Prime Savers Share # | 0.138** |
| Life Expectancy at Prime Age # | -0.005*** |
| Life Expectancy at Prime Age # * Future OADR | 0.013*** |
| Population Growth # | -0.692* |
| Old-age Dependency Ratio # | -0.069 |
| Constant | -0.009*** |
| Observations | 1,367 |
| Number of countries | 49 |
| R-squared IV | 0.524 |
| <i>R-squared Fit</i> | 0.550 |
| Root MSE | 0.031 |

* significant at 10%; ** significant at 5%; *** significant at 1% "L." denotes one year lag.

Note: variables denoted with # are constructed relative to a (GDP-weighted) country sample average, in each year.

SECTION II—REER REGRESSION-BASED ANALYSIS: INDEX REER

This section contains results from the EBA analysis of 2019 (year average) REER index values.

The summary table (Table 10) identifies a Total (Index) REER Gap as the sum of two parts: a gap that arises from the estimated contributions of policy gaps, and a gap that is the regression residual.

Here the contributions of policy gaps refer to 5 types of policies, the contributions of which are also shown separately. The contributions of each policy gap are calculated analogously to the procedure used for the CA analysis, as described in the previous section. The REER gap estimates are adjusted for multilateral consistency.

The second table (Table 11) breaks down the policy gap contributions into the 5 types of policies covered by EBA's REER regression-based analysis. As with the CA tables, for each policy gap, the reported estimates show both the total contribution but also the subcomponent that is "domestic". The tables on the subsequent pages (Tables 12-16) give details of each of the estimated policy gap contributions to REER.

Finally, Table 17 shows the estimated coefficients of the Index REER model.

Table 10. EBA Analysis of the 2019 REER

| | Net Contributions of Policy Gaps | | | | | | | | Memo: June '16 REER, % dev. from 2015 avg. REER (GDS) |
|-----------------------|----------------------------------|-------|----------------|--------------------|----------|-------------------|--------------------------|------------------------|--|
| | Total REER Gap ^{/a} | Sum | Health Exp. | Capital Control | Reserves | Private Credit | Real Interest Rate | Residual ^{/a} | |
| Argentina | -6.4% | 14.5% | 0.6% | 0.4% | 17.0% | 0.1% | -3.7% | -21% | -12.9% |
| Australia | -1.4% | -1.1% | -0.7% | 0.0% | 0.0% | -0.4% | 0.1% | 0% | -1.2% |
| Belgium | 9.3% | 1.3% | 0.9% | 0.0% | 0.1% | 0.3% | 0.0% | 8% | 2.9% |
| Brazil | -10.7% | -1.4% | -0.7% | -0.1% | -0.4% | -0.2% | -0.2% | -9% | 5.9% |
| Canada | 2.1% | 0.8% | 0.2% | 0.0% | 0.1% | 0.5% | 0.0% | 1% | 0.2% |
| China | -1.1% | -1.1% | -0.8% | -0.3% | 0.1% | 0.0% | -0.1% | 0% | -5.5% |
| France | -2.7% | 1.6% | 0.9% | 0.0% | 0.1% | 0.5% | 0.0% | -4% | 0.9% |
| Germany | 3.6% | 0.8% | 0.5% | 0.0% | 0.1% | 0.1% | 0.0% | 3% | 1.1% |
| India | 13.4% | -3.8% | 0.0% | -0.3% | -2.8% | -0.4% | -0.3% | 17% | 1.0% |
| Indonesia | 2.1% | -2.8% | -2.2% | -0.2% | -0.4% | 0.2% | -0.2% | 5% | 2.6% |
| Italy | 6.8% | -1.0% | -0.2% | 0.0% | 0.1% | -0.9% | 0.0% | 8% | 0.3% |
| Japan | -18.0% | 1.9% | 0.8% | 0.0% | 0.3% | 0.9% | 0.0% | -20% | 15.6% |
| Korea | 0.6% | -0.3% | -1.1% | 0.0% | 0.2% | 0.2% | 0.4% | 1% | -3.7% |
| Malaysia | -25.0% | -5.8% | -3.7% | -0.2% | -2.5% | 0.1% | 0.5% | -19% | -3.7% |
| Mexico | -15.4% | -1.7% | -2.3% | -0.2% | -0.2% | 0.3% | 0.6% | -14% | -13.9% |
| Netherlands | 16.1% | -2.0% | -1.0% | 0.0% | 0.1% | -1.1% | 0.0% | 18% | 1.0% |
| Poland | -2.7% | -2.0% | -0.3% | -0.1% | -1.0% | -0.6% | 0.0% | -1% | -5.1% |
| Russia | -9.3% | -6.8% | -4.3% | -0.1% | -2.3% | -0.6% | 0.5% | -2% | -0.7% |
| South Africa | -15.7% | 0.1% | 0.7% | -0.1% | -0.1% | -0.2% | -0.2% | -16% | -10.3% |
| Spain | 5.2% | 0.2% | 0.3% | 0.0% | 0.1% | -0.2% | 0.0% | 5% | 0.3% |
| Sweden | -19.4% | 1.2% | 0.9% | 0.0% | 0.1% | 0.2% | 0.1% | -21% | 2.0% |
| Switzerland | 13.5% | 2.2% | 0.5% | 0.0% | 0.1% | 0.9% | 0.7% | 11% | -1.9% |
| Thailand | 14.0% | -4.8% | -1.8% | -0.3% | -2.8% | 0.2% | -0.1% | 19% | -4.4% |
| Turkey | -22.8% | 0.1% | -0.1% | -0.1% | 1.3% | 1.5% | -2.5% | -23% | -0.6% |
| United Kingdom | -12.6% | 0.0% | -0.3% | 0.0% | 0.1% | 0.1% | 0.1% | -13% | -7.1% |
| United States | 8.1% | 0.7% | 1.1% | 0.0% | 0.1% | -0.5% | -0.1% | 7% | 1.7% |
| Euro Area | 4.2% | 0.3% | 0.3% | 0.0% | 0.1% | -0.1% | 0.0% | 4% | 2.1% |

^{/a} For multilateral consistency, adjusted by the weighted average of the 2019 regression residuals (subtracting -6.5%).

Table 11. EBA - Estimated Policy Gap Contributions to 2019 Index REER

| | All (sum) | | Health Exp. | | Capital Controls | | Δ in Reserves | | Private Credit | | Interest Rate | |
|-----------------------|-----------|-------|-------------|-------|------------------|-------|---------------|-------|----------------|-------|---------------|-------|
| | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. |
| Argentina | 14.5% | 13.6% | 0.6% | 0.0% | 0.4% | 0.4% | 17.0% | 16.9% | 0.1% | 0.0% | -3.7% | -3.7% |
| Australia | -1.1% | -1.8% | -0.7% | -1.2% | 0.0% | 0.0% | 0.0% | -0.2% | -0.4% | -0.5% | 0.1% | 0.0% |
| Belgium | 1.3% | 0.7% | 0.9% | 0.6% | 0.0% | 0.0% | 0.1% | 0.0% | 0.3% | 0.1% | 0.0% | -0.1% |
| Brazil | -1.4% | -1.2% | -0.7% | -1.1% | -0.1% | -0.1% | -0.4% | 0.4% | -0.2% | -0.3% | -0.2% | -0.2% |
| Canada | 0.8% | 0.3% | 0.2% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.5% | 0.3% | 0.0% | 0.0% |
| China | -1.1% | -1.6% | -0.8% | -1.3% | -0.3% | -0.3% | 0.1% | -0.1% | 0.0% | 0.0% | -0.1% | 0.0% |
| France | 1.6% | 0.9% | 0.9% | 0.6% | 0.0% | 0.0% | 0.1% | 0.0% | 0.5% | 0.3% | 0.0% | -0.1% |
| Germany | 0.8% | 0.0% | 0.5% | 0.1% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | -0.1% |
| India | -3.8% | -4.5% | 0.0% | -0.5% | -0.3% | -0.3% | -2.8% | -2.9% | -0.4% | -0.5% | -0.3% | -0.2% |
| Indonesia | -2.8% | -3.7% | -2.2% | -2.9% | -0.2% | -0.2% | -0.4% | -0.6% | 0.2% | 0.2% | -0.2% | -0.2% |
| Italy | -1.0% | -1.5% | -0.2% | -0.4% | 0.0% | 0.0% | 0.1% | 0.0% | -0.9% | -1.0% | 0.0% | -0.1% |
| Japan | 1.9% | 0.8% | 0.8% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.9% | 0.8% | 0.0% | 0.0% |
| Korea | -0.3% | -1.0% | -1.1% | -1.6% | 0.0% | 0.0% | 0.2% | 0.0% | 0.2% | 0.2% | 0.4% | 0.4% |
| Malaysia | -5.8% | -6.5% | -3.7% | -4.3% | -0.2% | -0.2% | -2.5% | -2.7% | 0.1% | 0.1% | 0.5% | 0.6% |
| Mexico | -1.7% | -2.0% | -2.3% | -2.3% | -0.2% | -0.2% | -0.2% | -0.2% | 0.3% | 0.1% | 0.6% | 0.6% |
| Netherlands | -2.0% | -2.5% | -1.0% | -1.3% | 0.0% | 0.0% | 0.1% | 0.0% | -1.1% | -1.2% | 0.0% | -0.1% |
| Poland | -2.0% | -2.5% | -0.3% | -0.7% | -0.1% | -0.1% | -1.0% | -1.1% | -0.6% | -0.7% | 0.0% | 0.0% |
| Russia | -6.8% | -7.4% | -4.3% | -4.7% | -0.1% | -0.1% | -2.3% | -2.4% | -0.6% | -0.7% | 0.5% | 0.5% |
| South Africa | 0.1% | -0.6% | 0.7% | 0.2% | -0.1% | -0.1% | -0.1% | -0.3% | -0.2% | -0.3% | -0.2% | -0.2% |
| Spain | 0.2% | -0.3% | 0.3% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.2% | -0.3% | 0.0% | -0.1% |
| Sweden | 1.2% | 0.6% | 0.9% | 0.6% | 0.0% | 0.0% | 0.1% | 0.0% | 0.2% | 0.0% | 0.1% | 0.0% |
| Switzerland | 2.2% | 1.7% | 0.5% | 0.3% | 0.0% | 0.0% | 0.1% | 0.0% | 0.9% | 0.8% | 0.7% | 0.6% |
| Thailand | -4.8% | -5.4% | -1.8% | -2.4% | -0.3% | -0.3% | -2.8% | -3.0% | 0.2% | 0.3% | -0.1% | 0.0% |
| Turkey | 0.1% | -0.8% | -0.1% | -0.6% | -0.1% | -0.1% | 1.3% | 1.0% | 1.5% | 1.3% | -2.5% | -2.5% |
| United Kingdom | 0.0% | -0.5% | -0.3% | -0.5% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% |
| United States | 0.7% | -0.1% | 1.1% | 0.3% | 0.0% | 0.0% | 0.1% | 0.0% | -0.5% | -0.4% | -0.1% | 0.0% |

Table 12. Breakdown of 2019 Policy Gap Contribution: Public Expenditure on Health / GDP

| | Overall Contribution | Coef. | Pol. Gap (1)-(3) - {(2)-(4)} | P - P* (1) - (2) | P (1) | P* (2) | P (Trading partners) (3) | P* (Trading partners) (4) | P* benchmark from cross-country regression ^{a/} |
|-----------------------|----------------------|-------|------------------------------|------------------|-------|--------|--------------------------|---------------------------|--|
| Argentina | 0.6% | 2.04 | 0.3% | 0.0% | 6.5% | 6.5% | 6.1% | 6.4% | 4.6% |
| Australia | -0.7% | 2.04 | -0.4% | -0.6% | 6.3% | 6.9% | 6.4% | 6.7% | 7.0% |
| Belgium | 0.9% | 2.04 | 0.5% | 0.3% | 8.0% | 7.7% | 7.3% | 7.4% | 7.2% |
| Brazil | -0.7% | 2.04 | -0.3% | -0.5% | 3.9% | 4.4% | 6.7% | 6.9% | 3.5% |
| Canada | 0.2% | 2.04 | 0.1% | 0.0% | 7.1% | 7.0% | 7.3% | 7.4% | 7.0% |
| China | -0.8% | 2.04 | -0.4% | -0.6% | 3.4% | 4.0% | 7.1% | 7.3% | 3.9% |
| France | 0.9% | 2.04 | 0.5% | 0.3% | 9.4% | 9.1% | 7.1% | 7.3% | 7.8% |
| Germany | 0.5% | 2.04 | 0.2% | 0.0% | 9.6% | 9.5% | 6.7% | 6.9% | 8.0% |
| India | 0.0% | 2.04 | 0.0% | -0.3% | 1.4% | 1.6% | 6.6% | 6.8% | 1.8% |
| Indonesia | -2.2% | 2.04 | -1.1% | -1.4% | 1.6% | 3.0% | 6.4% | 6.7% | 2.5% |
| Italy | -0.2% | 2.04 | -0.1% | -0.2% | 6.6% | 6.8% | 7.3% | 7.4% | 7.8% |
| Japan | 0.8% | 2.04 | 0.4% | 0.0% | 9.0% | 9.0% | 5.8% | 6.1% | 9.0% |
| Korea | -1.1% | 2.04 | -0.5% | -0.8% | 4.8% | 5.6% | 6.3% | 6.6% | 5.7% |
| Malaysia | -3.7% | 2.04 | -1.8% | -2.1% | 2.0% | 4.1% | 6.4% | 6.7% | 4.4% |
| Mexico | -2.3% | 2.04 | -1.1% | -1.1% | 2.8% | 3.9% | 7.5% | 7.6% | 3.7% |
| Netherlands | -1.0% | 2.04 | -0.5% | -0.6% | 8.2% | 8.8% | 7.3% | 7.5% | 7.7% |
| Poland | -0.3% | 2.04 | -0.2% | -0.3% | 5.1% | 5.4% | 7.5% | 7.6% | 6.0% |
| Russia | -4.3% | 2.04 | -2.1% | -2.3% | 3.2% | 5.5% | 6.7% | 6.9% | 5.5% |
| South Africa | 0.7% | 2.04 | 0.3% | 0.1% | 4.2% | 4.1% | 6.8% | 7.1% | 2.9% |
| Spain | 0.3% | 2.04 | 0.1% | 0.0% | 6.2% | 6.2% | 7.3% | 7.5% | 6.8% |
| Sweden | 0.9% | 2.04 | 0.4% | 0.3% | 9.3% | 9.0% | 7.3% | 7.4% | 8.2% |
| Switzerland | 0.5% | 2.04 | 0.3% | 0.1% | 7.6% | 7.5% | 7.5% | 7.6% | 7.6% |
| Thailand | -1.8% | 2.04 | -0.9% | -1.2% | 2.9% | 4.1% | 6.5% | 6.8% | 4.1% |
| Turkey | -0.1% | 2.04 | 0.0% | -0.3% | 3.3% | 3.6% | 6.9% | 7.1% | 4.4% |
| United Kingdom | -0.3% | 2.04 | -0.1% | -0.3% | 7.6% | 7.9% | 7.2% | 7.3% | 7.4% |
| United States | 1.1% | 2.04 | 0.5% | 0.1% | 8.4% | 8.2% | 5.9% | 6.3% | 7.4% |

^{a/} Fitted value from a cross-country regression of public health expenditure on relative per capita income, old age dependency, and income inequality (Gini coefficient). For reference; desk value may differ.

Table 13. Breakdown of 2019 Policy Gap Contribution: Capital Controls

| | Overall Contribution | P= Lagged [VIX * (Capital account openness)] 1\ | | | | | P= Lagged [VIX * Capital Account Openness * Share of own currency in world reserve] 2\ | | | | |
|-----------------------|----------------------|---|-------|--------------------|-------|--------|--|-------|---------------------|-------|---------|
| | | Contribution | Coef. | Policy Gap (7)-(8) | P (7) | P* (8) | Contribution | Coef. | Policy Gap (9)-(10) | P (9) | P* (10) |
| Argentina | 0.4% | 0.4% | -0.16 | -2.6% | -5.1% | -2.6% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Australia | 0.0% | 0.0% | -0.16 | 0.0% | -4.5% | -4.5% | 0.0% | 0.48 | 0.0% | -0.1% | -0.1% |
| Belgium | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -1.1% | -1.1% |
| Brazil | -0.1% | -0.1% | -0.16 | 0.5% | -3.8% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Canada | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -0.1% | -0.1% |
| China | -0.3% | -0.3% | -0.16 | 1.8% | -2.6% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | -0.1% |
| France | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -1.1% | -1.1% |
| Germany | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -1.1% | -1.1% |
| India | -0.3% | -0.3% | -0.16 | 1.8% | -2.6% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Indonesia | -0.2% | -0.2% | -0.16 | 1.1% | -3.2% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Italy | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -1.1% | -1.1% |
| Japan | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -0.3% | -0.3% |
| Korea | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Malaysia | -0.2% | -0.2% | -0.16 | 1.1% | -3.2% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Mexico | -0.2% | -0.2% | -0.16 | 1.1% | -3.2% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Netherlands | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -1.1% | -1.1% |
| Poland | -0.1% | -0.1% | -0.16 | 0.5% | -3.8% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Russia | -0.1% | -0.1% | -0.16 | 0.5% | -3.8% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| South Africa | -0.1% | -0.1% | -0.16 | 0.5% | -3.8% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Spain | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -1.1% | -1.1% |
| Sweden | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Switzerland | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Thailand | -0.3% | -0.3% | -0.16 | 1.8% | -2.6% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| Turkey | -0.1% | -0.1% | -0.16 | 0.5% | -3.8% | -4.3% | 0.0% | 0.48 | 0.0% | 0.0% | 0.0% |
| United Kingdom | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -0.2% | -0.2% |
| United States | 0.0% | 0.0% | -0.16 | 0.0% | -5.1% | -5.1% | 0.0% | 0.48 | 0.0% | -3.2% | -3.2% |

1/ Capital Account Openness defined as (1- Capital Account Controls)

Table 14. Breakdown of 2019 Policy Gap Contribution: Change in FX Reserves / GDP

| | Overall Contribution | Coef. | Pol. Gap (1)-(3) - ((2)-(4)) | Components | | | | | | | | |
|-----------------------|----------------------|-------|------------------------------|------------------|----------------------|--------|--------------------------|---------------------------|-----------------|--------------------|------------------|---------------------|
| | | | | P - P* (1) - (2) | p / ^a (1) | P* (2) | P (Trading partners) (3) | P* (Trading partners) (4) | Reserves to GDP | (Reserves to GDP)* | Capital Controls | (Capital Controls)* |
| Argentina | 17.0% | -2.48 | -6.9% | -6.8% | -6.3% | 0.5% | 0.1% | 0.0% | -8.4% | 1.0% | 0.75 | 0.50 |
| Australia | 0.0% | -2.48 | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.5% | 0.0% | 0.13 | 0.13 |
| Belgium | 0.1% | -2.48 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.3% | 0.0% | 0.00 | 0.00 |
| Brazil | -0.4% | -2.48 | 0.2% | -0.2% | -0.2% | 0.0% | -0.3% | 0.0% | -0.6% | 0.0% | 0.25 | 0.15 |
| Canada | 0.1% | -2.48 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | 0.00 | 0.00 |
| China | 0.1% | -2.48 | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.50 | 0.15 |
| France | 0.1% | -2.48 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.00 | 0.00 |
| Germany | 0.1% | -2.48 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |
| India | -2.8% | -2.48 | 1.1% | 1.2% | 1.2% | 0.0% | 0.1% | 0.0% | 2.3% | 0.0% | 0.50 | 0.15 |
| Indonesia | -0.4% | -2.48 | 0.2% | 0.3% | 0.3% | 0.0% | 0.1% | 0.0% | 0.7% | 0.0% | 0.38 | 0.15 |
| Italy | 0.1% | -2.48 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.2% | 0.0% | 0.00 | 0.00 |
| Japan | 0.3% | -2.48 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.3% | 0.0% | 0.00 | 0.00 |
| Korea | 0.2% | -2.48 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |
| Malaysia | -2.5% | -2.48 | 1.0% | 1.1% | 1.1% | 0.0% | 0.1% | 0.0% | 2.9% | 0.0% | 0.38 | 0.15 |
| Mexico | -0.2% | -2.48 | 0.1% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.38 | 0.15 |
| Netherlands | 0.1% | -2.48 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | -0.5% | 0.0% | 0.00 | 0.00 |
| Poland | -1.0% | -2.48 | 0.4% | 0.4% | 0.4% | 0.0% | 0.0% | 0.0% | 1.7% | 0.0% | 0.25 | 0.15 |
| Russia | -2.3% | -2.48 | 0.9% | 1.0% | 1.0% | 0.0% | 0.0% | 0.0% | 3.9% | 0.0% | 0.25 | 0.15 |
| South Africa | -0.1% | -2.48 | 0.1% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.4% | 0.0% | 0.25 | 0.15 |
| Spain | 0.1% | -2.48 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.00 | 0.00 |
| Sweden | 0.1% | -2.48 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | -1.2% | 0.0% | 0.00 | 0.00 |
| Switzerland | 0.1% | -2.48 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.5% | 0.0% | 0.00 | 0.00 |
| Thailand | -2.8% | -2.48 | 1.1% | 1.2% | 1.2% | 0.0% | 0.1% | 0.0% | 2.4% | 0.0% | 0.50 | 0.15 |
| Turkey | 1.3% | -2.48 | -0.5% | -0.4% | -0.3% | 0.1% | 0.1% | 0.0% | -1.3% | 0.6% | 0.25 | 0.15 |
| United Kingdom | 0.1% | -2.48 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | 0.00 | 0.00 |
| United States | 0.1% | -2.48 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |

Table 15. Breakdown of 2019 Policy Gap Contribution: Private Credit / GDP (HP Detrended)

| | Overall Contribution | Coef. | Pol. Gap (1)- (3) - {(2)-(4)} | P - P* (1) - (2) | p / ^a (1) | p* (2) | P (Trading partners) (3) | P* (Trading partners) (4) |
|-----------------------|----------------------|-------|-------------------------------------|---------------------|-------------------------|-----------|-----------------------------|------------------------------|
| Argentina | 0.1% | 0.09 | 1.4% | -0.3% | -0.3% | 0.0% | -2.0% | -0.4% |
| Australia | -0.4% | 0.09 | -4.7% | -5.5% | -5.5% | 0.0% | -1.2% | -0.4% |
| Belgium | 0.3% | 0.09 | 2.9% | 1.5% | 1.5% | 0.0% | -2.1% | -0.7% |
| Brazil | -0.2% | 0.09 | -1.7% | -2.9% | -2.9% | 0.0% | -1.6% | -0.4% |
| Canada | 0.5% | 0.09 | 5.4% | 3.1% | 3.1% | 0.0% | -2.5% | -0.2% |
| China | 0.0% | 0.09 | -0.1% | 0.2% | 0.2% | 0.0% | 0.0% | -0.3% |
| France | 0.5% | 0.09 | 5.4% | 3.5% | 3.5% | 0.0% | -2.7% | -0.8% |
| Germany | 0.1% | 0.09 | 1.5% | 0.0% | -2.0% | -2.0% | -1.9% | -0.3% |
| India | -0.4% | 0.09 | -4.8% | -5.5% | -5.5% | 0.0% | -1.0% | -0.3% |
| Indonesia | 0.2% | 0.09 | 2.0% | 2.0% | 2.0% | 0.0% | -0.3% | -0.3% |
| Italy | -0.9% | 0.09 | -10.0% | -10.4% | -10.4% | 0.0% | -1.1% | -0.7% |
| Japan | 0.9% | 0.09 | 9.4% | 8.4% | 8.4% | 0.0% | -1.2% | -0.2% |
| Korea | 0.2% | 0.09 | 1.7% | 2.1% | 2.1% | 0.0% | 0.2% | -0.2% |
| Malaysia | 0.1% | 0.09 | 0.8% | 0.6% | 0.6% | 0.0% | -0.4% | -0.2% |
| Mexico | 0.3% | 0.09 | 3.7% | 1.5% | 1.5% | 0.0% | -2.4% | -0.2% |
| Netherlands | -1.1% | 0.09 | -11.6% | -12.4% | -12.4% | 0.0% | -1.6% | -0.7% |
| Poland | -0.6% | 0.09 | -6.2% | -7.7% | -7.7% | 0.0% | -2.4% | -0.8% |
| Russia | -0.6% | 0.09 | -6.7% | -7.6% | -7.6% | 0.0% | -1.4% | -0.5% |
| South Africa | -0.2% | 0.09 | -2.0% | -2.8% | -2.8% | 0.0% | -1.2% | -0.4% |
| Spain | -0.2% | 0.09 | -1.9% | -3.0% | -7.0% | -4.0% | -1.6% | -0.4% |
| Sweden | 0.2% | 0.09 | 1.9% | 0.0% | 0.0% | 0.0% | -2.9% | -1.0% |
| Switzerland | 0.9% | 0.09 | 10.1% | 8.7% | 8.7% | 0.0% | -2.1% | -0.7% |
| Thailand | 0.2% | 0.09 | 2.3% | 2.8% | 2.8% | 0.0% | 0.3% | -0.2% |
| Turkey | 1.5% | 0.09 | 16.3% | 14.4% | 14.4% | 0.0% | -2.6% | -0.7% |
| United Kingdom | 0.1% | 0.09 | 1.4% | 0.0% | 0.0% | 0.0% | -2.1% | -0.7% |
| United States | -0.5% | 0.09 | -5.0% | -4.0% | -4.0% | 0.0% | 0.7% | -0.3% |

Table 16. Breakdown of 2019 Policy Gap Contribution: Real Short Term Interest Rates

| | Overall Contribution | Coef. | Pol. Gap (1)-(3) - ((2)-(4)) | Components | | | | | | | | |
|-----------------------|----------------------|-------|------------------------------|------------------|----------|--------|--------------------------|---------------------------|--------------------|-----------------------|------------------|---------------------|
| | | | | P - P* (1) - (2) | p /a (1) | P* (2) | P (Trading partners) (3) | P* (Trading partners) (4) | Real Interest Rate | (Real Interest Rate)* | Capital Controls | (Capital Controls)* |
| Argentina | -3.7% | 0.70 | -5.3% | -5.3% | 5.3% | 10.6% | 0.0% | 0.0% | 21.2% | 21.2% | 0.75 | 0.50 |
| Australia | 0.1% | 0.70 | 0.1% | 0.0% | -0.8% | -0.8% | -0.4% | -0.3% | -0.9% | -0.9% | 0.13 | 0.13 |
| Belgium | 0.0% | 0.70 | 0.0% | -0.1% | -1.7% | -1.6% | -0.9% | -0.8% | -1.7% | -1.6% | 0.00 | 0.00 |
| Brazil | -0.2% | 0.70 | -0.2% | -0.2% | 1.7% | 1.9% | -0.3% | -0.3% | 2.3% | 2.3% | 0.25 | 0.15 |
| Canada | 0.0% | 0.70 | 0.0% | 0.0% | -0.3% | -0.3% | 0.0% | 0.0% | -0.3% | -0.3% | 0.00 | 0.00 |
| China | -0.1% | 0.70 | -0.1% | 0.0% | -0.1% | -0.1% | -0.2% | -0.4% | -0.1% | -0.1% | 0.50 | 0.15 |
| France | 0.0% | 0.70 | 0.0% | -0.1% | -1.6% | -1.5% | -0.9% | -0.9% | -1.6% | -1.5% | 0.00 | 0.00 |
| Germany | 0.0% | 0.70 | 0.0% | -0.1% | -1.8% | -1.7% | -0.7% | -0.6% | -1.8% | -1.7% | 0.00 | 0.00 |
| India | -0.3% | 0.70 | -0.5% | -0.3% | 0.7% | 1.1% | -0.2% | -0.4% | 1.4% | 1.3% | 0.50 | 0.15 |
| Indonesia | -0.2% | 0.70 | -0.3% | -0.3% | 1.4% | 1.7% | -0.2% | -0.3% | 2.3% | 2.0% | 0.38 | 0.15 |
| Italy | 0.0% | 0.70 | 0.0% | -0.1% | -1.1% | -1.0% | -0.9% | -0.8% | -1.1% | -1.0% | 0.00 | 0.00 |
| Japan | 0.0% | 0.70 | -0.1% | 0.0% | -0.8% | -0.8% | -0.2% | -0.2% | -0.8% | -0.8% | 0.00 | 0.00 |
| Korea | 0.4% | 0.70 | 0.6% | 0.6% | -0.7% | -1.3% | -0.3% | -0.3% | -0.7% | -1.3% | 0.00 | 0.00 |
| Malaysia | 0.5% | 0.70 | 0.8% | 0.8% | 1.7% | 0.8% | -0.2% | -0.2% | 2.7% | 1.0% | 0.38 | 0.15 |
| Mexico | 0.6% | 0.70 | 0.8% | 0.8% | 2.7% | 1.9% | 0.0% | 0.0% | 4.4% | 2.3% | 0.38 | 0.15 |
| Netherlands | 0.0% | 0.70 | 0.0% | -0.1% | -3.1% | -3.1% | -0.9% | -0.8% | -3.1% | -3.1% | 0.00 | 0.00 |
| Poland | 0.0% | 0.70 | 0.0% | 0.0% | -0.1% | -0.1% | -0.7% | -0.8% | -0.1% | -0.1% | 0.25 | 0.15 |
| Russia | 0.5% | 0.70 | 0.8% | 0.7% | 2.4% | 1.7% | -0.6% | -0.5% | 3.2% | 2.0% | 0.25 | 0.15 |
| South Africa | -0.2% | 0.70 | -0.2% | -0.2% | 1.8% | 2.0% | -0.5% | -0.5% | 2.4% | 2.4% | 0.25 | 0.15 |
| Spain | 0.0% | 0.70 | 0.0% | -0.1% | -1.2% | -1.1% | -1.0% | -0.9% | -1.2% | -1.1% | 0.00 | 0.00 |
| Sweden | 0.1% | 0.70 | 0.1% | 0.0% | -1.4% | -1.4% | -0.9% | -0.8% | -1.4% | -1.4% | 0.00 | 0.00 |
| Switzerland | 0.7% | 0.70 | 1.0% | 0.9% | -1.1% | -2.0% | -0.9% | -0.9% | -1.1% | -2.0% | 0.00 | 0.00 |
| Thailand | -0.1% | 0.70 | -0.1% | 0.0% | 0.2% | 0.2% | -0.2% | -0.3% | 0.4% | 0.2% | 0.50 | 0.15 |
| Turkey | -2.5% | 0.70 | -3.7% | -3.6% | 0.7% | 4.2% | -0.6% | -0.7% | 0.9% | 5.0% | 0.25 | 0.15 |
| United Kingdom | 0.1% | 0.70 | 0.1% | 0.0% | -1.0% | -1.0% | -0.9% | -0.8% | -1.0% | -1.0% | 0.00 | 0.00 |
| United States | -0.1% | 0.70 | -0.1% | 0.0% | 0.3% | 0.3% | -0.2% | -0.3% | 0.3% | 0.3% | 0.00 | 0.00 |

Table 17. EBA Analysis of 2019 Index REER: Coefficients

| VARIABLES | 2018 Model |
|--|------------|
| Lagged NFA/Y | -0.109*** |
| Expected GDP growth of medium-term(5 years out), WEO project (rel to TRD PRT) | 2.012*** |
| Lagged Public health expenditure to GDP (rel to TRD PRT) | 2.040** |
| Lag of VIX * capital account openness | -0.164** |
| Lag of VIX * capital account openness *share of own currency in global reserve | 0.483 |
| Share of the country's currency held as FX reserve by central banks worldwide | -0.068 |
| Output Gap (rel to TRD PRT) | 0.392* |
| Log commodity Terms Of Trade | 0.184*** |
| Lag of Trade Openness (avg. of exports and imports to GDP) (rel to TRD PRT) | -0.208** |
| Private credit/GDP gap (HP Detrended) (rel to TRD PRT) | 0.093* |
| Change in reserves to GDP * capital controls (rel to TRD PRT) (New) | -2.479* |
| Population Growth (rel to TRD PRT) | 2.003 |
| Real interest rate differential interacted with K openness (rel to TRD PRT) | 0.697*** |
| Lag Demeaned PPPGDP/Top3(PPP) | 0.217*** |
| Lagged Home bias (rel to TRD PRT) | 0.193*** |
| Share of administered prices | -1.713*** |
| Constant | 4.482*** |
| Observations | 1,004 |
| R-squared | 0.548 |
| RMSE | 0.089 |
| Number of countries | 40 |

Robust pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

SECTION III— REER REGRESSION-BASED ANALYSIS: LEVEL REER

This section contains results from the EBA analysis of 2019 (year average) levels of the REER.

In comparison to Section III, the key difference is that the regression analysis uses as a dependent variable a measure of the level of the economy's real exchange rate (rather than a REER index, which contains no information about the relative prices across economies). The independent variables in the Level REER regression are similar, though not identical, to those used in the Index REER analysis.

The structure and presentation of the tables is similar to that of Section II.

Table 18. EBA Analysis of the 2019 Level of the REER

| | Total REER Gap ^{/a} | Net Contributions of Policy Gaps | | | | | Real Interest Rate | Residual ^{/a} |
|-----------------------|---------------------------------|----------------------------------|----------------|--------------------|----------|-------------------|--------------------------|---------------------------|
| | | Sum | Health Exp. | Capital Control | Reserves | Private Credit | | |
| Australia | 10.2% | -1.5% | -1.5% | 0.0% | 0.1% | -0.2% | 0.1% | 11.7% |
| Belgium | 17.1% | 2.2% | 1.9% | 0.0% | 0.2% | 0.1% | 0.0% | 14.9% |
| Brazil | 2.3% | -0.7% | -1.3% | -0.1% | 0.8% | -0.1% | -0.1% | 3.1% |
| Canada | -6.0% | 0.8% | 0.4% | 0.0% | 0.2% | 0.2% | 0.0% | -6.8% |
| China | 11.4% | -1.9% | -1.7% | -0.2% | 0.1% | 0.0% | -0.1% | 13.3% |
| France | 3.2% | 2.2% | 1.9% | 0.0% | 0.2% | 0.2% | 0.0% | 1.0% |
| Germany | -16.0% | 1.2% | 1.0% | 0.0% | 0.2% | 0.0% | 0.0% | -17.3% |
| India | 10.2% | -4.6% | 0.0% | -0.3% | -3.9% | -0.2% | -0.3% | 14.8% |
| Indonesia | -9.0% | -5.2% | -4.5% | -0.2% | -0.4% | 0.1% | -0.2% | -3.7% |
| Italy | 4.4% | -0.5% | -0.4% | 0.0% | 0.2% | -0.3% | 0.0% | 4.9% |
| Japan | -12.5% | 2.3% | 1.6% | 0.0% | 0.4% | 0.3% | 0.0% | -14.8% |
| Korea | -8.0% | -1.5% | -2.2% | 0.0% | 0.3% | 0.1% | 0.4% | -6.6% |
| Malaysia | -38.0% | -10.9% | -7.7% | -0.2% | -3.5% | 0.0% | 0.4% | -27.1% |
| Mexico | -3.5% | -4.4% | -4.7% | -0.2% | -0.2% | 0.1% | 0.5% | 1.0% |
| Netherlands | 4.2% | -2.3% | -2.1% | 0.0% | 0.2% | -0.4% | 0.0% | 6.5% |
| Poland | -18.6% | -2.3% | -0.7% | -0.1% | -1.3% | -0.2% | 0.0% | -16.3% |
| Russia | -14.5% | -12.0% | -8.9% | -0.1% | -3.3% | -0.2% | 0.5% | -2.5% |
| South Africa | -3.3% | 0.9% | 1.3% | -0.1% | -0.1% | -0.1% | -0.1% | -4.3% |
| Spain | 4.9% | 0.7% | 0.6% | 0.0% | 0.1% | -0.1% | 0.0% | 4.2% |
| Sweden | -19.0% | 2.1% | 1.7% | 0.0% | 0.2% | 0.1% | 0.1% | -21.1% |
| Switzerland | 19.7% | 2.1% | 1.0% | 0.0% | 0.2% | 0.3% | 0.6% | 17.6% |
| Thailand | -1.3% | -7.9% | -3.8% | -0.3% | -3.9% | 0.1% | -0.1% | 6.7% |
| Turkey | -20.5% | -0.2% | -0.3% | -0.1% | 1.8% | 0.5% | -2.1% | -20.3% |
| United Kingdom | -5.6% | -0.3% | -0.6% | 0.0% | 0.2% | 0.0% | 0.0% | -5.3% |
| United States | 10.9% | 2.2% | 2.1% | 0.0% | 0.3% | -0.2% | 0.0% | 8.7% |
| Euro Area | -0.7% | 0.7% | 0.6% | 0.0% | 0.2% | 0.0% | 0.0% | -1.5% |

^{/a} For multilateral consistency, adjusted by the weighted average of the 2019 regression residuals (subtracting -8.9%).

Table 19. EBA - Estimated Policy Gap Contributions to 2019 level of the REER

| | All (sum) | | Health Exp. | | Capital Controls | | Δ in Reserves | | Private Credit | | Interest Rate | |
|-----------------------|-----------|--------|-------------|-------|------------------|-------|---------------|-------|----------------|-------|---------------|-------|
| | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. | Total | Dom. |
| Australia | -1.5% | -2.8% | -1.5% | -2.4% | 0.0% | 0.0% | 0.1% | -0.2% | -0.2% | -0.2% | 0.1% | 0.0% |
| Belgium | 2.2% | 1.3% | 1.9% | 1.3% | 0.0% | 0.0% | 0.2% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% |
| Brazil | -0.7% | -1.9% | -1.3% | -2.2% | -0.1% | -0.1% | 0.8% | 0.6% | -0.1% | -0.1% | -0.1% | -0.1% |
| Canada | 0.8% | 0.2% | 0.4% | 0.1% | 0.0% | 0.0% | 0.2% | 0.0% | 0.2% | 0.1% | 0.0% | 0.0% |
| China | -1.9% | -3.0% | -1.7% | -2.6% | -0.2% | -0.2% | 0.1% | -0.2% | 0.0% | 0.0% | -0.1% | 0.0% |
| France | 2.2% | 1.3% | 1.9% | 1.3% | 0.0% | 0.0% | 0.2% | 0.0% | 0.2% | 0.1% | 0.0% | 0.0% |
| Germany | 1.2% | 0.1% | 1.0% | 0.2% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| India | -4.6% | -5.9% | 0.0% | -1.0% | -0.3% | -0.3% | -3.9% | -4.2% | -0.2% | -0.2% | -0.3% | -0.2% |
| Indonesia | -5.2% | -7.1% | -4.5% | -5.9% | -0.2% | -0.2% | -0.4% | -0.9% | 0.1% | 0.1% | -0.2% | -0.2% |
| Italy | -0.5% | -1.3% | -0.4% | -0.9% | 0.0% | 0.0% | 0.2% | 0.0% | -0.3% | -0.3% | 0.0% | 0.0% |
| Japan | 2.3% | 0.3% | 1.6% | 0.0% | 0.0% | 0.0% | 0.4% | 0.0% | 0.3% | 0.3% | 0.0% | 0.0% |
| Korea | -1.5% | -3.0% | -2.2% | -3.4% | 0.0% | 0.0% | 0.3% | 0.0% | 0.1% | 0.1% | 0.4% | 0.4% |
| Malaysia | -10.9% | -12.3% | -7.7% | -8.8% | -0.2% | -0.2% | -3.5% | -3.8% | 0.0% | 0.0% | 0.4% | 0.5% |
| Mexico | -4.4% | -4.7% | -4.7% | -4.8% | -0.2% | -0.2% | -0.2% | -0.3% | 0.1% | 0.0% | 0.5% | 0.5% |
| Netherlands | -2.3% | -3.1% | -2.1% | -2.6% | 0.0% | 0.0% | 0.2% | 0.0% | -0.4% | -0.4% | 0.0% | 0.0% |
| Poland | -2.3% | -3.2% | -0.7% | -1.4% | -0.1% | -0.1% | -1.3% | -1.5% | -0.2% | -0.3% | 0.0% | 0.0% |
| Russia | -12.0% | -13.0% | -8.9% | -9.7% | -0.1% | -0.1% | -3.3% | -3.5% | -0.2% | -0.2% | 0.5% | 0.4% |
| South Africa | 0.9% | -0.3% | 1.3% | 0.4% | -0.1% | -0.1% | -0.1% | -0.4% | -0.1% | -0.1% | -0.1% | -0.1% |
| Spain | 0.7% | -0.1% | 0.6% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.1% | -0.1% | 0.0% | 0.0% |
| Sweden | 2.1% | 1.3% | 1.7% | 1.3% | 0.0% | 0.0% | 0.2% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% |
| Switzerland | 2.1% | 1.4% | 1.0% | 0.5% | 0.0% | 0.0% | 0.2% | 0.0% | 0.3% | 0.3% | 0.6% | 0.5% |
| Thailand | -7.9% | -9.4% | -3.8% | -5.0% | -0.3% | -0.3% | -3.9% | -4.2% | 0.1% | 0.1% | -0.1% | 0.0% |
| Turkey | -0.2% | -1.5% | -0.3% | -1.3% | -0.1% | -0.1% | 1.8% | 1.4% | 0.5% | 0.5% | -2.1% | -2.1% |
| United Kingdom | -0.3% | -1.1% | -0.6% | -1.1% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| United States | 2.2% | 0.5% | 2.1% | 0.6% | 0.0% | 0.0% | 0.3% | 0.0% | -0.2% | -0.1% | 0.0% | 0.0% |

Table 20. Breakdown of 2019 Policy Gap Contribution: Public Expenditure on Health / GDP

| | Overall Contribution | Coef. | Pol. Gap (1)-(3) - {(2)-(4)} | P - P* (1) - (2) | P (1) | P* (2) | P (Trading partners) (3) | P* (Trading partners) (4) | P* benchmark from cross-country regression ^a |
|-----------------------|----------------------|-------|------------------------------|------------------|-------|--------|--------------------------|---------------------------|---|
| Australia | -1.5% | 4.20 | -0.4% | -0.6% | 6.3% | 6.9% | 6.5% | 6.8% | 7.0% |
| Belgium | 1.9% | 4.20 | 0.4% | 0.3% | 8.0% | 7.7% | 7.4% | 7.5% | 7.2% |
| Brazil | -1.3% | 4.20 | -0.3% | -0.5% | 3.9% | 4.4% | 6.8% | 7.0% | 3.5% |
| Canada | 0.4% | 4.20 | 0.1% | 0.0% | 7.1% | 7.0% | 7.4% | 7.5% | 7.0% |
| China | -1.7% | 4.20 | -0.4% | -0.6% | 3.4% | 4.0% | 7.2% | 7.4% | 3.9% |
| France | 1.9% | 4.20 | 0.5% | 0.3% | 9.4% | 9.1% | 7.2% | 7.3% | 7.8% |
| Germany | 1.0% | 4.20 | 0.2% | 0.0% | 9.6% | 9.5% | 6.8% | 7.0% | 8.0% |
| India | 0.0% | 4.20 | 0.0% | -0.3% | 1.4% | 1.6% | 6.7% | 7.0% | 1.8% |
| Indonesia | -4.5% | 4.20 | -1.1% | -1.4% | 1.6% | 3.0% | 6.4% | 6.7% | 2.5% |
| Italy | -0.4% | 4.20 | -0.1% | -0.2% | 6.6% | 6.8% | 7.4% | 7.5% | 7.8% |
| Japan | 1.6% | 4.20 | 0.4% | 0.0% | 9.0% | 9.0% | 5.8% | 6.2% | 9.0% |
| Korea | -2.2% | 4.20 | -0.5% | -0.8% | 4.8% | 5.6% | 6.4% | 6.6% | 5.7% |
| Malaysia | -7.7% | 4.20 | -1.8% | -2.1% | 2.0% | 4.1% | 6.5% | 6.7% | 4.4% |
| Mexico | -4.7% | 4.20 | -1.1% | -1.1% | 2.8% | 3.9% | 7.6% | 7.6% | 3.7% |
| Netherlands | -2.1% | 4.20 | -0.5% | -0.6% | 8.2% | 8.8% | 7.4% | 7.5% | 7.7% |
| Poland | -0.7% | 4.20 | -0.2% | -0.3% | 5.1% | 5.4% | 7.5% | 7.7% | 6.0% |
| Russia | -8.9% | 4.20 | -2.1% | -2.3% | 3.2% | 5.5% | 6.8% | 7.0% | 5.5% |
| South Africa | 1.3% | 4.20 | 0.3% | 0.1% | 4.2% | 4.1% | 6.9% | 7.1% | 2.9% |
| Spain | 0.6% | 4.20 | 0.1% | 0.0% | 6.2% | 6.2% | 7.4% | 7.6% | 6.8% |
| Sweden | 1.7% | 4.20 | 0.4% | 0.3% | 9.3% | 9.0% | 7.3% | 7.5% | 8.2% |
| Switzerland | 1.0% | 4.20 | 0.2% | 0.1% | 7.6% | 7.5% | 7.5% | 7.6% | 7.6% |
| Thailand | -3.8% | 4.20 | -0.9% | -1.2% | 2.9% | 4.1% | 6.6% | 6.9% | 4.1% |
| Turkey | -0.3% | 4.20 | -0.1% | -0.3% | 3.3% | 3.6% | 7.1% | 7.3% | 4.4% |
| United Kingdom | -0.6% | 4.20 | -0.1% | -0.3% | 7.6% | 7.9% | 7.3% | 7.4% | 7.4% |
| United States | 2.1% | 4.20 | 0.5% | 0.1% | 8.4% | 8.2% | 6.0% | 6.4% | 7.4% |

Table 21. Breakdown of 2019 Policy Gap Contribution: Capital Controls

| | Overall Contribution | P= Lagged [VIX * (Capital account openness)] 1\ | | | | | P= Lagged [VIX * Capital Account Openness * Share of own currency in world reserve] 2\ | | | | |
|-----------------------|----------------------|---|-------|--------------------|-------|--------|--|-------|---------------------|-------|---------|
| | | Contribution | Coef. | Policy Gap (7)-(8) | P (7) | P* (8) | Contribution | Coef. | Policy Gap (9)-(10) | P (9) | P* (10) |
| Australia | 0.0% | 0.0% | -0.15 | 0.0% | -4.5% | -4.5% | 0.0% | 0.83 | 0.0% | -0.1% | -0.1% |
| Belgium | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -1.1% | -1.1% |
| Brazil | -0.1% | -0.1% | -0.15 | 0.5% | -3.8% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Canada | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -0.1% | -0.1% |
| China | -0.2% | -0.3% | -0.15 | 1.8% | -2.6% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | -0.1% |
| France | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -1.1% | -1.1% |
| Germany | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -1.1% | -1.1% |
| India | -0.3% | -0.3% | -0.15 | 1.8% | -2.6% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Indonesia | -0.2% | -0.2% | -0.15 | 1.1% | -3.2% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Italy | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -1.1% | -1.1% |
| Japan | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -0.3% | -0.3% |
| Korea | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Malaysia | -0.2% | -0.2% | -0.15 | 1.1% | -3.2% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Mexico | -0.2% | -0.2% | -0.15 | 1.1% | -3.2% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Netherlands | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -1.1% | -1.1% |
| Poland | -0.1% | -0.1% | -0.15 | 0.5% | -3.8% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Russia | -0.1% | -0.1% | -0.15 | 0.5% | -3.8% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| South Africa | -0.1% | -0.1% | -0.15 | 0.5% | -3.8% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Spain | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -1.1% | -1.1% |
| Sweden | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Switzerland | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Thailand | -0.3% | -0.3% | -0.15 | 1.8% | -2.6% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| Turkey | -0.1% | -0.1% | -0.15 | 0.5% | -3.8% | -4.3% | 0.0% | 0.83 | 0.0% | 0.0% | 0.0% |
| United Kingdom | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -0.2% | -0.2% |
| United States | 0.0% | 0.0% | -0.15 | 0.0% | -5.1% | -5.1% | 0.0% | 0.83 | 0.0% | -3.2% | -3.2% |

1/ Capital Account Openness defined as (1- Capital Account Controls)

Table 22. Breakdown of 2019 Policy Gap Contribution: Change in FX Reserves / GDP

| | Overall Contribution | Coef. | Pol. Gap (1)-(3) - {(2)-(4)} | Components | | | | | | | | |
|-----------------------|----------------------|-------|------------------------------|------------------|----------|--------|--------------------------|---------------------------|-----------------|--------------------|------------------|---------------------|
| | | | | P - P* (1) - (2) | p /a (1) | P* (2) | P (Trading partners) (3) | P* (Trading partners) (4) | Reserves to GDP | (Reserves to GDP)* | Capital Controls | (Capital Controls)* |
| Australia | 0.1% | -3.56 | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.5% | 0.0% | 0.13 | 0.13 |
| Belgium | 0.2% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.3% | 0.0% | 0.00 | 0.00 |
| Brazil | 0.8% | -3.56 | -0.2% | -0.2% | -0.2% | 0.0% | 0.1% | 0.0% | -0.6% | 0.0% | 0.25 | 0.15 |
| Canada | 0.2% | -3.56 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | 0.00 | 0.00 |
| China | 0.1% | -3.56 | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.50 | 0.15 |
| France | 0.2% | -3.56 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.00 | 0.00 |
| Germany | 0.2% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |
| India | -3.9% | -3.56 | 1.1% | 1.2% | 1.2% | 0.0% | 0.1% | 0.0% | 2.3% | 0.0% | 0.50 | 0.15 |
| Indonesia | -0.4% | -3.56 | 0.1% | 0.3% | 0.3% | 0.0% | 0.1% | 0.0% | 0.7% | 0.0% | 0.38 | 0.15 |
| Italy | 0.2% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.2% | 0.0% | 0.00 | 0.00 |
| Japan | 0.4% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.3% | 0.0% | 0.00 | 0.00 |
| Korea | 0.3% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |
| Malaysia | -3.5% | -3.56 | 1.0% | 1.1% | 1.1% | 0.0% | 0.1% | 0.0% | 2.9% | 0.0% | 0.38 | 0.15 |
| Mexico | -0.2% | -3.56 | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.38 | 0.15 |
| Netherlands | 0.2% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.5% | 0.0% | 0.00 | 0.00 |
| Poland | -1.3% | -3.56 | 0.4% | 0.4% | 0.4% | 0.0% | 0.1% | 0.0% | 1.7% | 0.0% | 0.25 | 0.15 |
| Russia | -3.3% | -3.56 | 0.9% | 1.0% | 1.0% | 0.0% | 0.1% | 0.0% | 3.9% | 0.0% | 0.25 | 0.15 |
| South Africa | -0.1% | -3.56 | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.4% | 0.0% | 0.25 | 0.15 |
| Spain | 0.1% | -3.56 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.00 | 0.00 |
| Sweden | 0.2% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -1.2% | 0.0% | 0.00 | 0.00 |
| Switzerland | 0.2% | -3.56 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.5% | 0.0% | 0.00 | 0.00 |
| Thailand | -3.9% | -3.56 | 1.1% | 1.2% | 1.2% | 0.0% | 0.1% | 0.0% | 2.4% | 0.0% | 0.50 | 0.15 |
| Turkey | 1.8% | -3.56 | -0.5% | -0.4% | -0.3% | 0.1% | 0.1% | 0.0% | -1.3% | 0.6% | 0.25 | 0.15 |
| United Kingdom | 0.2% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | -0.1% | 0.0% | 0.00 | 0.00 |
| United States | 0.3% | -3.56 | -0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 |

/a For multilateral consistency, adjusted by the weighted average of the 2019 regression residuals (subtracting -8.9%).

Table 23. Breakdown of 2019 Policy Gap Contribution: Private Credit / GDP (HP Detrended)

| | Overall Contribution | Coef. | Pol. Gap (1)-(3) - {(2)-(4)} | P - P* (1) - (2) | P ^{/a} (1) | P* (2) | P (Trading partners) (3) | P* (Trading partners) (4) |
|-----------------------|----------------------|-------|------------------------------|------------------|---------------------|--------|--------------------------|---------------------------|
| Australia | -0.2% | 0.03 | -4.7% | -5.5% | -5.5% | 0.0% | -1.2% | -0.5% |
| Belgium | 0.1% | 0.03 | 2.9% | 1.5% | 1.5% | 0.0% | -2.1% | -0.7% |
| Brazil | -0.1% | 0.03 | -1.6% | -2.9% | -2.9% | 0.0% | -1.7% | -0.4% |
| Canada | 0.2% | 0.03 | 5.4% | 3.1% | 3.1% | 0.0% | -2.5% | -0.2% |
| China | 0.0% | 0.03 | -0.1% | 0.2% | 0.2% | 0.0% | 0.1% | -0.3% |
| France | 0.2% | 0.03 | 5.4% | 3.5% | 3.5% | 0.0% | -2.7% | -0.8% |
| Germany | 0.0% | 0.03 | 1.5% | 0.0% | -2.0% | -2.0% | -1.9% | -0.4% |
| India | -0.2% | 0.03 | -4.8% | -5.5% | -5.5% | 0.0% | -1.0% | -0.3% |
| Indonesia | 0.1% | 0.03 | 2.0% | 2.0% | 2.0% | 0.0% | -0.3% | -0.3% |
| Italy | -0.3% | 0.03 | -10.1% | -10.4% | -10.4% | 0.0% | -1.1% | -0.7% |
| Japan | 0.3% | 0.03 | 9.4% | 8.4% | 8.4% | 0.0% | -1.2% | -0.2% |
| Korea | 0.1% | 0.03 | 1.6% | 2.1% | 2.1% | 0.0% | 0.2% | -0.2% |
| Malaysia | 0.0% | 0.03 | 0.8% | 0.6% | 0.6% | 0.0% | -0.4% | -0.2% |
| Mexico | 0.1% | 0.03 | 3.7% | 1.5% | 1.5% | 0.0% | -2.4% | -0.2% |
| Netherlands | -0.4% | 0.03 | -11.6% | -12.4% | -12.4% | 0.0% | -1.6% | -0.8% |
| Poland | -0.2% | 0.03 | -6.2% | -7.7% | -7.7% | 0.0% | -2.4% | -0.9% |
| Russia | -0.2% | 0.03 | -6.8% | -7.6% | -7.6% | 0.0% | -1.4% | -0.5% |
| South Africa | -0.1% | 0.03 | -2.0% | -2.8% | -2.8% | 0.0% | -1.2% | -0.4% |
| Spain | -0.1% | 0.03 | -1.9% | -3.0% | -7.0% | -4.0% | -1.5% | -0.5% |
| Sweden | 0.1% | 0.03 | 1.9% | 0.0% | 0.0% | 0.0% | -2.9% | -1.1% |
| Switzerland | 0.3% | 0.03 | 10.1% | 8.7% | 8.7% | 0.0% | -2.1% | -0.7% |
| Thailand | 0.1% | 0.03 | 2.2% | 2.8% | 2.8% | 0.0% | 0.4% | -0.3% |
| Turkey | 0.5% | 0.03 | 16.3% | 14.4% | 14.4% | 0.0% | -2.6% | -0.7% |
| United Kingdom | 0.0% | 0.03 | 1.4% | 0.0% | 0.0% | 0.0% | -2.1% | -0.7% |
| United States | -0.2% | 0.03 | -5.1% | -4.0% | -4.0% | 0.0% | 0.8% | -0.3% |

^{/a} For multilateral consistency, adjusted by the weighted average of the 2019 regression residuals (subtracting -8.9%).

Table 24. Breakdown of 2019 Policy Gap Contribution: Real Short Term Interest Rates

| | Overall Contribution | Coef. | Pol. Gap (1)-(3) - ((2)-(4)) | Components | | | | | | | | |
|-----------------------|----------------------|-------|------------------------------|------------------|----------------------|--------|--------------------------|---------------------------|--------------------|-----------------------|------------------|---------------------|
| | | | | P - P* (1) - (2) | P / ^a (1) | P* (2) | P (Trading partners) (3) | P* (Trading partners) (4) | Real Interest Rate | (Real Interest Rate)* | Capital Controls | (Capital Controls)* |
| Australia | 0.1% | 0.59 | 0.1% | 0.0% | -0.8% | -0.8% | -0.4% | -0.3% | -0.9% | -0.9% | 12.5% | 12.5% |
| Belgium | 0.0% | 0.59 | 0.0% | -0.1% | -1.7% | -1.6% | -0.9% | -0.8% | -1.7% | -1.6% | 0.0% | 0.0% |
| Brazil | -0.1% | 0.59 | -0.2% | -0.2% | 1.7% | 1.9% | -0.3% | -0.3% | 2.3% | 2.3% | 25.0% | 15.3% |
| Canada | 0.0% | 0.59 | 0.0% | 0.0% | -0.3% | -0.3% | 0.0% | 0.0% | -0.3% | -0.3% | 0.0% | 0.0% |
| China | -0.1% | 0.59 | -0.1% | 0.0% | -0.1% | -0.1% | -0.2% | -0.4% | -0.1% | -0.1% | 50.0% | 15.3% |
| France | 0.0% | 0.59 | 0.0% | -0.1% | -1.6% | -1.5% | -0.9% | -0.9% | -1.6% | -1.5% | 0.0% | 0.0% |
| Germany | 0.0% | 0.59 | 0.0% | -0.1% | -1.8% | -1.7% | -0.7% | -0.6% | -1.8% | -1.7% | 0.0% | 0.0% |
| India | -0.3% | 0.59 | -0.5% | -0.3% | 0.7% | 1.1% | -0.2% | -0.4% | 1.4% | 1.3% | 50.0% | 15.3% |
| Indonesia | -0.2% | 0.59 | -0.3% | -0.3% | 1.4% | 1.7% | -0.2% | -0.3% | 2.3% | 2.0% | 37.5% | 15.3% |
| Italy | 0.0% | 0.59 | 0.0% | -0.1% | -1.1% | -1.0% | -0.9% | -0.8% | -1.1% | -1.0% | 0.0% | 0.0% |
| Japan | 0.0% | 0.59 | -0.1% | 0.0% | -0.8% | -0.8% | -0.2% | -0.2% | -0.8% | -0.8% | 0.0% | 0.0% |
| Korea | 0.4% | 0.59 | 0.6% | 0.6% | -0.7% | -1.3% | -0.3% | -0.3% | -0.7% | -1.3% | 0.0% | 0.0% |
| Malaysia | 0.4% | 0.59 | 0.8% | 0.8% | 1.7% | 0.8% | -0.2% | -0.2% | 2.7% | 1.0% | 37.5% | 15.3% |
| Mexico | 0.5% | 0.59 | 0.8% | 0.8% | 2.7% | 1.9% | 0.0% | 0.0% | 4.4% | 2.3% | 37.5% | 15.3% |
| Netherlands | 0.0% | 0.59 | 0.0% | -0.1% | -3.1% | -3.1% | -0.9% | -0.8% | -3.1% | -3.1% | 0.0% | 0.0% |
| Poland | 0.0% | 0.59 | 0.0% | 0.0% | -0.1% | -0.1% | -0.7% | -0.8% | -0.1% | -0.1% | 25.0% | 15.3% |
| Russia | 0.5% | 0.59 | 0.8% | 0.7% | 2.4% | 1.7% | -0.6% | -0.5% | 3.2% | 2.0% | 25.0% | 15.3% |
| South Africa | -0.1% | 0.59 | -0.2% | -0.2% | 1.8% | 2.0% | -0.5% | -0.5% | 2.4% | 2.4% | 25.0% | 15.3% |
| Spain | 0.0% | 0.59 | 0.0% | -0.1% | -1.2% | -1.1% | -1.0% | -0.9% | -1.2% | -1.1% | 0.0% | 0.0% |
| Sweden | 0.1% | 0.59 | 0.1% | 0.0% | -1.4% | -1.4% | -0.9% | -0.8% | -1.4% | -1.4% | 0.0% | 0.0% |
| Switzerland | 0.6% | 0.59 | 1.0% | 0.9% | -1.1% | -2.0% | -0.9% | -0.9% | -1.1% | -2.0% | 0.0% | 0.0% |
| Thailand | -0.1% | 0.59 | -0.1% | 0.0% | 0.2% | 0.2% | -0.2% | -0.3% | 0.4% | 0.2% | 50.0% | 15.3% |
| Turkey | -2.1% | 0.59 | -3.7% | -3.6% | 0.7% | 4.2% | -0.6% | -0.7% | 0.9% | 5.0% | 25.0% | 15.3% |
| United Kingdom | 0.0% | 0.59 | 0.1% | 0.0% | -1.0% | -1.0% | -0.9% | -0.8% | -1.0% | -1.0% | 0.0% | 0.0% |
| United States | 0.0% | 0.59 | -0.1% | 0.0% | 0.3% | 0.3% | -0.2% | -0.3% | 0.3% | 0.3% | 0.0% | 0.0% |

^a For multilateral consistency, adjusted by the weighted average of the 2019 regression residuals (subtracting -8.9%).

Table 25. EBA Analysis of 2019 Level REER: Coefficients

| VARIABLES | Specification |
|---|---------------|
| Lag of NFA/GDP | 0.06*** |
| Expected GDP growth of medium-term(5 years out), WEO project (rel to TRD PRT) | 1.96** |
| Lag of health expenditure to GDP (rel to TRD PRT) | 4.20*** |
| Lag of VIX * capital account openness | -0.15 |
| Lag of VIX * capital account openness *share of own currency in global reserve | 0.83 |
| Lag of Trade Openness (avg. of exports and imports to GDP) (rel to TRD PRT) | -0.34*** |
| Share of the country's currency held as FX reserve by central banks worldwide | -0.36*** |
| Log Commodity ToT (43) levels in 2011 vs trading partner | 0.06*** |
| Private credit/GDP (rel to TRD PRT), Detrended | 0.03 |
| Change in reserves to GDP * cap controls (rel to TRD PRT) (New) | -3.56* |
| Population Growth (rel to TRD PRT) | 2.57 |
| Dependency Ratio (rel to TRD PRT) | 0.36* |
| Political Risk Rating (rel to TRD PRT) (ICRG-12) | 0.65*** |
| Real interest rate differential demeaned interacted with K openness (rel to TRD | 0.59* |
| Lag Demeaned PPPGDP/Top3(PPP)] | 0.17*** |
| Lag Capital stock per employed person at current PPPs (2005US\$) (rel to TRD PRT) | 0.11*** |
| Lag Ratio Traded/Non Traded relative to trd part (in logs) | 0.18*** |
| Share of administered prices in CPI | -2.81*** |
| VAT Revenue, % of GDP (rel to TRD PRT) | 0.66 |
| Constant | 0.19*** |
| Observations | 990 |
| R-squared | 0.90 |
| RMSE | 0.1456 |
| Number of Countries | 39 |

* significant at 10%; ** significant at 5%; *** significant at 1%

SECTION IV— EXTERNAL SUSTAINABILITY ANALYSIS

The table on the following page presents results from the application of the External Sustainability (ES) approach, which was originally developed based on the CGER methodology.

The ES approach calculates the CA/GDP adjustment consistent with stabilizing NFA/GDP at a benchmark level, which is set at the 2018 actual level (first column).³ More precisely, this approach calculates the CA/GDP level that would stabilize the NFA/GDP at the benchmark level, and compares it to the 2019 cyclically-adjusted CA/GDP. The resulting CA gap is shown in the fifth column, and the corresponding REER gap in the last column.

³ We rely on 2018 NFA/GDP due to data availability. NFA is calculated following the methodology of [Lane and Milesi-Ferretti \(2007\)](#).

Table 26. External Sustainability Approach: NFA-stabilizing Current Accounts¹

| | 2018 NFA/GDP | Actual 2019 CA/GDP ² | Cyclically adjusted 2019 CA/GDP | CA/GDP Stabilizing NFA at 2018 Level | CA/GDP Gap (C) - (D) | Assumed CA/REER Elasticity ³ (F) | Corresponding REER Gap ⁴ (G) |
|-----------------------|--------------|------------------------------------|---------------------------------------|--|----------------------------|--|---|
| | (A) | (B) | (C) | (D) | | | |
| Argentina | 16.0% | -0.7% | -1.4% | 0.6% | -2.0% | 0.14 | 14.6% |
| Australia | -54.8% | 0.5% | 0.3% | -2.3% | 2.7% | 0.20 | -13.4% |
| Belgium | 36.7% | -1.1% | -0.9% | 1.3% | -2.2% | 0.42 | 5.3% |
| Brazil | -34.8% | -2.7% | -3.7% | -1.4% | -2.2% | 0.10 | 21.3% |
| Canada | 34.4% | -2.0% | -2.0% | 1.7% | -3.6% | 0.27 | 13.6% |
| China | 15.5% | 1.0% | 0.7% | 1.1% | -0.4% | 0.23 | 2.0% |
| France | -20.2% | -0.6% | -0.4% | -0.7% | 0.3% | 0.26 | -1.2% |
| Germany | 59.5% | 7.1% | 7.3% | 2.1% | 5.2% | 0.36 | -14.2% |
| India | -28.7% | -1.1% | -1.4% | -2.4% | 1.0% | 0.15 | -6.7% |
| Indonesia | -31.3% | -2.7% | -2.7% | -2.2% | -0.5% | 0.17 | 3.0% |
| Italy | -10.1% | 2.9% | 2.6% | -0.3% | 2.9% | 0.24 | -12.0% |
| Japan | 64.8% | 3.6% | 3.3% | 3.6% | -0.3% | 0.13 | 2.5% |
| Korea | 26.2% | 3.6% | 3.3% | 1.2% | 2.1% | 0.23 | -9.3% |
| Malaysia | -5.6% | 3.4% | 3.5% | -0.4% | 3.9% | 0.46 | -8.5% |
| Mexico | -50.4% | -0.3% | -0.5% | -1.9% | 1.5% | 0.13 | -11.2% |
| Netherlands | 68.7% | 10.2% | 10.5% | 2.5% | 8.0% | 0.69 | -11.5% |
| Poland | -56.5% | 2.5% | 2.6% | -2.8% | 5.5% | 0.43 | -12.8% |
| Russia | 20.7% | 3.8% | 3.7% | 0.9% | 2.8% | 0.25 | -11.3% |
| South Africa | 12.0% | -3.0% | -3.2% | 0.4% | -3.6% | 0.26 | 13.6% |
| Spain | -81.9% | 2.3% | 2.6% | -3.0% | 5.6% | 0.28 | -19.9% |
| Sweden | 7.2% | 4.2% | 4.6% | 0.3% | 4.3% | 0.35 | -12.2% |
| Switzerland | 122.6% | 11.0% | 11.1% | 8.7% | 2.5% | 0.53 | -4.7% |
| Thailand | -3.6% | 7.0% | 6.6% | -0.2% | 6.8% | 0.57 | -12.0% |
| Turkey 4/ | -55.9% | 1.2% | 0.9% | -3.1% | 4.0% | 0.23 | -17.7% |
| United Kingdom | -13.5% | -3.8% | -3.8% | -0.5% | -3.3% | 0.25 | 13.4% |
| United States | -48.1% | -2.3% | -2.0% | -0.8% | -1.2% | 0.11 | 10.6% |

¹Based on the CGER "ES" methodology ; CA includes capital account in addition to current account.

²Based on WEO database as of June 25th 2020

³Based on WEO database as of April 7th 2020

⁴In most cases, figures shown are based on a common elasticity assumption of -0.71 for exports and 0.92 for imports, which were estimated from a previous CGER model. These estimated elasticities can differ from staff-assessed elasticities due to additional country-specific considerations.