## INTERNATIONAL MONETARY FUND

## IMF POLICY PAPER

## 2020 QUOTA DATA UPDATE

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## QUOTA DATA UPDATE

October 23, 2020

## EXECUTIVE SUMMARY

This paper presents the annual update of the quota database and extends the database by one year through 2018. The paper provides an overview of the data and of the methodology and covers the quota formula variables and calculated quota shares based on the current quota formula.

The paper presents summary results for the updated data set, with country-by-country details provided in an Annex. In terms of broad country groups, the results of the data update show that the changes in calculated quota shares are modest. In particular, the update results in a small decline in the aggregate share of emerging market and developing countries (EMDCs) by 0.2 percentage points to 49.8 percent, after a small increase in the previous data update. The decline in the EMDC share reflects a decline of Africa, the Middle East, and the Western Hemisphere while Asia and Transition Economies recorded a slight increase. The shares of most major advanced economies (AEs) remained broadly unchanged while the share of other AEs as a group increased by 0.2 percentage points.

This year's quota data update includes the results of the new Purchasing Power Parity (PPP) price level indices (or PPP factors) based on the 2017 International Comparison Program (ICP) round, which were published in May 2020. For a majority of Fund members, especially EMDCs including some large EMDC members, the 2017 ICP round results in an upward revision of the PPP factor, and consequently, a downward revision of PPP GDP. The resulting lower share of EMDCs' PPP GDP, and a correspondingly higher share of AEs' PPP GDP, largely account for the small shift in the calculated quota share in favor of AEs in this year's quota data update.

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## INTRODUCTION


#### Abstract

1. This paper presents the annual update of the quota database and extends the database by one year through 2018. ${ }^{1}$ The update covers the quota formula variables and calculated quota shares (CQS) based on the current quota formula (Box 1). ${ }^{2}$ The next section provides an overview of the data and methodology used in the update and the subsequent section presents summary results. Annex V explains in more detail the construction of the database and presents member-by-member results.


## DATA AND METHODOLOGY

2. The quota database covers the following data for all $\mathbf{1 8 9}$ member countries (converted into SDRs):

- GDP at market prices ("MER GDP") for three years (2016-18).
- GDP at purchasing power parity ("PPP GDP") for three years (2016-18). PPP GDP is calculated by deflating GDP at market prices by the PPP price level index, allowing comparisons across countries for a given period. 3
- Current receipts (goods, services, primary income, secondary income, and capital account) for 13 years (2006-18). 4 These comprise the credit component of all economic transactions between resident and nonresident entities other than those relating to financial account transactions. As only autonomous transactions are considered for quota calculations, transactions related to exceptional financing are excluded from this measure (i.e., data are based on the "analytic presentation" of the balance of payments).
- Current payments (goods, services, primary income, secondary income, and capital account) for five years (2014-18). These comprise the debit component of all economic transactions between resident and nonresident entities other than those relating to financial account transactions. ${ }^{5}$

[^0]- Net capital flows or financial account balance for 13 years (2006-18). ${ }^{6}$ Net capital flows relate to cross-border transactions of the financial account in all external financial assets and liabilities. As only autonomous transactions are considered for quota calculations, this concept excludes reserve assets, credit and loans from the Fund, and exceptional financing (i.e., the financial account balance based on the "analytic presentation" of the balance of payments).
- Official reserves, defined as the sum of the average over the 12 months of 2018 of foreign exchange, SDR holdings, reserve position in the Fund, and monetary gold valued at SDR 35 per fine troy ounce.


## 3. Quota variables are initially calculated in SDRs and then converted into shares of the respective global total for use in the current formula (Box 1). The quota database includes four

 variables:- GDP: The three-year average of GDP (2016-18), at market and PPP exchange rates. MER and PPP GDP are blended through a weighted average of MER GDP shares ( 60 percent) and PPP GDP shares (40 percent).
- Openness: The five-year average of the sum of current receipts and current payments (201418).
- Variability: The sum of current receipts and net capital flows (or following BPM6, current receipts minus the financial account balance), measured as the standard deviation from a centered three-year trend over a 13-year period (2006-18).
- Reserves: The 12-month average (January to December 2018) of official reserves, as defined above.


## Box 1. Current Quota Formula

The current quota formula was agreed in 2008. ${ }^{1}$ It includes four variables (GDP, openness, variability, and reserves), expressed in shares of global totals, with the variables assigned weights summing to 1.0. The formula also includes a compression factor that reduces dispersion in calculated quota shares (CQS). The formula is:

```
CQS = (0.50 x GDP + 0.30 x Openness + 0.15 x Variability + 0.05 x Reserves)^0.95
```

After the compression factor (0.95) is applied to uncompressed calculated quota shares, results are rescaled so that total calculated quota shares sum to 100 percent.

1/ Reform of Quota and Voice in the International Monetary Fund-Report of the Executive Board to the Board of Governors (3/28/2008).

[^1]
## 4. The data sources and methodology in this update are consistent with those used in

 recent quota data updates. The primary data source is the Fund's International Financial Statistics (IFS). Missing data were supplemented in the first instance by the World Economic Outlook (WEO) database. Remaining missing data were computed based on country desk data. As is customary, a cutoff date of January 31, 2020 for incorporating new data in the quota database was employed for the IFS; consistent with this cutoff, the Fall 2019 publication was used for WEO data.
## 5. This year's quota data update reflects the recently released PPP price level indices

 based on the 2017 International Comparison Program (ICP). The PPP price level indices (PPP factors) are based on the 2017 ICP round update for 176 participating economies. ${ }^{7}$ As discussed in more detail in Annex I, this update reflects a very comprehensive statistical surveying exercise conducted periodically, and improves upon extrapolated PPP estimates that are used when no such survey-based data are available. With the 2017 ICP, the PPP data quality has improved further and staff considers PPP data as reliable as the price and national GDP statistics from which they are constructed (see Annex I, specially Section B).6. The main results of the update are presented by member and in shares for country groups based on the current quota classifications. The member-by-member results are presented in shares and in SDRs in Annex V . The country group classifications have been maintained dating back to the $11^{\text {th }}$ Review. ${ }^{8}$ In these classifications, nine members ${ }^{9}$ currently considered as advanced economies (AEs) in the WEO are regarded as emerging market and developing countries (EMDCs) in the quota classification. Additionally, the regional groups for EMDCs have been maintained over time and thus differ for some EMDCs from those in the WEO. ${ }^{10}$

## RESULTS OF THE UPDATE

## 7. In terms of broad country groups (Table 1), the overall changes in shares in this

 update are modest, with a small increase in the aggregate share of AEs by $\mathbf{0 . 2} \mathbf{~ p p}$ to $\mathbf{5 0 . 2}$ percent. After a small increase in the 2019 update ( 0.3 pp ), the small decline ( 0.2 pp ) in the EMDC share reflects a decline in shares for Africa, the Middle East, and the Western Hemisphere (about 0.2 pp each), while Asia and Transition Economies recorded a slight increase (about 0.1 pp each), see Figure 1. Among major AEs, the individual member shares remained broadly stable and the overall group share was unchanged at 35.5 percent. The share of other AEs as a group increased by 0.2 pp .[^2]Table 1. Updated Quota Formula Variables ${ }^{1 /}$
(In percent)

|  | $14^{\text {th }}$ Review | CQS (Current Formula) |  | MER GDP |  | PPP GDP |  | GDP Blend |  | Openness |  | Variability |  | Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Advanced economies | 57.6 | 50.2 | 50.0 | 56.6 | 56.8 | 40.2 | 38.1 | 50.0 | 49.3 | 57.1 | 57.0 | 52.0 | 53.2 | 27.7 | 27.7 |
| Major advanced economies | 43.4 | 35.5 | 35.5 | 46.4 | 46.8 | 32.9 | 31.3 | 41.0 | 40.6 | 37.6 | 37.5 | 31.9 | 33.0 | 16.0 | 16.3 |
| United States | 17.4 | 14.9 | 14.9 | 24.5 | 24.6 | 16.3 | 15.6 | 21.2 | 21.0 | 13.4 | 13.2 | 11.2 | 11.8 | 1.1 | 1.2 |
| Japan | 6.5 | 5.0 | 5.0 | 6.1 | 6.2 | 4.3 | 4.4 | 5.4 | 5.5 | 4.0 | 4.0 | 4.8 | 4.8 | 11.2 | 11.4 |
| Germany | 5.6 | 4.9 | 4.8 | 4.6 | 4.6 | 3.6 | 3.4 | 4.2 | 4.1 | 7.1 | 7.1 | 5.0 | 5.2 | 0.6 | 0.6 |
| France | 4.2 | 3.1 | 3.0 | 3.3 | 3.3 | 2.5 | 2.3 | 3.0 | 2.9 | 4.0 | 4.0 | 2.7 | 2.8 | 0.6 | 0.5 |
| United Kingdom | 4.2 | 3.5 | 3.5 | 3.4 | 3.6 | 2.5 | 2.4 | 3.1 | 3.1 | 4.3 | 4.3 | 4.4 | 4.4 | 1.3 | 1.3 |
| Italy | 3.2 | 2.3 | 2.3 | 2.5 | 2.5 | 2.1 | 1.9 | 2.3 | 2.2 | 2.5 | 2.5 | 2.2 | 2.3 | 0.5 | 0.5 |
| Canada | 2.3 | 1.9 | 1.9 | 2.0 | 2.1 | 1.5 | 1.4 | 1.8 | 1.8 | 2.4 | 2.4 | 1.6 | 1.6 | 0.8 | 0.8 |
| Other advanced economies | 14.3 | 14.7 | 14.5 | 10.1 | 10.0 | 7.3 | 6.8 | 9.0 | 8.7 | 19.6 | 19.5 | 20.2 | 20.1 | 11.6 | 11.5 |
| Spain | 2.0 | 1.7 | 1.7 | 1.7 | 1.6 | 1.5 | 1.4 | 1.6 | 1.5 | 1.9 | 1.9 | 1.9 | 1.9 | 0.5 | 0.5 |
| The Netherlands | 1.8 | 2.0 | 2.0 | 1.1 | 1.0 | 0.8 | 0.7 | 0.9 | 0.9 | 3.6 | 3.6 | 2.7 | 2.8 | 0.1 | 0.1 |
| Australia | 1.4 | 1.4 | 1.4 | 1.7 | 1.7 | 1.0 | 1.0 | 1.4 | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 | 0.5 | 0.5 |
| Belgium | 1.3 | 1.1 | 1.1 | 0.6 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 1.8 | 1.8 | 1.5 | 1.4 | 0.2 | 0.1 |
| Switzerland | 1.2 | 1.8 | 1.8 | 0.9 | 0.9 | 0.5 | 0.4 | 0.7 | 0.7 | 2.3 | 2.3 | 2.8 | 2.7 | 7.0 | 6.8 |
| Sweden | 0.9 | 0.9 | 0.9 | 0.7 | 0.7 | 0.4 | 0.4 | 0.6 | 0.6 | 1.1 | 1.1 | 1.3 | 1.3 | 0.5 | 0.5 |
| Austria | 0.8 | 0.7 | 0.7 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.9 | 0.9 | 0.9 | 0.9 | 0.1 | 0.1 |
| Norway | 0.8 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.3 | 0.4 | 0.4 | 0.7 | 0.7 | 1.2 | 1.1 | 0.6 | 0.6 |
| Ireland | 0.7 | 1.0 | 0.9 | 0.4 | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 | 1.7 | 1.6 | 1.3 | 1.2 | 0.0 | 0.0 |
| Denmark | 0.7 | 0.6 | 0.6 | 0.4 | 0.4 | 0.3 | 0.2 | 0.4 | 0.3 | 0.8 | 0.8 | 0.6 | 0.6 | 0.7 | 0.6 |
| EMDCs 2/ | 42.4 | 49.8 | 50.0 | 43.4 | 43.2 | 59.8 | 61.9 | 50.0 | 50.7 | 42.9 | 43.0 | 48.0 | 46.8 | 72.3 | 72.3 |
| Africa | 4.4 | 3.4 | 3.6 | 2.5 | 2.6 | 4.0 | 4.1 | 3.1 | 3.2 | 2.4 | 2.5 | 3.8 | 3.9 | 2.7 | 2.8 |
| South Africa | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 |
| Nigeria | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.8 | 0.9 | 0.6 | 0.7 | 0.3 | 0.3 | 0.6 | 0.5 | 0.4 | 0.3 |
| Asia | 16.0 | 25.7 | 25.6 | 25.4 | 24.8 | 33.6 | 35.1 | 28.7 | 28.9 | 23.0 | 22.7 | 20.7 | 19.5 | 44.0 | 44.1 |
| China 3/ | 6.4 | 13.4 | 13.4 | 15.7 | 15.5 | 16.9 | 18.2 | 16.2 | 16.6 | 11.1 | 11.0 | 11.7 | 10.7 | 28.4 | 28.9 |
| India | 2.7 | 3.4 | 3.4 | 3.2 | 3.0 | 7.0 | 7.3 | 4.7 | 4.7 | 2.1 | 2.1 | 1.8 | 1.7 | 3.5 | 3.4 |
| Korea | 1.8 | 2.1 | 2.0 | 2.0 | 1.9 | 1.8 | 1.6 | 1.9 | 1.8 | 2.5 | 2.5 | 1.2 | 1.1 | 3.6 | 3.5 |
| Indonesia | 1.0 | 1.3 | 1.3 | 1.2 | 1.2 | 2.4 | 2.5 | 1.7 | 1.7 | 0.8 | 0.8 | 0.8 | 0.8 | 1.1 | 1.1 |
| Singapore | 0.8 | 1.4 | 1.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 2.4 | 2.3 | 1.8 | 1.7 | 2.6 | 2.5 |
| Malaysia | 0.8 | 0.7 | 0.7 | 0.4 | 0.4 | 0.7 | 0.7 | 0.5 | 0.5 | 0.9 | 0.9 | 0.7 | 0.7 | 0.9 | 0.9 |
| Thailand | 0.7 | 1.0 | 1.0 | 0.6 | 0.6 | 1.0 | 1.0 | 0.7 | 0.7 | 1.1 | 1.1 | 1.1 | 1.1 | 1.8 | 1.7 |
| Middle East, Malta and Turkey | 6.7 | 6.7 | 6.9 | 4.5 | 4.6 | 6.8 | 7.5 | 5.4 | 5.8 | 5.7 | 5.8 | 8.8 | 8.6 | 9.9 | 9.8 |
| Saudi Arabia | 2.1 | 1.5 | 1.5 | 0.9 | 0.9 | 1.3 | 1.5 | 1.0 | 1.1 | 1.0 | 1.1 | 2.5 | 2.5 | 4.6 | 4.7 |
| Turkey | 1.0 | 1.2 | 1.2 | 1.0 | 1.1 | 1.9 | 1.7 | 1.4 | 1.4 | 0.9 | 0.9 | 1.1 | 1.0 | 0.7 | 0.8 |
| Iran | 0.7 | 0.6 | 0.7 | 0.5 | 0.5 | 0.9 | 1.3 | 0.7 | 0.8 | 0.3 | 0.3 | 0.4 | 0.4 | 1.0 | 0.9 |
| Western Hemisphere | 7.9 | 6.8 | 7.0 | 6.6 | 6.9 | 8.0 | 8.0 | 7.2 | 7.3 | 5.1 | 5.2 | 6.1 | 6.2 | 7.7 | 7.8 |
| Brazil | 2.3 | 2.0 | 2.1 | 2.4 | 2.5 | 2.5 | 2.7 | 2.4 | 2.5 | 1.1 | 1.1 | 1.6 | 1.7 | 3.4 | 3.5 |
| Mexico | 1.9 | 1.7 | 1.7 | 1.4 | 1.5 | 2.1 | 2.0 | 1.7 | 1.7 | 1.8 | 1.8 | 1.5 | 1.6 | 1.6 | 1.6 |
| Venezuela | 0.8 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.5 | 0.5 | 0.0 | 0.0 |
| Argentina | 0.7 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 | 0.3 | 0.3 | 0.5 | 0.4 | 0.5 | 0.4 |
| Transition economies | 7.2 | 7.1 | 7.0 | 4.5 | 4.4 | 7.4 | 7.2 | 5.7 | 5.5 | 6.7 | 6.8 | 8.6 | 8.6 | 8.1 | 7.7 |
| Russian Federation | 2.7 | 2.3 | 2.3 | 1.9 | 1.8 | 3.2 | 3.3 | 2.4 | 2.4 | 1.7 | 1.9 | 2.5 | 2.5 | 3.5 | 3.2 |
| Poland | 0.9 | 1.0 | 0.9 | 0.7 | 0.6 | 1.0 | 0.9 | 0.8 | 0.7 | 1.1 | 1.1 | 0.9 | 0.9 | 1.0 | 1.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Memorandum Items: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EU-27 4/ | 26.1 | 23.3 | 23.0 | 18.5 | 18.4 | 15.9 | 14.5 | 17.5 | 16.8 | 32.0 | 31.8 | 27.0 | 27.3 | 7.4 | 7.3 |
| LICs 5/ | 3.3 | 2.4 | 2.4 | 1.7 | 1.7 | 3.0 | 2.9 | 2.2 | 2.2 | 1.6 | 1.6 | 2.2 | 2.3 | 1.5 | 1.4 |

Source: Finance Department.
1/ Data columns marked as "current" refer to the 2020 quota data update (data through 2018); "previous" refers to the 2019 quota data update (data through 2017).
2/ Including Czech Republic, Estonia, Korea, Latvia, Lithuania, Malta, Singapore, Slovak Republic, and Slovenia. 3/ Including China, P.R., Hong Kong SAR, and Macao SAR.
4/ Reflects EU membership as of end-January 2020 and excludes the United Kingdom.
5/ Currently PRGT-eligible countries (69 members), reflecting the decision to graduate Guyana from PRGT eligibility effective July 19, 2020.

Figure 1. Calculated Quota Shares, 2008-18
(In percent)

In recent quota updates, the share of EMDCs as a whole has been broadly stable since the mid-2010s...
... but within the group of EMDCs, Asia has continued to gain share, as have LICs albeit more moderately.


Source: Finance Department.
1/ Square blank points for each group in 2018 refer to the CQSs based on ICP 2011.
8. The small shift in shares towards AEs largely reflects the outcome of the $\mathbf{2 0 1 7}$ International Comparison Program (ICP) and its impact on PPP GDP. Periodic updates of the ICP benchmark typically result in revisions vis-à-vis the extrapolated PPP estimates (see Annex I, I15). For the 2017 ICP, the better price data reported with the release resulted in upward revisions of the PPP factor, and consequently, downward revisions of PPP GDP, for a majority of Fund members, especially EMDCs including some large EMDC members (Table 2). Revisions in some large Asian and oil exporting economies (e.g., China, India, Indonesia, Saudi Arabia, and Iran) contributed importantly to the decrease the total PPP GDP for EMDCs as a group. In turn, this has resulted in a lower share of EMDCs' PPP GDP, and a correspondingly higher share of AEs' PPP GDP. At an aggregate level, the changes in PPP GDP shares largely account for changes in the CQS between AEs and EMDCs (Figure 2).

Table 2. Quota Formula Variables and CQS and Impact of ICP 2017 Round
$\left(\right.$ in percent) $^{1 /}$

|  | CQS (Current Formula) |  | MER GDP |  | PPP GDP |  | GDP Blend |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current 2017 ICP | $\begin{gathered} \hline \text { Current } \\ 2011 \text { ICP } \end{gathered}$ | $\begin{aligned} & \hline \text { Current } \\ & 2017 \text { ICP } \end{aligned}$ | $\begin{gathered} \hline \text { Current } \\ 2011 \text { ICP } \end{gathered}$ | $\begin{aligned} & \hline \text { Current } \\ & 2017 \text { ICP } \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { Current } \\ 2011 \text { ICP } \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { Current } \\ & 2017 \text { ICP } \end{aligned}$ | $\begin{gathered} \hline \text { Current } \\ 2011 \text { ICP } \\ \hline \end{gathered}$ |
| Advanced economies | 50.2 | 49.7 | 56.6 | 56.6 | 40.2 | 37.5 | 50.0 | 48.9 |
| Major advanced economies | 35.5 | 35.2 | 46.4 | 46.4 | 32.9 | 30.8 | 41.0 | 40.2 |
| Other advanced economies | 14.7 | 14.5 | 10.1 | 10.1 | 7.3 | 6.7 | 9.0 | 8.7 |
| EMDCs 2/ | 49.8 | 50.3 | 43.4 | 43.4 | 59.8 | 62.5 | 50.0 | 51.1 |
| Africa | 3.4 | 3.5 | 2.5 | 2.5 | 4.0 | 4.1 | 3.1 | 3.1 |
| Asia | 25.7 | 26.2 | 25.4 | 25.4 | 33.6 | 36.1 | 28.7 | 29.6 |
| Middle East, Malta and Turkey | 6.7 | 6.8 | 4.5 | 4.5 | 6.8 | 7.5 | 5.4 | 5.7 |
| Western Hemisphere | 6.8 | 6.8 | 6.6 | 6.6 | 8.0 | 7.7 | 7.2 | 7.0 |
| Transition economies | 7.1 | 7.0 | 4.5 | 4.5 | 7.4 | 7.1 | 5.7 | 5.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Memorandum Items: |  |  |  |  |  |  |  |  |
| EU-27 3/ | 23.3 | 23.0 | 18.5 | 18.5 | 15.9 | 14.3 | 17.5 | 16.9 |
| LICs 4/ | 2.4 | 2.4 | 1.7 | 1.7 | 3.0 | 2.9 | 2.2 | 2.2 |

Source: Finance Department.
1/ Data columns marked as "current" refer to the 2020 quota data update (data through 2018). Data columns marked as "2017 ICP" and "2011 ICP" show data based on the 2017 and 2011 ICP benchmark data, respectively. Both columns use the same nominal GDP data in local currency as well as GDP deflators, both obtained from the October 2019 WEO.
2/ Including Czech Republic, Estonia, Korea, Latvia, Lithuania, Malta, Singapore, Slovak Republic, and Slovenia. 3/ Reflects EU membership as of end-January 2020 and excludes the United Kingdom.
4/ Currently PRGT-eligible countries (69 members) reflecting the decision to graduate Guyana from PRGT eligibility effective July 19, 2020.

Figure 2. Contributions to Absolute Changes in CQS from the Previous Year ${ }^{1 /}$
(In percentage points)


Source: Finance Department.
1/ Weighted by variable weight of the quota formula and before applying the compression factor and rescaling to 100 percent.
2/ Total change in percentage points in CQS from the previous year. Based on PPP GDP variable from the 2017 ICP.
3/ Corresponds to PPP GDP variable based on the 2017 ICP.
4/ Total change in percentage points in CQS from the previous year. Based on PPP GDP variable from the 2011 ICP.
5/ Corresponds to PPP GDP variable based on the 2011 ICP.

## 9. Absolute changes in CQS for individual members are generally relatively small

 compared with previous data updates (Table 3). Among the gainers, Ireland recorded the largest individual increase in CQS ( 0.08 pp ), followed by Korea, Vietnam, and Czech Republic ( 0.06 pp each). Ireland's increase reflected gains in all quota variables, except for reserves, but with a big contribution from openness; Korea's increase reflected mainly gains in GDP especially market GDP; Vietnam's increase was mainly driven by gains in openness; and Czech Republic's increase reflected mainly gains in variability. Brazil ( -0.08 pp ) and Iran ( -0.06 pp ) recorded the largest absolute declines in CQS, mainly due to a lower GDP share. Eight of the ten largest declines in CQS were for other large EMDCs, including Saudi Arabia ( -0.05 pp ), Russia ( -0.04 pp ), and Nigeria ( -0.03 pp ) mainly due to declines in openness, variability and PPP GDP shares.
## 10. As in previous updates, relative changes in CQS were most pronounced for some

 smaller members (Table 4). Djibouti recorded the largest relative increase in CQS (257 percent), with openness and variability contributing a large part to these revisions. Cyprus, Comoros, and Benin were also among the top ten countries with the largest relative increases in CQS, as well as Vietnam, Czech Republic, and Ireland who also experienced large absolute changes in CQS. The largest relative declines in CQS included Kiribati (-38 percent), influenced mainly by a decline in reserves, and South Sudan (-33 percent), influenced by a decline in variability and GDP.
## 11. Out-of-lineness based on the current quota formula has increased marginally.

Aggregate out-of-lineness, measured as the sum of all positive differences between CQS and agreed $14^{\text {th }}$ Review quota shares, was 13.5 pp based on the current data update, compared with 13.3 pp in the previous update. At the aggregate level, AEs are over-represented and EMDCs under-represented by 7.4 pp (previously 7.6 pp ). The number of underrepresented members increased slightly with the data update (from 67 to 70). China's underrepresentation of 7.02 pp (previously 7.04 pp ) accounts for about 52 percent of total out-of-lineness (previously 53 percent), declining marginally with the downward revisions in its PPP GDP share under the new ICP results.

Figure 3. Out-of-Lineness (OOL)
(In percentage points, in percent of total OOL)


Source: Finance Department.
1/ Difference between CQS (current formula, data through 2008) and 2008 Reform AQS (187 members). 2/ Difference between CQS (current formula, data through 2008) and 14th Review AQS ( 187 members).
3/ Difference between CQS (current formula, data through 2017) and 14th Review AQS (189 members).
4/ Difference between CQS (current formula, data through 2018) and 14th Review AQS (189 members).

Table 3．Largest Absolute Changes in Calculated Quota Shares ${ }^{1 /}$

|  |  | Calculated Quota Shares（CQS） |  |  | Contribution of Variables to Absolute Change in CQS（pp）2／ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current <br> （percent） | Previous （percent） | Absolute Change （pp） | MER GDP <br> （A） | PPP GDP <br> （B） | GDP Blend $(C=A+B)$ | Openness <br> （D） | Variability <br> （E） | Reserves <br> （F） | Sum （ $C+D+E+F)$ |
|  | Ireland | 0.950 | 0.869 | 0.081 | 0.006 | 0.008 | 0.015 | 0.054 | 0.012 | 0.000 | 0.081 |
|  | Korea | 2.077 | 2.015 | 0.062 | 0.039 | 0.029 | 0.068 | －0．009 | 0.003 | 0.003 | 0.065 |
|  | Vietnam | 0.562 | 0.505 | 0.057 | 0.003 | 0.013 | 0.016 | 0.023 | 0.010 | 0.007 | 0.055 |
|  | Czech Republic | 0.569 | 0.514 | 0.055 | 0.004 | 0.008 | 0.012 | 0.004 | 0.036 | 0.002 | 0.053 |
|  | Singapore | 1.386 | 1.331 | 0.055 | 0.005 | 0.004 | 0.009 | 0.023 | 0.018 | 0.005 | 0.056 |
|  | United States | 14.918 | 14.871 | 0.047 | －0．032 | 0.137 | 0.105 | 0.041 | －0．092 | 0.000 | 0.053 |
|  | Spain | 1.733 | 1.699 | 0.034 | 0.005 | 0.025 | 0.029 | 0.003 | 0.002 | 0.001 | 0.035 |
|  | Cyprus | 0.126 | 0.093 | 0.033 | 0.000 | 0.000 | 0.001 | 0.016 | 0.013 | 0.000 | 0.030 |
|  | Belgium | 1.113 | 1.085 | 0.028 | 0.005 | 0.009 | 0.014 | －0．002 | 0.016 | 0.000 | 0.028 |
|  | Poland | 0.955 | 0.928 | 0.026 | 0.005 | 0.014 | 0.019 | 0.011 | －0．003 | 0.000 | 0.026 |
| Largest Declines in CQS | Brazil | 1.973 | 2.055 | －0．082 | －0．021 | －0．032 | －0．053 | －0．011 | －0．017 | －0．004 | －0．085 |
|  | Iran | 0.598 | 0.659 | －0．062 | －0．005 | －0．068 | －0．073 | 0.005 | 0.004 | 0.003 | －0．060 |
|  | Venezuela | 0.287 | 0.347 | －0．061 | －0．032 | －0．010 | －0．043 | －0．013 | －0．002 | 0.000 | －0．057 |
|  | Saudi Arabia | 1.480 | 1.531 | －0．051 | 0.004 | －0．031 | －0．026 | －0．017 | －0．002 | －0．006 | －0．052 |
|  | Japan | 4.997 | 5.042 | －0．045 | －0．012 | －0．012 | －0．024 | －0．005 | －0．006 | －0．013 | －0．049 |
|  | Algeria | 0.362 | 0.404 | －0．042 | －0．002 | －0．021 | －0．023 | －0．005 | －0．003 | －0．009 | －0．040 |
|  | Russian Federation | 2.277 | 2.316 | －0．039 | 0.014 | －0．019 | －0．005 | －0．038 | －0．010 | 0.011 | －0．041 |
|  | Luxembourg | 0.657 | 0.695 | －0．038 | 0.001 | 0.001 | 0.002 | －0．025 | －0．015 | 0.000 | －0．037 |
|  | Nigeria | 0.555 | 0.589 | －0．034 | －0．017 | －0．017 | －0．034 | －0．007 | 0.002 | 0.005 | －0．034 |
|  | Iraq | 0.364 | 0.390 | －0．026 | 0.004 | －0．037 | －0．034 | 0.013 | －0．008 | 0.004 | －0．025 |

Source：Finance Department．
1／Current and previous calculations are based on data through 2018 and 2017 respectively，using the existing formula． 2／Difference between the current dataset through 2018 and the previous dataset through 2017，multiplied by the variable weight in the quota formula．The change in CQS also reflects the effect of compression．

| Table 4．Largest Relative Changes in Calculated Quota Shares ${ }^{1 /}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Calculated Quota Shares（CQS） |  |  | Contribution of Variables to Relative Change in CQS（pp）2／ |  |  |  |  |  |  |
|  |  | Current <br> （percent） | Previous （percent） | Relative <br> Change <br> （percent） | MER GDP <br> （A） | PPP GDP <br> （B） | GDP Blend $(C=A+B)$ | Openness <br> （D） | Variability <br> （E） | Reserves <br> （F） | $\begin{gathered} \text { Sum } \\ (C+D+E+F) \end{gathered}$ |
|  | Djibouti | 0.015 | 0.004 | 256.8 | 9.7 | 7.1 | 16.9 | 102.6 | 163.0 | －1．0 | 281.5 |
| $\sim$ | Cyprus | 0.126 | 0.093 | 35.9 | 0.5 | 0.4 | 0.9 | 19.9 | 17.3 | 0.0 | 38.1 |
| O | Comoros | 0.002 | 0.002 | 29.8 | 14.2 | 16.8 | 31.0 | －1．8 | 2.1 | 0.4 | 31.6 |
| \％ | Benin | 0.024 | 0.021 | 16.9 | 9.0 | 11.3 | 20.3 | 4.2 | －7．1 | 0.6 | 17.9 |
| だ | Niger | 0.017 | 0.015 | 14.3 | 11.1 | 3.7 | 14.8 | －0．3 | －0．5 | 1.1 | 15.1 |
| 或 | Madagascar | 0.026 | 0.023 | 11.5 | 4.3 | －0．2 | 4.1 | 0.9 | 6.3 | 0.9 | 12.1 |
| 苟 | Vietnam | 0.562 | 0.505 | 11.3 | 0.6 | 2.8 | 3.4 | 5.0 | 2.1 | 1.4 | 12.0 |
| － | Czech Republic | 0.569 | 0.514 | 10.7 | 0.8 | 1.7 | 2.5 | 0.8 | 7.6 | 0.4 | 11.3 |
|  | Kenya | 0.113 | 0.102 | 10.3 | 1.7 | 9.1 | 10.8 | 0.2 | －0．3 | 0.2 | 10.9 |
|  | Ireland | 0.950 | 0.869 | 9.4 | 0.8 | 1.0 | 1.8 | 6.6 | 1.4 | 0.0 | 9.9 |
|  | Kiribati | 0.001 | 0.001 | －37．7 | －0．3 | 0.2 | 0.0 | 2.1 | －7．4 | －34．0 | －39．3 |
| $\sim$ | South Sudan | 0.024 | 0.035 | －33．1 | －11．4 | －5．9 | －17．2 | －1．2 | －16．1 | 0.0 | －34．5 |
| Ơ | Eritrea | 0.005 | 0.007 | －27．7 | －22．9 | －9．9 | －32．8 | －4．6 | 8.2 | 0.2 | －29．0 |
| $\cdots$ | Equatorial Guinea | 0.048 | 0.061 | －20．6 | －0．3 | －1．8 | －2．2 | －4．0 | －15．4 | 0.0 | －21．6 |
| ． | Venezuela | 0.287 | 0.347 | －17．5 | －10．3 | －3．3 | －13．6 | －4．2 | －0．5 | 0.0 | －18．4 |
| － | Afghanistan | 0.064 | 0.077 | －16．4 | －0．6 | 3.5 | 2.9 | －1．6 | －18．4 | 0.0 | －17．2 |
| 岇 | Somalia | 0.013 | 0.016 | －16．3 | －8．4 | －9．5 | －18．0 | 1.1 | －0．2 | 0.0 | －17．1 |
| － | Yemen | 0.066 | 0.078 | －16．3 | －11．2 | －4．4 | －15．6 | －1．6 | －1．1 | 1.2 | －17．1 |
|  | Myanmar | 0.117 | 0.132 | －11．6 | －0．6 | －11．3 | －11．8 | 0.3 | －0．7 | 0.1 | －12．2 |
|  | Algeria | 0.362 | 0.404 | －10．3 | －0．5 | －5．7 | －6．2 | －1．4 | －0．8 | －2．4 | －10．8 |

## Source：Finance Department．

1／Current and previous calculations are based on data through 2018 and 2017 respectively，using the existing formula．
2／Difference between the current dataset through 2018 and the previous dataset through 2017，multiplied by the variable weight in the quota formula，and divided by the weighted sum of variables in the previous dataset．The change in CQS also reflects the effect of compression．

# Annex I. Results of the 2017 International Comparison Program (ICP) 

## 1. This Annex reports on the outcome of the 2017 International Comparison Program

 (ICP) and analyzes the impact of the newly released PPP factors on quota data. It provides background on how PPP GDP measurement has evolved over time, discusses the quality of PPP GDP statistics, analyzes the revisions to PPP factors implied by the new ICP 2017 results, and summarizes implications of the revisions for quota data.
## 2. Overall, the results of the $\mathbf{2 0 1 7}$ ICP imply, for a majority of Fund members, especially

 EMDCs including some large EMDC members, an upward revision of the PPP factor, and consequently, a downward revision of PPP GDP. The better price data reported with the release of the updated ICP 2017 factors indicate that price levels in some large EMDCs were earlier underestimated, and consequently, their PPP GDP was overestimated. In particular, those in Africa and the Middle East had, on average, large upward revisions of their PPP factor, which could in part be attributed to their greater exposure to changes in commodity prices. Some fast-growing economies in Asia, including China and India, also had sizeable upward revisions of their PPP factors, which could in part be attributed to more rapidly evolving consumption patterns and changes in underlying relative prices. The updated 2017 ICP PPP factors hence contribute to a decrease in the PPP GDP share of EMDCs in this quota data update.
## A. Background

## 3. Purchasing power parity (PPP) factors allow for comparing the size of economies,

 adjusting for differences in price levels across countries. PPP factors, also referred to as PPP exchange rates, are price relatives that express the rate of one currency in terms of another for a given basket of goods and services. Like market exchange rates, they are used to convert national nominal GDP data, expressed in local currency, into a common currency (the U.S. dollar in practice). However, as price deflators and currency converters, they differ from market exchange rates in an important way, because they eliminate the effect of the differences in price levels between economies, thereby allowing volume-comparisons of GDP. Such price level differences between different countries can be important, as items that are only domestically produced and consumed ("non-tradables"), particularly services, may have persistently differing prices from country to country when measured in a common currency. ${ }^{1}$ In particular, price levels of non-tradables tend to be higher in advanced economies (AEs) than in EMDCs, largely reflecting higher wages and higher productivity in AEs (known as the Balassa Samuelson effect). PPP GDP data comparisons correct for[^3]such price level differences and reflect merely the differences in volumes of goods and services as a measure of the relative size of economies. ${ }^{2}$

## 4. PPP data are widely used, including in the Fund's current quota formula. WEO PPP GDP

 data on a country level are used as one input in the Fund's quota formula to arrive at Fund members' calculated quota shares. PPP data are also used to analyze welfare (PPP GDP per capita), the relative size of economies (PPP GDP), material well-being (per capita consumption in PPP terms), labor productivity (PPP GDP per hour worked), energy efficiency (energy used to produce one dollar of PPP-adjusted GDP) among others. The Fund's WEO uses PPP GDP weights to calculate a measure of global GDP growth. PPP data also play an important role in the monitoring of several of the Sustainable Development Goals. They are widely used by other international organizations as well, including for poverty assessments (World Bank), allocation of structural and cohesion funds (European Commission), in the construction of the Human Development Index (United Nations Development Program), and assessment of market size in global competitiveness (The Global Forum).
## 5. PPP factors are periodically collected through the International Comparison Program (ICP), with the latest collection effort (ICP 2017 round) released this year. The ICP, a very

 elaborate global statistical initiative led by the World Bank under the umbrella of the United Nations Statistical Commission, has the objective of providing comparable price and volume measures of the expenditure-side GDP and its components, around the world. Price and GDP expenditure data are collected under a partnership with international, regional, and national agencies through periodic surveys, currently conducted every six years. The periodic surveys aim to produce regional comparisons that can be aggregated into a single global comparison for a given reference year. The previous survey dated back to 2011 and used 2011 as a reference year. In May 2020, the results from the latest update were published using 2017 as the new reference year and covering 176 economies that participated in the program. Also, the revised results for 2011 and PPP estimates for 2012-16 were subsequently released. ${ }^{3}$[^4]
## 6. The ICP 2017 round builds upon an effort that has been conducted for several

decades. The first PPP estimates date back to the work in the 1940s and 50s of the British economist Colin Clarke. In 1968, the International Comparison Project was launched as a modest research project jointly conducted by the United Nations Statistical Division and the International Comparisons Unit of the University of Pennsylvania. It has since become a permanent global statistical program. Nine ICP rounds have been conducted to date (Text Table), with coverage increasing from 10 to 176 economies,

| History of the ICP |  |
| :---: | :---: |
| Year | Economy coverage |
| 1970 | 10 |
| 1973 | 16 |
| 1975 | 34 |
| 1980 | 60 |
| 1985 | 64 |
| 1993 | 115 |
| 2005 | 146 |
| 2011 | 199 |
| 2017 | 176 |
|  |  |
| Source: World Bank, 2020, FIN staff calculations |  | making the ICP the largest international statistical initiative, covering seven geographic regions.

7. The World Bank has been the global coordinator since 1993. A stronger governance structure was put in place with the 2005 round, establishing the ICP Global Office at the World Bank, which oversees regional agencies which in turn coordinate data collection by national agencies. This allowed greater consistency across regions and a means to link regional comparisons in one global comparison (the "ring comparison technique"). The IMF participates on the Executive Board, Technical Advisory Group, and Inter-Agency Coordination Group of the ICP, as well as on several methodological Task Forces. In addition, the IMF has been a financial contributor to the program since the 2005 round-contributing nearly $\$ 1$ million over three years. The next ICP comparison is expected to be conducted for the reference year 2021.4
8. The compilation of ICP PPP data follows a series of steps. ${ }^{5}$ The conceptual framework for the ICP comparison is guided by the System of National Accounts (SNA) definition of expenditure-based GDP, where the ICP collects prices for the expenditure components of GDP. First, expenditures are broken up into 155 basic headings, which are the building blocks for the ICP comparison. Second, within each basic heading, representative items are selected, priced, and compared. Surveys to collect price information include a global core list of items, and in addition, each region also has its own list of region-specific representative items (e.g., regionally consumed items). The comparison of prices at each basic heading is the lowest level at which PPPs are calculated. The third step involves aggregation, first within regions for regional comparisons and, ultimately, across regions for the global comparison using factors that allow regions to be linked ("interregional linking factors"), which are calculated based on the global core list of items.

## 9. ICP factors play a key role in the calculation of PPP GDP, but since they are not

 available for all years, they are complemented by estimates. To calculate PPP GDP for quota purposes, the PPP price indices are typically obtained from the WEO database, which uses the results from the ICP survey, along with estimates. The WEO PPP-based GDP is derived by dividing a[^5]country's nominal GDP expressed in local currency by its PPP factor relative to the numeraire country, which is the United States. PPP factors from the ICP survey are available for the reference year (see also $\mathbb{\$ 4}$ ); ${ }^{6}$ for other years where no ICP data are available, the WEO estimates PPP GDP data by applying the relative growth of the GDP deflator of a given member country vis-à-vis the U.S. GDP deflator to the previous year's PPP factor.

## B. The 2017 ICP Round and PPP Data Quality

10. Coverage in the $\mathbf{2 0 1 7}$ ICP round declined somewhat compared with the $\mathbf{2 0 1 1}$ survey. A total of 176 economies (of which 163 are Fund member countries) participated in the 2017 round compared to 199 economies (of which 175 are Fund member countries) in 2011 (text table). ${ }^{7}$ In addition, some economies changed regional grouping, for instance, countries that recently obtained OECD membership joined the Eurostat-OECD regional group. For a number of non-participants, the ICP estimated PPPs using regression methods. ${ }^{8}$
11. The $\mathbf{2 0 1 7}$ round maintained the innovations introduced in the $\mathbf{2 0 1 1}$ cycle. The 2011 cycle had introduced major methodological updates, including a new way for aggregating regional results and linking them with global results, building on the strong progress made during the 2005 ICP round. The United Nations Statistical Commission had recommended that no methodological changes be introduced for the ICP 2017 cycle-in order to maintain comparability over time and allow for producing reliable PPP timeseries. Consequently, there was a particular focus on ensuring the consistency of the ICP 2017 methodology with the ICP 2011 methodology, and to limit any possible methodological change.
12. The 2017 round did, however, introduce data quality improvements, and established a fully documented and more transparent process for producing ICP results. Enhanced procedures were introduced for price surveys; data editing and validation; and some computation methods, including for dealing with comparison-resistant sectors such as housing, the government expenditure on health and education, machinery and equipment, and construction. In addition, the 2017 cycle includes revised estimates of GDP which align it with the 2008 System of National Accounts (SNA). The GDP estimates included in the 2005 and 2011 cycle were based on the 1993 SNA conceptual framework.

## 13. PPP data are broadly comparable in quality to the national GDP and price statistics from which they are constructed, and to the other data used in the quota formula. As noted in

[^6]earlier quota data update reports, all economic statistics, unless based on a perfectly measured, fully covered population of units, are estimators. ${ }^{9}$ The statistics produced by the ICP do not differ in this regard from other economic statistics and, indeed, their properties depend on the properties of the GDP and price estimators underlying them and the methodology employed to link the country estimators. Therefore, overall, and given the further quality improvements introduced in the 2017 ICP round, staff views that PPP data are as reliable as the price and national GDP statistics from which they are constructed.

## C. Comparing the 2017 ICP results with extrapolated estimates based on 2011 ICP survey

## 14. This section compares the results of the newly published PPP factors with earlier

 estimates. As noted (see $\mathbb{1}$ ), for the years where no ICP survey data are available, PPP data are estimated using extrapolation from the most recent ICP survey, using the relative growth in GDP deflators of a given country vis-à-vis the numeraire country, as is done under the WEO methodology. While such extrapolation methodology is robust, the estimates based on extrapolation, however, should not be expected to produce PPPs that match those from a new ICP survey (McCarthy, 2013). ${ }^{10}$ Revisions to extrapolated series inevitably occur with each ICP cycle, as discussed in some detail below. This section compares the differences between PPP factors obtained from the 2017 ICP survey results and the extrapolated estimates for the same year based on the 2011 ICP survey (henceforth "revisions") and considers a number or reasons that can help explain the differences.
## Conceptual Framework

15. It is important to note that periodic updates of the ICP benchmark, and the revisions vis-à-vis the extrapolated PPP estimates they imply, are both expected and common, while improving upon the quality of PPP data. The compilation of the ICP benchmarks involves international coordinated data collection activities and an intensive data editing and imputation process that is absent in the non-benchmark years. The quality of the ICP benchmarks is higher than the extrapolated values and therefore significant revisions vis-à-vis the extrapolated PPP estimates are both expected and common, with the latest ICP round being no exception. Figure 1 illustrates the revisions resulting from updates in ICP's benchmarks in the last three rounds (2005, 2011, and 2017). While revisions have become smaller, and more closely centered around one (Figure 1), they remain substantial, as expected.
[^7]Figure 1. Ratio of the updated ICP Factor to the Extrapolated Factor, Results from the Last Three ICP Rounds $(2005,2011$, and 2017)


Source: ICP, WEO, and Fund staff calculations.
Note: For each round, excludes extreme values, defined as those below (above) the second $\left(98^{\text {th }}\right)$ percentile.
16. The literature has attributed revisions to a variety of factors. A number of studies have sought to explain the sizeable revisions associated with new ICP rounds, pointing to the role of dissimilar economic structures and patterns of spending being compared and the role of large changes in underling relative prices (Deaton and Aten, 2017, see also Box 1), ${ }^{11}$ while many other practical considerations also play a role (McCarthy, 2013 see also Box 1). The analysis below draws on these earlier findings.

## Box 1. Sources of Divergences Between Extrapolated and Updated ICP Factors - Highlights from the Literature

This box summarizes key findings of Deaton and Aten (2017) and McCarthy (2013) that help explain why updated ICP factors can result in revisions vis-à-vis extrapolated estimates.

Deaton and Aten (2017) provide a simple canonical two-country framework to describe main sources of discrepancies between the ICP results and the extrapolation. They assume that $\mathrm{PPP}_{2}$ represents the PPP index of country 2 , relative to a numeraire country $1, P_{i}$ stands for the price index of country $i$, which is calculated as the weighted sum of prices and shares that are contained in vectors $p_{i}$ and $s_{i}$ respectively. Then, using the Törnqvist index to express the PPPs, in natural logarithms as:

$$
\begin{equation*}
\ln P P P_{2}=0.5\left(s_{2}+s_{1}\right)^{\prime}\left(\ln p_{2}-\ln p_{1}\right) \tag{1}
\end{equation*}
$$

And, for simplicity, assuming no changes in share over time, the following can be shown to hold:

[^8]Box 1. Sources of Divergences Between Extrapolated and Updated ICP Factors - Highlights from the Literature (concluded)

$$
\begin{equation*}
d \ln P P P_{2}=\left(d \ln P_{2}-d \ln P_{1}\right)-0.5\left(s_{2}-s_{1}\right)^{\prime}\left(d \ln p_{2}+d \ln p_{1}\right) \tag{2}
\end{equation*}
$$

where the left-hand side variable represents the change in PPP of country 2, relative to a numeraire; the first term on the right-hand side represents the extrapolation, indicating the relation with the relative change in price indices $P_{i}$ of the two countries; the second term on the right-hand side is the discrepancy: it's a function of two things: (1) "changes in underlying relative prices" and (2) differences in consumption patterns (or "structure of spending") between the two countries.

Using equation (2), they show that extrapolated and updated PPP factors can be different for a number of reasons. In particular, they show that the discrepancy factor is zero if (i) there are no relative price changes in either country; (ii) if the structures of spending are the same; and (iii) if the differences in spending structures are uncorrelated with average changes in relative prices. Hence, for countries with very different patterns of consumption, or with different trends in domestic inflation, the discrepancy could be large.

In addition, McCarthy (2013) argued that a number of other practical considerations can play a role
as well. McCarthy notes that, although some reasonable results may be obtained provided that some very restrictive assumptions are met, in practice, these assumptions are unlikely to apply, and a number of other practical considerations will result in discrepancies between the ICP results and the extrapolation. These include:

- GDP revisions. Significant GDP revisions occur when a country undertakes a complete reassessment of the data in the national accounts and the assumptions involved in combining various data sets. As a result, large inconsistencies could arise between the GDP estimates in a time series compared with those provided by the ICP.
- Product choice and quality change. The products to be priced in the ICP are defined to ensure comparability between countries, while the products used in estimating the volumes in a country's national accounts, and in a country's time series price indices, are selected on the basis that they are the most representative products available in a country. In addition, a broader set of prices (products) could be used in a country's time series price indices than the set that can be included in the ICP. Further, the prices in a country's time series price index could be adjusted for quality changes over time, with different countries using different methods, with the result that the quality-adjusted time series are not consistent across countries;
- Economic structure. An assumption underlying the technique of extrapolating PPPs at the level of GDP is that the structure of each country's economy is similar to that of the numeraire country (e.g., the United States) and is changing in a similar way over time. In practice, the structures of different countries' economies differ significantly, particularly when developing economies are being compared with a developed economy. Economies may also develop differently to one another over time;

Other. (i) Changes in the terms of trade are treated as a volume effect in the ICP, but they are reflected in the GDP deflators, which are used to extrapolate PPPs, as a price effect. (ii) In the national accounts, very few countries adjust their volumes of non-market services for productivity changes. Therefore, differences in productivity over time in different countries will be reflected in the GDP deflators as part of the price changes, while annual productivity changes are less likely to be reflected in price data from ICP surveys; and often "an assumption that productivity is identical in all the countries in a comparison generally has to be made between countries in calculating PPPs" (McCarty 2011, p.9). The differences in how productivity changes are captured could further contribute to discrepancies between extrapolated series and new ICP benchmark estimates. See: McCarthy, Paul, 2011, Extrapolating PPPs and comparing ICP benchmark results. 6th Technical Advisory Group Meeting October 3-4, 2011 Washington DC. Mimeo.

## Comparing updated ICP factors with estimates

## 17. Overall, the new 2017 ICP benchmark data of PPP result in upward revisions of the PPP factor for a majority of Fund members, particularly EMDCs. As a consequence, this results

 in a downward revision of PPP GDP for the majority of Fund members (see also Section D). As Figure 1 shows (in the thick blue line), the density concentration of the revisions to ICP factors is close to one, indicating a sizeable share of countries with limited revisions. At the same time, the positively skewed distribution and its longer right-tail indicates that a majority of the members that are included in the 2017 ICP survey have upward revisions, some of them sizeable, implying that their estimates of GDP at PPP evaluated at the new ICP benchmark would be lower than those evaluated at the estimated PPP based on the extrapolated estimates. Figure 2 indicates that this result is mainly driven by the group of EMDCs, as AEs, on average, have PPP factor revisions less than one.
## 18. The size of revisions is, on average, larger for EMDCs and PRGT-eligible countries,

 compared with AEs (Figure 2). AEs tend to have a ratio close to, and on average just below, one, consistent with the insights from Deaton and Aten (2017) that countries similar in their economic structures and patterns of spending with the numeraire (i.e., the United States) tend to experience smaller revisions when new ICP factors are released. Other, more practical reasons for smaller discrepancies may include more stable prices, slower changes in structures of spending, better data coverage, and higher statistical capacity (McCarthy 2013, World Bank 2020). In addition, there is less variation in the revisions among AEs, as evidenced by a smaller interquartile, and min-max range, compared with countries other than AEs.Figure 2. Interquartile Range Comparison of ICP 2017 Results and Extrapolations


Source: Finance Department.
Note: Vertical whiskers indicate group-level minima and maxima and exclude outliers. Outliers are defined as those falling outside the 2-98 percentile range and are shown in the chart as blue points. The outliers are Republic of Congo, Iran, Iraq, Kyrgyz Republic, Moldova, Somalia, Ukraine and Zimbabwe. Outliers are also not included in the calculations of the interquartile statistics.

## 19. Among the EMDCs, there is significant variation in the size of PPP factor revisions

 (Figure 3).- EMDCs in Europe, and in Latin America and the Caribbean, on average, have smaller such revisions, likely reflecting better data quality and coverage of national accounts and price statistics. EMDCs that are covered by Eurostat or the OECD also have smaller revisions. ${ }^{12}$
- Other EMDCs, especially those in Africa and the Middle East, display larger discrepancies, which could in part be attributed to different economic structures and a higher share of commodity exporters. ${ }^{13}$ Relatively larger revisions for EMDCs in Africa and the Middle East are likely to result from greater dissimilarity between their economic structure and patterns of spending compared with those of the United States. Another factor is that commodity exporters are concentrated in Africa and the Middle East, accounting for 32 of the 48 commodity exporters

[^9]identified here. ${ }^{14}$ As noted by McCarthy (2013), changes in commodity prices can lead to a large mismatch between the extrapolated PPPs and those from the ICP benchmark survey since changes in the terms of trade are reflected as a price effect in the GDP deflator, which are used to extrapolate PPPs, while they are treated as a volume effect in the ICP when a new ICP benchmark is released. Given that commodity prices in general have fallen between 2011 and 2017, it is not surprising that commodity exporters experienced particularly high-positive revisions in ICP factors with a wider upper distribution range (Figures 4 and 5). ${ }^{15}$

Figure 3. EMDCs: Interquartile Range Comparison of ICP 2017 Results and Extrapolations, by Region


Source: ICP, WEO, and Fund staff calculations.
Note: Only EMDCs are considered for this chart. Vertical whiskers indicate group-level minima and maxima and exclude outliers. Outliers are defined as those falling outside the 2-98 percentile range and are shown in the chart as blue points. The outliers are Congo Republic of, Iran, Iraq, Kyrgyz Republic, Moldova, Somalia, Ukraine and Zimbabwe. Outliers are also not included in the calculations of the interquartile statistics.

[^10]Figure 4. EMDCs: Interquartile Range Comparison of ICP 2017 Results and Extrapolations, by Commodity Exporter Status


Source: ICP, WEO, and Fund staff calculations.
Note: Only EMDCs are considered for this chart. The commodity exporters include: Algeria, Angola, Azerbaijan, Bahrain, Bolivia, Botswana, Brunei Darussalam, Cameroon, Chad, Chile, Colombia, Côte d'Ivoire, Democratic Republic of the Congo, Republic of Congo, Equatorial Guinea, Ecuador, Gabon, Ghana, Guinea, Guyana, Indonesia, Iran, Iraq, Kazakhstan, Kuwait, Libya, Mali, Mauritania, Mexico, Mongolia, Mozambique, Nigeria, Oman, Papua New Guinea, Peru, Qatar, Russia, Saudi Arabia, South Africa, Sudan, Suriname, Syria, Timor-Leste, Trinidad and Tobago, United Arab Emirates, Venezuela, Yemen, and Zambia. Vertical whiskers indicate group-level minima and maxima and exclude outliers. Outliers are defined as those falling outside the 2-98 percentile range and are shown in the chart as blue points. The outliers are Congo Republic of, Iran, Iraq, Kyrgyz Republic, Moldova, Somalia, Ukraine and Zimbabwe. Outliers are excluded in the calculations of the interquartile statistics. The difference in the means between commodity and non-commodity exporters is statistically significant at the 1 percent level.

Figure 5. EMDCs: Interquartile Range Comparison of ICP 2017 Results and Extrapolations, for Selected Regions and by Commodity Exporter Status


Source: ICP, WEO, and Fund staff calculations.
Note: only EMDCs are considered for this chart. The commodity exporters include: Algeria, Angola, Azerbaijan, Bahrain, Botswana, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Republic of Congo, Equatorial Guinea, Gabon, Ghana, Guinea, Iran, Iraq, Kazakhstan, Kuwait, Libya, Mali, Mauritania, Mozambique, Nigeria, Oman, Qatar, Saudi Arabia, South Africa, Sudan, Syria, United Arab Emirates, Yemen, and Zambia.
Vertical whiskers indicate group-level minima and maxima and exclude outliers. Outliers are defined as those falling outside the 2-98 percentile range and are shown in the chart as blue points. The outliers are Republic of Congo, Iran, Iraq, Kyrgyz Republic, Moldova, Somalia, Ukraine and Zimbabwe. Outliers are excluded in the calculations of the interquartile statistics. The difference in the means between MCD and AFR commodity and non-commodity exporters is statistically significant at the 5 percent level.

- Though not as pronounced, some selected EMDCs in the Asia-Pacific region, including some fast-growing economies, have also had sizeable revisions, including China, India, Indonesia, Malaysia, and Myanmar. Fast-growing economies could expect greater discrepancies between the new ICP and the extrapolated results because their consumption patterns are evolving more rapidly, or underlying relative prices are changing more rapidly compared to corresponding changes in the United States (Deaton and Aten, 2017; see Box 1). Further, if rapid growth coincides with productivity catch-up, differences in rates of productivity growth between countries could compound these discrepancies ${ }^{16}$ (McCarthy, 2013; see Box 1). Based on the average constant real GDP growth rates for 2011-17, Figure 6 highlights a sample of fastest growing EMDCs in red and blue (defined as the top ten percentile in average constant real GDP

[^11]growth in 2011-17). The majority of them are found in the Asia and Pacific region (in red), ${ }^{17}$ and include those with relatively large revisions with a ratio, on average, above one, including China, India, and Myanmar. Figure 7 highlights that such fast-growing economies are experiencing structural change that is very different to that of the numeraire country, the United States. This highlights that price levels in these fast-growing economies, have, on average, grown faster than earlier estimated.

Figure 6. Size of Revisions-Fast Growing Economies


Source: ICP, WEO, and Fund staff calculations.
Note: only EMDCs are considered for this chart. Fast-growing countries in the Asia-Pacific region are highlighted in red, and those in other regions in blue. The fastest growing economies are defined as those in the top ten percentile in average constant real GDP growth in 2011-17.

[^12]Figure 7. Fast Growing Economies and Structural Change


Source: ICP, and Fund staff calculations.
Note: Only EMDCs are considered for this chart. The fastest growing economies are defined as the top ten percentile in average constant real GDP growth in 2011-2017. The chart shows the change (in p.p.) in the expenditure share 2011-17 in absolute value by category. Gross Capital Formation and Balance of Exports and Imports are not shown in the chart and have values 1.5 and 0.8 for the U.S.; and 6.2 and 9.0 for the sample of fast-growing economies, respectively.

## D. Implications for PPP GDP and PPP GDP shares

20. This section focuses on how revisions to the PPP factor impact global and group-specific PPP GDP totals and PPP GDP shares. While the previous sections focused on revisions to the PPP factor in one year (2017) and calculated revisions at the individual country level, for quota formula calculations, the three-year average PPP GDP share of a member matters. The following analysis therefore does not focus on the revisions in one year (2017), but on the three-year average of 2016-18 data, and considers the impact of changes in members' PPP GDP on relevant group totals and PPP GDP shares.
21. Global PPP GDP has fallen when assessed under the new ICP 2017 PPP factors, mostly due to the recorded decrease for the group of EMDCs (Table 1), which resultingly boosts the share of PPP GDP of AEs. Given that AEs experienced, on average, downward revisions to the PPP factor, PPP GDP for the group of major and other AEs has increased, albeit moderately. The group of EMDCs, who experienced, on average, larger and upward revisions to the PPP factor, have seen their PPP GDP fall to a greater degree, therefore also causing global PPP GDP to decrease, when assessed under the new 2017 ICP factors. As a result, the share of PPP GDP of AEs has increased from 37.5 to
40.2 percent when assessed under the 2017 ICP, while the share of EMDCs has decreased from 62.5 to 59.8 percent.
22. In terms of PPP GDP shares, lower PPP GDP shares of China and India are a key factor, and explain that a majority of other Fund members see their PPP GDP share increase, when assessed under the new ICP factors compared with the 2017 extrapolated PPP GDP shares based on the 2011 ICP (Figure 8). In total 131 members see their PPP GDP share increase. This includes all AEs, except for Norway, ${ }^{18}$ as well as a number of other EMDCs. While fewer members see a decrease in PPP GDP shares, they are found mainly among larger EMDCs, led by China and India, and followed by other larger EMDCs, including some exposed to commodity price changes (e.g., Iran, Iraq, Indonesia, Saudi Arabia). One member (China) accounts for two-thirds of the decrease in EMDCs' PPP GDP share, while India and China together account for 2.5 percentage points out of the 2.7 percentage points.
23. Top losers of PPP GDP shares include overwhelmingly EMDCs, but shifts are not as large as at the time of the 2011 ICP update (Table 2). While the group of gainers is dominated by AEs, it also includes selected large EMDCs such as Turkey, Ukraine, Mexico, and Argentina. By contrast the top 20 largest losers in GDP PPP share, measured in percentage points, do not include any AE, save for Norway (a large commodity exporter). However, the changes resulting from the 2017 ICP update are more nimble than those of the previous 2011 ICP update.
[^13]Table 1. PPP GDP: 2017 ICP Factors vs. 2011 ICP Factors
(As indicated)

|  | $\begin{gathered} \text { PPP GDP } \\ \text { 2016-2018 Average (SDR billions) 1/ } \end{gathered}$ |  | PPP GDP Shares (percent) |  | Change in SDR (percent) | Change in Shares (pps) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 ICP | 2011 ICP | 2017 ICP | 2011 ICP |  |  |
| Advanced economies | 34,487 | 34,017 | 40.2 | 37.5 | 1.4 | 2.7 |
| Major advanced economies | 28,217 | 27,940 | 32.9 | 30.8 | 1.0 | 2.1 |
| United States | 14,026 | 14,026 | 16.3 | 15.5 | 0.0 | 0.9 |
| Japan | 3,720 | 3,872 | 4.3 | 4.3 | -3.9 | 0.1 |
| Germany | 3,125 | 2,986 | 3.6 | 3.3 | 4.7 | 0.3 |
| France | 2,141 | 2,041 | 2.5 | 2.2 | 4.9 | 0.2 |
| United Kingdom | 2,143 | 2,095 | 2.5 | 2.3 | 2.3 | 0.2 |
| Italy | 1,795 | 1,661 | 2.1 | 1.8 | 8.1 | 0.3 |
| Canada | 1,267 | 1,259 | 1.5 | 1.4 | 0.7 | 0.1 |
| Other advanced economies | 6,270 | 6,077 | 7.3 | 6.7 | 3.2 | 0.6 |
| Spain | 1,320 | 1,272 | 1.5 | 1.4 | 3.8 | 0.1 |
| The Netherlands | 676 | 662 | 0.8 | 0.7 | 2.2 | 0.1 |
| Australia | 884 | 899 | 1.0 | 1.0 | -1.7 | 0.0 |
| Belgium | 406 | 380 | 0.5 | 0.4 | 6.9 | 0.1 |
| Switzerland | 409 | 377 | 0.5 | 0.4 | 8.5 | 0.1 |
| Sweden | 378 | 375 | 0.4 | 0.4 | 0.7 | 0.0 |
| Austria | 344 | 316 | 0.4 | 0.3 | 8.9 | 0.1 |
| Norway | 235 | 273 | 0.3 | 0.3 | -13.8 | 0.0 |
| Ireland | 270 | 252 | 0.3 | 0.3 | 7.1 | 0.0 |
| Denmark | 225 | 208 | 0.3 | 0.2 | 8.4 | 0.0 |
| EMDCs | 51,398 | 56,695 | 59.8 | 62.5 | -9.3 | -2.7 |
| Africa | 3,418 | 3,723 | 4.0 | 4.1 | -8.2 | -0.1 |
| South Africa | 520 | 547 | 0.6 | 0.6 | -5.0 | 0.0 |
| Nigeria | 715 | 806 | 0.8 | 0.9 | -11.2 | -0.1 |
| Asia | 28,862 | 32,709 | 33.6 | 36.1 | -11.8 | -2.5 |
| China 2/ | 14,549 | 17,001 | 16.9 | 18.7 | -14.4 | -1.8 |
| India | 5,975 | 6,877 | 7.0 | 7.6 | -13.1 | -0.6 |
| Korea | 1,514 | 1,522 | 1.8 | 1.7 | -0.6 | 0.1 |
| Indonesia | 2,088 | 2,330 | 2.4 | 2.6 | -10.4 | -0.1 |
| Singapore | 378 | 388 | 0.4 | 0.4 | -2.5 | 0.0 |
| Malaysia | 597 | 676 | 0.7 | 0.7 | -11.8 | -0.1 |
| Thailand | 865 | 889 | 1.0 | 1.0 | -2.6 | 0.0 |
| Middle East, Malta and Turkey | 5,839 | 6,777 | 6.8 | 7.5 | -13.8 | -0.7 |
| Saudi Arabia | 1,117 | 1,286 | 1.3 | 1.4 | -13.1 | -0.1 |
| Turkey | 1,610 | 1,545 | 1.9 | 1.7 | 4.3 | 0.2 |
| Iran | 791 | 1,141 | 0.9 | 1.3 | -30.6 | -0.3 |
| Western Hemisphere | 6,908 | 7,019 | 8.0 | 7.7 | -1.6 | 0.3 |
| Brazil | 2,159 | 2,331 | 2.5 | 2.6 | -7.4 | -0.1 |
| Mexico | 1,772 | 1,765 | 2.1 | 1.9 | 0.4 | 0.1 |
| Venezuela | 269 | 266 | 0.3 | 0.3 | 1.2 | 0.0 |
| Argentina | 706 | 646 | 0.8 | 0.7 | 9.2 | 0.1 |
| Transition economies | 6,371 | 6,468 | 7.4 | 7.1 | -1.5 | 0.3 |
| Russian Federation | 2,718 | 2,900 | 3.2 | 3.2 | -6.3 | 0.0 |
| Poland | 823 | 811 | 1.0 | 0.9 | 1.6 | 0.1 |
| Total | 85,885 | 90,711 | 100.0 | 100.0 | -5.3 | 0.0 |
| Memorandum Items: |  |  |  |  |  |  |
| EU-27 3/ | 13,616 | 12,982 | 15.9 | 14.3 | 4.9 | 1.5 |
| LICs 4/ | 2,553 | 2,646 | 3.0 | 2.9 | -3.5 | 0.1 |

Source: Finance Department.
1/ ICP 2017 PPP factors for Syria is not available due to unavailability of reliable data sources and is excluded from the analysis. The two columns utilize the same nominal GDP in local currency and GDP deflators, obtained from the October 2019 WEO. 2 / Including China, P.R., Hong Kong SAR and Macao SAR.
3/ Reflects EU membership as of end-January 2020 and excludes the United Kingdom.
4/ Currently PRGT-eligible countries (69 members), reflecting the decision to graduate Guyana from PRGT eligibility effective July 19, 2020.

Figure 8. Distribution of Change in PPP GDP Shares ${ }^{1 /}$
(In percent)


Source: IMF Finance Department. 1/ Percentage change of PPP GDP shares based on 2017 ICP factor relative to PPP GDP shares based on 2011 ICP factor.

Figure 9. Market and PPP GDP Shares 2016-18
(In percent)


Source: Finance Department.

Figure 10a. Market GDP Shares (2016-18)


Figure 10b. PPP GDP Shares (2016-18)


Source: Finance Department.

| Table 2a. Gainers and Losers of PPP GDP Shares (pp) ${ }^{1 /}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Top 20 increase in PPP Shares (pps) |  | Top 20 decreases in PPP Shares (pps) |  |  |
| 1 United States | 0.87 | 1 | China | -1.80 |
| 2 Germany | 0.35 | 2 | India | -0.62 |
| 3 Italy | 0.26 | 3 | Iran | -0.34 |
| 4 France | 0.24 | 4 | Iraq | -0.19 |
| 5 United Kingdom | 0.19 | 5 | Indonesia | -0.14 |
| 6 Turkey | 0.17 | 6 | Saudi Arabia | -0.12 |
| 7 Spain | 0.13 | 7 | Algeria | -0.10 |
| 8 Ukraine | 0.13 | 8 | Kuwait | -0.07 |
| 9 Mexico | 0.12 | 9 | Qatar | -0.06 |
| 10 Argentina | 0.11 | 10 | Brazil | -0.06 |
| 11 Canada | 0.09 | 11 | Nigeria | -0.06 |
| 12 Korea | 0.08 | 12 | Malaysia | -0.05 |
| 13 Poland | 0.06 | 13 | Myanmar | -0.05 |
| 14 Japan | 0.06 | 14 | Egypt | -0.05 |
| 15 Switzerland | 0.06 | 15 | Oman | -0.04 |
| 16 Romania | 0.06 | 16 | Pakistan | -0.04 |
| 17 The Netherlands | 0.06 | 17 | Russian Federation | -0.03 |
| 18 Belgium | 0.05 | 18 | United Arab Emirates | -0.03 |
| 19 Austria | 0.05 | 19 | Norway | -0.03 |
| 20 Vietnam | 0.05 | 20 | Uzbekistan | -0.02 |

1/Difference between PPP GDP share based on 2017 ICP factors and PPP GDP share based on 2011 ICP factors.
Table 2b. Gainers and Losers of PPP GDP Shares (percent) ${ }^{1 /}$

|  | Top 20 increase in PPP Shares (percent) |
| :--- | :--- |
|  |  |
| 1 | Ukraine |
| 2 | Kyrgyz Republic |
| 3 Moldova | 43.64 |
| 4 Maldives | 38.38 |
| 5 Armenia | 33.06 |
| 6 | Lebanon |
| 7 Panama | 31.75 |
| 8 Kenya | 31.56 |
| 9 Fiji | 30.27 |
| 10 Georgia | 28.56 |
| 11 São Tomé and Príncipe | 27.12 |
| 12 Libya | 26.34 |
| 13 Democratic Republic of the Congo | 26.28 |
| 14 Afghanistan | 24.85 |
| 15 Bhutan | 23.37 |
| 16 Liberia | 21.44 |
| 17 The Bahamas | 20.72 |
| 18 Guyana | 20.38 |
| 19 Burundi | 18.98 |
| 20 Honduras | 18.75 |
|  | 18.72 |


| Top 20 decreases in PPP Shares (percent) |  |  |
| :--- | :--- | ---: |
|  | Republic of Congo | -41.46 |
| 2 | South Sudan | -37.98 |
| 3 | Iraq | -36.63 |
| 4 | Kuwait | -30.30 |
| 5 | Iran | -26.74 |
| 6 | Oman | -25.99 |
| 7 | Qatar | -22.41 |
| 8 | Brunei Darussalam | -20.66 |
| 9 | Myanmar | -19.19 |
| 10 Algeria | -15.52 |  |
| 11 Turkmenistan | -14.56 |  |
| 12 St. Kitts and Nevis | -14.36 |  |
| 13 Azerbaijan | -13.64 |  |
| 14 Antigua and Barbuda | -13.37 |  |
| 15 Malawi | -12.32 |  |
| 16 Tanzania | -12.30 |  |
| 17 Chad | -12.26 |  |
| 18 Uzbekistan | -12.17 |  |
| 19 Gabon | -12.16 |  |
| 20 Trinidad and Tobago |  |  |

## Annex II. Openness Excluding Intra-Currency Union Trade

1. This Annex updates the estimates of the impact of excluding intra-currency union flows from the openness variable. Updated estimates of the impact of excluding intra-currency union flows from the openness variable are shown in Table 1 for the largest members and main country groups, and in Table 2 for all members.
2. The data on intra-currency union trade in goods is obtained from the IMF's Direction of Trade Statistics (DOTS) database. These data include all trade in goods, including goods for processing gross flows, while the data underlying the openness variable are on a BPM6 basis and in the case of goods for processing include in trade flows only the processing fees (services). For the euro area countries as well as the other currency unions, no adjustment of goods for processing was made due to data constraints. Data on intra-currency union services flows are not fully available and thus no adjustments are made for these flows. ${ }^{1}$
[^14]Table 1. Openness Shares Excluding Intra-Currency Union Trade (in percent)

|  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |

Source: Finance Department.
1/ Including Czech Republic, Estonia, Korea, Latvia, Lithuania, Malta, Singapore, Slovak Republic, and Slovenia.
2/ Including China, P.R., Hong Kong SAR, and Macao SAR.
3/ Reflects EU membership as of end-January 2020 and excludes the United Kingdom.
4/ PRGT- eligible countries: 69 members, reflecting the decision to graduate Guyana from PRGT eligibility effective on July 19,
2020.

## Annex III. Alternative Lists of Poorest and Smallest Members

## This Annex updates the alternative lists of poorest and smallest member countries (Table 1):

- 14th Review poorest ( $\mathbf{5 4}$ members): In the $14^{\text {th }}$ Review, the group of members protected from declines in individual quota shares was defined as PRGT-eligible countries with annual per capita GNI below the prevailing operational IDA cut-off (US\$1,135 in 2008) or below twice the cut-off for countries meeting the definition of a "small country" under the PRGT eligibility criteria. The countries covered included 52 members plus Zimbabwe, which was not PRGT-eligible at the time due to arrears. South Sudan, which subsequently joined the Fund, also met this criterion.
- Updated 14th Review criteria (32 members): Using the same approach as under the $14^{\text {th }}$ Review, and the updated IDA income cut-off of US\$1,175 (2018 GNI per capita) for FY 2020, the current list of the poorest members would include 32 countries.
- PRGT-eligible countries as of 2019 (69 members): The PRGT eligibility in 2020 was based on the review completed in March 2020.
- PRGT-eligible plus Small Developing States (84 members): The IMF defines small developing states as developing countries that are Fund members with populations below 1.5 million. ${ }^{1}$ The Fund currently has 34 members that are small developing states. Among these, 15 members were not PRGT-eligible based on the March 2020 review.
- United Nations Least Developed Countries (LDCs, 47 members): The list of LDCs is reviewed every three years and is based on three criteria: Gross National Income (GNI) per capita, the human asset index (HAI), and the economic vulnerability index (EVI). ${ }^{2}$
- WEO Low Income Developing Countries (LIDCs, $\mathbf{5 9}$ members): ${ }^{3}$ LIDCs are defined as countries that have per capita income levels below a certain threshold (currently set at $\$ 2,700$ in 2016 as measured by the World Bank's Atlas method), structural features consistent with limited development and structural transformation, and insufficiently close external financial linkages to be widely seen as emerging market economies. The country group was updated in 2017 (effective as of October 2017 WEO), resulting in the current 59 countries.

[^15]Table 1. Alternative List of Poorest plus Smallest Member Countries

|  | Country 1/ | PRGT eligible countries 2 / | 14th Review List 3/ | Updated 14th Review Approach 4/ 5/ | United Nations List 6/ | WEO LIDC List | PRGT eligible and developing small states |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Afghanistan | x | x | x | x | x | x |
| 2 | Angola |  |  |  | x |  |  |
| 3 | Antigua and Barbuda |  |  |  |  |  | x |
| 4 | Bahamas, The |  |  |  |  |  | x |
| 5 | Bangladesh | x | x |  | x | x | x |
| 6 | Barbados |  |  |  |  |  | x |
| 7 | Belize |  |  |  |  |  | x |
| 8 | Benin | x | x | x | x | x | x |
| 9 | Bhutan | x | x |  | x | x | x |
| 10 | Burkina Faso | x | x | x | x | x | x |
| 11 | Burundi | x | x | x | x | x | x |
| 12 | Cabo Verde | x |  |  |  |  | x |
| 13 | Cambodia | x | x |  | x | x | x |
| 14 | Cameroon | x |  |  |  | x | x |
| 15 | Central African Rep. | x | x | x | x | x | x |
| 16 | Chad | x | x | x | x | x | x |
| 17 | Comoros | x | x | x | x | x | x |
| 18 | Congo, Dem. Rep. of | x | x | x | x | x | x |
| 19 | Congo, Rep. of | x |  |  |  | x | x |
| 20 | Côte d'Ivoire | x | x |  |  | x | x |
| 21 | Djibouti | x | x |  | x | x | x |
| 22 | Dominica | x |  |  |  |  | x |
| 23 | Eritrea | x | x |  | x | x | x |
| 24 | Eswatini |  |  |  |  |  | x |
| 25 | Ethiopia | x | x | x | x | x | x |
| 26 | Fiji |  |  |  |  |  | x |
| 27 | Gambia, The | x | x | x | x | x | x |
| 28 | Ghana | x | x |  |  | x | x |
| 29 | Grenada | x |  |  |  |  | x |
| 30 | Guinea | x | x | x | x | x | x |
| 31 | Guinea-Bissau | x | x | x | x | x | x |
| 32 | Guyana |  | x |  |  |  | x |
| 33 | Haiti | x | x | x | x | x | x |
| 34 | Honduras | x |  |  |  | x | x |
| 35 | Kenya | x | x |  |  | x | x |
| 36 | Kiribati | x | x |  | x | x | x |
| 37 | Kyrgyz Republic | x | x |  |  | x | x |
| 38 | Lao P.D.R. | x | x |  | x | x | x |
| 39 | Lesotho | x | x |  | x | x | x |
| 40 | Liberia | x | x | x | x | x | x |
| 41 | Madagascar | x | x | x | x | x | x |
| 42 | Malawi | x | x | x | x | x | x |
| 43 | Maldives | x |  |  |  |  | x |
| 44 | Mali | x | x | x | x | x | x |
| 45 | Marshall Islands | x |  |  |  |  | x |
| 46 | Mauritania | x | x | x | x | x | x |
| 47 | Mauritius |  |  |  |  |  | x |
| 48 | Micronesia | x |  |  |  |  | x |
| 49 | Moldova | x |  |  |  | x | x |
| 50 | Montenegro |  |  |  |  |  | x |
| 51 | Mozambique | x | x | x | x | x | x |
| 52 | Myanmar | x | x |  | x | x | x |
| 53 | Nauru |  |  |  |  |  | x |
| 54 | Nepal | x | x | x | x | x | x |
| 55 | Nicaragua | x | x |  |  | x | x |
| 56 | Niger | x | x | x | x | x | x |
| 57 | Nigeria |  |  |  |  | x |  |
| 58 | Palau |  |  |  |  |  | x |
| 59 | Papua New Guinea | x | x |  |  | x | x |
| 60 | Rwanda | x | x | x | x | x | x |

## Table 1. Alternative List of Poorest plus Smallest Member Countries (concluded)

| Country 1/ | PRGT eligible countries 2/ | 14th Review List 3/ | Updated 14th Review Approach 4/ 5/ | United <br> Nations List 6/ | WEO LIDC List | PRGT eligible and developing small states |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 61 Samoa | x |  |  |  |  | x |
| 62 São Tomé and Príncipe | x | x | x | x | x | x |
| 63 Senegal | x | x |  | x | x | x |
| 64 Seychelles |  |  |  |  |  | x |
| 65 Sierra Leone | x | x | x | X | X | X |
| 66 Solomon Islands | x | x | x | x | x | x |
| 67 Somalia | x | X |  | x | x | x |
| 68 South Sudan | x | x | x | x | x | x |
| 69 St. Kitts and Nevis |  |  |  |  |  | x |
| 70 St. Lucia | X |  |  |  |  | x |
| 71 St. Vincent and the Grenadines | x |  |  |  |  | x |
| 72 Sudan | x | x |  | x | x | x |
| 73 Suriname |  |  |  |  |  | x |
| 74 Tajikistan | x | x | X |  | x | x |
| 75 Tanzania | x | x | x | x | x | x |
| 76 Timor-Leste | x |  | $x$ | x | x | x |
| 77 Togo | x | x | x | x | x | x |
| 78 Tonga | x |  |  |  |  | x |
| 79 Trinidad and Tobago |  |  |  |  |  | x |
| 80 Tuvalu | X |  |  | X |  | X |
| 81 Uganda | x | x | x | x | X | X |
| 82 Uzbekistan | x | x |  |  | x | x |
| 83 Vanuatu | x |  |  | x |  | x |
| 84 Vietnam |  | x |  |  | x |  |
| 85 Yemen | X | X | x | X | X | x |
| 86 Zambia | x | X |  | X | X | x |
| 87 Zimbabwe | x | x |  |  | x | x |
| Number of members | 69 | 54 | 32 | 47 | 59 | 84 |
| Combined AQS of members in the list (percent) | 3.3 | 3.3 | 1.4 | 2.4 | 4.0 | 3.6 |
| Combined CQS of members in the list, based on the current formula and data through 2018 (percent) | 2.4 | 2.8 | 0.9 | 1.9 | 3.5 | 2.6 |
| Number of eligible countries for which AQS > CQS | 58 | 45 | 29 | 37 | 48 | 70 |

Source: IMF staff calculations.
1/ Small developing states, as defined by the IMF, are in bold.
2/ PRGT-eligible countries: 69 members, reflecting the decision to graduate Guyana from PRGT eligibility effective July 19, 2020. 3/ Countries that were PRGT-eligible and met the IDA per capita GNI cut-off of US\$1,135 in 2008 (or twice that amount for small states, as defined by the IMF), plus Zimbabwe.
4/ Updated 14th Review list to include countries that were PRGT-eligible as of 2020 and meet the FY2020 IDA per capita GNI cut-off of US $\$ 1,175$ (data through 2018) or twice that amount for small states, as defined by the IMF.
5/ South Sudan had no 2018 GNI per capita data, the latest available (2015) is used. Due to lack of data for recent years, Eritrea and Somalia were excluded from 14th Review Approach list.
6/In July 2018, ECOSOC endorsed the recommendations by the Committee for Development Policy (CDP) to graduate Bhutan (in 2023), Kiribati, Sao Tome and Principe and the Solomon Islands (in 2024).

## Annex IV. Voluntary Financial Contributions

## 1. This Annex updates the data used to construct the measures of voluntary financial <br> contributions. The data cover a broad range of financial contributions to the Fund: multilateral

 support for Fund liquidity in the General Resources Account (GRA) through the New Arrangements to Borrow (NAB); bilateral borrowing agreements with the Fund (BBAs), providing also supplementary liquidity support for the GRA; loan contributions to the PRG Trust (PRGT) and its predecessors; subsidy contributions for concessional financing; and capacity development (CD) contributions (see Box 1 for details). Consistent with data updates for previous years, the data on these different components have been updated to end-April 2020 and are shown in Table 1 for the largest members and main country groups, and in Table 2 for all members.
## Box 1. Components of Voluntary Financial Contributions Shares

The measures of Voluntary Financial Contributions by member countries comprise five key components:

- All credit arrangements under the New Arrangements to Borrow (NAB) that were effective as of end-April 2020.
- All 2016 bilateral borrowing agreements (with terms extended through end-2020) with the Fund approved by the Executive Board as of end-April 2020.
- All loan commitments by member countries to the PRG Trust (and its predecessors) cumulative from 1988 to end-April 2020.
- Cumulative subsidy contributions (as of end-April 2020) to various concessional financing initiatives, including $1 /$ :
(i) the PRGF-ESF Trust² ${ }^{2}$ (1987);
(ii) the PRG-HIPC Trust ${ }^{3 /}$ (1999);
(iii) the MDRI4/ and ESF (2005);
(iv) the PRGT Subsidy Account (2009); and
(v) the $\operatorname{CCRT}^{5 /}$ (2015); as well as
(vi) the distribution in 2012/13 of windfall profits from the sale of gold in 2009/10 to the PRGT Subsidy Account.

Net disbursements for capacity development (technical assistance and training) over the period FY1990FY2020.

[^16]2. Two composite measures of voluntary financial contributions are also updated. The basic approach is to calculate members' shares of contributions for each category of voluntary contribution and then to take the average of the shares to arrive at an aggregate measure. The appropriate weight of the contributions across different contribution categories, as well as the appropriate time periods to measure various contributions, are matters of judgment. This annex updates two composite measures presented in the previous quota data update:

- VFCS I: Simple average of member contribution shares to the following five voluntary financial contributions: i) current NAB, ii) 2016 bilateral borrowing agreements, iii) PRGT loans, iv) subsidies for concessional financing, and v) capacity development.
- VFCS II: Same contributions as in VFCS I but uses a weighted average of member contributions to the current NAB (0.3), 2016 bilateral borrowing agreements (0.3), PRGT loans and subsidies for concessional financing combined (0.2), and capacity development (0.2). The higher weight on NAB/bilateral resources would reflect to some extent the large magnitude of resources provided compared to contributions to concessional financing and capacity development. ${ }^{1}$

[^17]| Table 1. Financial Contributions to the Fund-Selected Indicators (in percent, unless otherwise indicated) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Calculated | Share in Financial Contributions to |  |  |  |  | Various aggregate measures |  |  |
|  | $14^{\text {th }}$ Review Quota Share | Quota Share (CQS) | $\begin{gathered} \mathrm{NAB} \\ 11 \end{gathered}$ | $\begin{gathered} \text { Bilateral } \\ \text { Borrowing } \\ \text { Agreements } 2 / \\ \hline \end{gathered}$ | $\begin{aligned} & \text { PRGT Loans } \\ & 3 / \end{aligned}$ | Concessional <br> Financing Subsidies 4/ | $\begin{gathered} \hline \text { Capacity } \\ \text { Development } \\ 5 / \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { VFCSI } \\ 6 / \end{gathered}$ | $\begin{gathered} \hline \text { vecs } \\| \\ 7 / \end{gathered}$ |  |
| Advanced economies | 57.6 | 50.2 | 74.9 | 65.5 | 89.2 | 81.0 | 82.2 | 78.5 | 76.1 | 6. 1 |
| Major advanced economies | 43.4 | 35.5 | 57.8 | 43.5 | 69.2 | 61.3 | 57.8 | 57.9 | 55.5 | 5.5 |
| United States | 17.4 | 14.9 | 15.6 |  | - | 11.9 | 0.5 | 5.6 |  | 5.2 |
| Japan | 6.5 | 5.0 | 18.6 | 13.9 | 23.3 | 14.5 | 35.3 | 21.1 |  | 1.1 |
| Germany | 5.6 | 4.9 | 7.1 | 10.4 | 7.3 | 6.5 | 4.0 | 7.1 |  | 7.5 |
| France | 4.2 | 3.1 | 5.2 | 7.9 | 18.4 | 7.3 | 1.3 | 8.0 |  | 7.5 |
| United Kingdom | 4.2 | 3.5 | 5.2 | 2.9 | 8.9 | 10.8 | 8.8 | 7.3 |  | 6.0 |
| Italy | 3.2 | 2.3 | 3.8 | 5.9 | 6.9 | 5.0 | 0.7 | 4.5 |  | 4.4 |
| Canada | 2.3 | 1.9 | 2.1 | 2.6 | 4.5 | 5.2 | 7.2 | 4.3 |  | 3.8 |
| Other advanced economies | 14.3 | 14.7 | 17.1 | 21.9 | 20.0 | 19.7 | 24.4 | 20.6 | 20.6 | . 6 |
| Spain | 2.0 | 1.7 | 1.9 | 3.7 | 4.2 | 1.3 | 0.4 | 2.3 |  | 2.5 |
| The Netherlands | 1.8 | 2.0 | 2.5 | 3.4 | 3.9 | 3.0 | 4.3 | 3.4 |  | 3.4 |
| Australia | 1.4 | 1.4 | 1.2 | 1.5 |  | 1.2 | 3.1 | 1.4 |  | 1.5 |
| Belgium | 1.3 | 1.1 | 2.2 | 2.5 | 2.8 | 2.3 | 1.4 | 2.2 |  | 2.2 |
| Switzerland | 1.2 | 1.8 | 3.1 | 2.0 | 4.3 | 2.4 | 8.0 | 4.0 |  | 3.9 |
| Sweden | 0.9 | 0.9 | 1.2 | 2.3 | 1.3 | 2.9 | 1.0 | 1.8 |  | 1.6 |
| Austria | 0.8 | 0.7 | 1.0 | 1.5 | , | 1.3 | 0.1 | 0.8 |  | 0.8 |
| Norway | 0.8 | 0.7 | 1.1 | 1.9 | 2.0 | 1.4 | 2.4 | 1.7 |  | 1.8 |
| Ireland | 0.7 | 1.0 |  | - | - | 0.3 | - | 0.1 |  | 0.0 |
| Denmark | 0.7 | 0.6 | 0.9 | 1.3 | 1.6 | 1.4 | 0.9 | 1.2 |  | 1.2 |
| EmDCs $8 /$ | 42.4 | 49.8 | 25.1 | 34.5 | 10.8 | 19.0 | 17.8 | 21.5 | 23.9 | 3.9 |
| Africa | 4.4 | 3.4 | 0.2 | 1.6 | - | 2.4 | 4.5 | 1.7 |  | 1.5 |
| South Africa | 0.6 | 0.5 | 0.2 | 0.5 | - | 0.6 | 0.0 | 0.3 |  | 0.2 |
| Nigeria | 0.5 | 0.6 | - | - | - | 0.4 | 0.0 | 0.1 |  | 0.0 |
| Asia | 16.0 | 25.7 | 14.2 | 18.1 | 7.7 | 7.4 | 6.7 | 10.8 | 12.5 | 12.5 |
| China 9/ | 6.4 | 13.4 | 9.0 | 9.9 | 4.8 | 1.9 | 2.9 | 5.7 |  | 7.1 |
| India | 2.7 | 3.4 | 2.5 | 2.3 | - | 1.2 | 1.7 | 1.5 |  | 1.8 |
| Korea | 1.8 | 2.1 | 1.9 | 3.5 | 2.9 | 1.6 | 1.5 | 2.3 |  | 2.4 |
| Indonesia | 1.0 | 1.3 | - | - | - | 0.2 | 0.1 | 0.0 |  | 0.0 |
| Singapore | 0.8 | 1.4 | 0.4 | 0.9 | - | 0.6 | 0.0 | 0.4 |  | 0.4 |
| Malaysia | 0.8 | 0.7 | 0.2 | 0.2 | - | 0.8 | - | 0.2 |  | 0.2 |
| Thailand | 0.7 | 1.0 | 0.2 | 0.9 | - | 0.4 | - | 0.3 |  | 0.3 |
| Middle East, Malta and Turkey | 6.7 | 6.7 | 3.3 | 4.7 | 1.7 | 3.6 | 5.0 | 3.7 |  | 3.8 |
| Saudi Arabia | 2.1 | 1.5 | 3.1 | 3.5 | 1.3 | 1.9 | 0.4 | 2.0 |  | 2.3 |
| Turkey | 1.0 | 1.2 | . | 1.2 | - | 0.4 | - | 0.3 |  | 0.4 |
| Iran | 0.7 | 0.6 | - | - | - | 0.3 | - | 0.1 |  | 0.0 |
| Western Hemisphere | 7.9 | 6.8 | 4.2 | 5.3 | 1.3 | 2.8 | 1.5 | 3.0 |  | 3.5 |
| Brazil | 2.3 | 2.0 | 2.5 | 2.3 | 1.3 | 0.2 | 0.1 | 1.3 |  | 1.7 |
| Mexico | 1.9 | 1.7 | 1.4 | 2.3 | . | 1.2 | 0.6 | 1.1 |  | 1.3 |
| Venezuela | 0.8 | 0.3 | . | - | . | - | 0.6 | - |  | . |
| Argentina | 0.7 | 0.6 | - | - | - | 0.9 | - | 0.2 |  | 0.0 |
| Transition economies | 7.2 | 7.1 | 3.2 | 4.9 | - | 2.9 | 0.1 | 2.2 |  | 2.5 |
| Russian Federation | 2.7 | 2.3 | 2.5 | 2.3 | - | 1.5 | 0.1 | 1.3 |  | 1.5 |
| Poland | 0.9 | 1.0 | 0.7 | 1.6 | - | 0.2 | - | 0.5 |  | 0.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |  |
| Memorandum Items: |  |  |  |  |  |  |  |  |  |  |
| EU-27 10/ | 26.1 | 23.3 | 28.2 | 43.2 | 46.3 | 34.3 | 15.6 | 33.5 | 33.4 | 3.4 |
| LICs 11/ | 3.3 | 2.4 |  |  |  | 0.9 | 3.1 | 0.8 |  | 0.7 |
| Total contributions (in millions of SDRs) 12/ |  |  | 180,572.6 | 316,935.3 | 37,557.8 | 7,971.7 | 1,941.8 |  |  |  |
| Source: Finance Department. |  |  |  |  |  |  |  |  |  |  |
| 1/ All credit arrangements under the NAB that were effective as of end-April 2020. |  |  |  |  |  |  |  |  |  |  |
| 2/ 2016 bilateral borrowing agreements with the Fund approved by the Executive Board as of end-April 2020. Based on exchange rates as of April 30, 2020. |  |  |  |  |  |  |  |  |  |  |
| 3/ Cumulative loan commitments to concessional lending trusts as of end-April 2020. |  |  |  |  |  |  |  |  |  |  |
| 4/ Total bilateral contributions received or pledged since 1987 for subsidization of concessional lending and various debt relief initiatives as of end-April 2020. |  |  |  |  |  |  |  |  |  |  |
| 5/ Cash contributions to the IMF for technical assistance and training (excluding in kind contributions), FY1990-FY2020. |  |  |  |  |  |  |  |  |  |  |
| 6/ Average of contribution shares in NAB, bilateral borrowing agreements, PRGT loans, concessional financing subsidies, and capacity development. |  |  |  |  |  |  |  |  |  |  |
| 7/ Weighted average of contribution shares with weights of 0.3 for $N A B, 0.3$ for bilateral borrowing agreements, 0.2 for PRG loans and concessional financing subsidies combined, and 0.2 for capacity development. |  |  |  |  |  |  |  |  |  |  |
| 8/ Including Czech Republic, Estonia, Korea, Latvia, Lithuania, Malta, Singapore, Slovak Republic, and Slovenia. |  |  |  |  |  |  |  |  |  |  |
| 9/ Including China, P.R. Hong Kong SAR and Macao SAR. |  |  |  |  |  |  |  |  |  |  |
| 10/ Reflects EU membership as of end-January 2020 and excludes the United Kingdom. <br> 11/ PRGT-eligible countries: 69 members, reflecting the decision to graduate Guyana from PRGT eligibility effective on July 19, 2020. <br> 12/ Except for capacity development, which is in millions of US dollars. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

# Annex V. Construction of the Database and By-Member Data Tables 

This annex discusses the data sources and adjustments used for the quota database. Detailed tables with by-member results are presented at the end.

## A. Main Data Sources

1. To ensure similar treatment for all countries and facilitate comparability and transparency, the data in the quota database should have several attributes. To the extent possible, it should be comprehensive (i.e., contain all required data for all members); compiled in line with internationally accepted concepts and definitions; reported by official sources (central banks and national statistical agencies); and comparable (consistent and coherent) across time and countries.
2. As in past quota updates, the main source of data used for the quota database was the International Financial Statistics (IFS). The IFS data are reported to STA by central banks and national statistical agencies, and are mostly based on internationally consistent definitions, such as the BPM6 ${ }^{1}$ and the 1993/2008 System of National Accounts (1993/2008 SNA). STA manages this database for international statistical cooperation and publication purposes, and to support the Fund's surveillance and use of Fund resources functions.
3. Missing observations in the IFS data are largely supplemented using the World Economic Outlook (WEO) database. ${ }^{2}$ The combination of the two sources is based on pre-defined procedures designed for each variable, as described in the next section. It should be noted that for some member countries there may be discrepancies between the IFS and the WEO datasets due to varying institutional, legal, and accounting contexts of data compilation (Boxes 1 and 2). For members where neither IFS nor WEO data were available, FIN obtains data from staff reports and IMF country desks or fills gaps with the data of adjacent years, as detailed in section C.
4. Finally, after the gaps are filled, the full dataset is reviewed by country desks for reasonability. In cases where discrepancies are significant and desk data are more reliable, adjustments to the final data are made. The adjustments made in this update round are described in section C.
5. The cutoff date for all data is January 31, 2020. To the extent that the database uses WEO data, as described above, the Fall 2019 WEO publication was used for these data.
[^18]
## B. Initial Database - IFS Supplemented by WEO

## GDP Data

6. The IFS and WEO databases provided GDP data for 188 members (all Fund members except the Syrian Arab Republic). The PPP-based GDP data derived using the WEO methodology also cover 188 members (all Fund members except the Syrian Arab Republic). Under the WEO methodology, PPP-based GDP is calculated by dividing a country's nominal GDP in domestic currency by its PPP (conversion) factor relative to the United States ${ }^{3}$ and then converting it into SDR units, using the SDR-USD exchange rate. The PPP factors are based on the data from the International Comparison Program (ICP) for 2017 that were released in May 2020. ${ }^{4}$ These data were then extended forward (to 2018) by using the growth in relative GDP deflators (the deflator growth of a country divided by the deflator growth of the United States). ${ }^{5}$

## Balance of Payments Data

7. The balance of payments data stored in the IFS database were used as reported by members to STA. Of the 189 members, the number of reporters to IFS for at least some of the years are as follows: 180 for the period 2006-18; and 177 for the period 2014-18. When data were not available for some members for the timeframe required for the quota calculations, estimates were made, largely on the basis of the WEO, as described above. ${ }^{6}$
8. The number of countries reporting their BOP data under BPM6 has been increasing and 175 Fund members now report BPM6-based balance of payments statistics to STA. The remainder still provide data on the basis of BPM5, which is then converted by STA into BPM6 format (see Box 1). The BPM5-BPM6 conversion matrix was developed by the WEO team in collaboration with STA to assist IMF country desks. Compared to the previous template based on the BPM5, the new BPM6 template used by the WEO to receive data from the country desks beginning with the October 2014 WEO publication introduced a number of changes, some of which impacted on the gap-filling procedures as follows: (i) more details became available for some series (e.g., gross flows were included on an optional basis for primary income, secondary income, and capital account, as well as for the IIP (total assets and liabilities)); and (ii) some indicators used in the calculation of the net

[^19]capital flows were removed (net credit and loans from the IMF) or became optional (the exceptional financing series).
9. To the extent possible, STA collected additional information from IMF country desks on the gross flows series underlying the variables included in the quota formula that were not reported to WEO (optional reporting) or no longer required by the new template. WEO does not collect separate data for goods for processing or for reverse investment. Unless the authorities reported BPM6 data to desks, no imputations were made by STA for these variables. This is consistent with the generic conversion of reported IFS data where, if a country did not report data for goods for processing or reverse investment, no imputations were made.
10. The data source breakdown for the period 2006-18 is as follows. Among the 180 members reporting data for IFS, 157 members' data are derived entirely from IFS reported data, 20 members' data are derived from a combination of IFS and WEO estimates, one member's data are derived from IFS and WEO but have missing data for some years, and two members' data are derived from IFS reported data and have missing data for some years (no WEO data available). Among the nine members not reporting any data to IFS, eight members' data are derived entirely from WEO estimates and for one member (San Marino), data are not available neither in IFS nor in WEO.
11. The data source breakdown for the period 2014-18 is as follows. Among the 177 members reporting data for IFS, 165 members' data are derived entirely from IFS reported data, and 12 members' data are obtained from a combination of IFS and WEO estimates. Among the 12 members not reporting any data for IFS, 10 members' data are derived entirely from WEO estimates, two members (San Marino and Syrian Arab Republic) have neither IFS nor WEO data available.
12. The following subsections describe for each of the data categories the general procedures employed by STA to construct the required database for the quota calculations.

## Goods and Services Transactions

13. Data reported by members and maintained in IFS were used for each country. Where there were data gaps prior to or after the latest year of reporting to STA, estimates were made by applying the growth rates derived from the WEO to the closest reported data (credits and debits). For countries where no data were reported to STA, available WEO data were used. For China, P.R., Hong Kong SAR, and Macao SAR, goods data were adjusted for trade among the mainland, Hong Kong SAR, and Macao SAR based on the Direction of Trade Statistics (DOTS) database (details in Box 3). ${ }^{7}$
[^20]
## Primary Income, Secondary Income, and the Capital Account

14. Data on primary income and secondary income reported by members and maintained in IFS were used for each country. Where there were data gaps, estimates were derived using WEO data series. The adjustment procedure consisted of the following: (1) if available, WEO gross flows are used; (2) if not, and the gap was in the leading year(s) of the series (2006), then WEO net value was inserted for the leading year(s) where data were missing, either as credits if WEO showed a net credit balance or as debits if a net debit balance was shown in WEO; (3) if the gap was after a reported observation, then the WEO net value was used for each year; also, the latest reported debits and credits were carried forward; however, to assure that gross debits and credits are consistent with the net values shown, a positive adjustment is made to the carry forward credit when the net WEO value shows a higher net credit, or to the carry forward debit when the net WEO value shows a higher net debit.
15. The primary source for data on the capital account as per BPM6 is the IFS data provided by member countries. When no data are reported for IFS, the WEO gross flows were used, if available. If not, the WEO net capital account value, depending on its sign, was used to derive an estimate. In a few cases, countries reported to IFS only "net" capital account data. When a country reports to IFS only a net value for the capital account, that full value is allocated to credits (if positive) or debits (if negative). Countries reporting under BPM6 have eliminated migrants' transfer from their capital accounts (according to BPM6, a change of ownership is no longer imputed).

## Net Capital Flows

16. The primary source for data on net capital flows is the IFS financial account data provided by member countries to STA. When no data are reported for IFS, WEO values are used to fill in the gaps, to the extent possible. While the IFS provides the financial account balance in the analytical presentation (i.e., net (standard) financial flows excluding the group consisting of (i) reserve assets, (ii) exceptional financing, ${ }^{8}$ and (iii) the net credit and loans from the IMF), the new WEO template no longer covers some of these components. Data on net credit and loans from the IMF for all countries were sourced from the IFS database, while the exceptional financing data for the missing data points were obtained from WEO and some from the desks, to the extent possible.

## Official Reserves

17. Position data on official reserves-comprising monetary gold, SDR holdings, reserve position in the Fund, and foreign exchange holdings-were obtained from IFS. ${ }^{9}$ Monetary gold was valued at SDR 35 per fine troy ounce. In deriving annual average holdings of official reserves for 2018, for

[^21]each reserve component, the end-of-period data for each of the 12 months of 2018 were summed and then divided by 12 SDR holdings and reserve position in the Fund are based on Fund accounts and data are available for the entire period. However, data for foreign exchange is not always reported for the entire 12 -month period. If this is the case, the number of months for which data were reported was used to calculate the average. If a country did not report its foreign exchange and/or monetary gold holdings data to STA for publication in the IFS, staff reports are used to gap fill this information (see also missing data series, below). ${ }^{10}$

## Conversion to SDRs

18. The balance of payments and the GDP data series in U.S. dollars were converted to SDRs using period-average exchange rates. The reserves data are either originally available in SDRs or converted to SDRs using monthly end-of-period exchange rates for every data point in the 12-month period.

## C. Missing Data Series and Data Adjustments

## Missing Data in IFS and WEO

19. San Marino had missing data values for current payments, current receipts, and net capital flows (all years). Openness was calculated based on the balance of payments data for 2017-18 provided by the desk. Variability, which requires at least three years of consecutive data, was calculated based on a different series of desk data on exports of goods and services (2006-16) as a replacement for current receipts and net capital flows.
20. Somalia had missing data values for net capital flows (all years) and the gaps were filled with desk data for 2013-18.
21. Syria stopped reporting data as of 2010. For GDP and openness, the last observation in SDRs (2010) was used as a replacement. Variability was calculated based on the 2006-10 period.
22. For some countries, the IFS reserves data for 2018 had no information on the foreign exchange and gold components. In those cases, whenever possible, more accurate reserves data were obtained from WEO or desk data. Desk data were used for Barbados, Iran, Jordan, Marshall Islands, Nauru, Somalia, South Sudan, Sudan, Turkmenistan, and Yemen. The data on reserves for Kiribati, Palau, Syria, and Tuvalu comprise only IFS data on SDR holdings and reserve position in the Fund in 2018.
[^22]
## Data Adjustments

23. Current payments and current receipts for Barbados, Djibouti, and Iraq, and net capital flows data for Barbados and Djibouti were replaced with desk data to address issues in reported data or to reflect data updates within the cutoff but not yet reported to the IFS.
24. GDP data for Burkina Faso, Madagascar, and Niger were replaced with desk data, to reflect GDP revisions that had taken place within the cutoff date but were not yet reported to the IFS. Accordingly, for these countries PPP factors for the year 2018, based on the new ICP 2017 round, were re-calculated based on the GDP deflator growth in 2018 consistent with the revised GDP series. PPP factors based on the ICP 2011 round for the years 2016-18 are also based on deflators consistent with the revised GDP series.
25. GDP data for Yemen were replaced with WEO data because distortions in the official exchange rates reported to IFS had resulted in inflated market GDP figures in recent years.
26. The ICP PPP factors were adjusted to reflect currency redenomination for Mauritania (by a factor of 10, due to currency redenomination in 2019).
27. The 2017 ICP PPP factors were converted from local currencies to USD for Somalia, Liberia, and Zimbabwe, using exchange rate data provided by the desks, before applying PPP factors to their respective nominal GDP data, which were submitted in USD to the WEO database.
28. For some countries, the 2017 ICP PPP factor data were not available. In those cases, they were estimated using the standard WEO method from the latest available ICP PPP data. These included Kiribati, Marshall Islands, Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Syria, Tonga, Tuvalu, Vanuatu, Venezuela, and Yemen.

## Box 1. Methodological Issues

International standards for GDP compilation are laid out in the System of National Accounts (SNA). About 52 percent of IMF members compile GDP data according to the current vintage, the 2008 SNA, 47 percent are based on the 1993 SNA and only 1 percent still apply the 1968 SNA. The 1993 SNA extended the scope of GDP slightly, making refinement to the calculation of production of goods for own final use and adding mineral exploration, computer software, and artistic originals to capital formation. Further changes introduced by the 2008 SNA have impacted on GDP and other macro-economic aggregates for member countries. Some of the noteworthy changes brought out by the 2008 SNA are: including research and development expenditures in gross capital formation rather than in intermediate consumption, and including depreciation of research and development assets in consumption of fixed capital; including net acquisitions of weapon systems in gross capital formation rather than in government final consumption, and including depreciation of military assets in consumption of fixed capital; making refinements to the calculation of Financial Intermediation Services Indirectly Measured for loans and deposits using a reference rate and requiring implementation of the reference rate method rather than treating it as an option; and calculation of non-life insurance output using the adjusted claims and the adjusted premium supplements. This has resulted in an increase in reported GDP levels, but the size of data inconsistencies across countries due to the revisions related to different SNA vintages is likely to be smaller than other differences related to known measurement problems with GDP (e.g., under-coverage of surveys, outdated base years, or differing adjustment methods for the size of the non-observed economic activity).

With regard to BOP series for quota calculations, the current and capital account receipts and payments cover goods, services, primary income, secondary income, and the capital account. Starting with the July 2015 IFS issue, the IFS (and the on-line Balance of Payments Statistics database) excluded the migrants' transfers from the capital account, in line with BPM6 guidance. These had originally been retained since the 2012 launch of the BPM6-basis generic-converted series to ensure consistency with the balance of capital account and net errors and omissions series in the BPM5-based series.

With regard to financial account transactions, the accuracy of financial account data in many countries, including those in the IFS database, is uneven and the data are generally less comprehensive than the other data used for the quota calculations. This reflects classification and practical difficulties encountered by countries in compiling the data. Financial account data, particularly on the private nonbank sector, are generally difficult and resource intensive to compile. The switch from data collection systems based predominantly on government and balance sheet records to systems (particularly surveys) incorporating large private nonbank sector transactions has been slow. Many countries are still in the midst of adapting their collection and recording systems to take account of changes in the composition and magnitude of financial transactions, including new instruments such as financial derivatives. Institutional and accounting requirements for data compilation may differ across countries and data availability on the private nonbank sector varies. In the IFS, in some instances, only aggregates and not component series are reported.

With regard to official reserves, the majority of IMF members follow accepted international practices in reporting their data for dissemination in the Fund's main statistical publications, the IFS and the monthly online Balance of Payments Statistics database. BPM6 contains a number of clarifications for the reporting of reserve assets. Box 2 , Changes with BPM6, includes clarifications on the currency composition of the official reserves. In addition, SDDS subscribers and SDDS Plus adherents disseminate data in the Data Template on International Reserves and Foreign Currency Liquidity. The updated International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template are consistent with BPM6.

## Box 2. Changes with BPM6

The Balance of Payments and International Investment Position Manual, sixth edition (BPM6) introduced a number of changes to data underlying the variables included in the quota formula. The IFS (and the on-line Balance of Payments Statistics database) began publishing data using the BPM6 presentation exclusively starting in August 2012. Full implementation of BPM6 by IMF member countries will continue over the next years ( 175 members reported their own BPM6 data as of end-January 2020), and as a result, there will be a mixture of $B P M 5$ and $B P M 6$ reporting that will marginally affect future quota database updates. The main changes affecting quota data are:

- Treatment of goods for processing: BPM6 captures in trade flows (recorded under services) only the explicit fees that are paid to the goods processor, rather than the full value of the goods entering and leaving the processing economy, in the case where the goods do not change ownership. This change will particularly affect those countries for which goods for processing are important in its trade; and will take longer for some countries to implement since it requires additional data collection. This modification will reduce openness for those countries where goods for processing is a significant component of their trade; variability could also be affected, especially, if revisions do not cover the full 13 -year period used to estimate this variable. This change reduces the "double counting" of trade, which has been a concern in previous discussions on quota variables.
- Migrant transfers: under BPM6, the personal effects, financial assets, and liabilities of persons changing residence are no longer covered by a capital transfer.
- SDR allocations: The inclusion of the 2009 SDR allocations as liabilities in the financial account, and the inclusion of an equal size increase in SDR holdings as assets in the financial account, impacted the calculation of gross capital (financial) flows. Similarly, (cumulative) SDR allocations are shown in the IIP as liabilities. BPM6 did not introduce changes in the treatment of SDR holdings in the IIP; SDR holdings were recorded in the IIP under both BPM5 and BPM6. Unlike the other changes noted above, STA implemented this particular change effective with reporting of data for 2009, ensuring that the new SDR allocations implemented in that year would be recorded in all member country data consistent with the latest approved methodology. STA has traditionally used the IMF's own data (provided by FIN) for recording positions and transactions related to SDRs in the IFS.
- Reserve assets: In the case where an economy has risk exposures that are closely related to its neighbor (perhaps due to substantial trade ties), and where it holds assets denominated in the currency of its neighbor, BPM6 clarifies that these holdings should be excluded from reserves if that currency is not convertible. Under BPM5, it was less clear whether such holdings could be included in reserves.
- Treatment of Special Purpose Entities (SPEs): Some countries, i.e., the Netherlands, Cyprus, and Malta, have recently experienced significant revisions to their BOP and IIP data as a result of incorporating the SPEs in the BPM6 estimates. Generally, the SPEs are located in either important offshore financial centers or involved in non-financial sector activities, or both. In the external sector, the SPEs are treated as resident companies of the host countries, generally owned by multinational enterprise groups mostly active abroad and having weak ties with the host economy. In the financial sector, for example, these companies act as intra-group financial intermediaries, channeling funds whose volume and direction are regulated by the parent companies. The most affected entries in the external sector are direct and portfolio investment (flows and stocks), as well as the related investment income. To better gauge cross-border transactions and positions of resident SPEs in host countries, the IMF has recently launched an international data collection to identify SPEs statistics. The first set of data on SPEs under this initiative covering annual 2020 data are expected to be released around end-2021.


## Box 3. Direction of Trade Statistics

The Direction of Trade Statistics (DOTS) presents the value of merchandise exports and imports disaggregated according to a country's primary trading partners. DOTS comprises official data of trade by geographical breakdown reported by country authorities to the IMF, or collected by the IMF from official sources, such as the United Nations COMTRADE and the EUROSTAT COMEXT databases. Official data are complemented with estimated data for individual countries that report (or publish) trade statistics with a delay, or do not publish trade statistics by partner country at all. The estimation of missing trade statistics based on counterpart trade and other information is a distinctive feature of DOTS. DOTS covers all IMF member countries, some non-member countries, and aggregates for the world and major areas. Monthly and quarterly data are available starting 1960. Annual data are available starting 1947.

Data reported to DOTS follow the concepts and definitions of the United Nations' International Merchandise Trade Statistics (IMTS 2010), which provides the conceptual framework and guidance for recording physical movements of goods between countries and areas. The term "merchandise" has a meaning that is close to the term "goods".

Following the IMTS 2010 methodology, exports are recorded on free-on-board (FOB) basis and imports are recorded on cost, insurance, and freight (CIF) basis. Imports include shipping and insurance costs up to the border of the importing country, while exports exclude these costs. In addition to differences in insurance and freight costs, there are several complications that can cause inconsistencies between exports to a partner and the partner's recorded imports FOB, or between imports FOB from a partner and the partner's recorded exports. The main reasons for inconsistent statistics on destination and origin for a given shipment are differences in classification, time of recording, exchange rates movements, shipment and reexport through intermediate points (e.g., Rotterdam, Hong Kong SAR), coverage, and processing errors. These asymmetries are not reconciled in the DOTS dataset. Official data by partner countries are published as reported.

For quota calculations, intra-trade imports between Hong Kong SAR and Macao SAR as well as re-exports of Hong Kong SAR from all countries to mainland China are removed from the total imports of mainland China to eliminate double counting.
On March 1, 2017, the IMF updated its DOTS dataset. New series of DOTS include improved monthly estimates for non-reporting countries and revised data for some reporting countries to realign with national sources.

The previous DOTS estimates were based on a methodology-developed in the early 1990s-based on partner country data, total trade, regional projections from the IMF World Economic Outlook, and trend extrapolations. The old methodology had several shortcomings, which led to time-series breaks in the estimated bilateral trade series and an excessive use of projections and trend extrapolations.

The new DOTS methodology relies on an expanded set of official sources of bilateral trade statistics; a new estimation procedure to impute missing observations of bilateral trade statistics; and other improvements, such as a streamlined list of partner countries and a refined assumption for converting imports CIF into exports FOB (and vice versa).
Exports and imports of non-reporting countries are estimated based on the assumption of symmetry with the values of imports and exports, respectively, declared by their counterpart countries. A CIF/FOB adjustment of 6 percent is used for non-reporting countries. The value of exports is equal to the value of imports from a partner divided by 1.06 ; the value of imports is equal to the value of exports multiplied by 1.06 .

| Table 1. Updated Quota Formula Variables—Shares 1/ (In percent) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) |  | MER GDP |  | PPP GDP |  | GDP Blend |  | Openness |  | Variability |  | Reserves |  |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| United States | 17.398 | 14.918 | 14.871 | 24.494 | 24.601 | 16.331 | 15.645 | 21.229 | 21.019 | 13.362 | 13.226 | 11.196 | 11.810 | 1.149 | 1.155 |
| Japan | 6.461 | 4.997 | 5.042 | 6.142 | 6.183 | 4.331 | 4.392 | 5.418 | 5.466 | 3.962 | 3.979 | 4.787 | 4.829 | 11.163 | 11.427 |
| China $2 /$ | 6.390 | 13.411 | 13.427 | 15.750 | 15.514 | 16.940 | 18.246 | 16.226 | 16.607 | 11.117 | 10.989 | 11.721 | 10.662 | 28.390 | 28.895 |
| Germany | 5.583 | 4.862 | 4.840 | 4.616 | 4.610 | 3.638 | 3.360 | 4.225 | 4.110 | 7.110 | 7.133 | 5.016 | 5.185 | 0.586 | 0.615 |
| France | 4.225 | 3.066 | 3.049 | 3.267 | 3.265 | 2.493 | 2.295 | 2.957 | 2.877 | 3.955 | 3.975 | 2.663 | 2.787 | 0.583 | 0.532 |
| United Kingdom | 4.225 | 3.480 | 3.494 | 3.424 | 3.572 | 2.495 | 2.355 | 3.052 | 3.086 | 4.273 | 4.258 | 4.404 | 4.441 | 1.327 | 1.270 |
| Italy | 3.159 | 2.282 | 2.264 | 2.467 | 2.462 | 2.090 | 1.873 | 2.316 | 2.226 | 2.514 | 2.546 | 2.202 | 2.317 | 0.478 | 0.472 |
| India | 2.749 | 3.386 | 3.388 | 3.202 | 3.049 | 6.957 | 7.277 | 4.704 | 4.741 | 2.138 | 2.117 | 1.769 | 1.729 | 3.520 | 3.440 |
| Russian Federation | 2.705 | 2.277 | 2.316 | 1.881 | 1.835 | 3.164 | 3.257 | 2.395 | 2.404 | 1.747 | 1.873 | 2.452 | 2.520 | 3.459 | 3.231 |
| Brazil | 2.315 | 1.973 | 2.055 | 2.393 | 2.464 | 2.513 | 2.673 | 2.441 | 2.548 | 1.064 | 1.102 | 1.561 | 1.674 | 3.417 | 3.495 |
| Canada | 2.311 | 1.927 | 1.941 | 2.038 | 2.070 | 1.475 | 1.417 | 1.813 | 1.809 | 2.375 | 2.402 | 1.607 | 1.649 | 0.751 | 0.792 |
| Saudi Arabia | 2.095 | 1.480 | 1.531 | 0.881 | 0.866 | 1.301 | 1.454 | 1.049 | 1.101 | 1.042 | 1.099 | 2.488 | 2.502 | 4.550 | 4.680 |
| Spain | 1.999 | 1.733 | 1.699 | 1.651 | 1.636 | 1.537 | 1.414 | 1.606 | 1.547 | 1.927 | 1.916 | 1.930 | 1.917 | 0.528 | 0.512 |
| Mexico | 1.868 | 1.712 | 1.717 | 1.439 | 1.481 | 2.063 | 1.971 | 1.689 | 1.677 | 1.778 | 1.750 | 1.463 | 1.579 | 1.566 | 1.605 |
| The Netherlands | 1.831 | 1.995 | 2.000 | 1.054 | 1.038 | 0.787 | 0.738 | 0.947 | 0.918 | 3.630 | 3.633 | 2.664 | 2.788 | 0.122 | 0.130 |
| Korea | 1.799 | 2.077 | 2.015 | 2.017 | 1.888 | 1.762 | 1.618 | 1.915 | 1.780 | 2.479 | 2.509 | 1.154 | 1.135 | 3.588 | 3.521 |
| Australia | 1.378 | 1.367 | 1.366 | 1.695 | 1.687 | 1.030 | 0.999 | 1.429 | 1.412 | 1.314 | 1.334 | 1.270 | 1.266 | 0.461 | 0.501 |
| Belgium | 1.344 | 1.113 | 1.085 | 0.634 | 0.619 | 0.473 | 0.426 | 0.570 | 0.542 | 1.816 | 1.824 | 1.515 | 1.407 | 0.154 | 0.148 |
| Switzerland | 1.210 | 1.849 | 1.824 | 0.857 | 0.885 | 0.476 | 0.421 | 0.704 | 0.699 | 2.302 | 2.305 | 2.845 | 2.735 | 6.950 | 6.788 |
| Turkey | 0.977 | 1.198 | 1.186 | 1.037 | 1.123 | 1.875 | 1.691 | 1.372 | 1.350 | 0.871 | 0.894 | 1.117 | 1.023 | 0.715 | 0.846 |
| Indonesia | 0.974 | 1.316 | 1.338 | 1.245 | 1.225 | 2.431 | 2.536 | 1.719 | 1.749 | 0.796 | 0.802 | 0.787 | 0.804 | 1.073 | 1.139 |
| Sweden | 0.929 | 0.879 | 0.880 | 0.672 | 0.674 | 0.440 | 0.415 | 0.579 | 0.570 | 1.072 | 1.091 | 1.289 | 1.288 | 0.514 | 0.523 |
| Poland | 0.859 | 0.954 | 0.928 | 0.659 | 0.644 | 0.958 | 0.886 | 0.779 | 0.741 | 1.110 | 1.075 | 0.890 | 0.910 | 0.994 | 1.004 |
| Austria | 0.824 | 0.707 | 0.699 | 0.529 | 0.520 | 0.401 | 0.352 | 0.478 | 0.453 | 0.946 | 0.943 | 0.881 | 0.920 | 0.116 | 0.107 |
| Singapore | 0.816 | 1.386 | 1.331 | 0.425 | 0.409 | 0.440 | 0.419 | 0.431 | 0.413 | 2.394 | 2.316 | 1.846 | 1.726 | 2.612 | 2.502 |
| Norway | 0.787 | 0.666 | 0.675 | 0.500 | 0.505 | 0.274 | 0.307 | 0.410 | 0.426 | 0.703 | 0.732 | 1.165 | 1.112 | 0.599 | 0.602 |
| Venezuela | 0.780 | 0.287 | 0.347 | 0.218 | 0.325 | 0.314 | 0.366 | 0.256 | 0.341 | 0.166 | 0.210 | 0.508 | 0.518 | 0.027 | 0.028 |
| Malaysia | 0.762 | 0.726 | 0.737 | 0.407 | 0.396 | 0.695 | 0.726 | 0.522 | 0.528 | 0.882 | 0.900 | 0.708 | 0.732 | 0.935 | 0.910 |
| Iran | 0.748 | 0.598 | 0.659 | 0.526 | 0.541 | 0.921 | 1.263 | 0.684 | 0.830 | 0.344 | 0.327 | 0.404 | 0.375 | 0.951 | 0.885 |
| Ireland | 0.723 | 0.950 | 0.869 | 0.424 | 0.403 | 0.315 | 0.272 | 0.380 | 0.351 | 1.731 | 1.551 | 1.265 | 1.187 | 0.039 | 0.034 |
| Denmark | 0.721 | 0.567 | 0.563 | 0.416 | 0.412 | 0.262 | 0.231 | 0.354 | 0.339 | 0.750 | 0.757 | 0.594 | 0.606 | 0.652 | 0.638 |
| Thailand | 0.673 | 1.009 | 1.000 | 0.573 | 0.553 | 1.008 | 0.977 | 0.747 | 0.723 | 1.097 | 1.108 | 1.109 | 1.140 | 1.837 | 1.728 |
| Argentina | 0.668 | 0.629 | 0.616 | 0.717 | 0.801 | 0.822 | 0.746 | 0.759 | 0.779 | 0.339 | 0.348 | 0.517 | 0.369 | 0.496 | 0.445 |
| South Africa | 0.640 | 0.491 | 0.498 | 0.422 | 0.419 | 0.605 | 0.622 | 0.495 | 0.500 | 0.435 | 0.449 | 0.338 | 0.344 | 0.413 | 0.401 |
| Nigeria | 0.515 | 0.555 | 0.589 | 0.501 | 0.556 | 0.833 | 0.918 | 0.633 | 0.701 | 0.302 | 0.325 | 0.560 | 0.548 | 0.406 | 0.304 |
| Greece | 0.509 | 0.326 | 0.326 | 0.257 | 0.259 | 0.261 | 0.243 | 0.259 | 0.253 | 0.311 | 0.316 | 0.453 | 0.464 | 0.029 | 0.027 |
| Finland | 0.505 | 0.392 | 0.406 | 0.322 | 0.316 | 0.215 | 0.195 | 0.279 | 0.268 | 0.436 | 0.442 | 0.541 | 0.653 | 0.076 | 0.080 |
| United Arab Emirates | 0.485 | 0.903 | 0.908 | 0.478 | 0.479 | 0.520 | 0.561 | 0.495 | 0.512 | 1.399 | 1.406 | 0.973 | 0.935 | 0.830 | 0.835 |
| Czech Republic | 0.457 | 0.569 | 0.514 | 0.273 | 0.261 | 0.338 | 0.297 | 0.299 | 0.275 | 0.675 | 0.662 | 0.720 | 0.482 | 1.317 | 1.275 |
| Portugal | 0.432 | 0.368 | 0.358 | 0.278 | 0.273 | 0.285 | 0.251 | 0.281 | 0.264 | 0.417 | 0.409 | 0.417 | 0.415 | 0.085 | 0.108 |


| (In percent) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) |  | MER GDP |  | PPP GDP |  | GDP Blend |  | Openness |  | Variability |  | Reserves |  |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Colombia | 0.429 | 0.405 | 0.409 | 0.385 | 0.388 | 0.585 | 0.572 | 0.465 | 0.462 | 0.260 | 0.271 | 0.240 | 0.250 | 0.423 | 0.435 |
| Philippines | 0.428 | 0.515 | 0.512 | 0.395 | 0.397 | 0.685 | 0.674 | 0.511 | 0.508 | 0.427 | 0.406 | 0.387 | 0.397 | 0.639 | 0.688 |
| Egypt | 0.427 | 0.489 | 0.507 | 0.335 | 0.377 | 0.907 | 0.946 | 0.564 | 0.605 | 0.268 | 0.267 | 0.448 | 0.460 | 0.359 | 0.271 |
| Pakistan | 0.426 | 0.401 | 0.409 | 0.378 | 0.384 | 0.798 | 0.827 | 0.546 | 0.561 | 0.216 | 0.210 | 0.139 | 0.130 | 0.107 | 0.159 |
| Ukraine | 0.422 | 0.366 | 0.349 | 0.140 | 0.129 | 0.420 | 0.295 | 0.252 | 0.196 | 0.252 | 0.275 | 0.806 | 0.839 | 0.155 | 0.154 |
| Algeria | 0.411 | 0.362 | 0.404 | 0.209 | 0.215 | 0.402 | 0.506 | 0.286 | 0.332 | 0.219 | 0.236 | 0.516 | 0.535 | 0.812 | 0.987 |
| Hungary | 0.407 | 0.389 | 0.389 | 0.178 | 0.170 | 0.239 | 0.229 | 0.202 | 0.194 | 0.509 | 0.508 | 0.568 | 0.605 | 0.255 | 0.247 |
| Kuwait | 0.405 | 0.302 | 0.305 | 0.154 | 0.151 | 0.165 | 0.241 | 0.158 | 0.187 | 0.315 | 0.326 | 0.527 | 0.441 | 0.333 | 0.304 |
| Israel | 0.403 | 0.464 | 0.453 | 0.434 | 0.424 | 0.284 | 0.251 | 0.374 | 0.355 | 0.437 | 0.437 | 0.352 | 0.364 | 1.048 | 1.010 |
| Romania | 0.380 | 0.411 | 0.388 | 0.267 | 0.252 | 0.439 | 0.373 | 0.336 | 0.300 | 0.373 | 0.351 | 0.502 | 0.517 | 0.353 | 0.368 |
| Chile | 0.366 | 0.409 | 0.412 | 0.344 | 0.336 | 0.366 | 0.365 | 0.353 | 0.348 | 0.349 | 0.357 | 0.485 | 0.500 | 0.344 | 0.364 |
| Iraq | 0.349 | 0.364 | 0.390 | 0.247 | 0.235 | 0.332 | 0.518 | 0.281 | 0.349 | 0.294 | 0.251 | 0.502 | 0.554 | 0.481 | 0.399 |
| Libya | 0.330 | 0.193 | 0.187 | 0.038 | 0.029 | 0.057 | 0.038 | 0.045 | 0.033 | 0.077 | 0.086 | 0.580 | 0.584 | 0.722 | 0.655 |
| Peru | 0.280 | 0.312 | 0.315 | 0.264 | 0.262 | 0.333 | 0.342 | 0.292 | 0.294 | 0.206 | 0.206 | 0.297 | 0.297 | 0.537 | 0.579 |
| Luxembourg | 0.277 | 0.657 | 0.695 | 0.082 | 0.078 | 0.055 | 0.050 | 0.071 | 0.067 | 1.336 | 1.419 | 1.167 | 1.265 | 0.007 | 0.008 |
| New Zealand | 0.262 | 0.254 | 0.250 | 0.247 | 0.235 | 0.162 | 0.150 | 0.213 | 0.201 | 0.238 | 0.238 | 0.253 | 0.264 | 0.184 | 0.186 |
| Kazakhstan | 0.243 | 0.314 | 0.335 | 0.201 | 0.210 | 0.369 | 0.381 | 0.268 | 0.278 | 0.244 | 0.270 | 0.437 | 0.478 | 0.162 | 0.186 |
| Vietnam | 0.242 | 0.562 | 0.505 | 0.281 | 0.271 | 0.565 | 0.499 | 0.394 | 0.363 | 0.787 | 0.709 | 0.401 | 0.337 | 0.510 | 0.379 |
| Syria | 0.233 | 0.167 | 0.171 | 0.285 | 0.297 | 0.104 | 0.103 | 0.212 | 0.219 | 0.075 | 0.077 | 0.108 | 0.098 | 0.004 | 0.004 |
| Bangladesh | 0.224 | 0.338 | 0.315 | 0.328 | 0.308 | 0.596 | 0.528 | 0.435 | 0.396 | 0.202 | 0.193 | 0.074 | 0.074 | 0.290 | 0.303 |
| Democratic Republic of the Congo | 0.223 | 0.085 | 0.082 | 0.051 | 0.052 | 0.071 | 0.055 | 0.059 | 0.053 | 0.059 | 0.057 | 0.157 | 0.163 | 0.008 | 0.005 |
| Slovak Republic | 0.210 | 0.253 | 0.253 | 0.121 | 0.119 | 0.142 | 0.142 | 0.129 | 0.128 | 0.357 | 0.356 | 0.336 | 0.345 | 0.031 | 0.018 |
| Zambia | 0.205 | 0.047 | 0.049 | 0.031 | 0.030 | 0.049 | 0.055 | 0.038 | 0.040 | 0.037 | 0.039 | 0.049 | 0.048 | 0.016 | 0.021 |
| Bulgaria | 0.188 | 0.161 | 0.160 | 0.074 | 0.071 | 0.125 | 0.121 | 0.095 | 0.091 | 0.154 | 0.152 | 0.226 | 0.237 | 0.236 | 0.236 |
| Morocco | 0.187 | 0.201 | 0.204 | 0.138 | 0.137 | 0.221 | 0.237 | 0.171 | 0.177 | 0.182 | 0.179 | 0.165 | 0.168 | 0.216 | 0.221 |
| Angola | 0.155 | 0.215 | 0.225 | 0.137 | 0.150 | 0.179 | 0.163 | 0.154 | 0.155 | 0.153 | 0.177 | 0.388 | 0.386 | 0.150 | 0.191 |
| Ghana | 0.155 | 0.108 | 0.108 | 0.075 | 0.071 | 0.123 | 0.136 | 0.094 | 0.097 | 0.088 | 0.085 | 0.099 | 0.097 | 0.054 | 0.061 |
| Qatar | 0.154 | 0.364 | 0.369 | 0.212 | 0.209 | 0.208 | 0.273 | 0.211 | 0.235 | 0.369 | 0.392 | 0.679 | 0.580 | 0.211 | 0.225 |
| Croatia | 0.150 | 0.119 | 0.114 | 0.070 | 0.068 | 0.091 | 0.081 | 0.079 | 0.073 | 0.113 | 0.113 | 0.131 | 0.124 | 0.176 | 0.158 |
| Zimbabwe | 0.148 | 0.034 | 0.032 | 0.026 | 0.027 | 0.035 | 0.027 | 0.030 | 0.027 | 0.027 | 0.027 | 0.025 | 0.021 | 0.001 | 0.003 |
| Ecuador | 0.146 | 0.143 | 0.143 | 0.130 | 0.132 | 0.161 | 0.156 | 0.142 | 0.142 | 0.102 | 0.104 | 0.132 | 0.128 | 0.026 | 0.027 |
| Belarus | 0.143 | 0.150 | 0.153 | 0.068 | 0.069 | 0.146 | 0.146 | 0.099 | 0.100 | 0.151 | 0.157 | 0.213 | 0.216 | 0.047 | 0.042 |
| Serbia | 0.137 | 0.111 | 0.107 | 0.056 | 0.054 | 0.098 | 0.085 | 0.073 | 0.066 | 0.100 | 0.097 | 0.149 | 0.154 | 0.109 | 0.099 |
| Côte d'Ivoire | 0.136 | 0.067 | 0.066 | 0.048 | 0.046 | 0.074 | 0.074 | 0.059 | 0.058 | 0.052 | 0.052 | 0.048 | 0.050 | 0.060 | 0.048 |
| Lebanon | 0.133 | 0.154 | 0.153 | 0.067 | 0.068 | 0.091 | 0.071 | 0.076 | 0.069 | 0.139 | 0.142 | 0.217 | 0.227 | 0.404 | 0.409 |
| Sudan | 0.132 | 0.104 | 0.109 | 0.118 | 0.137 | 0.153 | 0.143 | 0.132 | 0.139 | 0.033 | 0.036 | 0.077 | 0.081 | 0.002 | 0.002 |
| Slovenia | 0.123 | 0.117 | 0.114 | 0.061 | 0.059 | 0.063 | 0.056 | 0.062 | 0.058 | 0.151 | 0.146 | 0.151 | 0.156 | 0.007 | 0.007 |
| Sri Lanka | 0.121 | 0.142 | 0.136 | 0.108 | 0.109 | 0.227 | 0.218 | 0.156 | 0.153 | 0.098 | 0.096 | 0.073 | 0.059 | 0.066 | 0.054 |
| Uzbekistan | 0.116 | 0.115 | 0.113 | 0.080 | 0.079 | 0.179 | 0.172 | 0.119 | 0.116 | 0.071 | 0.068 | 0.069 | 0.068 | 0.126 | 0.142 |
| Tunisia | 0.114 | 0.095 | 0.101 | 0.051 | 0.054 | 0.102 | 0.111 | 0.071 | 0.077 | 0.086 | 0.090 | 0.108 | 0.111 | 0.047 | 0.054 |


| Table 1. Updated Quota Formula Variables—Shares 1/ (continued) (In percent) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) |  | MER GDP |  | PPP GDP |  | GDP Blend |  | Openness |  | Variability |  | Reserves |  |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Oman | 0.114 | 0.181 | 0.196 | 0.090 | 0.090 | 0.113 | 0.154 | 0.099 | 0.115 | 0.172 | 0.183 | 0.323 | 0.334 | 0.150 | 0.166 |
| Kenya | 0.114 | 0.113 | 0.102 | 0.098 | 0.093 | 0.167 | 0.128 | 0.126 | 0.107 | 0.066 | 0.065 | 0.062 | 0.063 | 0.079 | 0.074 |
| Myanmar | 0.108 | 0.117 | 0.132 | 0.080 | 0.082 | 0.190 | 0.254 | 0.124 | 0.151 | 0.070 | 0.068 | 0.094 | 0.099 | 0.046 | 0.045 |
| Yemen | 0.102 | 0.066 | 0.078 | 0.034 | 0.058 | 0.052 | 0.066 | 0.041 | 0.061 | 0.036 | 0.039 | 0.146 | 0.151 | 0.021 | 0.006 |
| Dominican Republic | 0.100 | 0.123 | 0.117 | 0.100 | 0.095 | 0.149 | 0.135 | 0.120 | 0.111 | 0.095 | 0.093 | 0.083 | 0.085 | 0.066 | 0.060 |
| Trinidad and Tobago | 0.098 | 0.062 | 0.067 | 0.028 | 0.030 | 0.030 | 0.036 | 0.029 | 0.033 | 0.045 | 0.049 | 0.130 | 0.133 | 0.073 | 0.087 |
| Lithuania | 0.093 | 0.132 | 0.131 | 0.060 | 0.058 | 0.079 | 0.073 | 0.068 | 0.064 | 0.144 | 0.149 | 0.221 | 0.230 | 0.043 | 0.019 |
| Uruguay | 0.090 | 0.091 | 0.091 | 0.072 | 0.072 | 0.061 | 0.063 | 0.067 | 0.068 | 0.066 | 0.069 | 0.101 | 0.099 | 0.151 | 0.132 |
| Guatemala | 0.090 | 0.104 | 0.101 | 0.093 | 0.091 | 0.118 | 0.110 | 0.103 | 0.098 | 0.081 | 0.082 | 0.046 | 0.042 | 0.107 | 0.096 |
| Tanzania | 0.083 | 0.080 | 0.086 | 0.067 | 0.063 | 0.113 | 0.125 | 0.085 | 0.088 | 0.040 | 0.044 | 0.063 | 0.083 | 0.049 | 0.048 |
| Bahrain | 0.083 | 0.093 | 0.096 | 0.044 | 0.043 | 0.058 | 0.056 | 0.050 | 0.048 | 0.114 | 0.117 | 0.120 | 0.134 | 0.018 | 0.024 |
| Azerbaijan | 0.082 | 0.107 | 0.116 | 0.052 | 0.057 | 0.118 | 0.142 | 0.078 | 0.091 | 0.089 | 0.096 | 0.142 | 0.140 | 0.060 | 0.064 |
| Jamaica | 0.080 | 0.037 | 0.036 | 0.019 | 0.019 | 0.023 | 0.021 | 0.020 | 0.020 | 0.030 | 0.030 | 0.059 | 0.058 | 0.033 | 0.033 |
| Panama | 0.079 | 0.109 | 0.106 | 0.077 | 0.075 | 0.103 | 0.081 | 0.087 | 0.077 | 0.121 | 0.125 | 0.076 | 0.079 | 0.018 | 0.039 |
| Costa Rica | 0.077 | 0.087 | 0.085 | 0.073 | 0.074 | 0.078 | 0.066 | 0.075 | 0.071 | 0.077 | 0.075 | 0.060 | 0.062 | 0.069 | 0.066 |
| Uganda | 0.076 | 0.046 | 0.046 | 0.040 | 0.034 | 0.064 | 0.070 | 0.049 | 0.048 | 0.028 | 0.028 | 0.018 | 0.019 | 0.031 | 0.032 |
| Jordan | 0.072 | 0.090 | 0.090 | 0.051 | 0.051 | 0.079 | 0.071 | 0.062 | 0.059 | 0.086 | 0.088 | 0.088 | 0.092 | 0.114 | 0.120 |
| Latvia | 0.070 | 0.074 | 0.072 | 0.038 | 0.037 | 0.046 | 0.043 | 0.042 | 0.039 | 0.080 | 0.079 | 0.098 | 0.095 | 0.039 | 0.034 |
| Afghanistan | 0.068 | 0.064 | 0.077 | 0.025 | 0.026 | 0.067 | 0.055 | 0.041 | 0.038 | 0.026 | 0.029 | 0.142 | 0.221 | 0.065 | 0.066 |
| Senegal | 0.068 | 0.039 | 0.040 | 0.026 | 0.025 | 0.041 | 0.042 | 0.032 | 0.032 | 0.030 | 0.029 | 0.031 | 0.046 | 0.022 | 0.018 |
| Iceland | 0.067 | 0.237 | 0.240 | 0.030 | 0.027 | 0.016 | 0.014 | 0.024 | 0.022 | 0.040 | 0.039 | 1.212 | 1.243 | 0.058 | 0.062 |
| Cyprus | 0.064 | 0.126 | 0.093 | 0.029 | 0.027 | 0.027 | 0.025 | 0.028 | 0.026 | 0.148 | 0.097 | 0.328 | 0.238 | 0.003 | 0.003 |
| Brunei Darussalam | 0.063 | 0.042 | 0.042 | 0.015 | 0.016 | 0.021 | 0.028 | 0.018 | 0.021 | 0.027 | 0.030 | 0.102 | 0.089 | 0.028 | 0.029 |
| Ethiopia | 0.063 | 0.111 | 0.104 | 0.104 | 0.100 | 0.177 | 0.150 | 0.133 | 0.120 | 0.062 | 0.060 | 0.052 | 0.058 | 0.031 | 0.028 |
| El Salvador | 0.060 | 0.049 | 0.049 | 0.031 | 0.031 | 0.045 | 0.041 | 0.037 | 0.035 | 0.047 | 0.046 | 0.040 | 0.042 | 0.034 | 0.034 |
| Cameroon | 0.058 | 0.056 | 0.055 | 0.044 | 0.043 | 0.073 | 0.071 | 0.056 | 0.054 | 0.032 | 0.033 | 0.044 | 0.045 | 0.029 | 0.023 |
| Bosnia and Herzegovina | 0.056 | 0.044 | 0.042 | 0.023 | 0.022 | 0.039 | 0.036 | 0.029 | 0.028 | 0.039 | 0.038 | 0.043 | 0.043 | 0.060 | 0.052 |
| Papua New Guinea | 0.055 | 0.035 | 0.034 | 0.028 | 0.026 | 0.026 | 0.024 | 0.027 | 0.025 | 0.027 | 0.028 | 0.034 | 0.033 | 0.016 | 0.016 |
| Nicaragua | 0.055 | 0.031 | 0.030 | 0.017 | 0.017 | 0.031 | 0.028 | 0.023 | 0.022 | 0.028 | 0.028 | 0.024 | 0.020 | 0.023 | 0.024 |
| Liberia | 0.054 | 0.014 | 0.014 | 0.004 | 0.004 | 0.006 | 0.005 | 0.005 | 0.005 | 0.007 | 0.008 | 0.038 | 0.039 | 0.005 | 0.004 |
| Honduras | 0.052 | 0.047 | 0.046 | 0.029 | 0.029 | 0.043 | 0.036 | 0.034 | 0.032 | 0.045 | 0.044 | 0.036 | 0.039 | 0.042 | 0.041 |
| South Sudan | 0.052 | 0.024 | 0.035 | 0.005 | 0.015 | 0.010 | 0.018 | 0.007 | 0.016 | 0.015 | 0.016 | 0.070 | 0.101 | 0.000 | 0.000 |
| Madagascar | 0.051 | 0.026 | 0.023 | 0.016 | 0.014 | 0.031 | 0.031 | 0.022 | 0.021 | 0.017 | 0.017 | 0.021 | 0.013 | 0.015 | 0.012 |
| Estonia | 0.051 | 0.071 | 0.070 | 0.034 | 0.032 | 0.037 | 0.033 | 0.035 | 0.032 | 0.083 | 0.084 | 0.105 | 0.110 | 0.005 | 0.003 |
| Bolivia | 0.050 | 0.071 | 0.068 | 0.047 | 0.046 | 0.077 | 0.066 | 0.059 | 0.054 | 0.047 | 0.049 | 0.078 | 0.072 | 0.069 | 0.080 |
| Turkmenistan | 0.050 | 0.085 | 0.088 | 0.048 | 0.048 | 0.069 | 0.080 | 0.056 | 0.061 | 0.052 | 0.062 | 0.092 | 0.097 | 0.267 | 0.201 |
| Mozambique | 0.048 | 0.037 | 0.038 | 0.016 | 0.017 | 0.030 | 0.029 | 0.021 | 0.022 | 0.030 | 0.031 | 0.056 | 0.058 | 0.028 | 0.022 |
| Gabon | 0.045 | 0.030 | 0.032 | 0.019 | 0.019 | 0.025 | 0.030 | 0.022 | 0.023 | 0.023 | 0.027 | 0.037 | 0.032 | 0.008 | 0.007 |
| Guinea | 0.045 | 0.028 | 0.026 | 0.013 | 0.012 | 0.024 | 0.021 | 0.017 | 0.016 | 0.017 | 0.016 | 0.050 | 0.050 | 0.010 | 0.003 |
| Georgia | 0.044 | 0.038 | 0.037 | 0.019 | 0.019 | 0.040 | 0.031 | 0.027 | 0.024 | 0.038 | 0.038 | 0.028 | 0.034 | 0.028 | 0.027 |


| (In percent) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) |  | MER GDP |  | PPP GDP |  | GDP Blend |  | Openness |  | Variability |  | Reserves |  |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Sierra Leone | 0.0435 | 0.0111 | 0.0116 | 0.0049 | 0.0051 | 0.0104 | 0.0091 | 0.0071 | 0.0067 | 0.0063 | 0.0072 | 0.0179 | 0.0197 | 0.0046 | 0.0045 |
| Paraguay | 0.0422 | 0.0694 | 0.0690 | 0.0487 | 0.0485 | 0.0722 | 0.0697 | 0.0581 | 0.0570 | 0.0521 | 0.0528 | 0.0617 | 0.0622 | 0.0696 | 0.0678 |
| Botswana | 0.0413 | 0.0413 | 0.0402 | 0.0215 | 0.0207 | 0.0322 | 0.0310 | 0.0258 | 0.0248 | 0.0343 | 0.0349 | 0.0445 | 0.0392 | 0.0661 | 0.0700 |
| Namibia | 0.0401 | 0.0283 | 0.0280 | 0.0164 | 0.0158 | 0.0216 | 0.0218 | 0.0185 | 0.0182 | 0.0256 | 0.0256 | 0.0290 | 0.0287 | 0.0205 | 0.0197 |
| Mali | 0.0391 | 0.0284 | 0.0301 | 0.0194 | 0.0185 | 0.0349 | 0.0320 | 0.0256 | 0.0239 | 0.0221 | 0.0222 | 0.0166 | 0.0318 | 0.0101 | 0.0079 |
| The Bahamas | 0.0382 | 0.0211 | 0.0205 | 0.0152 | 0.0156 | 0.0112 | 0.0098 | 0.0136 | 0.0133 | 0.0179 | 0.0173 | 0.0236 | 0.0232 | 0.0134 | 0.0108 |
| Guyana | 0.0381 | 0.0092 | 0.0088 | 0.0046 | 0.0045 | 0.0059 | 0.0050 | 0.0051 | 0.0047 | 0.0089 | 0.0085 | 0.0091 | 0.0090 | 0.0043 | 0.0053 |
| Kyrgyz Republic | 0.0372 | 0.0236 | 0.0222 | 0.0094 | 0.0092 | 0.0258 | 0.0182 | 0.0160 | 0.0128 | 0.0213 | 0.0226 | 0.0214 | 0.0220 | 0.0164 | 0.0172 |
| Cambodia | 0.0367 | 0.0595 | 0.0555 | 0.0277 | 0.0263 | 0.0527 | 0.0493 | 0.0377 | 0.0355 | 0.0673 | 0.0618 | 0.0280 | 0.0290 | 0.1106 | 0.0942 |
| Tajikistan | 0.0365 | 0.0189 | 0.0187 | 0.0090 | 0.0096 | 0.0234 | 0.0218 | 0.0148 | 0.0145 | 0.0136 | 0.0151 | 0.0192 | 0.0167 | 0.0049 | 0.0030 |
| Moldova | 0.0362 | 0.0268 | 0.0248 | 0.0121 | 0.0111 | 0.0267 | 0.0191 | 0.0179 | 0.0143 | 0.0207 | 0.0210 | 0.0306 | 0.0320 | 0.0266 | 0.0230 |
| Malta | 0.0353 | 0.0665 | 0.0671 | 0.0162 | 0.0152 | 0.0163 | 0.0149 | 0.0162 | 0.0151 | 0.1107 | 0.1122 | 0.0874 | 0.0920 | 0.0082 | 0.0072 |
| Haiti | 0.0343 | 0.0201 | 0.0199 | 0.0110 | 0.0111 | 0.0163 | 0.0162 | 0.0131 | 0.0131 | 0.0176 | 0.0169 | 0.0179 | 0.0184 | 0.0207 | 0.0209 |
| Somalia | 0.0343 | 0.0130 | 0.0155 | 0.0056 | 0.0089 | 0.0106 | 0.0163 | 0.0076 | 0.0119 | 0.0155 | 0.0151 | 0.0090 | 0.0092 | 0.0003 | 0.0003 |
| Republic of Congo | 0.0340 | 0.0325 | 0.0357 | 0.0118 | 0.0110 | 0.0139 | 0.0248 | 0.0127 | 0.0165 | 0.0288 | 0.0288 | 0.0714 | 0.0760 | 0.0028 | 0.0040 |
| Rwanda | 0.0336 | 0.0167 | 0.0179 | 0.0113 | 0.0113 | 0.0197 | 0.0191 | 0.0146 | 0.0144 | 0.0111 | 0.0108 | 0.0113 | 0.0202 | 0.0100 | 0.0069 |
| Equatorial Guinea | 0.0330 | 0.0484 | 0.0610 | 0.0155 | 0.0161 | 0.0226 | 0.0272 | 0.0183 | 0.0205 | 0.0271 | 0.0338 | 0.1462 | 0.1975 | 0.0004 | 0.0007 |
| Nepal | 0.0329 | 0.0533 | 0.0498 | 0.0333 | 0.0311 | 0.0693 | 0.0616 | 0.0477 | 0.0433 | 0.0403 | 0.0370 | 0.0233 | 0.0238 | 0.0800 | 0.0833 |
| Burundi | 0.0323 | 0.0059 | 0.0058 | 0.0042 | 0.0042 | 0.0075 | 0.0066 | 0.0055 | 0.0051 | 0.0028 | 0.0029 | 0.0044 | 0.0046 | 0.0006 | 0.0010 |
| Togo | 0.0308 | 0.0124 | 0.0127 | 0.0061 | 0.0058 | 0.0097 | 0.0102 | 0.0075 | 0.0076 | 0.0103 | 0.0110 | 0.0149 | 0.0155 | 0.0063 | 0.0049 |
| Mauritius | 0.0298 | 0.0536 | 0.0503 | 0.0165 | 0.0163 | 0.0228 | 0.0223 | 0.0190 | 0.0187 | 0.0562 | 0.0545 | 0.0981 | 0.0863 | 0.0534 | 0.0452 |
| North Macedonia | 0.0294 | 0.0320 | 0.0305 | 0.0144 | 0.0140 | 0.0272 | 0.0252 | 0.0195 | 0.0184 | 0.0306 | 0.0291 | 0.0345 | 0.0338 | 0.0261 | 0.0229 |
| Chad | 0.0294 | 0.0256 | 0.0278 | 0.0130 | 0.0135 | 0.0205 | 0.0245 | 0.0160 | 0.0179 | 0.0176 | 0.0185 | 0.0452 | 0.0496 | 0.0003 | 0.0001 |
| Albania | 0.0292 | 0.0300 | 0.0288 | 0.0166 | 0.0158 | 0.0312 | 0.0285 | 0.0225 | 0.0209 | 0.0227 | 0.0223 | 0.0274 | 0.0277 | 0.0317 | 0.0295 |
| Malawi | 0.0291 | 0.0149 | 0.0157 | 0.0078 | 0.0079 | 0.0153 | 0.0178 | 0.0108 | 0.0118 | 0.0100 | 0.0098 | 0.0178 | 0.0188 | 0.0063 | 0.0063 |
| Niger | 0.0276 | 0.0173 | 0.0151 | 0.0143 | 0.0100 | 0.0192 | 0.0171 | 0.0162 | 0.0128 | 0.0108 | 0.0109 | 0.0086 | 0.0090 | 0.0126 | 0.0101 |
| Suriname | 0.0270 | 0.0113 | 0.0118 | 0.0040 | 0.0050 | 0.0073 | 0.0071 | 0.0053 | 0.0059 | 0.0088 | 0.0092 | 0.0198 | 0.0200 | 0.0045 | 0.0035 |
| Armenia | 0.0270 | 0.0276 | 0.0258 | 0.0144 | 0.0142 | 0.0293 | 0.0221 | 0.0203 | 0.0174 | 0.0226 | 0.0221 | 0.0256 | 0.0260 | 0.0193 | 0.0195 |
| Mauritania | 0.0270 | 0.0143 | 0.0150 | 0.0062 | 0.0063 | 0.0130 | 0.0138 | 0.0089 | 0.0093 | 0.0099 | 0.0106 | 0.0204 | 0.0214 | 0.0080 | 0.0077 |
| Benin | 0.0260 | 0.0240 | 0.0206 | 0.0161 | 0.0114 | 0.0288 | 0.0198 | 0.0212 | 0.0148 | 0.0151 | 0.0129 | 0.0215 | 0.0290 | 0.0087 | 0.0070 |
| Burkina Faso | 0.0252 | 0.0246 | 0.0226 | 0.0180 | 0.0149 | 0.0297 | 0.0277 | 0.0227 | 0.0200 | 0.0183 | 0.0179 | 0.0151 | 0.0137 | 0.0036 | 0.0029 |
| Central African Republic | 0.0234 | 0.0047 | 0.0044 | 0.0026 | 0.0023 | 0.0035 | 0.0027 | 0.0029 | 0.0024 | 0.0024 | 0.0022 | 0.0069 | 0.0075 | 0.0030 | 0.0026 |
| Lao P.D.R. | 0.0222 | 0.0312 | 0.0293 | 0.0211 | 0.0205 | 0.0423 | 0.0379 | 0.0296 | 0.0274 | 0.0240 | 0.0220 | 0.0153 | 0.0158 | 0.0092 | 0.0096 |
| Fiji | 0.0206 | 0.0124 | 0.0116 | 0.0066 | 0.0060 | 0.0098 | 0.0069 | 0.0079 | 0.0064 | 0.0113 | 0.0111 | 0.0102 | 0.0114 | 0.0093 | 0.0101 |
| Barbados | 0.0198 | 0.0091 | 0.0094 | 0.0062 | 0.0063 | 0.0038 | 0.0042 | 0.0052 | 0.0055 | 0.0092 | 0.0094 | 0.0085 | 0.0079 | 0.0024 | 0.0040 |
| Kosovo | 0.0173 | 0.0153 | 0.0152 | 0.0091 | 0.0089 | 0.0158 | 0.0155 | 0.0118 | 0.0115 | 0.0140 | 0.0137 | 0.0079 | 0.0088 | 0.0085 | 0.0076 |
| Eswatini | 0.0165 | 0.0106 | 0.0108 | 0.0054 | 0.0056 | 0.0081 | 0.0094 | 0.0065 | 0.0071 | 0.0092 | 0.0090 | 0.0114 | 0.0104 | 0.0047 | 0.0054 |
| Mongolia | 0.0152 | 0.0368 | 0.0361 | 0.0148 | 0.0150 | 0.0296 | 0.0314 | 0.0207 | 0.0215 | 0.0275 | 0.0266 | 0.0640 | 0.0627 | 0.0250 | 0.0136 |
| Lesotho | 0.0146 | 0.0083 | 0.0086 | 0.0032 | 0.0032 | 0.0055 | 0.0055 | 0.0041 | 0.0041 | 0.0086 | 0.0085 | 0.0076 | 0.0089 | 0.0070 | 0.0082 |
| The Gambia | 0.0130 | 0.0035 | 0.0034 | 0.0019 | 0.0019 | 0.0039 | 0.0044 | 0.0027 | 0.0029 | 0.0020 | 0.0019 | 0.0029 | 0.0021 | 0.0017 | 0.0012 |

Table 1. Updated Quota Formula Variables—Shares 1/ (concluded)

|  | $14^{\text {th }}$ Review | CQS (Current Formula) |  | MER GDP |  | PPP GDP |  | GDP Blend |  | Openness |  | Variability |  | Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Montenegro | 0.01268 | 0.01303 | 0.01226 | 0.00614 | 0.00579 | 0.01021 | 0.00874 | 0.00776 | 0.00697 | 0.01090 | 0.01054 | 0.01474 | 0.01464 | 0.00993 | 0.00818 |
| San Marino | 0.01031 | 0.00873 | 0.00863 | 0.00193 | 0.00193 | 0.00166 | 0.00158 | 0.00182 | 0.00179 | 0.01013 | 0.01009 | 0.01568 | 0.01526 | 0.00335 | 0.00369 |
| Eritrea | 0.00767 | 0.00529 | 0.00733 | 0.00254 | 0.00666 | 0.00475 | 0.00741 | 0.00343 | 0.00696 | 0.00304 | 0.00386 | 0.00750 | 0.00455 | 0.00146 | 0.00121 |
| Djibouti | 0.00667 | 0.01536 | 0.00430 | 0.00346 | 0.00246 | 0.00390 | 0.00280 | 0.00363 | 0.00260 | 0.01384 | 0.00333 | 0.03703 | 0.00362 | 0.00406 | 0.00468 |
| Guinea-Bissau | 0.00595 | 0.00595 | 0.00575 | 0.00165 | 0.00156 | 0.00288 | 0.00245 | 0.00214 | 0.00192 | 0.00170 | 0.00151 | 0.01697 | 0.01731 | 0.00402 | 0.00322 |
| Belize | 0.00560 | 0.00436 | 0.00455 | 0.00233 | 0.00238 | 0.00229 | 0.00263 | 0.00232 | 0.00248 | 0.00467 | 0.00472 | 0.00281 | 0.00289 | 0.00271 | 0.00343 |
| Timor-Leste | 0.00537 | 0.00847 | 0.00936 | 0.00322 | 0.00366 | 0.00489 | 0.00605 | 0.00389 | 0.00462 | 0.00531 | 0.00624 | 0.01712 | 0.01757 | 0.00333 | 0.00289 |
| Vanuatu | 0.00499 | 0.00255 | 0.00250 | 0.00108 | 0.00106 | 0.00064 | 0.00061 | 0.00091 | 0.00088 | 0.00201 | 0.00194 | 0.00357 | 0.00369 | 0.00363 | 0.00323 |
| Cabo Verde | 0.00497 | 0.00520 | 0.00514 | 0.00225 | 0.00219 | 0.00299 | 0.00297 | 0.00255 | 0.00250 | 0.00451 | 0.00445 | 0.00556 | 0.00563 | 0.00573 | 0.00544 |
| Seychelles | 0.00480 | 0.00583 | 0.00587 | 0.00188 | 0.00188 | 0.00215 | 0.00215 | 0.00199 | 0.00198 | 0.00629 | 0.00620 | 0.00730 | 0.00768 | 0.00503 | 0.00515 |
| St. Lucia | 0.00449 | 0.00426 | 0.00406 | 0.00227 | 0.00224 | 0.00204 | 0.00194 | 0.00218 | 0.00212 | 0.00416 | 0.00377 | 0.00374 | 0.00370 | 0.00284 | 0.00283 |
| Maldives | 0.00444 | 0.01284 | 0.01194 | 0.00608 | 0.00583 | 0.00767 | 0.00558 | 0.00672 | 0.00573 | 0.01399 | 0.01330 | 0.01236 | 0.01262 | 0.00612 | 0.00507 |
| Solomon Islands | 0.00436 | 0.00319 | 0.00317 | 0.00163 | 0.00162 | 0.00111 | 0.00105 | 0.00142 | 0.00139 | 0.00300 | 0.00302 | 0.00245 | 0.00255 | 0.00527 | 0.00481 |
| Bhutan | 0.00428 | 0.00771 | 0.00740 | 0.00309 | 0.00300 | 0.00677 | 0.00551 | 0.00456 | 0.00401 | 0.00479 | 0.00476 | 0.00974 | 0.00985 | 0.00990 | 0.01063 |
| Antigua and Barbuda | 0.00419 | 0.00407 | 0.00390 | 0.00188 | 0.00190 | 0.00163 | 0.00190 | 0.00178 | 0.00190 | 0.00442 | 0.00396 | 0.00354 | 0.00327 | 0.00300 | 0.00287 |
| Comoros | 0.00373 | 0.00227 | 0.00175 | 0.00137 | 0.00081 | 0.00205 | 0.00105 | 0.00164 | 0.00091 | 0.00134 | 0.00141 | 0.00170 | 0.00154 | 0.00178 | 0.00168 |
| Grenada | 0.00344 | 0.00272 | 0.00252 | 0.00140 | 0.00138 | 0.00149 | 0.00128 | 0.00144 | 0.00134 | 0.00258 | 0.00236 | 0.00206 | 0.00185 | 0.00191 | 0.00191 |
| Samoa | 0.00340 | 0.00186 | 0.00184 | 0.00106 | 0.00107 | 0.00094 | 0.00090 | 0.00102 | 0.00100 | 0.00174 | 0.00175 | 0.00116 | 0.00115 | 0.00142 | 0.00116 |
| São Tomé and Príncipe | 0.00310 | 0.00146 | 0.00148 | 0.00048 | 0.00046 | 0.00068 | 0.00054 | 0.00056 | 0.00049 | 0.00067 | 0.00067 | 0.00323 | 0.00346 | 0.00049 | 0.00059 |
| Tonga | 0.00289 | 0.00136 | 0.00133 | 0.00057 | 0.00057 | 0.00049 | 0.00047 | 0.00054 | 0.00053 | 0.00123 | 0.00120 | 0.00119 | 0.00122 | 0.00193 | 0.00177 |
| St. Kitts and Nevis | 0.00262 | 0.00261 | 0.00262 | 0.00117 | 0.00125 | 0.00105 | 0.00124 | 0.00112 | 0.00124 | 0.00247 | 0.00231 | 0.00232 | 0.00230 | 0.00324 | 0.00323 |
| St. Vincent and the Grenadines | 0.00245 | 0.00192 | 0.00192 | 0.00099 | 0.00101 | 0.00114 | 0.00103 | 0.00105 | 0.00102 | 0.00158 | 0.00153 | 0.00157 | 0.00175 | 0.00158 | 0.00175 |
| Dominica | 0.00241 | 0.00189 | 0.00178 | 0.00068 | 0.00073 | 0.00070 | 0.00066 | 0.00069 | 0.00070 | 0.00163 | 0.00150 | 0.00242 | 0.00211 | 0.00194 | 0.00194 |
| Kiribati | 0.00235 | 0.00090 | 0.00144 | 0.00023 | 0.00024 | 0.00019 | 0.00018 | 0.00022 | 0.00022 | 0.00089 | 0.00082 | 0.00140 | 0.00188 | 0.00007 | 0.00666 |
| Micronesia | 0.00151 | 0.00122 | 0.00115 | 0.00045 | 0.00044 | 0.00028 | 0.00027 | 0.00038 | 0.00037 | 0.00130 | 0.00122 | 0.00085 | 0.00089 | 0.00212 | 0.00166 |
| Marshall Islands | 0.00103 | 0.00085 | 0.00083 | 0.00026 | 0.00027 | 0.00016 | 0.00016 | 0.00022 | 0.00022 | 0.00084 | 0.00086 | 0.00123 | 0.00113 | 0.00017 | 0.00013 |
| Palau | 0.00103 | 0.00084 | 0.00084 | 0.00036 | 0.00039 | 0.00023 | 0.00022 | 0.00031 | 0.00032 | 0.00096 | 0.00094 | 0.00071 | 0.00068 | 0.00004 | 0.00004 |
| Nauru | 0.00059 | 0.00049 | 0.00050 | 0.00014 | 0.00014 | 0.00010 | 0.00012 | 0.00012 | 0.00013 | 0.00045 | 0.00048 | 0.00066 | 0.00069 | 0.00027 | 0.00006 |
| Tuvalu | 0.00052 | 0.00030 | 0.00034 | 0.00005 | 0.00005 | 0.00003 | 0.00003 | 0.00004 | 0.00004 | 0.00029 | 0.00027 | 0.00054 | 0.00056 | 0.00002 | 0.00051 |

[^23]Table 2. Updated Quota Formula Variables—Absolute Values 1/
(In SDR million)

|  | $14^{\text {th }}$ Review | MER GDP |  | PPP GDP |  | Openness |  | Variability |  | Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| United States | 82,994.2 | 14,026,047 | 13,511,390 | 14,026,050 | 13,511,383 | 5,067,590 | 4,832,337 | 115,655 | 118,946 | 89,528 | 88,752 |
| Japan | 30,820.5 | 3,517,059 | 3,395,636 | 3,719,591 | 3,793,069 | 1,502,595 | 1,453,635 | 49,445 | 48,631 | 869,958 | 878,100 |
| China 2/ | 30,482.9 | 9,018,860 | 8,520,701 | 14,548,537 | 15,758,144 | 4,216,014 | 4,014,902 | 121,073 | 107,382 | 2,212,521 | 2,220,393 |
| Germany | 26,634.4 | 2,643,098 | 2,531,672 | 3,124,826 | 2,902,095 | 2,696,270 | 2,605,940 | 51,812 | 52,220 | 45,701 | 47,286 |
| France | 20,155.1 | 1,870,602 | 1,792,924 | 2,141,305 | 1,982,136 | 1,500,071 | 1,452,382 | 27,505 | 28,072 | 45,447 | 40,905 |
| United Kingdom | 20,155.1 | 1,960,676 | 1,961,951 | 2,142,985 | 2,034,148 | 1,620,524 | 1,555,720 | 45,497 | 44,731 | 103,410 | 97,565 |
| Italy | 15,070.0 | 1,412,583 | 1,352,088 | 1,795,313 | 1,617,360 | 953,604 | 930,283 | 22,749 | 23,339 | 37,261 | 36,262 |
| India | 13,114.4 | 1,833,798 | 1,674,771 | 5,974,590 | 6,284,935 | 810,915 | 773,510 | 18,272 | 17,409 | 274,332 | 264,378 |
| Russian Federation | 12,903.7 | 1,077,374 | 1,007,728 | 2,717,583 | 2,812,886 | 662,667 | 684,187 | 25,327 | 25,383 | 269,562 | 248,288 |
| Brazil | 11,042.0 | 1,370,460 | 1,353,473 | 2,158,610 | 2,308,157 | 403,614 | 402,758 | 16,129 | 16,860 | 266,301 | 268,568 |
| Canada | 11,023.9 | 1,166,755 | 1,137,128 | 1,267,130 | 1,224,107 | 900,828 | 877,443 | 16,605 | 16,606 | 58,502 | 60,853 |
| Saudi Arabia | 9,992.6 | 504,430 | 475,640 | 1,117,179 | 1,255,419 | 395,031 | 401,487 | 25,703 | 25,200 | 354,639 | 359,647 |
| Spain | 9,535.5 | 945,472 | 898,420 | 1,320,351 | 1,221,018 | 730,931 | 700,162 | 19,937 | 19,303 | 41,184 | 39,373 |
| Mexico | 8,912.7 | 824,220 | 813,407 | 1,771,868 | 1,702,514 | 674,179 | 639,368 | 15,115 | 15,905 | 122,059 | 123,305 |
| The Netherlands | 8,736.5 | 603,709 | 569,900 | 676,094 | 637,093 | 1,376,508 | 1,327,479 | 27,515 | 28,079 | 9,495 | 10,021 |
| Korea | 8,582.7 | 1,155,230 | 1,036,735 | 1,513,679 | 1,397,517 | 940,027 | 916,796 | 11,916 | 11,434 | 279,610 | 270,598 |
| Australia | 6,572.4 | 970,819 | 926,318 | 884,228 | 862,684 | 498,343 | 487,218 | 13,115 | 12,752 | 35,962 | 38,492 |
| Belgium | 6,410.7 | 363,315 | 340,197 | 405,983 | 368,304 | 688,835 | 666,305 | 15,646 | 14,174 | 12,001 | 11,400 |
| Switzerland | 5,771.1 | 490,469 | 485,916 | 409,061 | 363,979 | 872,934 | 842,058 | 29,386 | 27,544 | 541,668 | 521,634 |
| Turkey | 4,658.6 | 593,722 | 616,691 | 1,610,474 | 1,460,294 | 330,391 | 326,539 | 11,536 | 10,303 | 55,734 | 65,010 |
| Indonesia | 4,648.4 | 712,957 | 672,809 | 2,087,833 | 2,190,160 | 301,863 | 292,870 | 8,126 | 8,101 | 83,642 | 87,509 |
| Sweden | 4,430.0 | 384,556 | 370,274 | 378,209 | 358,170 | 406,536 | 398,443 | 13,318 | 12,971 | 40,070 | 40,190 |
| Poland | 4,095.4 | 377,631 | 353,487 | 823,178 | 765,318 | 421,015 | 392,676 | 9,191 | 9,167 | 77,481 | 77,116 |
| Austria | 3,932.0 | 302,654 | 285,674 | 344,361 | 304,356 | 358,616 | 344,611 | 9,096 | 9,266 | 9,049 | 8,238 |
| Singapore | 3,891.9 | 243,361 | 224,601 | 377,977 | 362,041 | 908,087 | 846,300 | 19,064 | 17,388 | 203,527 | 192,277 |
| Norway | 3,754.7 | 286,445 | 277,215 | 234,963 | 265,238 | 266,564 | 267,588 | 12,039 | 11,196 | 46,684 | 46,287 |
| Venezuela | 3,722.7 | 124,724 | 178,644 | 269,303 | 315,815 | 62,774 | 76,565 | 5,243 | 5,217 | 2,117 | 2,121 |
| Malaysia | 3,633.8 | 233,347 | 217,497 | 596,642 | 627,338 | 334,603 | 328,956 | 7,311 | 7,372 | 72,879 | 69,948 |
| Iran | 3,567.1 | 301,055 | 297,224 | 791,340 | 1,091,012 | 130,486 | 119,584 | 4,170 | 3,772 | 74,094 | 67,985 |
| Ireland | 3,449.9 | 242,909 | 221,513 | 270,136 | 235,126 | 656,638 | 566,564 | 13,068 | 11,952 | 3,059 | 2,649 |
| Denmark | 3,439.4 | 238,022 | 226,232 | 225,358 | 199,271 | 284,464 | 276,727 | 6,139 | 6,103 | 50,784 | 49,054 |
| Thailand | 3,211.9 | 328,094 | 303,877 | 865,485 | 843,713 | 416,059 | 404,870 | 11,454 | 11,477 | 143,159 | 132,775 |
| Argentina | 3,187.3 | 410,609 | 439,928 | 705,872 | 643,864 | 128,636 | 127,014 | 5,345 | 3,717 | 38,680 | 34,219 |
| South Africa | 3,051.2 | 241,741 | 230,230 | 519,813 | 536,767 | 164,819 | 164,224 | 3,491 | 3,464 | 32,195 | 30,852 |
| Nigeria | 2,454.5 | 286,664 | 305,206 | 715,139 | 792,641 | 114,525 | 118,732 | 5,784 | 5,522 | 31,673 | 23,341 |
| Greece | 2,428.9 | 147,150 | 142,478 | 224,020 | 209,925 | 118,027 | 115,387 | 4,675 | 4,675 | 2,238 | 2,062 |
| Finland | 2,410.6 | 184,238 | 173,354 | 184,735 | 168,676 | 165,301 | 161,664 | 5,592 | 6,580 | 5,908 | 6,163 |
| United Arab Emirates | 2,311.2 | 273,939 | 262,923 | 446,861 | 484,882 | 530,399 | 513,662 | 10,050 | 9,417 | 64,670 | 64,183 |
| Czech Republic | 2,180.2 | 156,371 | 143,204 | 290,194 | 256,595 | 255,891 | 241,922 | 7,437 | 4,854 | 102,648 | 97,990 |
| Portugal | 2,060.1 | 159,411 | 149,703 | 244,386 | 217,137 | 158,165 | 149,524 | 4,312 | 4,178 | 6,659 | 8,285 |

Table 2. Updated Quota Formula Variables—Absolute Values 1/ (continued)

|  | $14^{\text {th }}$ Review | MER GDP |  | PPP GDP |  | Openness |  | Variability |  | Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Colombia | 2,044.5 | 220,722 | 213,352 | 502,562 | 494,179 | 98,439 | 99,063 | 2,482 | 2,515 | 32,982 | 33,448 |
| Philippines | 2,042.9 | 226,423 | 218,260 | 588,248 | 582,299 | 161,820 | 148,395 | 3,993 | 3,996 | 49,780 | 52,901 |
| Egypt | 2,037.1 | 192,036 | 207,164 | 778,683 | 817,395 | 101,715 | 97,378 | 4,631 | 4,637 | 28,015 | 20,811 |
| Pakistan | 2,031.0 | 216,369 | 211,010 | 685,710 | 714,598 | 81,776 | 76,876 | 1,435 | 1,305 | 8,343 | 12,200 |
| Ukraine | 2,011.8 | 80,162 | 71,039 | 360,875 | 255,059 | 95,556 | 100,349 | 8,331 | 8,452 | 12,087 | 11,836 |
| Algeria | 1,959.9 | 119,529 | 118,227 | 344,887 | 436,904 | 82,935 | 86,260 | 5,333 | 5,388 | 63,278 | 75,873 |
| Hungary | 1,940.0 | 101,769 | 93,140 | 205,297 | 198,178 | 193,171 | 185,467 | 5,872 | 6,090 | 19,871 | 18,998 |
| Kuwait | 1,933.5 | 88,369 | 82,769 | 141,371 | 207,987 | 119,436 | 119,111 | 5,441 | 4,445 | 25,964 | 23,348 |
| Israel | 1,920.9 | 248,663 | 233,106 | 243,887 | 216,750 | 165,850 | 159,626 | 3,640 | 3,664 | 81,689 | 77,639 |
| Romania | 1,811.4 | 152,984 | 138,411 | 377,318 | 322,285 | 141,285 | 128,371 | 5,183 | 5,207 | 27,478 | 28,247 |
| Chile | 1,744.3 | 197,021 | 184,706 | 314,323 | 315,266 | 132,198 | 130,558 | 5,010 | 5,040 | 26,815 | 27,955 |
| Iraq | 1,663.8 | 141,610 | 129,327 | 284,758 | 447,719 | 111,592 | 91,788 | 5,188 | 5,582 | 37,450 | 30,682 |
| Libya | 1,573.2 | 21,529 | 15,842 | 48,876 | 33,224 | 29,224 | 31,383 | 5,986 | 5,881 | 56,274 | 50,339 |
| Peru | 1,334.5 | 151,190 | 143,832 | 286,370 | 295,657 | 78,292 | 75,224 | 3,067 | 2,989 | 41,835 | 44,456 |
| Luxembourg | 1,321.8 | 46,691 | 42,750 | 46,951 | 42,841 | 506,707 | 518,346 | 12,054 | 12,744 | 578 | 606 |
| New Zealand | 1,252.1 | 141,618 | 129,116 | 138,957 | 129,329 | 90,076 | 86,843 | 2,615 | 2,657 | 14,314 | 14,269 |
| Kazakhstan | 1,158.4 | 115,245 | 115,174 | 316,872 | 328,673 | 92,363 | 98,763 | 4,514 | 4,818 | 12,616 | 14,283 |
| Vietnam | 1,153.1 | 160,685 | 149,066 | 485,141 | 431,155 | 298,434 | 259,003 | 4,138 | 3,390 | 39,710 | 29,106 |
| Syria | 1,109.8 | 163,013 | 163,013 | 89,364 | 89,364 | 28,285 | 28,285 | 1,116 | 987 | 282 | 282 |
| Bangladesh | 1,066.6 | 187,794 | 169,342 | 511,840 | 455,866 | 76,504 | 70,361 | 763 | 744 | 22,565 | 23,313 |
| Democratic Republic of the Congo | 1,066.0 | 29,145 | 28,714 | 60,963 | 47,082 | 22,374 | 20,958 | 1,621 | 1,646 | 592 | 370 |
| Slovak Republic | 1,001.0 | 69,411 | 65,445 | 121,655 | 123,033 | 135,273 | 129,927 | 3,466 | 3,475 | 2,377 | 1,397 |
| Zambia | 978.2 | 17,539 | 16,266 | 42,167 | 47,118 | 13,884 | 14,117 | 509 | 485 | 1,226 | 1,608 |
| Bulgaria | 896.3 | 42,656 | 38,725 | 107,151 | 104,739 | 58,435 | 55,474 | 2,332 | 2,382 | 18,431 | 18,137 |
| Morocco | 894.4 | 79,065 | 75,181 | 190,010 | 204,886 | 69,181 | 65,555 | 1,703 | 1,691 | 16,856 | 16,984 |
| Angola | 740.1 | 78,543 | 82,347 | 153,479 | 140,431 | 57,981 | 64,678 | 4,011 | 3,889 | 11,719 | 14,662 |
| Ghana | 738.0 | 42,804 | 38,943 | 105,673 | 117,338 | 33,435 | 31,230 | 1,019 | 981 | 4,228 | 4,694 |
| Qatar | 735.1 | 121,572 | 115,053 | 178,565 | 235,975 | 139,984 | 143,120 | 7,014 | 5,846 | 16,428 | 17,255 |
| Croatia | 717.4 | 40,032 | 37,449 | 78,529 | 70,129 | 42,715 | 41,161 | 1,353 | 1,251 | 13,755 | 12,163 |
| Zimbabwe | 706.8 | 15,015 | 14,983 | 30,197 | 23,605 | 10,205 | 10,019 | 253 | 207 | 108 | 265 |
| Ecuador | 697.7 | 74,561 | 72,696 | 138,199 | 134,947 | 38,539 | 37,933 | 1,364 | 1,293 | 2,022 | 2,047 |
| Belarus | 681.5 | 38,735 | 37,983 | 125,284 | 125,890 | 57,154 | 57,485 | 2,202 | 2,180 | 3,677 | 3,244 |
| Serbia | 654.8 | 32,263 | 29,792 | 84,132 | 73,198 | 37,886 | 35,346 | 1,536 | 1,548 | 8,513 | 7,603 |
| Côte d'Ivoire | 650.4 | 27,772 | 25,525 | 63,491 | 64,072 | 19,736 | 19,164 | 499 | 501 | 4,662 | 3,659 |
| Lebanon | 633.5 | 38,396 | 37,264 | 77,762 | 61,439 | 52,826 | 51,881 | 2,244 | 2,284 | 31,460 | 31,429 |
| Sudan | 630.2 | 67,725 | 75,013 | 131,131 | 123,067 | 12,692 | 13,237 | 800 | 812 | 129 | 125 |
| Slovenia | 586.5 | 35,111 | 32,624 | 53,997 | 48,301 | 57,353 | 53,402 | 1,561 | 1,568 | 534 | 520 |
| Sri Lanka | 578.8 | 61,862 | 59,819 | 195,095 | 188,251 | 37,310 | 35,172 | 753 | 590 | 5,146 | 4,123 |
| Uzbekistan | 551.2 | 45,724 | 43,468 | 153,576 | 148,906 | 26,773 | 24,808 | 709 | 689 | 9,837 | 10,903 |
| Tunisia | 545.2 | 28,989 | 29,912 | 87,220 | 95,748 | 32,533 | 32,799 | 1,112 | 1,117 | 3,641 | 4,115 |

Table 2. Updated Quota Formula Variables—Absolute Values 1/ (continued)

|  | $14^{\text {th }}$ Review | MER GDP |  | PPP GDP |  | Openness |  | Variability |  | Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Oman | 544.4 | 51,340 | 49,250 | 96,997 | 133,160 | 65,402 | 66,757 | 3,339 | 3,368 | 11,662 | 12,785 |
| Kenya | 542.8 | 56,222 | 51,300 | 143,454 | 110,147 | 24,994 | 23,896 | 636 | 639 | 6,130 | 5,719 |
| Myanmar | 516.8 | 45,976 | 45,282 | 163,416 | 219,380 | 26,366 | 24,999 | 971 | 999 | 3,594 | 3,456 |
| Yemen | 487.0 | 19,375 | 31,978 | 44,432 | 57,085 | 13,494 | 14,232 | 1,507 | 1,517 | 1,657 | 444 |
| Dominican Republic | 477.4 | 57,530 | 52,022 | 127,862 | 116,398 | 36,170 | 34,058 | 861 | 861 | 5,151 | 4,606 |
| Trinidad and Tobago | 469.8 | 15,867 | 16,687 | 25,949 | 31,484 | 16,942 | 18,057 | 1,347 | 1,338 | 5,693 | 6,650 |
| Lithuania | 441.6 | 34,389 | 31,627 | 68,034 | 62,616 | 54,751 | 54,612 | 2,288 | 2,318 | 3,323 | 1,441 |
| Uruguay | 429.1 | 40,978 | 39,555 | 52,562 | 54,023 | 24,967 | 25,179 | 1,041 | 994 | 11,786 | 10,166 |
| Guatemala | 428.6 | 53,118 | 49,838 | 101,556 | 95,005 | 30,672 | 29,895 | 479 | 422 | 8,333 | 7,380 |
| Tanzania | 397.8 | 38,198 | 34,753 | 97,479 | 108,301 | 15,311 | 16,001 | 653 | 834 | 3,813 | 3,692 |
| Bahrain | 395.0 | 25,139 | 23,637 | 49,908 | 48,584 | 43,053 | 42,631 | 1,239 | 1,352 | 1,430 | 1,848 |
| Azerbaijan | 391.7 | 29,957 | 31,379 | 100,968 | 122,951 | 33,646 | 35,070 | 1,471 | 1,415 | 4,653 | 4,945 |
| Jamaica | 382.9 | 10,599 | 10,320 | 20,039 | 18,256 | 11,345 | 10,869 | 614 | 587 | 2,568 | 2,501 |
| Panama | 376.8 | 44,189 | 41,153 | 88,370 | 70,055 | 45,729 | 45,528 | 785 | 796 | 1,395 | 2,982 |
| Costa Rica | 369.4 | 41,850 | 40,556 | 67,077 | 57,335 | 29,272 | 27,505 | 616 | 624 | 5,356 | 5,075 |
| Uganda | 361.0 | 22,750 | 18,517 | 54,853 | 60,690 | 10,719 | 10,145 | 188 | 190 | 2,426 | 2,462 |
| Jordan | 343.1 | 29,129 | 27,841 | 68,062 | 61,723 | 32,470 | 32,264 | 906 | 923 | 8,909 | 9,200 |
| Latvia | 332.3 | 22,038 | 20,392 | 39,914 | 36,839 | 30,293 | 28,890 | 1,010 | 953 | 3,011 | 2,648 |
| Afghanistan | 323.8 | 14,170 | 14,307 | 57,202 | 47,930 | 9,713 | 10,610 | 1,469 | 2,226 | 5,069 | 5,036 |
| Senegal | 323.6 | 15,130 | 13,849 | 35,577 | 36,347 | 11,339 | 10,504 | 320 | 459 | 1,724 | 1,393 |
| Iceland | 321.8 | 16,937 | 14,988 | 13,664 | 12,252 | 15,329 | 14,196 | 12,521 | 12,520 | 4,494 | 4,769 |
| Cyprus | 303.8 | 16,329 | 14,896 | 22,811 | 21,680 | 56,240 | 35,261 | 3,388 | 2,399 | 244 | 236 |
| Brunei Darussalam | 301.3 | 8,844 | 8,730 | 18,139 | 23,934 | 10,202 | 11,065 | 1,053 | 895 | 2,210 | 2,223 |
| Ethiopia | 300.7 | 59,441 | 54,812 | 151,930 | 129,581 | 23,558 | 21,777 | 537 | 581 | 2,405 | 2,122 |
| El Salvador | 287.2 | 17,920 | 17,217 | 38,519 | 35,345 | 17,689 | 16,803 | 416 | 428 | 2,683 | 2,607 |
| Cameroon | 276.0 | 25,355 | 23,585 | 62,445 | 60,985 | 12,051 | 11,953 | 457 | 457 | 2,239 | 1,797 |
| Bosnia and Herzegovina | 265.2 | 13,060 | 12,285 | 33,360 | 30,782 | 14,641 | 13,755 | 442 | 433 | 4,676 | 4,013 |
| Papua New Guinea | 263.2 | 15,805 | 14,270 | 22,401 | 20,889 | 10,279 | 10,149 | 351 | 330 | 1,250 | 1,205 |
| Nicaragua | 260.0 | 9,603 | 9,487 | 26,792 | 24,592 | 10,475 | 10,329 | 252 | 203 | 1,825 | 1,843 |
| Liberia | 258.4 | 2,340 | 2,330 | 4,969 | 4,275 | 2,711 | 2,860 | 396 | 397 | 415 | 335 |
| Honduras | 249.8 | 16,405 | 15,681 | 37,134 | 31,376 | 17,017 | 16,012 | 371 | 390 | 3,283 | 3,165 |
| South Sudan | 246.0 | 2,737 | 8,509 | 8,235 | 15,447 | 5,791 | 5,988 | 727 | 1,015 | 37 | 27 |
| Madagascar | 244.4 | 9,270 | 7,485 | 26,781 | 27,074 | 6,582 | 6,146 | 216 | 134 | 1,148 | 897 |
| Estonia | 243.6 | 19,455 | 17,606 | 31,823 | 28,363 | 31,442 | 30,515 | 1,086 | 1,106 | 375 | 238 |
| Bolivia | 240.1 | 26,642 | 25,019 | 66,207 | 56,861 | 17,914 | 17,761 | 808 | 720 | 5,416 | 6,120 |
| Turkmenistan | 238.6 | 27,391 | 26,323 | 59,430 | 69,070 | 19,808 | 22,821 | 955 | 974 | 20,820 | 15,434 |
| Mozambique | 227.2 | 9,075 | 9,181 | 25,536 | 25,302 | 11,473 | 11,491 | 574 | 581 | 2,215 | 1,716 |
| Gabon | 216.0 | 10,923 | 10,368 | 21,865 | 25,672 | 8,808 | 9,943 | 384 | 327 | 659 | 540 |
| Guinea | 214.2 | 7,387 | 6,614 | 20,282 | 18,213 | 6,548 | 6,004 | 519 | 501 | 756 | 242 |
| Georgia | 210.4 | 10,890 | 10,407 | 34,103 | 27,050 | 14,583 | 13,799 | 292 | 338 | 2,159 | 2,084 |

Table 2. Updated Quota Formula Variables—Absolute Values 1/ (continued)

|  | $14^{\text {th }}$ Review | MER GDP |  | PPP GDP |  | Openness |  | Variability |  | Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Sierra Leone | 207.4 | 2,782 | 2,804 | 8,943 | 7,821 | 2,379 | 2,643 | 185 | 199 | 362 | 348 |
| Paraguay | 201.4 | 27,878 | 26,624 | 61,980 | 60,163 | 19,764 | 19,305 | 637 | 627 | 5,428 | 5,212 |
| Botswana | 197.2 | 12,319 | 11,373 | 27,671 | 26,799 | 13,025 | 12,748 | 460 | 394 | 5,155 | 5,379 |
| Namibia | 191.1 | 9,386 | 8,673 | 18,591 | 18,859 | 9,723 | 9,362 | 299 | 289 | 1,595 | 1,511 |
| Mali | 186.6 | 11,102 | 10,167 | 29,937 | 27,661 | 8,379 | 8,112 | 171 | 320 | 789 | 605 |
| The Bahamas | 182.4 | 8,709 | 8,572 | 9,640 | 8,492 | 6,797 | 6,332 | 244 | 233 | 1,044 | 827 |
| Guyana | 181.8 | 2,620 | 2,474 | 5,108 | 4,347 | 3,377 | 3,111 | 94 | 91 | 338 | 404 |
| Kyrgyz Republic | 177.6 | 5,391 | 5,044 | 22,150 | 15,683 | 8,078 | 8,242 | 221 | 221 | 1,277 | 1,323 |
| Cambodia | 175.0 | 15,876 | 14,422 | 45,298 | 42,572 | 25,506 | 22,591 | 289 | 292 | 8,621 | 7,237 |
| Tajikistan | 174.0 | 5,156 | 5,256 | 20,106 | 18,826 | 5,169 | 5,504 | 198 | 168 | 383 | 231 |
| Moldova | 172.5 | 6,923 | 6,101 | 22,899 | 16,475 | 7,850 | 7,666 | 316 | 322 | 2,073 | 1,766 |
| Malta | 168.3 | 9,271 | 8,352 | 13,993 | 12,846 | 41,969 | 40,978 | 903 | 926 | 642 | 551 |
| Haiti | 163.8 | 6,295 | 6,077 | 13,964 | 13,948 | 6,694 | 6,181 | 185 | 185 | 1,609 | 1,605 |
| Somalia | 163.4 | 3,202 | 4,905 | 9,113 | 14,044 | 5,896 | 5,527 | 93 | 93 | 23 | 23 |
| Republic of Congo | 162.0 | 6,761 | 6,014 | 11,956 | 21,425 | 10,912 | 10,529 | 738 | 765 | 215 | 310 |
| Rwanda | 160.2 | 6,453 | 6,197 | 16,879 | 16,481 | 4,198 | 3,938 | 116 | 203 | 780 | 532 |
| Equatorial Guinea | 157.5 | 8,889 | 8,841 | 19,401 | 23,481 | 10,283 | 12,366 | 1,511 | 1,990 | 34 | 51 |
| Nepal | 156.9 | 19,084 | 17,064 | 59,496 | 53,185 | 15,273 | 13,518 | 241 | 240 | 6,233 | 6,405 |
| Burundi | 154.0 | 2,386 | 2,285 | 6,447 | 5,680 | 1,080 | 1,059 | 45 | 47 | 50 | 74 |
| Togo | 146.8 | 3,488 | 3,209 | 8,348 | 8,776 | 3,887 | 4,001 | 154 | 156 | 494 | 375 |
| Mauritius | 142.2 | 9,467 | 8,930 | 19,560 | 19,270 | 21,302 | 19,920 | 1,013 | 869 | 4,161 | 3,471 |
| North Macedonia | 140.3 | 8,251 | 7,669 | 23,324 | 21,733 | 11,598 | 10,637 | 356 | 340 | 2,032 | 1,759 |
| Chad | 140.2 | 7,472 | 7,401 | 17,587 | 21,136 | 6,681 | 6,769 | 467 | 499 | 22 | 6 |
| Albania | 139.3 | 9,531 | 8,697 | 26,818 | 24,575 | 8,606 | 8,132 | 283 | 279 | 2,474 | 2,270 |
| Malawi | 138.8 | 4,439 | 4,322 | 13,140 | 15,339 | 3,778 | 3,595 | 184 | 189 | 494 | 482 |
| Niger | 131.6 | 8,171 | 5,498 | 16,503 | 14,754 | 4,084 | 3,974 | 89 | 91 | 982 | 775 |
| Suriname | 128.9 | 2,304 | 2,758 | 6,282 | 6,174 | 3,328 | 3,378 | 204 | 201 | 349 | 266 |
| Armenia | 128.8 | 8,228 | 7,817 | 25,169 | 19,102 | 8,554 | 8,086 | 265 | 262 | 1,506 | 1,501 |
| Mauritania | 128.8 | 3,536 | 3,451 | 11,166 | 11,878 | 3,740 | 3,883 | 211 | 216 | 620 | 594 |
| Benin | 123.8 | 9,246 | 6,250 | 24,769 | 17,109 | 5,718 | 4,702 | 222 | 292 | 679 | 534 |
| Burkina Faso | 120.4 | 10,295 | 8,209 | 25,493 | 23,904 | 6,958 | 6,528 | 156 | 138 | 277 | 221 |
| Central African Republic | 111.4 | 1,472 | 1,263 | 2,985 | 2,299 | 928 | 818 | 71 | 76 | 237 | 203 |
| Lao P.D.R. | 105.8 | 12,069 | 11,248 | 36,305 | 32,699 | 9,092 | 8,037 | 158 | 159 | 714 | 735 |
| Fiji | 98.4 | 3,773 | 3,308 | 8,418 | 5,970 | 4,287 | 4,055 | 105 | 115 | 727 | 774 |
| Barbados | 94.5 | 3,553 | 3,486 | 3,263 | 3,667 | 3,500 | 3,440 | 88 | 80 | 189 | 306 |
| Kosovo | 82.6 | 5,223 | 4,882 | 13,545 | 13,357 | 5,299 | 5,008 | 82 | 88 | 663 | 588 |
| Eswatini | 78.5 | 3,100 | 3,077 | 6,996 | 8,078 | 3,496 | 3,291 | 118 | 105 | 366 | 415 |
| Mongolia | 72.3 | 8,486 | 8,231 | 25,423 | 27,094 | 10,418 | 9,707 | 661 | 632 | 1,946 | 1,047 |
| Lesotho | 69.8 | 1,827 | 1,780 | 4,716 | 4,708 | 3,269 | 3,096 | 79 | 89 | 549 | 628 |
| The Gambia | 62.2 | 1,098 | 1,036 | 3,348 | 3,810 | 768 | 702 | 30 | 21 | 132 | 94 |

Table 2. Updated Quota Formula Variables—Absolute Values 1/ (concluded)

|  | $14^{\text {th }}$ Review | MER GDP |  | PPP GDP |  | Openness |  | Variability |  | Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Previous | Current | Previous | Current | Previous | Current | Previous | Current | Previous |
| Montenegro | 60.5 | 3,514 | 3,179 | 8,766 | 7,552 | 4,134 | 3,851 | 152 | 147 | 774 | 628 |
| San Marino | 49.2 | 1,105 | 1,058 | 1,422 | 1,364 | 3,842 | 3,686 | 162 | 154 | 261 | 284 |
| Eritrea | 36.6 | 1,455 | 3,656 | 4,080 | 6,400 | 1,153 | 1,410 | 77 | 46 | 114 | 93 |
| Djibouti | 31.8 | 1,981 | 1,352 | 3,347 | 2,419 | 5,248 | 1,215 | 382 | 36 | 317 | 359 |
| Guinea-Bissau | 28.4 | 944 | 856 | 2,474 | 2,119 | 643 | 553 | 175 | 174 | 313 | 247 |
| Belize | 26.7 | 1,334 | 1,306 | 1,970 | 2,268 | 1,772 | 1,725 | 29 | 29 | 211 | 263 |
| Timor-Leste | 25.6 | 1,845 | 2,011 | 4,201 | 5,226 | 2,013 | 2,281 | 177 | 177 | 259 | 222 |
| Vanuatu | 23.8 | 620 | 583 | 552 | 525 | 760 | 708 | 37 | 37 | 283 | 248 |
| Cabo Verde | 23.7 | 1,290 | 1,205 | 2,569 | 2,565 | 1,712 | 1,627 | 57 | 57 | 447 | 418 |
| Seychelles | 22.9 | 1,076 | 1,031 | 1,849 | 1,854 | 2,387 | 2,265 | 75 | 77 | 392 | 396 |
| St. Lucia | 21.4 | 1,297 | 1,231 | 1,752 | 1,675 | 1,578 | 1,378 | 39 | 37 | 221 | 218 |
| Maldives | 21.2 | 3,484 | 3,200 | 6,585 | 4,815 | 5,304 | 4,859 | 128 | 127 | 477 | 390 |
| Solomon Islands | 20.8 | 936 | 888 | 953 | 909 | 1,138 | 1,104 | 25 | 26 | 411 | 369 |
| Bhutan | 20.4 | 1,771 | 1,650 | 5,815 | 4,757 | 1,818 | 1,739 | 101 | 99 | 772 | 817 |
| Antigua and Barbuda | 20.0 | 1,077 | 1,042 | 1,397 | 1,638 | 1,675 | 1,446 | 37 | 33 | 234 | 220 |
| Comoros | 17.8 | 785 | 444 | 1,764 | 910 | 509 | 517 | 18 | 15 | 138 | 129 |
| Grenada | 16.4 | 804 | 760 | 1,282 | 1,105 | 978 | 861 | 21 | 19 | 149 | 147 |
| Samoa | 16.2 | 608 | 588 | 811 | 774 | 658 | 639 | 12 | 12 | 110 | 90 |
| São Tomé and Príncipe | 14.8 | 273 | 255 | 585 | 467 | 253 | 244 | 33 | 35 | 38 | 46 |
| Tonga | 13.8 | 329 | 310 | 424 | 406 | 466 | 437 | 12 | 12 | 151 | 136 |
| St. Kitts and Nevis | 12.5 | 672 | 685 | 900 | 1,071 | 938 | 844 | 24 | 23 | 253 | 248 |
| St. Vincent and the Grenadines | 11.7 | 567 | 554 | 981 | 888 | 601 | 558 | 16 | 18 | 123 | 134 |
| Dominica | 11.5 | 389 | 401 | 597 | 567 | 618 | 547 | 25 | 21 | 151 | 149 |
| Kiribati | 11.2 | 132 | 131 | 165 | 157 | 339 | 301 | 14 | 19 | 5 | 512 |
| Micronesia | 7.2 | 257 | 242 | 243 | 237 | 491 | 446 | 9 | 9 | 165 | 128 |
| Marshall Islands | 4.9 | 149 | 147 | 141 | 135 | 317 | 316 | 13 | 11 | 14 | 10 |
| Palau | 4.9 | 207 | 213 | 193 | 191 | 365 | 345 | 7 | 7 | 3 | 3 |
| Nauru | 2.8 | 78 | 77 | 82 | 107 | 172 | 174 | 7 | 7 | 21 | 5 |
| Tuvalu | 2.5 | 28 | 27 | 30 | 29 | 109 | 97 | 6 | 6 | 2 | 39 |
| 1/ Data columns marked as "current" refer to the 2020 quota data update (data through 2018); "previous" refers to the 2019 quota data update (data through 2017). 2/ Including China, P.R., Hong Kong SAR, and Macao SAR. |  |  |  |  |  |  |  |  |  |  |  |








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苔
 Democratic Republic of the Congo
Slovak Republic Chile
Iraq
Libya
Peru
Luxem
New Z
Kazakh
Vietna
Syria
Bangla New Zealand
Kazakhstan
Vietnam
Syria
Bangladesh




|  | $14^{\text {th }}$ Review | CQS (Current Formula) |  |  | MER GDP |  | PPP GDP |  |  | GDP Blend |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current |  | Previous | Current | Previous | Current |  | Previous | Current |  | Previous |
|  |  | 2017 ICP 2/ | 2011 ICP 2/ |  |  |  | 2017 ICP 2/ | 2011 ICP 2/ |  | 2017 ICP 21 | 2011 ICP 21 |  |
| Sierra Leone | 0.0435 | 0.0111 | 0.0108 | 0.0116 | 0.0049 | 0.0051 | 0.0104 | 0.0091 | 0.0091 | 0.0071 | 0.0066 | 0.0067 |
| Paraguay | 0.0422 | 0.0694 | 0.0690 | 0.0690 | 0.0487 | 0.0485 | 0.0722 | 0.0701 | 0.0697 | 0.0581 | 0.0572 | 0.0570 |
| Botswana | 0.0413 | 0.0413 | 0.0410 | 0.0402 | 0.0215 | 0.0207 | 0.0322 | 0.0311 | 0.0310 | 0.0258 | 0.0254 | 0.0248 |
| Namibia | 0.0401 | 0.0283 | 0.0282 | 0.0280 | 0.0164 | 0.0158 | 0.0216 | 0.0211 | 0.0218 | 0.0185 | 0.0183 | 0.0182 |
| Mali | 0.0391 | 0.0284 | 0.0278 | 0.0301 | 0.0194 | 0.0185 | 0.0349 | 0.0325 | 0.0320 | 0.0256 | 0.0246 | 0.0239 |
| The Bahamas | 0.0382 | 0.0211 | 0.0207 | 0.0205 | 0.0152 | 0.0156 | 0.0112 | 0.0094 | 0.0098 | 0.0136 | 0.0129 | 0.0133 |
| Guyana | 0.0381 | 0.0092 | 0.0089 | 0.0088 | 0.0046 | 0.0045 | 0.0059 | 0.0050 | 0.0050 | 0.0051 | 0.0047 | 0.0047 |
| Kyrgyz Republic | 0.0372 | 0.0236 | 0.0217 | 0.0222 | 0.0094 | 0.0092 | 0.0258 | 0.0182 | 0.0182 | 0.0160 | 0.0129 | 0.0128 |
| Cambodia | 0.0367 | 0.0595 | 0.0591 | 0.0555 | 0.0277 | 0.0263 | 0.0527 | 0.0509 | 0.0493 | 0.0377 | 0.0370 | 0.0355 |
| Tajikistan | 0.0365 | 0.0189 | 0.0187 | 0.0187 | 0.0090 | 0.0096 | 0.0234 | 0.0225 | 0.0218 | 0.0148 | 0.0144 | 0.0145 |
| Moldova | 0.0362 | 0.0268 | 0.0250 | 0.0248 | 0.0121 | 0.0111 | 0.0267 | 0.0192 | 0.0191 | 0.0179 | 0.0149 | 0.0143 |
| Malta | 0.0353 | 0.0665 | 0.0663 | 0.0671 | 0.0162 | 0.0152 | 0.0163 | 0.0156 | 0.0149 | 0.0162 | 0.0159 | 0.0151 |
| Haiti | 0.0343 | 0.0201 | 0.0200 | 0.0199 | 0.0110 | 0.0111 | 0.0163 | 0.0158 | 0.0162 | 0.0131 | 0.0129 | 0.0131 |
| Somalia | 0.0343 | 0.0130 | 0.0126 | 0.0155 | 0.0056 | 0.0089 | 0.0106 | 0.0091 | 0.0163 | 0.0076 | 0.0070 | 0.0119 |
| Republic of Congo | 0.0340 | 0.0325 | 0.0349 | 0.0357 | 0.0118 | 0.0110 | 0.0139 | 0.0238 | 0.0248 | 0.0127 | 0.0166 | 0.0165 |
| Rwanda | 0.0336 | 0.0167 | 0.0168 | 0.0179 | 0.0113 | 0.0113 | 0.0197 | 0.0198 | 0.0191 | 0.0146 | 0.0147 | 0.0144 |
| Equatorial Guinea | 0.0330 | 0.0484 | 0.0488 | 0.0610 | 0.0155 | 0.0161 | 0.0226 | 0.0244 | 0.0272 | 0.0183 | 0.0191 | 0.0205 |
| Nepal | 0.0329 | 0.0533 | 0.0517 | 0.0498 | 0.0333 | 0.0311 | 0.0693 | 0.0625 | 0.0616 | 0.0477 | 0.0450 | 0.0433 |
| Burundi | 0.0323 | 0.0059 | 0.0056 | 0.0058 | 0.0042 | 0.0042 | 0.0075 | 0.0063 | 0.0066 | 0.0055 | 0.0050 | 0.0051 |
| Togo | 0.0308 | 0.0124 | 0.0126 | 0.0127 | 0.0061 | 0.0058 | 0.0097 | 0.0103 | 0.0102 | 0.0075 | 0.0078 | 0.0076 |
| Mauritius | 0.0298 | 0.0536 | 0.0535 | 0.0503 | 0.0165 | 0.0163 | 0.0228 | 0.0223 | 0.0223 | 0.0190 | 0.0188 | 0.0187 |
| North Macedonia | 0.0294 | 0.0320 | 0.0314 | 0.0305 | 0.0144 | 0.0140 | 0.0272 | 0.0247 | 0.0252 | 0.0195 | 0.0185 | 0.0184 |
| Chad | 0.0294 | 0.0256 | 0.0263 | 0.0278 | 0.0130 | 0.0135 | 0.0205 | 0.0233 | 0.0245 | 0.0160 | 0.0172 | 0.0179 |
| Albania | 0.0292 | 0.0300 | 0.0293 | 0.0288 | 0.0166 | 0.0158 | 0.0312 | 0.0284 | 0.0285 | 0.0225 | 0.0214 | 0.0209 |
| Malawi | 0.0291 | 0.0149 | 0.0155 | 0.0157 | 0.0078 | 0.0079 | 0.0153 | 0.0177 | 0.0178 | 0.0108 | 0.0117 | 0.0118 |
| Niger | 0.0276 | 0.0173 | 0.0178 | 0.0151 | 0.0143 | 0.0100 | 0.0192 | 0.0212 | 0.0171 | 0.0162 | 0.0170 | 0.0128 |
| Suriname | 0.0270 | 0.0113 | 0.0112 | 0.0118 | 0.0040 | 0.0050 | 0.0073 | 0.0068 | 0.0071 | 0.0053 | 0.0051 | 0.0059 |
| Armenia | 0.0270 | 0.0276 | 0.0259 | 0.0258 | 0.0144 | 0.0142 | 0.0293 | 0.0222 | 0.0221 | 0.0203 | 0.0175 | 0.0174 |
| Mauritania | 0.0270 | 0.0143 | 0.0145 | 0.0150 | 0.0062 | 0.0063 | 0.0130 | 0.0136 | 0.0138 | 0.0089 | 0.0092 | 0.0093 |
| Benin | 0.0260 | 0.0240 | 0.0237 | 0.0206 | 0.0161 | 0.0114 | 0.0288 | 0.0273 | 0.0198 | 0.0212 | 0.0206 | 0.0148 |
| Burkina Faso | 0.0252 | 0.0246 | 0.0245 | 0.0226 | 0.0180 | 0.0149 | 0.0297 | 0.0289 | 0.0277 | 0.0227 | 0.0224 | 0.0200 |
| Central African Republic | 0.0234 | 0.0047 | 0.0046 | 0.0044 | 0.0026 | 0.0023 | 0.0035 | 0.0030 | 0.0027 | 0.0029 | 0.0027 | 0.0024 |
| Lao P.D.R. | 0.0222 | 0.0312 | 0.0304 | 0.0293 | 0.0211 | 0.0205 | 0.0423 | 0.0389 | 0.0379 | 0.0296 | 0.0282 | 0.0274 |
| Fiji | 0.0206 | 0.0124 | 0.0118 | 0.0116 | 0.0066 | 0.0060 | 0.0098 | 0.0077 | 0.0069 | 0.0079 | 0.0070 | 0.0064 |
| Barbados | 0.0198 | 0.0091 | 0.0092 | 0.0094 | 0.0062 | 0.0063 | 0.0038 | 0.0041 | 0.0042 | 0.0052 | 0.0054 | 0.0055 |
| Kosovo | 0.0173 | 0.0153 | 0.0153 | 0.0152 | 0.0091 | 0.0089 | 0.0158 | 0.0155 | 0.0155 | 0.0118 | 0.0117 | 0.0115 |
| Eswatini | 0.0165 | 0.0106 | 0.0109 | 0.0108 | 0.0054 | 0.0056 | 0.0081 | 0.0091 | 0.0094 | 0.0065 | 0.0069 | 0.0071 |
| Mongolia | 0.0152 | 0.0368 | 0.0373 | 0.0361 | 0.0148 | 0.0150 | 0.0296 | 0.0316 | 0.0314 | 0.0207 | 0.0215 | 0.0215 |
| Lesotho | 0.0146 | 0.0083 | 0.0083 | 0.0086 | 0.0032 | 0.0032 | 0.0055 | 0.0054 | 0.0055 | 0.0041 | 0.0041 | 0.0041 |
| The Gambia | 0.0130 | 0.0035 | 0.0036 | 0.0034 | 0.0019 | 0.0019 | 0.0039 | 0.0043 | 0.0044 | 0.0027 | 0.0029 | 0.0029 |


|  |  |  | le 3. Upda | ed GDP | nd Varia | --by M | mber 1/ | oncluded |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | (In perc |  |  |  |  |  |  |  |
|  |  |  | (Current Formula) |  | MER |  |  | PPP GDP |  |  | GDP Blend |  |
|  | 14"Review | Curr |  | Previous | Current | Previous |  |  | Previous | Curr |  | Previous |
|  |  | 2017 ICP 2/ | 2011 ICP 2/ |  |  |  | 2017 ICP $2 /$ | 2011 ICP 2/ |  | 2017 ICP 2/ | 2011 ICP 21 |  |
| Montenegro | 0.01268 | 0.01303 | 0.01267 | 0.01226 | 0.00614 | 0.00579 | 0.01021 | 0.00880 | 0.00874 | 0.00776 | 0.00720 | 0.00697 |
| San Marino | 0.01031 | 0.00873 | 0.00870 | 0.00863 | 0.00193 | 0.00193 | 0.00166 | 0.00154 | 0.00158 | 0.00182 | 0.00178 | 0.00179 |
| Eritrea | 0.00767 | 0.00529 | 0.00526 | 0.00733 | 0.00254 | 0.00666 | 0.00475 | 0.00460 | 0.00741 | 0.00343 | 0.00337 | 0.00696 |
| Djibouti | 0.00667 | 0.01536 | 0.01541 | 0.00430 | 0.00346 | 0.00246 | 0.00390 | 0.00408 | 0.00280 | 0.00363 | 0.00371 | 0.00260 |
| Guinea-Bissau | 0.00595 | 0.00595 | 0.00585 | 0.00575 | 0.00165 | 0.00156 | 0.00288 | 0.00249 | 0.00245 | 0.00214 | 0.00198 | 0.00192 |
| Belize | 0.00560 | 0.00436 | 0.00443 | 0.00455 | 0.00233 | 0.00238 | 0.00229 | 0.00254 | 0.00263 | 0.00232 | 0.00241 | 0.00248 |
| Timor-Leste | 0.00537 | 0.00847 | 0.00859 | 0.00936 | 0.00322 | 0.00366 | 0.00489 | 0.00532 | 0.00605 | 0.00389 | 0.00406 | 0.00462 |
| Vanuatu | 0.00499 | 0.00255 | 0.00254 | 0.00250 | 0.00108 | 0.00106 | 0.00064 | 0.00061 | 0.00061 | 0.00091 | 0.00089 | 0.00088 |
| Cabo Verde | 0.00497 | 0.00520 | 0.00520 | 0.00514 | 0.00225 | 0.00219 | 0.00299 | 0.00299 | 0.00297 | 0.00255 | 0.00255 | 0.00250 |
| Seychelles | 0.00480 | 0.00583 | 0.00583 | 0.00587 | 0.00188 | 0.00188 | 0.00215 | 0.00215 | 0.00215 | 0.00199 | 0.00199 | 0.00198 |
| St. Lucia | 0.00449 | 0.00426 | 0.00423 | 0.00406 | 0.00227 | 0.00224 | 0.00204 | 0.00192 | 0.00194 | 0.00218 | 0.00213 | 0.00212 |
| Maldives | 0.00444 | 0.01284 | 0.01237 | 0.01194 | 0.00608 | 0.00583 | 0.00767 | 0.00576 | 0.00558 | 0.00672 | 0.00596 | 0.00573 |
| Solomon Islands | 0.00436 | 0.00319 | 0.00318 | 0.00317 | 0.00163 | 0.00162 | 0.00111 | 0.00105 | 0.00105 | 0.00142 | 0.00140 | 0.00139 |
| Bhutan | 0.00428 | 0.00771 | 0.00741 | 0.00740 | 0.00309 | 0.00300 | 0.00677 | 0.00561 | 0.00551 | 0.00456 | 0.00410 | 0.00401 |
| Antigua and Barbuda | 0.00419 | 0.00407 | 0.00413 | 0.00390 | 0.00188 | 0.00190 | 0.00163 | 0.00188 | 0.00190 | 0.00178 | 0.00188 | 0.00190 |
| Comoros | 0.00373 | 0.00227 | 0.00220 | 0.00175 | 0.00137 | 0.00081 | 0.00205 | 0.00178 | 0.00105 | 0.00164 | 0.00153 | 0.00091 |
| Grenada | 0.00344 | 0.00272 | 0.00267 | 0.00252 | 0.00140 | 0.00138 | 0.00149 | 0.00128 | 0.00128 | 0.00144 | 0.00136 | 0.00134 |
| Samoa | 0.00340 | 0.00186 | 0.00185 | 0.00184 | 0.00106 | 0.00107 | 0.00094 | 0.00089 | 0.00090 | 0.00102 | 0.00099 | 0.00100 |
| São Tomé and Príncipe | 0.00310 | 0.00146 | 0.00142 | 0.00148 | 0.00048 | 0.00046 | 0.00068 | 0.00054 | 0.00054 | 0.00056 | 0.00050 | 0.00049 |
| Tonga | 0.00289 | 0.00136 | 0.00135 | 0.00133 | 0.00057 | 0.00057 | 0.00049 | 0.00047 | 0.00047 | 0.00054 | 0.00053 | 0.00053 |
| St. Kitts and Nevis | 0.00262 | 0.00261 | 0.00266 | 0.00262 | 0.00117 | 0.00125 | 0.00105 | 0.00123 | 0.00124 | 0.00112 | 0.00119 | 0.00124 |
| St. Vincent and the Grenadines | 0.00245 | 0.00192 | 0.00188 | 0.00192 | 0.00099 | 0.00101 | 0.00114 | 0.00100 | 0.00103 | 0.00105 | 0.00100 | 0.00102 |
| Dominica | 0.00241 | 0.00189 | 0.00187 | 0.00178 | 0.00068 | 0.00073 | 0.00070 | 0.00061 | 0.00066 | 0.00069 | 0.00065 | 0.00070 |
| Kiribati | 0.00235 | 0.00090 | 0.00089 | 0.00144 | 0.00023 | 0.00024 | 0.00019 | 0.00018 | 0.00018 | 0.00022 | 0.00021 | 0.00022 |
| Micronesia | 0.00151 | 0.00122 | 0.00121 | 0.00115 | 0.00045 | 0.00044 | 0.00028 | 0.00027 | 0.00027 | 0.00038 | 0.00038 | 0.00037 |
| Marshall Islands | 0.00103 | 0.00085 | 0.00084 | 0.00083 | 0.00026 | 0.00027 | 0.00016 | 0.00016 | 0.00016 | 0.00022 | 0.00022 | 0.00022 |
| Palau | 0.00103 | 0.00084 | 0.00084 | 0.00084 | 0.00036 | 0.00039 | 0.00023 | 0.00021 | 0.00022 | 0.00031 | 0.00030 | 0.00032 |
| Nauru | 0.00059 | 0.00049 | 0.00048 | 0.00050 | 0.00014 | 0.00014 | 0.00010 | 0.00009 | 0.00012 | 0.00012 | 0.00012 | 0.00013 |
| Tuvalu | 0.00052 | 0.00030 | 0.00030 | 0.00034 | 0.00005 | 0.00005 | 0.00003 | 0.00003 | 0.00003 | 0.00004 | 0.00004 | 0.00004 |

Source: Finance Department.
1/ Data columns marked as "current" refer to the 2020 quota data update (data through 2018); "previous" refers to the 2019 quota data update (data through 2017).
2/ Data columns marked as "2017 ICP" and "2011 ICP" show data based on the 2017 and 2011 ICP benchmark data, respectively. Both columns use the same nominal GDP data in local currency as well as deflators, both obtained from the October 2019 WEO.
3/ Including China, P.R., Hong Kong SAR, and Macao SAR.

| Table 4. PPP GDP: 2017 ICP Factors vs. 2011 ICP Factors—by Member (As indicated) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PPP GDP <br> 2016-2018 Average (SDR millions) |  | Shares (percent) |  | Change in SDR (percent) | Change in Shares (pps) |
|  | 2017 ICP 1/ | 2011 ICP 1/ | 2017 ICP 1/ | 2011 CP 1/ |  |  |
| United States | 14,026,050 | 14,026,050 | 16.331 | 15.462 | 0.0 | 0.869 |
| Japan | 3,719,591 | 3,872,134 | 4.331 | 4.269 | -3.9 | 0.062 |
| China $2 /$ | 14,548,537 | 17,001,161 | 16.940 | 18.742 | -14.4 | -1.802 |
| Germany | 3,124,826 | 2,985,737 | 3.638 | 3.291 | 4.7 | 0.347 |
| France | 2,141,305 | 2,040,801 | 2.493 | 2.250 | 4.9 | 0.243 |
| United Kingdom | 2,142,985 | 2,095,118 | 2.495 | 2.310 | 2.3 | 0.186 |
| Italy | 1,795,313 | 1,661,051 | 2.090 | 1.831 | 8.1 | 0.259 |
| India | 5,974,590 | 6,877,250 | 6.957 | 7.581 | -13.1 | -0.625 |
| Russian Federation | 2,717,583 | 2,900,272 | 3.164 | 3.197 | -6.3 | -0.033 |
| Brazil | 2,158,610 | 2,330,928 | 2.513 | 2.570 | -7.4 | -0.056 |
| Canada | 1,267,130 | 1,258,874 | 1.475 | 1.388 | 0.7 | 0.088 |
| Saudi Arabia | 1,117,179 | 1,285,899 | 1.301 | 1.418 | -13.1 | -0.117 |
| Spain | 1,320,351 | 1,272,104 | 1.537 | 1.402 | 3.8 | 0.135 |
| Mexico | 1,771,868 | 1,764,528 | 2.063 | 1.945 | 0.4 | 0.118 |
| The Netherlands | 676,094 | 661,724 | 0.787 | 0.729 | 2.2 | 0.058 |
| Korea | 1,513,679 | 1,522,220 | 1.762 | 1.678 | -0.6 | 0.084 |
| Australia | 884,228 | 899,416 | 1.030 | 0.992 | -1.7 | 0.038 |
| Belgium | 405,983 | 379,799 | 0.473 | 0.419 | 6.9 | 0.054 |
| Switzerland | 409,061 | 376,902 | 0.476 | 0.415 | 8.5 | 0.061 |
| Turkey | 1,610,474 | 1,544,524 | 1.875 | 1.703 | 4.3 | 0.172 |
| Indonesia | 2,087,833 | 2,330,155 | 2.431 | 2.569 | -10.4 | -0.138 |
| Sweden | 378,209 | 375,464 | 0.440 | 0.414 | 0.7 | 0.026 |
| Poland | 823,178 | 810,554 | 0.958 | 0.894 | 1.6 | 0.065 |
| Austria | 344,361 | 316,095 | 0.401 | 0.348 | 8.9 | 0.052 |
| Singapore | 377,977 | 387,501 | 0.440 | 0.427 | -2.5 | 0.013 |
| Norway | 234,963 | 272,694 | 0.274 | 0.301 | -13.8 | -0.027 |
| Venezuela | 269,303 | 266,105 | 0.314 | 0.293 | 1.2 | 0.020 |
| Malaysia | 596,642 | 676,318 | 0.695 | 0.746 | -11.8 | -0.051 |
| Iran | 791,340 | 1,140,822 | 0.921 | 1.258 | -30.6 | -0.336 |
| Ireland | 270,136 | 252,218 | 0.315 | 0.278 | 7.1 | 0.036 |
| Denmark | 225,358 | 207,959 | 0.262 | 0.229 | 8.4 | 0.033 |
| Thailand | 865,485 | 888,863 | 1.008 | 0.980 | -2.6 | 0.028 |
| Argentina | 705,872 | 646,155 | 0.822 | 0.712 | 9.2 | 0.110 |
| South Africa | 519,813 | 547,337 | 0.605 | 0.603 | -5.0 | 0.002 |
| Nigeria | 715,139 | 805,670 | 0.833 | 0.888 | -11.2 | -0.055 |
| Greece | 224,020 | 214,762 | 0.261 | 0.237 | 4.3 | 0.024 |
| Finland | 184,735 | 176,138 | 0.215 | 0.194 | 4.9 | 0.021 |
| United Arab Emirates | 446,861 | 498,856 | 0.520 | 0.550 | -10.4 | -0.030 |
| Czech Republic | 290,194 | 268,312 | 0.338 | 0.296 | 8.2 | 0.042 |
| Portugal | 244,386 | 226,952 | 0.285 | 0.250 | 7.7 | 0.034 |


| Table 4. PPP GDP: 2017 ICP Factors vs. 2011 ICP Factors-by Member (continued) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (As indicated) |  |  |  |  |  |
|  | 2016-2018 Average (SDR millions) |  | $\begin{gathered} \text { PPP GDP } \\ \text { Shares (percent) } \\ \hline \end{gathered}$ |  | Change in SDR (percent) | Change in Shares (pps) |
|  | 2017 ICP 1/ | 2011 CP 1/ | 2017 ICP 1/ | 2011 /CP 1/ |  |  |
| Colombia | 502,562 | 510,063 | 0.585 | 0.562 | -1.5 | 0.023 |
| Philippines | 588,248 | 628,287 | 0.685 | 0.693 | -6.4 | -0.008 |
| Egypt | 778,683 | 865,251 | 0.907 | 0.954 | -10.0 | -0.047 |
| Pakistan | 685,710 | 760,089 | 0.798 | 0.838 | -9.8 | -0.040 |
| Ukraine | 360,875 | 265,362 | 0.420 | 0.293 | 36.0 | 0.128 |
| Algeria | 344,887 | 450,811 | 0.402 | 0.497 | -23.5 | -0.095 |
| Hungary | 205,297 | 208,869 | 0.239 | 0.230 | -1.7 | 0.009 |
| Kuwait | 141,371 | 214,217 | 0.165 | 0.236 | -34.0 | -0.072 |
| Israel | 243,887 | 228,366 | 0.284 | 0.252 | 6.8 | 0.032 |
| Romania | 377,318 | 344,519 | 0.439 | 0.380 | 9.5 | 0.060 |
| Chile | 314,323 | 327,321 | 0.366 | 0.361 | -4.0 | 0.005 |
| Iraq | 284,758 | 474,593 | 0.332 | 0.523 | -40.0 | -0.192 |
| Libya | 48,876 | 41,348 | 0.057 | 0.046 | 18.2 | 0.011 |
| Peru | 286,370 | 309,976 | 0.333 | 0.342 | -7.6 | -0.008 |
| Luxembourg | 46,951 | 43,847 | 0.055 | 0.048 | 7.1 | 0.006 |
| New Zealand | 138,957 | 134,706 | 0.162 | 0.149 | 3.2 | 0.013 |
| Kazakhstan | 316,872 | 342,393 | 0.369 | 0.377 | -7.5 | -0.009 |
| Vietnam | 485,141 | 465,786 | 0.565 | 0.513 | 4.2 | 0.051 |
| Syria | 89,364 | 89,364 | 0.104 | 0.099 | 0.0 | 0.006 |
| Bangladesh | 511,840 | 496,806 | 0.596 | 0.548 | 3.0 | 0.048 |
| Democratic Republic of the Congo | 60,963 | 52,191 | 0.071 | 0.058 | 16.8 | 0.013 |
| Slovak Republic | 121,655 | 129,048 | 0.142 | 0.142 | -5.7 | -0.001 |
| Zambia | 42,167 | 49,467 | 0.049 | 0.055 | -14.8 | -0.005 |
| Bulgaria | 107,151 | 109,936 | 0.125 | 0.121 | -2.5 | 0.004 |
| Morocco | 190,010 | 213,124 | 0.221 | 0.235 | -10.8 | -0.014 |
| Angola | 153,479 | 141,462 | 0.179 | 0.156 | 8.5 | 0.023 |
| Ghana | 105,673 | 125,909 | 0.123 | 0.139 | -16.1 | -0.016 |
| Qatar | 178,565 | 243,058 | 0.208 | 0.268 | -26.5 | -0.060 |
| Croatia | 78,529 | 73,183 | 0.091 | 0.081 | 7.3 | 0.011 |
| Zimbabwe | 30,197 | 28,710 | 0.035 | 0.032 | 5.2 | 0.004 |
| Ecuador | 138,199 | 137,800 | 0.161 | 0.152 | 0.3 | 0.009 |
| Belarus | 125,284 | 128,832 | 0.146 | 0.142 | -2.8 | 0.004 |
| Serbia | 84,132 | 83,012 | 0.098 | 0.092 | 1.3 | 0.006 |
| Côte d'voire | 63,491 | 69,841 | 0.074 | 0.077 | -9.1 | -0.003 |
| Lebanon | 77,762 | 62,431 | 0.091 | 0.069 | 24.6 | 0.022 |
| Sudan | 131,131 | 125,474 | 0.153 | 0.138 | 4.5 | 0.014 |
| Slovenia | 53,997 | 51,001 | 0.063 | 0.056 | 5.9 | 0.007 |
| Sri Lanka | 195,095 | 197,706 | 0.227 | 0.218 | -1.3 | 0.009 |
| Uzbekistan | 153,576 | 184,869 | 0.179 | 0.204 | -16.9 | -0.025 |
| Tunisia | 87,220 | 98,856 | 0.102 | 0.109 | -11.8 | -0.007 |


| Table 4. PPP GDP: 2017 ICP Factors vs. 2011 ICP Factors—by Member (continued) (As indicated) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | 2016-2018 Average (SDR millions)$\qquad$ |  | $\begin{gathered} \text { PPP GDP } \\ \text { Shares (percent) } \end{gathered}$ |  | Change in SDR (percent) | Change in Shares (pps) |
|  |  |  | 2017 ICP 1/ | 2011 CP 1/ |  |  |
| Oman | 96,997 | 138,433 | 0.113 | 0.153 | -29.9 | -0.040 |
| Kenya | 143,454 | 117,855 | 0.167 | 0.130 | 21.7 | 0.037 |
| Myanmar | 163,416 | 216,274 | 0.190 | 0.238 | -24.4 | -0.048 |
| Yemen | 44,432 | 49,206 | 0.052 | 0.054 | -9.7 | -0.003 |
| Dominican Republic | 127,862 | 124,310 | 0.149 | 0.137 | 2.9 | 0.012 |
| Trinidad and Tobago | 25,949 | 31,203 | 0.030 | 0.034 | -16.8 | -0.004 |
| Lithuania | 68,034 | 65,571 | 0.079 | 0.072 | 3.8 | 0.007 |
| Uruguay | 52,562 | 55,762 | 0.061 | 0.061 | -5.7 | 0.000 |
| Guatemala | 101,556 | 99,075 | 0.118 | 0.109 | 2.5 | 0.009 |
| Tanzania | 97,479 | 117,420 | 0.113 | 0.129 | -17.0 | -0.016 |
| Bahrain | 49,908 | 50,672 | 0.058 | 0.056 | -1.5 | 0.002 |
| Azerbaijan | 100,968 | 124,522 | 0.118 | 0.137 | -18.9 | -0.020 |
| Jamaica | 20,039 | 18,720 | 0.023 | 0.021 | 7.0 | 0.003 |
| Panama | 88,370 | 71,648 | 0.103 | 0.079 | 23.3 | 0.024 |
| Costa Rica | 67,077 | 60,045 | 0.078 | 0.066 | 11.7 | 0.012 |
| Uganda | 54,853 | 64,266 | 0.064 | 0.071 | -14.6 | -0.007 |
| Jordan | 68,062 | 64,113 | 0.079 | 0.071 | 6.2 | 0.009 |
| Latvia | 39,914 | 38,711 | 0.046 | 0.043 | 3.1 | 0.004 |
| Afghanistan | 57,202 | 49,749 | 0.067 | 0.055 | 15.0 | 0.012 |
| Senegal | 35,577 | 39,296 | 0.041 | 0.043 | -9.5 | $-0.002$ |
| Iceland | 13,664 | 13,046 | 0.016 | 0.014 | 4.7 | 0.002 |
| Cyprus | 22,811 | 23,261 | 0.027 | 0.026 | -1.9 | 0.001 |
| Brunei Darussalam | 18,139 | 24,147 | 0.021 | 0.027 | -24.9 | -0.005 |
| Ethiopia | 151,930 | 142,100 | 0.177 | 0.157 | 6.9 | 0.020 |
| El Salvador | 38,519 | 36,505 | 0.045 | 0.040 | 5.5 | 0.005 |
| Cameroon | 62,445 | 64,258 | 0.073 | 0.071 | -2.8 | 0.002 |
| Bosnia and Herzegovina | 33,360 | 32,217 | 0.039 | 0.036 | 3.6 | 0.003 |
| Papua New Guinea | 22,401 | 22,401 | 0.026 | 0.025 | 0.0 | 0.001 |
| Nicaragua | 26,792 | 25,282 | 0.031 | 0.028 | 6.0 | 0.003 |
| Liberia | 4,969 | 4,359 | 0.006 | 0.005 | 14.0 | 0.001 |
| Honduras | 37,134 | 33,097 | 0.043 | 0.036 | 12.2 | 0.007 |
| South Sudan | 8,235 | 14,023 | 0.010 | 0.015 | -41.3 | -0.006 |
| Madagasar | 26,781 | 30,190 | 0.031 | 0.033 | -11.3 | -0.002 |
| Estonia | 31,823 | 30,033 | 0.037 | 0.033 | 6.0 | 0.004 |
| Bolivia | 66,207 | 60,000 | 0.077 | 0.066 | 10.3 | 0.011 |
| Turkmenistan | 59,430 | 74,305 | 0.069 | 0.082 | -20.0 | -0.013 |
| Mozambique | 25,536 | 26,534 | 0.030 | 0.029 | -3.8 | 0.000 |
| Gabon | 21,865 | 26,295 | 0.025 | 0.029 | -16.8 | -0.004 |
| Guinea | 20,282 | 20,208 | 0.024 | 0.022 | 0.4 | 0.001 |
| Georgia | 34,103 | 28,510 | 0.040 | 0.031 | 19.6 | 0.008 |


| Table 4. PPP GDP: 2017 ICP Factors vs. 2011 ICP Factors-by Member (continued) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (As indicated) |  |  |  |  |  |
|  | PPP GDP2016-2018 Average (SDR millions) |  | PPP GDP <br> Shares (percent) |  | Change in SDR (percent) | Change in Shares (pps) |
|  | 2017 ICP 1/ | 2011 ICP 1/ | 2017 ICP 1/ | 2011 ICP 1/ |  |  |
| Sierra Leone | 8,943 | 8,277 | 0.0104 | 0.0091 | 8.1 | 0.0013 |
| Paraguay | 61,980 | 63,583 | 0.0722 | 0.0701 | -2.5 | 0.0021 |
| Botswana | 27,671 | 28,238 | 0.0322 | 0.0311 | -2.0 | 0.0011 |
| Namibia | 18,591 | 19,151 | 0.0216 | 0.0211 | -2.9 | 0.0005 |
| Mali | 29,937 | 29,478 | 0.0349 | 0.0325 | 1.6 | 0.0024 |
| The Bahamas | 9,640 | 8,558 | 0.0112 | 0.0094 | 12.6 | 0.0018 |
| Guyana | 5,108 | 4,543 | 0.0059 | 0.0050 | 12.4 | 0.0009 |
| Kyrgyz Republic | 22,150 | 16,547 | 0.0258 | 0.0182 | 33.9 | 0.0075 |
| Cambodia | 45,298 | 46,170 | 0.0527 | 0.0509 | -1.9 | 0.0018 |
| Tajikistan | 20,106 | 20,412 | 0.0234 | 0.0225 | -1.5 | 0.0009 |
| Moldova | 22,899 | 17,407 | 0.0267 | 0.0192 | 31.6 | 0.0075 |
| Malta | 13,993 | 14,113 | 0.0163 | 0.0156 | -0.9 | 0.0007 |
| Haiti | 13,964 | 14,316 | 0.0163 | 0.0158 | -2.5 | 0.0005 |
| Somalia | 9,113 | 8,270 | 0.0106 | 0.0091 | 10.2 | 0.0015 |
| Republic of Congo | 11,956 | 21,573 | 0.0139 | 0.0238 | -44.6 | -0.0099 |
| Rwanda | 16,879 | 18,002 | 0.0197 | 0.0198 | -6.2 | -0.0002 |
| Equatorial Guinea | 19,401 | 22,093 | 0.0226 | 0.0244 | -12.2 | -0.0018 |
| Nepal | 59,496 | 56,720 | 0.0693 | 0.0625 | 4.9 | 0.0067 |
| Burundi | 6,447 | 5,735 | 0.0075 | 0.0063 | 12.4 | 0.0012 |
| Togo | 8,348 | 9,356 | 0.0097 | 0.0103 | -10.8 | -0.0006 |
| Mauritius | 19,560 | 20,252 | 0.0228 | 0.0223 | -3.4 | 0.0004 |
| North Macedonia | 23,324 | 22,433 | 0.0272 | 0.0247 | 4.0 | 0.0024 |
| Chad | 17,587 | 21,181 | 0.0205 | 0.0233 | -17.0 | -0.0029 |
| Albania | 26,818 | 25,804 | 0.0312 | 0.0284 | 3.9 | 0.0028 |
| Malawi | 13,140 | 16,020 | 0.0153 | 0.0177 | -18.0 | -0.0024 |
| Niger | 16,503 | 19,248 | 0.0192 | 0.0212 | -14.3 | -0.0020 |
| Suriname | 6,282 | 6,136 | 0.0073 | 0.0068 | 2.4 | 0.0006 |
| Armenia | 25,169 | 20,178 | 0.0293 | 0.0222 | 24.7 | 0.0071 |
| Mauritania | 11,166 | 12,363 | 0.0130 | 0.0136 | -9.7 | -0.0006 |
| Benin | 24,769 | 24,749 | 0.0288 | 0.0273 | 0.1 | 0.0016 |
| Burkina Faso | 25,493 | 26,246 | 0.0297 | 0.0289 | -2.9 | 0.0007 |
| Central African Republic | 2,985 | 2,698 | 0.0035 | 0.0030 | 10.6 | 0.0005 |
| Lao P.D.R. | 36,305 | 35,312 | 0.0423 | 0.0389 | 2.8 | 0.0033 |
| Fiji | 8,418 | 6,994 | 0.0098 | 0.0077 | 20.4 | 0.0021 |
| Barbados | 3,263 | 3,749 | 0.0038 | 0.0041 | -12.9 | -0.0003 |
| Kosovo | 13,545 | 14,092 | 0.0158 | 0.0155 | -3.9 | 0.0002 |
| Eswatini | 6,996 | 8,265 | 0.0081 | 0.0091 | -15.4 | -0.0010 |
| Mongolia | 25,423 | 28,705 | 0.0296 | 0.0316 | -11.4 | -0.0020 |
| Lesotho | 4,716 | 4,857 | 0.0055 | 0.0054 | -2.9 | 0.0001 |
| The Gambia | 3,348 | 3,934 | 0.0039 | 0.0043 | -14.9 | -0.0004 |


| Table 4. PPP GDP: 2017 ICP Factors vs. 2011 ICP Factors—by Member (concluded) <br> (As indicated) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PPP GDP2016-2018 Average (SDR millions) |  | PPP GDP Shares (percent) |  | Change in SDR (percent) | Change in Shares (pps) |
|  | 2017 ICP 1/ | 2011 ICP 1/ | 2017 ICP 1/ | 2011 ICP 1/ |  |  |
| Montenegro | 8,766 | 7,980 | 0.01021 | 0.00880 | 9.9 | 0.00141 |
| San Marino | 1,422 | 1,400 | 0.00166 | 0.00154 | 1.5 | 0.00011 |
| Eritrea | 4,080 | 4,174 | 0.00475 | 0.00460 | -2.3 | 0.00015 |
| Djibouti | 3,347 | 3,702 | 0.00390 | 0.00408 | -9.6 | -0.00018 |
| Guinea-Bissau | 2,474 | 2,258 | 0.00288 | 0.00249 | 9.6 | 0.00039 |
| Belize | 1,970 | 2,300 | 0.00229 | 0.00254 | -14.3 | -0.00024 |
| Timor-Leste | 4,201 | 4,829 | 0.00489 | 0.00532 | -13.0 | -0.00043 |
| Vanuatu | 552 | 552 | 0.00064 | 0.00061 | 0.0 | 0.00003 |
| Cabo Verde | 2,569 | 2,710 | 0.00299 | 0.00299 | -5.2 | 0.00000 |
| Seychelles | 1,849 | 1,951 | 0.00215 | 0.00215 | -5.3 | 0.00000 |
| St. Lucia | 1,752 | 1,741 | 0.00204 | 0.00192 | 0.6 | 0.00012 |
| Maldives | 6,585 | 5,228 | 0.00767 | 0.00576 | 26.0 | 0.00190 |
| Solomon Islands | 953 | 953 | 0.00111 | 0.00105 | 0.0 | 0.00006 |
| Bhutan | 5,815 | 5,088 | 0.00677 | 0.00561 | 14.3 | 0.00116 |
| Antigua and Barbuda | 1,397 | 1,709 | 0.00163 | 0.00188 | -18.2 | -0.00026 |
| Comoros | 1,764 | 1,614 | 0.00205 | 0.00178 | 9.3 | 0.00028 |
| Grenada | 1,282 | 1,163 | 0.00149 | 0.00128 | 10.2 | 0.00021 |
| Samoa | 811 | 811 | 0.00094 | 0.00089 | 0.0 | 0.00005 |
| São Tomé and Príncipe | 585 | 490 | 0.00068 | 0.00054 | 19.6 | 0.00014 |
| Tonga | 424 | 424 | 0.00049 | 0.00047 | 0.0 | 0.00003 |
| St. Kitts and Nevis | 900 | 1,112 | 0.00105 | 0.00123 | -19.1 | -0.00018 |
| St. Vincent and the Grenadines | 981 | 910 | 0.00114 | 0.00100 | 7.8 | 0.00014 |
| Dominica | 597 | 551 | 0.00070 | 0.00061 | 8.4 | 0.00009 |
| Kiribati | 165 | 165 | 0.00019 | 0.00018 | 0.0 | 0.00001 |
| Micronesia | 243 | 243 | 0.00028 | 0.00027 | 0.0 | 0.00002 |
| Marshall Islands | 141 | 141 | 0.00016 | 0.00016 | 0.0 | 0.00001 |
| Palau | 193 | 193 | 0.00023 | 0.00021 | 0.0 | 0.00001 |
| Nauru | 82 | 82 | 0.00010 | 0.00009 | 0.0 | 0.00001 |
| Tuvalu | 30 | 30 | 0.00003 | 0.00003 | 0.0 | 0.00000 |
| Source: Finance Department. <br> 1/ Data columns marked as "2017 ICP" and " 2011 ICP" show data based on the 2017 and 2011 ICP benchmark data, respectively. Both columns use the same nominal GDP data in local currency as well as deflators, both obtained from the October 2019 WEO. <br> 2/ Including China, P.R., Hong Kong SAR, and Macao SAR. |  |  |  |  |  |  |


| Table 5. Openness Shares Excluding Intra-Currency Union Trade (In percent) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) | Openness |  |
|  |  |  | including intra-currency union trade | excluding intra-currency union trade |
| United States | 17.398 | 14.918 | 13.362 | 14.461 |
| Japan | 6.461 | 4.997 | 3.962 | 4.288 |
| China 1/ | 6.390 | 13.411 | 11.117 | 12.031 |
| Germany | 5.583 | 4.862 | 7.110 | 5.597 |
| France | 4.225 | 3.066 | 3.955 | 3.057 |
| United Kingdom | 4.225 | 3.480 | 4.273 | 4.625 |
| Italy | 3.159 | 2.282 | 2.514 | 1.890 |
| India | 2.749 | 3.386 | 2.138 | 2.314 |
| Russian Federation | 2.705 | 2.277 | 1.747 | 1.891 |
| Brazil | 2.315 | 1.973 | 1.064 | 1.152 |
| Canada | 2.311 | 1.927 | 2.375 | 2.571 |
| Saudi Arabia | 2.095 | 1.480 | 1.042 | 1.127 |
| Spain | 1.999 | 1.733 | 1.927 | 1.428 |
| Mexico | 1.868 | 1.712 | 1.778 | 1.924 |
| The Netherlands | 1.831 | 1.995 | 3.630 | 2.806 |
| Korea | 1.799 | 2.077 | 2.479 | 2.683 |
| Australia | 1.378 | 1.367 | 1.314 | 1.422 |
| Belgium | 1.344 | 1.113 | 1.816 | 1.027 |
| Switzerland | 1.210 | 1.849 | 2.302 | 2.491 |
| Turkey | 0.977 | 1.198 | 0.871 | 0.943 |
| Indonesia | 0.974 | 1.316 | 0.796 | 0.861 |
| Sweden | 0.929 | 0.879 | 1.072 | 1.160 |
| Poland | 0.859 | 0.954 | 1.110 | 1.201 |
| Austria | 0.824 | 0.707 | 0.946 | 0.625 |
| Singapore | 0.816 | 1.386 | 2.394 | 2.591 |
| Norway | 0.787 | 0.666 | 0.703 | 0.761 |
| Venezuela | 0.780 | 0.287 | 0.166 | 0.179 |
| Malaysia | 0.762 | 0.726 | 0.882 | 0.955 |
| Iran | 0.748 | 0.598 | 0.344 | 0.372 |
| Ireland | 0.723 | 0.950 | 1.731 | 1.719 |
| Denmark | 0.721 | 0.567 | 0.750 | 0.812 |
| Thailand | 0.673 | 1.009 | 1.097 | 1.187 |
| Argentina | 0.668 | 0.629 | 0.339 | 0.367 |
| South Africa | 0.640 | 0.491 | 0.435 | 0.470 |
| Nigeria | 0.515 | 0.555 | 0.302 | 0.327 |
| Greece | 0.509 | 0.326 | 0.311 | 0.268 |
| Finland | 0.505 | 0.392 | 0.436 | 0.361 |
| United Arab Emirates | 0.485 | 0.903 | 1.399 | 1.514 |
| Czech Republic | 0.457 | 0.569 | 0.675 | 0.730 |
| Portugal | 0.432 | 0.368 | 0.417 | 0.270 |


| Table 5. Openness Shares Excluding Intra-Currency Union Trade (continued) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) | Openness |  |
|  |  |  | including intra-currency union trade | excluding intra-currency union trade |
| Colombia | 0.429 | 0.405 | 0.260 | 0.281 |
| Philippines | 0.428 | 0.515 | 0.427 | 0.462 |
| Egypt | 0.427 | 0.489 | 0.268 | 0.290 |
| Pakistan | 0.426 | 0.401 | 0.216 | 0.233 |
| Ukraine | 0.422 | 0.366 | 0.252 | 0.273 |
| Algeria | 0.411 | 0.362 | 0.219 | 0.237 |
| Hungary | 0.407 | 0.389 | 0.509 | 0.551 |
| Kuwait | 0.405 | 0.302 | 0.315 | 0.341 |
| Israel | 0.403 | 0.464 | 0.437 | 0.473 |
| Romania | 0.380 | 0.411 | 0.373 | 0.403 |
| Chile | 0.366 | 0.409 | 0.349 | 0.377 |
| Iraq | 0.349 | 0.364 | 0.294 | 0.318 |
| Libya | 0.330 | 0.193 | 0.077 | 0.083 |
| Peru | 0.280 | 0.312 | 0.206 | 0.223 |
| Luxembourg | 0.277 | 0.657 | 1.336 | 1.385 |
| New Zealand | 0.262 | 0.254 | 0.238 | 0.257 |
| Kazakhstan | 0.243 | 0.314 | 0.244 | 0.264 |
| Vietnam | 0.242 | 0.562 | 0.787 | 0.852 |
| Syria | 0.233 | 0.167 | 0.075 | 0.081 |
| Bangladesh | 0.224 | 0.338 | 0.202 | 0.218 |
| Democratic Republic of the Congo | 0.223 | 0.085 | 0.059 | 0.064 |
| Slovak Republic | 0.210 | 0.253 | 0.357 | 0.234 |
| Zambia | 0.205 | 0.047 | 0.037 | 0.040 |
| Bulgaria | 0.188 | 0.161 | 0.154 | 0.167 |
| Morocco | 0.187 | 0.201 | 0.182 | 0.197 |
| Angola | 0.155 | 0.215 | 0.153 | 0.165 |
| Ghana | 0.155 | 0.108 | 0.088 | 0.095 |
| Qatar | 0.154 | 0.364 | 0.369 | 0.399 |
| Croatia | 0.150 | 0.119 | 0.113 | 0.122 |
| Zimbabwe | 0.148 | 0.034 | 0.027 | 0.029 |
| Ecuador | 0.146 | 0.143 | 0.102 | 0.110 |
| Belarus | 0.143 | 0.150 | 0.151 | 0.163 |
| Serbia | 0.137 | 0.111 | 0.100 | 0.108 |
| Côte d'Ivoire | 0.136 | 0.067 | 0.052 | 0.053 |
| Lebanon | 0.133 | 0.154 | 0.139 | 0.151 |
| Sudan | 0.132 | 0.104 | 0.033 | 0.036 |
| Slovenia | 0.123 | 0.117 | 0.151 | 0.089 |
| Sri Lanka | 0.121 | 0.142 | 0.098 | 0.106 |
| Uzbekistan | 0.116 | 0.115 | 0.071 | 0.076 |
| Tunisia | 0.114 | 0.095 | 0.086 | 0.093 |


| Table 5. Openness Shares Excluding Intra-Currency Union Trade (continued) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (In percent) |  |  |  |  |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) | Openness |  |
|  |  |  | including intra-currency union trade | excluding intra-currency union trade |
| Oman | 0.114 | 0.181 | 0.172 | 0.187 |
| Kenya | 0.114 | 0.113 | 0.066 | 0.071 |
| Myanmar | 0.108 | 0.117 | 0.070 | 0.075 |
| Yemen | 0.102 | 0.066 | 0.036 | 0.039 |
| Dominican Republic | 0.100 | 0.123 | 0.095 | 0.103 |
| Trinidad and Tobago | 0.098 | 0.062 | 0.045 | 0.048 |
| Lithuania | 0.093 | 0.132 | 0.144 | 0.105 |
| Uruguay | 0.090 | 0.091 | 0.066 | 0.071 |
| Guatemala | 0.090 | 0.104 | 0.081 | 0.088 |
| Tanzania | 0.083 | 0.080 | 0.040 | 0.044 |
| Bahrain | 0.083 | 0.093 | 0.114 | 0.123 |
| Azerbaijan | 0.082 | 0.107 | 0.089 | 0.096 |
| Jamaica | 0.080 | 0.037 | 0.030 | 0.032 |
| Panama | 0.079 | 0.109 | 0.121 | 0.130 |
| Costa Rica | 0.077 | 0.087 | 0.077 | 0.084 |
| Uganda | 0.076 | 0.046 | 0.028 | 0.031 |
| Jordan | 0.072 | 0.090 | 0.086 | 0.093 |
| Latvia | 0.070 | 0.074 | 0.080 | 0.054 |
| Afghanistan | 0.068 | 0.064 | 0.026 | 0.028 |
| Senegal | 0.068 | 0.039 | 0.030 | 0.031 |
| Iceland | 0.067 | 0.237 | 0.040 | 0.044 |
| Cyprus | 0.064 | 0.126 | 0.148 | 0.150 |
| Brunei Darussalam | 0.063 | 0.042 | 0.027 | 0.029 |
| Ethiopia | 0.063 | 0.111 | 0.062 | 0.067 |
| El Salvador | 0.060 | 0.049 | 0.047 | 0.050 |
| Cameroon | 0.058 | 0.056 | 0.032 | 0.034 |
| Bosnia and Herzegovina | 0.056 | 0.044 | 0.039 | 0.042 |
| Papua New Guinea | 0.055 | 0.035 | 0.027 | 0.029 |
| Nicaragua | 0.055 | 0.031 | 0.028 | 0.030 |
| Liberia | 0.054 | 0.014 | 0.007 | 0.008 |
| Honduras | 0.052 | 0.047 | 0.045 | 0.049 |
| South Sudan | 0.052 | 0.024 | 0.015 | 0.017 |
| Madagascar | 0.051 | 0.026 | 0.017 | 0.019 |
| Estonia | 0.051 | 0.071 | 0.083 | 0.057 |
| Bolivia | 0.050 | 0.071 | 0.047 | 0.051 |
| Turkmenistan | 0.050 | 0.085 | 0.052 | 0.057 |
| Mozambique | 0.048 | 0.037 | 0.030 | 0.033 |
| Gabon | 0.045 | 0.030 | 0.023 | 0.025 |
| Guinea | 0.045 | 0.028 | 0.017 | 0.019 |
| Georgia | 0.044 | 0.038 | 0.038 | 0.042 |


| Table 5. Openness Shares Excluding Intra-Currency Union Trade (continued) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (In percent) |  |  |  |  |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) | Openness |  |
|  |  |  | including intra-currency union trade | excluding intra-currency union trade |
| Sierra Leone | 0.0435 | 0.0111 | 0.0063 | 0.0068 |
| Paraguay | 0.0422 | 0.0694 | 0.0521 | 0.0564 |
| Botswana | 0.0413 | 0.0413 | 0.0343 | 0.0372 |
| Namibia | 0.0401 | 0.0283 | 0.0256 | 0.0277 |
| Mali | 0.0391 | 0.0284 | 0.0221 | 0.0206 |
| The Bahamas | 0.0382 | 0.0211 | 0.0179 | 0.0194 |
| Guyana | 0.0381 | 0.0092 | 0.0089 | 0.0096 |
| Kyrgyz Republic | 0.0372 | 0.0236 | 0.0213 | 0.0231 |
| Cambodia | 0.0367 | 0.0595 | 0.0673 | 0.0728 |
| Tajikistan | 0.0365 | 0.0189 | 0.0136 | 0.0148 |
| Moldova | 0.0362 | 0.0268 | 0.0207 | 0.0224 |
| Malta | 0.0353 | 0.0665 | 0.1107 | 0.1109 |
| Haiti | 0.0343 | 0.0201 | 0.0176 | 0.0191 |
| Somalia | 0.0343 | 0.0130 | 0.0155 | 0.0168 |
| Republic of Congo | 0.0340 | 0.0325 | 0.0288 | 0.0289 |
| Rwanda | 0.0336 | 0.0167 | 0.0111 | 0.0120 |
| Equatorial Guinea | 0.0330 | 0.0484 | 0.0271 | 0.0287 |
| Nepal | 0.0329 | 0.0533 | 0.0403 | 0.0436 |
| Burundi | 0.0323 | 0.0059 | 0.0028 | 0.0031 |
| Togo | 0.0308 | 0.0124 | 0.0103 | 0.0101 |
| Mauritius | 0.0298 | 0.0536 | 0.0562 | 0.0608 |
| North Macedonia | 0.0294 | 0.0320 | 0.0306 | 0.0331 |
| Chad | 0.0294 | 0.0256 | 0.0176 | 0.0188 |
| Albania | 0.0292 | 0.0300 | 0.0227 | 0.0246 |
| Malawi | 0.0291 | 0.0149 | 0.0100 | 0.0108 |
| Niger | 0.0276 | 0.0173 | 0.0108 | 0.0111 |
| Suriname | 0.0270 | 0.0113 | 0.0088 | 0.0095 |
| Armenia | 0.0270 | 0.0276 | 0.0226 | 0.0244 |
| Mauritania | 0.0270 | 0.0143 | 0.0099 | 0.0107 |
| Benin | 0.0260 | 0.0240 | 0.0151 | 0.0156 |
| Burkina Faso | 0.0252 | 0.0246 | 0.0183 | 0.0177 |
| Central African Republic | 0.0234 | 0.0047 | 0.0024 | 0.0026 |
| Lao P.D.R. | 0.0222 | 0.0312 | 0.0240 | 0.0259 |
| Fiji | 0.0206 | 0.0124 | 0.0113 | 0.0122 |
| Barbados | 0.0198 | 0.0091 | 0.0092 | 0.0100 |
| Kosovo | 0.0173 | 0.0153 | 0.0140 | 0.0151 |
| Eswatini | 0.0165 | 0.0106 | 0.0092 | 0.0100 |
| Mongolia | 0.0152 | 0.0368 | 0.0275 | 0.0297 |
| Lesotho | 0.0146 | 0.0083 | 0.0086 | 0.0093 |
| The Gambia | 0.0130 | 0.0035 | 0.0020 | 0.0022 |


| Table 5. Openness Shares Excluding Intra-Currency Union Trade (concluded) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (In percent) |  |  |  |  |
|  | $14^{\text {th }}$ Review | CQS (Current Formula) | Openness |  |
|  |  |  | including intra-currency union trade | excluding intra-currency union trade |
| Montenegro | 0.01268 | 0.01303 | 0.01090 | 0.01180 |
| San Marino | 0.01031 | 0.00873 | 0.01013 | 0.01096 |
| Eritrea | 0.00767 | 0.00529 | 0.00304 | 0.00329 |
| Djibouti | 0.00667 | 0.01536 | 0.01384 | 0.01498 |
| Guinea-Bissau | 0.00595 | 0.00595 | 0.00170 | 0.00173 |
| Belize | 0.00560 | 0.00436 | 0.00467 | 0.00506 |
| Timor-Leste | 0.00537 | 0.00847 | 0.00531 | 0.00575 |
| Vanuatu | 0.00499 | 0.00255 | 0.00201 | 0.00217 |
| Cabo Verde | 0.00497 | 0.00520 | 0.00451 | 0.00489 |
| Seychelles | 0.00480 | 0.00583 | 0.00629 | 0.00681 |
| St. Lucia | 0.00449 | 0.00426 | 0.00416 | 0.00444 |
| Maldives | 0.00444 | 0.01284 | 0.01399 | 0.01514 |
| Solomon Islands | 0.00436 | 0.00319 | 0.00300 | 0.00325 |
| Bhutan | 0.00428 | 0.00771 | 0.00479 | 0.00519 |
| Antigua and Barbuda | 0.00419 | 0.00407 | 0.00442 | 0.00475 |
| Comoros | 0.00373 | 0.00227 | 0.00134 | 0.00145 |
| Grenada | 0.00344 | 0.00272 | 0.00258 | 0.00276 |
| Samoa | 0.00340 | 0.00186 | 0.00174 | 0.00188 |
| São Tomé and Príncipe | 0.00310 | 0.00146 | 0.00067 | 0.00072 |
| Tonga | 0.00289 | 0.00136 | 0.00123 | 0.00133 |
| St. Kitts and Nevis | 0.00262 | 0.00261 | 0.00247 | 0.00265 |
| St. Vincent and the Grenadines | 0.00245 | 0.00192 | 0.00158 | 0.00166 |
| Dominica | 0.00241 | 0.00189 | 0.00163 | 0.00171 |
| Kiribati | 0.00235 | 0.00090 | 0.00089 | 0.00097 |
| Micronesia | 0.00151 | 0.00122 | 0.00130 | 0.00140 |
| Marshall Islands | 0.00103 | 0.00085 | 0.00084 | 0.00090 |
| Palau | 0.00103 | 0.00084 | 0.00096 | 0.00104 |
| Nauru | 0.00059 | 0.00049 | 0.00045 | 0.00049 |
| Tuvalu | 0.00052 | 0.00030 | 0.00029 | 0.00031 |
| Source: Finance Department. 1/ Including China, P.R., Hong K |  |  |  |  |




Table 6. Financial Contributions to the Fund-Selected Indicators (In percent, unless otherwise indicated)




VFCS I 6/
Various aggregate measures
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Table 6. Financial Contributions to the Fund-Selected Indicators (continued)

## (In percent, unless otherwise indicated)



| Table 6. Financial Contributions to the Fund—Selected Indicators (continued) (In percent, unless otherwise indicated) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $14^{\text {th }}$ Review | Calculated | Share in Financial Contributions to |  |  |  |  |  |  | Various aggregate measures |  |
|  | Quota Share | Quota Share (CQS) | NAB 1/ |  | Bilateral Borrowing Agreements 2/ | PRGT Loans 3/ |  | Concessional Financing Subsidies 4/ | Capacity Development 5/ | VFCS $16 /$ | VFCS $117 /$ |
| Sierra Leone | 0.0435 | 0.0111 |  | - | - |  | - | 0.0141 | - | 0.0028 | 0.0005 |
| Paraguay | 0.0422 | 0.0694 |  | - | - |  |  | 0.0145 | - | 0.0029 | 0.0005 |
| Botswana | 0.0413 | 0.0413 |  | - | - |  | - | 0.1123 | 0.0232 | 0.0271 | 0.0086 |
| Namibia | 0.0401 | 0.0283 |  | - | - |  |  | 0.0187 | 0.0257 | 0.0089 | 0.0058 |
| Mali | 0.0391 | 0.0284 |  | - | - |  | - | 0.0128 | 0.0243 | 0.0074 | 0.0053 |
| The Bahamas | 0.0382 | 0.0211 |  | - | - |  | - | 0.0127 | 0.0360 | 0.0098 | 0.0077 |
| Guyana | 0.0381 | 0.0092 |  | - | - |  | - | - | 0.0412 | 0.0082 | 0.0082 |
| Kyrgyz Republic | 0.0372 | 0.0236 |  | - | - |  | - | 0.0121 | - | 0.0024 | 0.0004 |
| Cambodia | 0.0367 | 0.0595 |  | - | - |  | - | 0.0125 | - | 0.0025 | 0.0004 |
| Tajikistan | 0.0365 | 0.0189 |  | - | - |  | - | 0.0119 | - | 0.0024 | 0.0004 |
| Moldova | 0.0362 | 0.0268 |  | - | - |  | - | 0.0168 | - | 0.0034 | 0.0006 |
| Malta | 0.0353 | 0.0665 |  | - | 0.0653 |  | - | 0.0468 | - | 0.0224 | 0.0212 |
| Haiti | 0.0343 | 0.0201 |  | - | - |  | - | 0.0112 | 0.0232 | 0.0069 | 0.0050 |
| Somalia | 0.0343 | 0.0130 |  | - | - |  | - | - | - | - | - |
| Republic of Congo | 0.0340 | 0.0325 |  | - | - |  | - | 0.0082 | 0.3460 | 0.0709 | 0.0695 |
| Rwanda | 0.0336 | 0.0167 |  | - | - |  | - | 0.0110 | 0.1382 | 0.0298 | 0.0280 |
| Equatorial Guinea | 0.0330 | 0.0484 |  | - | - |  | - | - | 0.2074 | 0.0415 | 0.0415 |
| Nepal | 0.0329 | 0.0533 |  | - | - |  | - | 0.0098 | 0.0309 | 0.0081 | 0.0065 |
| Burundi | 0.0323 | 0.0059 |  | - | - |  | - | 0.0102 | 0.0454 | 0.0111 | 0.0094 |
| Togo | 0.0308 | 0.0124 |  | - | - |  | - | 0.0100 | 0.0130 | 0.0046 | 0.0029 |
| Mauritius | 0.0298 | 0.0536 |  | - | - |  | - | 0.0146 | 1.2386 | 0.2506 | 0.2482 |
| North Macedonia | 0.0294 | 0.0320 |  | - | - |  | - | 0.0094 | - | 0.0019 | 0.0003 |
| Chad | 0.0294 | 0.0256 |  | - | - |  | - | 0.0091 | 0.1529 | 0.0324 | 0.0309 |
| Albania | 0.0292 | 0.0300 |  | - | - |  | - | 0.0059 | - | 0.0012 | 0.0002 |
| Malawi | 0.0291 | 0.0149 |  | - | - |  | - | 0.0092 | 0.0697 | 0.0158 | 0.0143 |
| Niger | 0.0276 | 0.0173 |  | - | - |  | - | 0.0090 | - | 0.0018 | 0.0003 |
| Suriname | 0.0270 | 0.0113 |  | - | - |  | - | - | 0.0180 | 0.0036 | 0.0036 |
| Armenia | 0.0270 | 0.0276 |  | - | - |  | - | 0.0126 | - | 0.0025 | 0.0004 |
| Mauritania | 0.0270 | 0.0143 |  | - | - |  | - | 0.0088 | 0.0050 | 0.0028 | 0.0013 |
| Benin | 0.0260 | 0.0240 |  | - | - |  | - | 0.0084 | 0.0242 | 0.0065 | 0.0051 |
| Burkina Faso | 0.0252 | 0.0246 |  | - | - |  | - | 0.0082 | 0.0193 | 0.0055 | 0.0042 |
| Central African Republic | 0.0234 | 0.0047 |  | - | - |  | - | 0.0022 | 0.0517 | 0.0108 | 0.0104 |
| Lao P.D.R. | 0.0222 | 0.0312 |  | - | - |  | - | 0.0072 | - | 0.0014 | 0.0003 |
| Fiji | 0.0206 | 0.0124 |  | - | - |  | - | 0.0114 | 0.0257 | 0.0074 | 0.0056 |
| Barbados | 0.0198 | 0.0091 |  | - | - |  | - | 0.0113 | - | 0.0023 | 0.0004 |
| Kosovo | 0.0173 | 0.0153 |  | - | - |  | - | 0.0058 | - | 0.0012 | 0.0002 |
| Eswatini | 0.0165 | 0.0106 |  | - | - |  | - | 0.0002 | 0.0103 | 0.0021 | 0.0021 |
| Mongolia | 0.0152 | 0.0368 |  | - | - |  | - | 0.0070 | - | 0.0014 | 0.0002 |
| Lesotho | 0.0146 | 0.0083 |  | - | - |  | - | 0.0041 | 0.0154 | 0.0039 | 0.0032 |
| The Gambia | 0.0130 | 0.0035 |  | - | - |  | - | 0.0042 | 0.0180 | 0.0045 | 0.0038 |




[^0]:    ${ }^{1}$ The quota database has been updated annually since the adoption of the current quota formula in 2008.
    ${ }^{2}$ As in previous years, data on openness excluding intra-currency union flows, measures of voluntary financial contributions, and updated lists of the poorest and smallest members are also provided (see Annexes II-IV). A discussion of possible alternative quota formulas and the realignment of quota shares is outside the scope of this paper. For earlier staff work on these issues, see, for example, Fifteenth General Review of Quotas-Additional Considerations and Data Update (7/3/18).
    ${ }^{3}$ More specifically, the PPP GDP data are calculated by dividing a country's nominal GDP in its own currency by its corresponding PPP factor. The 2017 International Comparison Program (ICP) PPP factors, discussed below, were extended to 2018 using WEO methodology.
    ${ }^{4}$ The balance of payments data are based on the Balance of Payments and International Investment Position Manual, sixth edition (BPM6). To ensure comparability with previous quota calculations, both current and capital transfers-excluding exceptional financing-are included in current receipts, where such data are available.
    ${ }^{5}$ Exceptional financing transactions are only on the credit side of the current and capital accounts (see BPM6, Appendix 1).

[^1]:    ${ }^{6}$ The term "net capital flows" comes from previous quota database terminology, and covers transactions included in the financial account under the BPM6.

[^2]:    ${ }^{7}$ In the few remaining cases where the new ICP data for PPP price level indices are not available, extrapolations of the earlier PPP estimates were used.
    ${ }^{8}$ Staff previously proposed to update the country classifications (see Quotas-Data Update and Simulations, Annex II,
    (8/9/2016), and this issue may be revisited as part of the 16th Review.
    ${ }^{9}$ Czech Republic, Estonia, Korea, Latvia, Lithuania, Malta, Singapore, Slovak Republic, and Slovenia.
    ${ }^{10}$ Quotas—Data Update and Simulations (8/9/16) presents a detailed comparison of quota and WEO country groups.

[^3]:    ${ }^{1}$ For internationally traded goods and services, prices measured in given currency units tend over time toward broadly similar levels in different countries.

[^4]:    ${ }^{2}$ GDP data on a market exchange rate basis allow comparisons of the size of economies that reflect countries' ability to pay in world markets in a common currency of conversion, such as the US dollar.
    ${ }^{3}$ In May, preliminary 2012-16 PPP estimates were released. In July, slightly revised PPP estimated for 2012-16 were incorporated into the World Bank World Development Indicators (WDI), and these estimates are now considered final. For the years 2012-16, PPPs were calculated first by interpolating sub-components or "basic-heading" PPPs between 2011 and 2017 and thereafter aggregated using a standard statistical method.

[^5]:    ${ }^{4}$ Following a decision to increase the frequency of the surveys from six to three-year intervals, the next cycle was originally planned to be conducted in 2020 but was delayed by one year due to the ongoing COVID-19 pandemic.
    ${ }^{5}$ For more details, see World Bank, 2013, Measuring the Real Size of the World Economy: The Framework, Methodology, and Results of the International Comparison Program-ICP, Washington DC

[^6]:    ${ }^{6}$ In the 2017 ICP round, PPP factors were made available for the reference year 2017, as well as for 2011-16.
    ${ }^{7}$ A group of 20 Pacific Island Countries (of which 11 are Fund members) was not part of the 2017 ICP round although they were in the ICP 2011 round (in which they were reported in supplementary tables because of their limited participation at the level of household consumption only). Cuba, Guatemala, Macao, Venezuela, and Yemen were also not in the 2017 round but were part of the 2011 round. Conversely, Argentina and Guyana were not part of the 2011 round but were part of the 2017 round. Civil conflicts, and capacity issues were some of the cited reasons for non-participation (see World Bank, 2020).
    ${ }^{8}$ For details, see World Bank. 2020. Purchasing Power Parities and the Size of World Economies: Results from the 2017 International Comparison Program. Washington, DC: World Bank, especially Chapter 5.

[^7]:    ${ }^{9}$ Any set of economic statistics confronts measurement challenges. For a discussion, see Quota Formula-Data Update and Further Considerations-Annex 1, p.5-6.
    ${ }^{10}$ McCarthy, Paul, 2013, Extrapolating PPPs and comparing ICP benchmark results. In World Bank, 2013, Measuring the Real Size of the World Economy: The Framework, Methodology, and Results of the International Comparison Program-ICP, Washington DC.

[^8]:    ${ }^{11}$ Deaton, Angus, and Bettina Aten. 2017. "Trying to Understand the PPPs in ICP 2011: Why Are the Results So Different?" American Economic Journal: Macroeconomics, 9 (1): 243-64.

[^9]:    ${ }^{12}$ EMDCs covered by Eurostat-OECD include Albania, Bosnia and Herzegovina, Bulgaria, Chile, Colombia, Costa Rica, Croatia, Czech Republic, Estonia, Hungary, Korea, Latvia, Lithuania, Malta, Mexico, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, and Turkey.
    ${ }^{13} \mathrm{~A}$ larger share of these countries is also using a fixed weighted index methodology where the weights can be outdated. As such, their GDP deflators have a tendency to drift, contributing to larger discrepancies.

[^10]:    ${ }^{14}$ The list corresponds to the sub-set of the sample of commodity exporters of oil, gas, and metals, analyzed in the Fiscal Monitor October 2015 "The Commodities Roller-Coaster: A Fiscal Framework for Uncertain Times", Annex 1.1, referring to EMDCs. Of 48 EMDC commodity exporters, 32 are found in AFR or MCD (with 16 in each region). The definition relies on selecting countries where commodities represent a significant share ( 20 percent or more) of exports or fiscal revenues (Annex 1.1).
    ${ }^{15}$ According to McCarthy (2013), such fall in commodity prices would have been reflected as price effects in the time series of GDP deflators that have been used in extrapolated PPPs for non-benchmark years, leading to upward revisions of the PPP factor in the new ICP benchmark.

[^11]:    ${ }^{16}$ The rationale here is that annual productivity changes are more likely to be captured in annual changes in the GDP deflators as part of the price changes than in ICP surveys.

[^12]:    ${ }^{17}$ Of the top ten percentile of countries (19 out of 189 members), 10 are found in the Asia and Pacific Region.

[^13]:    18 Note that the United States' PPP factor remains equal 1 in any years and its PPP GDP therefore equals market GDP in any years.

[^14]:    ${ }^{1}$ For more background on data limitations and other considerations related to measuring openness excluding intra-currency union flows, see Fifteenth General Review of Quotas-Additional Considerations and Data UpdateAnnexes (7/6/18), Quota Formula Review-Additional Considerations-Annexes (9/4/12), Quota Formula ReviewData Update and Issues (8/17/11), and Quotas-Updated Calculations and Quota Variables (8/27/09).

[^15]:    ${ }^{1}$ See 2017 Staff Guidance Note on the Fund's Engagement with Small Developing States (1/26/18).
    ${ }^{2}$ See UN Department of Economic and Social Affairs, List of Least Developed Countries (as of December 2018).
    ${ }^{3}$ See Macroeconomic Developments and Prospects in Low-Income Developing Countries-2019 (12/11/19) and World Economic Outlook, April 2020, Statistical Appendix.

[^16]:    1/ Years refer to the start of new fundraising rounds (in some cases multi-year) approved by the Executive Board.
    2/ Poverty Reduction and Growth Facility and Exogenous Shocks Facility Trust.
    3/ Trust for Special Poverty Reduction and Growth Operations for the Heavily Indebted Poor Countries and Interim ECF Subsidy Operations.
    4/ Multilateral Debt Relief Initiative.
    5/ Catastrophe Containment and Relief Trust.

[^17]:    ${ }^{1}$ Staff papers prepared during the $15^{\text {th }}$ Review included some purely illustrative simulations on how a small ad hoc element of the overall quota increase (e.g., 5 percent) could be allocated in proportion to a measure of members' voluntary financial contributions. VFCS II was the composite measure of voluntary financial contributions used in such illustrative simulations.

[^18]:    ${ }^{1}$ Starting with the August 2012 IFS, STA publishes balance of payments data using the BPM6 presentation. Therefore, starting with the 2013 quota data round, in consultation between STA and countries, data were converted to a BPM6 presentation using generic conversion rules developed by STA, for around 10 percent of the countries that continue to report on a BPM5 basis.
    ${ }^{2}$ IFS and WEO data are handled and aggregated by STA using a data processing system known as the Economic Outlook Suite (EcOS).

[^19]:    ${ }^{3}$ The choice of the numéraire country is arbitrary and does not affect the calculations, since PPP price indexes are adjusted to be transitive across countries.
    ${ }^{4}$ For details, see World Bank. 2020. Purchasing Power Parities and the Size of World Economies: Results from the 2017 International Comparison Program. Washington, DC: World Bank
    ${ }^{5}$ The data for the nominal GDP in local currency and the GDP deflators were obtained from the October 2019 WEO, consistent with the January 31, 2020 data cutoff date for the quota data. PPP factors based on the updated results of the ICP 2017 round were used for the years 2016-17, and the standard WEO methodology was used to extend factors to 2018. Computations of PPP GDP data based on the ICP 2017 round was performed in collaboration with the Research Department. Exceptions are described in Section C.
    ${ }^{6}$ The methods used to fill gaps were, in principle, largely similar to those used for the purpose of publishing World and Regional Tables in the Balance of Payments Statistics Yearbook (BOPSY) and were described in External Review of Quota Formulas-Quantification (4/12/2001).

[^20]:    ${ }^{7}$ Balance of payments (BOP) trade in goods data are reported in IFS on a BPM6 basis and do not include goods for processing (GFP), while the Direction of Trade Statistics (DOTS) includes all trade in goods. While staff was able to adjust for this factor in previous databases, this is no longer possible with the move to BPM6 reporting. As such, using DOTS to adjust the BPM6 data for intra-trade may lead to an over-estimation of the intra-trade flows. Based on data available for the quota database updated through 2011, any such over-adjustment is likely to be small.

[^21]:    ${ }^{8}$ This includes various "below the line" transactions undertaken to finance balance of payments needs, including measures such as accumulation or repayment of arrears and debt forgiveness or rescheduling. In principle, transactions in reserve-related liabilities should also be excluded from "net capital flows," but they are not due to data limitations.
    ${ }^{9}$ Consistent with the treatment of reserves for the 2001 ad hoc quota increase for China, P.R., the reserves of Hong Kong SAR and Macao SAR are not included for quota calculations.

[^22]:    ${ }^{10}$ Also, in agreement with BCEAO authorities, monthly average of reported official foreign exchange reserves of WAEMU for 2018 are allocated to member countries using their shares in the total foreign exchange reserves of the Union as per the 2017 quota data update. These figures replaced the foreign exchange data reported by eight WAEMU member countries for 2018.

[^23]:    1/ Data columns marked as "current" refer to the 2020 quota data update (data through 2018); "previous" refers to the 2019 quota data update (data through 2017).
    2/ Including China, P.R., Hong Kong SAR, and Macao SAR.

