

INTERNATIONAL MONETARY FUND

**Demand Projections for the Fund’s Concessional Resources**

Prepared by the Finance and Strategy, Policy, and Review Departments  
(In collaboration with the Legal Department)

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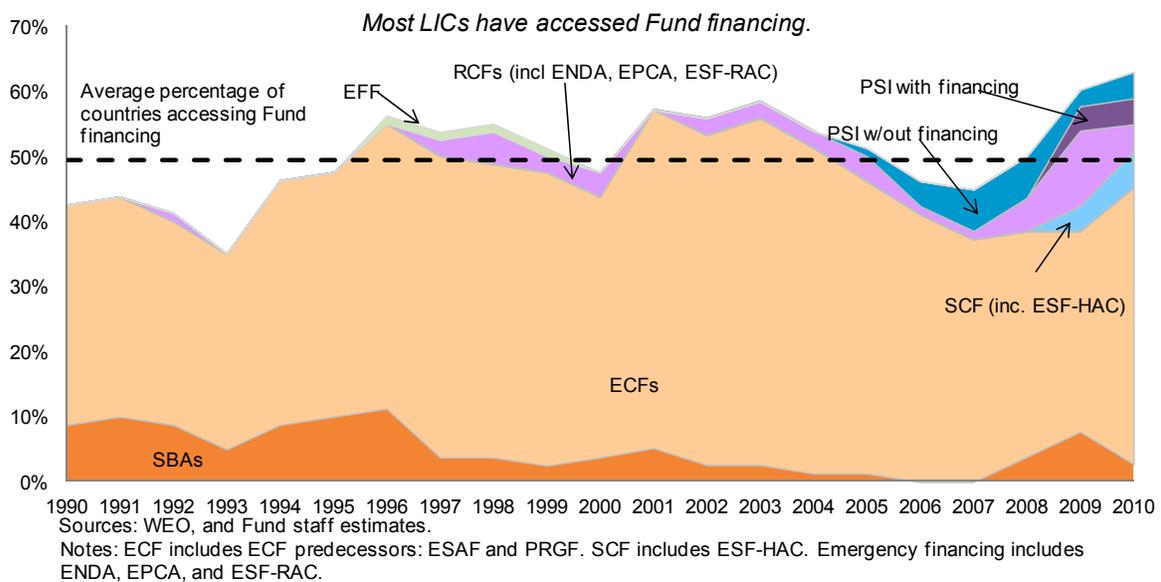
## I. INTRODUCTION

1. **Projections of demand for concessional loans under the Poverty Reduction and Growth Trust (PRGT) are subject to a high degree of uncertainty.** The Fund's financial support to low-income countries (LICs) is both cyclical and lumpy. Moreover, there are important structural changes underway that are likely to affect the frequency, nature, and size of Fund concessional lending. As a result, simple extrapolations from historical lending volumes are misleading. This paper reviews factors underlying historical lending trends and develops a methodology that can narrow down the range of possible longer-term demand scenarios.

## II. BACKGROUND

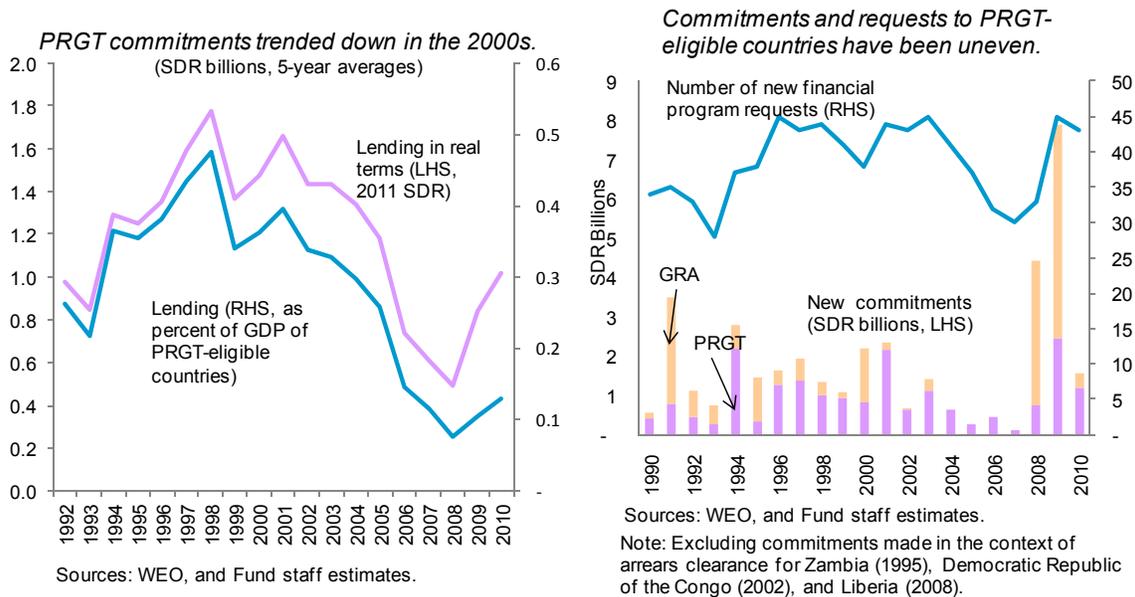
### A. Historical Demand for the Fund's Concessional Resources

2. **A large majority of LICs have received IMF financial support over the past two decades.** More than four-fifths of PRGT-eligible countries have received financial support of some kind from the Fund. The primary tool for Fund financial support to LICs has long been the Extended Credit Facility (ECF) (and its predecessors, the Enhanced Structural Adjustment Facility (ESAF) and the Poverty Reduction and Growth Facility (PRGF)),<sup>1</sup> which has supported over three-quarters of all LICs, with an average of over 40 percent of PRGT-eligible countries having an ECF arrangement in place in any given year over the past two decades. However, as the Fund's LIC toolkit of instruments has expanded in recent years, the share of ECFs has declined.



<sup>1</sup> For the remainder of this paper, the term ECF is used to describe financing both under the ECF itself as well as its predecessor facilities (PRGF and ESAF).

3. **Despite the extensive use of Fund facilities across LICs, there was a pronounced downward trend in the total amount of concessional lending from the late 1990s until 2008.** In 2001, concessional financing commitments amounted to SDR 2.1 billion, before falling in the course of the decade and reaching a low of SDR 0.1 billion in 2007. Lending rose sharply following the food and fuel price shocks in 2008, reaching a record SDR 2.5 billion in 2009. However, if discounted by inflation or by the GDP of PRGT-eligible countries, PRGT commitments are still well below the level of the late 1990s, once short-term fluctuations are smoothed out (e.g., through multi-year rolling averages).

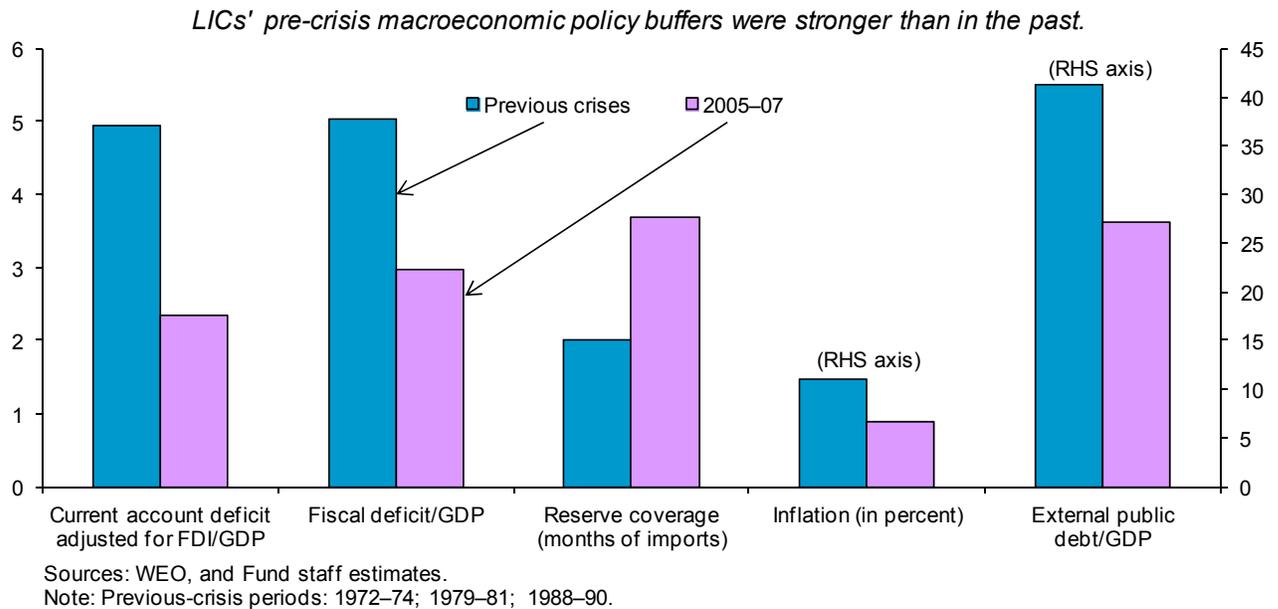


4. **Total demand for the Fund's concessional loans has tended to be highly cyclical and lumpy, and demand surged in the recent global crisis.** Global economic downturns and periods of terms of trade volatility have led to spikes in Fund financial support to LICs. For example, concessional lending commitments spiked up sharply during the 2001 recession and the recent global crisis, but were very low in the relatively benign global economic period 2003–07. Demand was also strongly influenced by the economic conditions in a few LICs with very large quotas: Pakistan alone accounted for over one-third of total (General Resources Account (GRA) plus PRGT) borrowing by PRGT-eligible countries from the Fund during 2000–10, and its 2001 arrangement alone amounted to 10 percent of total borrowing from the PRGT in this period.

### B. Structural Changes Underlying Historical Demand Patterns

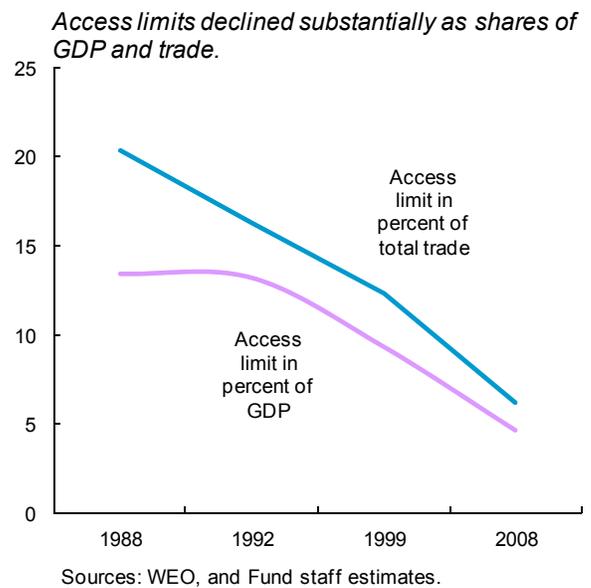
5. **The downward trend in concessional lending over the last decade reflected the much improved macroeconomic management in LICs.** For example, average reserve coverage increased from 1.5 months of imports in the 1980s to 2.6 months in the 1990s and 3.5 months in the 2000s. Average current account deficits (net of Foreign Direct Investment

(FDI) inflows) similarly declined from 6.1 percent in the 1980s to 4.2 percent in the 1990s and 3.5 percent in the 2000s. At the same time, improved fiscal positions, together with debt relief under the Heavily-Indebted Poor Country (HIPC) Initiative and Multilateral Debt Relief Initiative (MDRI), have reduced LICs' average external debt burdens from 76 percent of GDP in the 1990s to 51 percent of GDP in the 2000s, and with it their debt service.



## 6. The trend toward lower financing needs in this period was matched by lower effective access per arrangement.

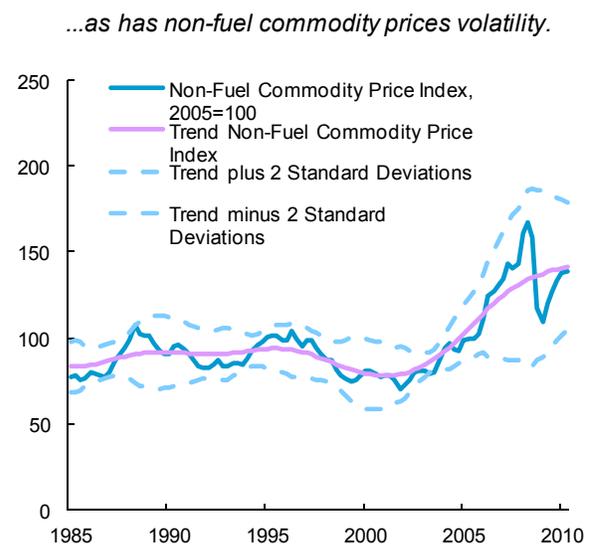
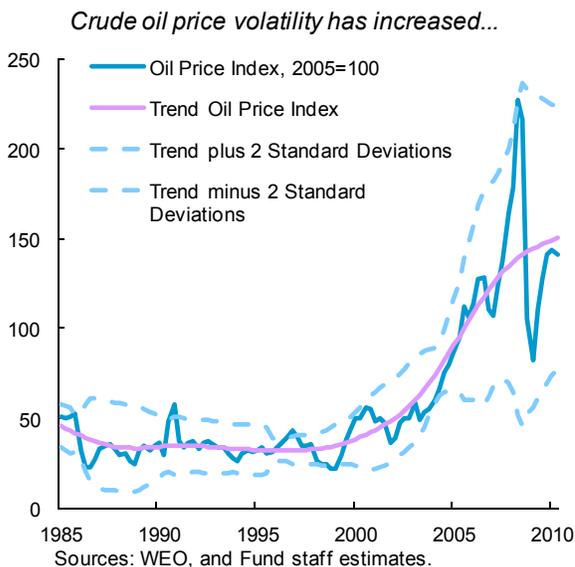
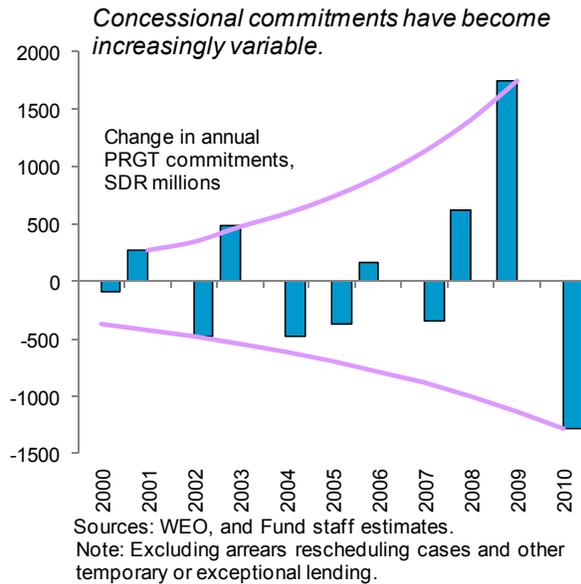
ECF access per arrangement declined significantly in effective terms since its inception in 1987 until the reforms of 2009, reflecting downward revision of access limits, declining access norms, and the more rapid GDP and trade growth of PRGT-eligible countries relative to quota increases. As a result of these increasingly binding supply constraints, the Fund did not have the capacity to meet LICs' demand for concessional finance at the onset of the global crisis, and several PRGT-eligible countries resorted to nonconcessional loans from the GRA. To address this gap, concessional access limits were doubled in March 2009, and the Fund's facilities for LICs were comprehensively reformed to better tailor the Fund's support to the



greater diversity and variability of LIC needs. In particular, tools for providing episodic financing were enhanced, including for those countries without protracted balance of payments problems that had been using the Policy Support Instrument (PSI).

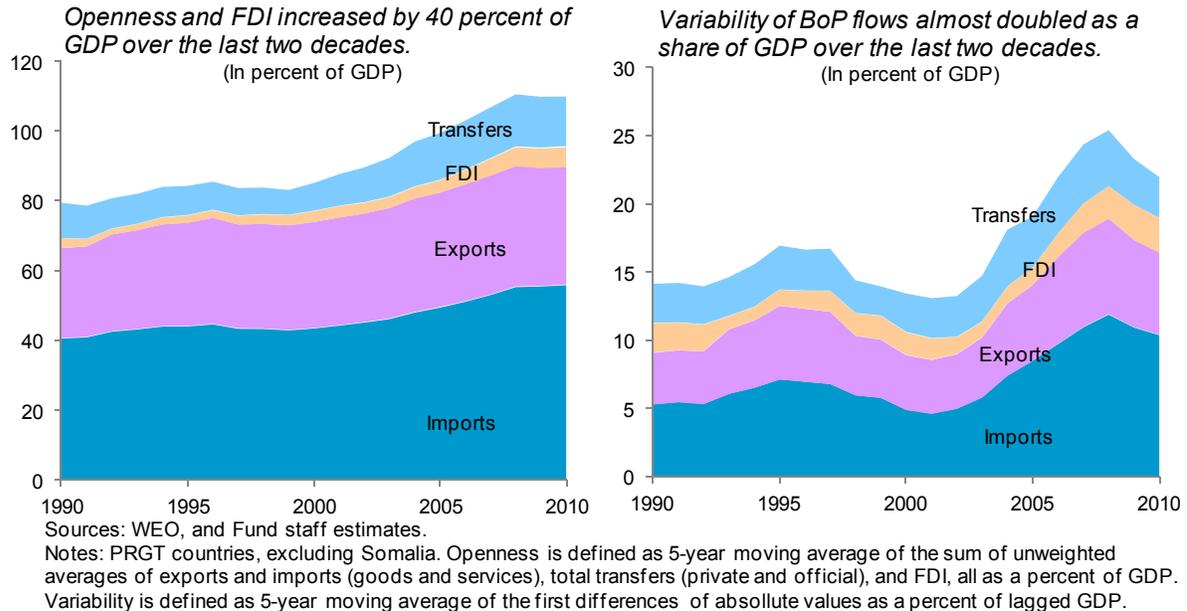
### 7. Demand for concessional resources has become increasingly variable as global commodity price volatility has increased.

After remaining fairly stable since the mid-1980s, oil and other commodity prices, which surged during 2003–08 in response to a large demand shock, dropped sharply in the context of the global downturn in 2009, to be followed by a more recent sharp recovery. Bal Gündüz (2009)<sup>2</sup> finds evidence that global conditions, including changes in real oil and non-oil commodity prices and world trade, are significant determinants of demand for Fund financing by LICs in response to shocks. As a result, the volatility of demand has been increasing in recent years, even when lending has trended down on average.



<sup>2</sup> See *Estimating Demand for IMF Financing by Low-Income Countries in Response to Shocks* by Yasemin Bal Gündüz (IMF Working Paper 09/263).

8. **Increased openness to global trade and financial flows has also made LICs more exposed to external shocks.** Since the beginning of the last decade, trade of goods and services has accelerated, while FDI and private transfers have also shown a rapid growth. Greater openness and larger capital inflows were also accompanied by a significant increase in the volatility of external flows, and LICs have become more vulnerable to external shocks.



### III. MEDIUM-TERM PROJECTIONS FOR PRGT DEMAND

9. **Overall demand projections for the Fund’s concessional financing for 2009–14 remain the same (SDR 11.3 billion) as at the time of the LIC reforms.** New PRGT financing commitments amounted to SDR 3.7 billion in 2009–10, and desk projections by area departments point to demand of about SDR 2.0 billion for 2011. This is somewhat below the projections for 2009–11 that were made at the time of the reform, partly reflecting the resilience of many LICs.<sup>3</sup> However, the global outlook remains highly uncertain and LICs are likely to suffer from increased food and fuel prices in the near term. As a result, demand for 2012–14 is expected to be somewhat higher than projected earlier. Thus, it is expected that the financing package approved by the Board in July 2009 remains appropriate to cover medium-term needs.

<sup>3</sup> While a large majority of LICs used Fund resources, access levels were moderate in many cases, reflecting strong macroeconomic buffers prior to the crisis and a robust domestic policy response. See *Emerging From the Global Crisis—Macroeconomic Challenges Facing Low-Income Countries* (10/5/10).

**Table 1. Projections of Concessional Lending to LICs, 2009–14**

Commitments	Actual annual average	Actual	Actual			Total
	2000–08 1/	2009	2010	2011	2012–14	2009–14
In billions of SDR	0.7	2.5	1.2	2.0	5.7	<b>11.3</b>
In billions of US\$ 2/	1.0	3.7	1.8	3.0	8.5	<b>17.0</b>
<i>Memorandum item: Projections at the time of the LIC reforms</i>						
In billions of SDR	0.7	2.7	2.7	1.5	4.5	<b>11.3</b>
In billions of US\$ 2/	1.0	4.0	4.0	2.3	6.8	<b>17.0</b>

1/ Excluding the very high level of lending committed to Pakistan in the aftermath of 9/11, and to Liberia in 2008 following arrears clearance.

2/ Assuming exchange rate of US\$1.5 per SDR.

#### IV. LONGER-TERM DEMAND PROJECTIONS FOR PRGT RESOURCES

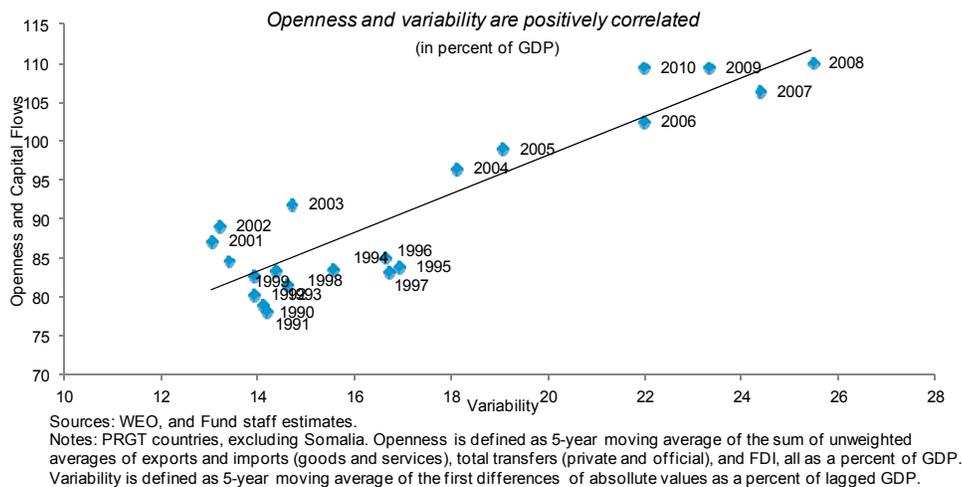
##### A. Drivers of Longer-Term Demand

10. **In light of ongoing structural changes, history can only be a limited guide in projecting longer-term demand.** This limitation partly reflects the cyclical and lumpy nature of Fund lending and the inherent difficulty in trying to predict crises and stress periods. Moreover, several structural changes will play a major role in determining demand over the longer term:

- **Economic growth:** As the economies of LICs continue to grow, their balance of payments needs in periods of economic stress will tend to increase.
- **Graduation:** Real income growth will over time reduce the number of countries that are PRGT eligible.<sup>4</sup> A few (mostly small) countries already have per capita income levels above the threshold for graduation, but graduation remains a distant prospect for many others (two-thirds of PRGT-eligible countries have incomes of less than half of this threshold, and one-third at less than a quarter).

<sup>4</sup> A member would be expected to graduate from PRGT eligibility if it: (i) has a per capita GNI of twice the International Development Association (IDA) operational cut-off (three times for small countries), has been above the cut-off for at least five years, and its income is not on a declining trend, or if it (ii) has durable and substantial access to international financial markets. Graduation may be deferred in case of serious short-term vulnerabilities. See *Eligibility to Use the Fund's Facilities for Concessional Financing* (1/11/10).

- **Blending:** The more consistent use of blended PRGT-GRA financing for PRGT-eligible countries at the higher end of the per capita income spectrum, introduced as part of the 2009 facilities reform, will reduce the pressure on PRGT resources over the medium and longer term as a growing share of LICs would fall into this category.<sup>5</sup>
- **Domestic macroeconomic conditions:** The continued improvement in macroeconomic policies across LICs, and the greater ability to address shocks, would suggest that fewer countries on average will require Fund financing than in the past.
- **Trend toward more episodic financing:** Consistent with continued macroeconomic improvements and the impact of debt relief under the HIPC Initiative and the MDRI, some LICs will shift away from medium-term lending under the ECF and toward the PSI or surveillance-based relationships, with occasional financial support under the Stand-by Credit Facility (SCF) or the Rapid Credit Facility (RCF).<sup>6</sup> At the same time, a smaller number of countries in fragile situations may move toward more intensive ECF-based support.
- **Greater exposure to global volatility.** As LICs continue to integrate into global goods and capital markets, their exposure to external shocks will increase. Commodity price swings are also likely to remain a key source of vulnerability for most LICs. This suggests that there will be periods when demand, on a country basis and across the Fund's low-income membership, could be very high.



<sup>5</sup> Countries with a per capita income above the IDA operational cut-off are expected to use blended financing, except in cases of high risk of debt distress.

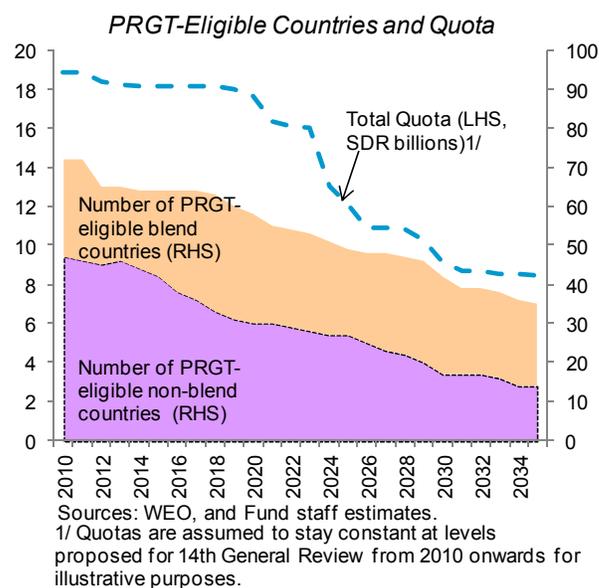
<sup>6</sup> Just over half of post-MDRI countries have accessed a new ECF arrangement since receiving debt relief. Since 2006 around three-quarters of post-MDRI countries have sought some type of Fund financing, compared with 38 percent of non-post MDRI LICs.

## **B. Methodology and Assumptions**

### **11. To project longer-term demand, staff developed a methodological framework with two scenarios that take into account the above structural factors.**

- The impact of graduation and blended financing is modeled by projecting GDP and per capita income growth on a country-by-country basis.
- Given the cyclical and lumpiness of demand, the analysis focuses on average demand over two decades, the period 2015–34, where many countries are still expected to be PRGT eligible. This approach helps estimate total demand taking into account the degree of overall volatility but without the need to project the timing of individual shocks.
- Average access per country is modeled based on existing access policies (including debt sustainability considerations), and adjusted for GDP growth, assuming also a gradual shift toward greater use of more episodic financing.
- Given the high degree of uncertainty inherent in longer-term projections, staff modeled two scenarios that provide reasonable upper and lower bounds of potential demand in a post-debt relief world: (i) a high case that assumes only limited further progress on LICs’ macroeconomic performance and a relatively high incidence of global volatility and crises and (ii) a low case that assumes that a lower share of PRGT-eligible countries would resort to Fund financing, predicated on more optimistic assumptions regarding the global economic environment and LICs’ ability to manage periods of economic stress.
- The results of these two “bottom-up” scenarios were then tested against total historical lending levels to assess the extent to which they are comparable with past episodes of relatively high or low average lending.

12. **The country-by-country calculations suggest that graduation will reduce the pool of PRGT-eligible countries over time, but the impact would be relatively muted until around 2024.**<sup>7</sup> Growth projections through 2015 are based on the latest WEO, and thereafter on average growth rates for the period 2005–15.<sup>8</sup> The analysis shows that many of the countries expected to graduate over the next 10–15 years are relatively small in terms of quota, so that in 2023 countries representing 85 percent of current quota would still be PRGT-eligible. From 2024 onwards the impact of graduation would begin to be more pronounced, and by 2030, countries accounting for about half of the total quota of current PRGT-eligible countries are projected to have graduated. However, even by the end of the projection period in 2034, over half of currently PRGT-eligible countries would still be on the PRGT list, representing more than 45 percent of the quota of currently eligible countries.



13. **The share of PRGT-eligible countries expected to use blended financing is expected to rise rapidly, easing the demand on PRGT resources.** At the start of the projection period around one-third of PRGT-eligible countries are presumed to use blended PRGT-GRA financing. This share would rise gradually to around 60 percent by 2034.

14. **With the expected gradual improvement in LICs' macroeconomic policies, the relative weights of the three financing facilities under the PRGT are projected to shift toward more episodic financing.** Specifically, for a given average number of countries using Fund financing in a given year, the share of ECF arrangements is expected to be somewhat below the recent usage, while the share of SCF arrangements and RCF financing would be somewhat more prevalent, given the more episodic nature of demand for Fund support.

<sup>7</sup> Given the inherent difficulties in projecting access to financial markets, the analysis focuses on assessing when countries might graduate on the basis of fulfilling the income criteria. The analysis also assumes that no new countries would become eligible.

<sup>8</sup> Both graduation and blending are driven by the rate of nominal GDP growth in US\$ terms compared to the increase in the IDA operational cut-off, which is expected to grow with inflation. For the purposes of the long-term projections both SDR and US\$ inflation were assumed to be 2 percent.

**15. Average demand for countries using Fund resources is modeled based on current access policies through 2014, and adjusted upward in line with GDP growth thereafter.<sup>9</sup>**

For the ECF and SCF, access per country is based on the average of the current access norms, taking into account the more episodic use of the SCF. Average RCF demand per country was projected at half of the access limit for exogenous shocks. For countries that are presumed to use blended finance, based on their income levels, it was assumed that on average half of total financing needs would be met by PRGT resources and the other half by the GRA. These average access assumptions for blends and nonblends are then multiplied by the total quota of the relevant countries in any given year to produce the aggregate results. This approach results in relatively conservative demand projections as it effectively implies that current access norms, in nominal terms, are adequate to meet LICs' demand on a per country basis through 2014 and that potential future increases in LICs' openness will not lead to even higher demand (i.e., exceeding GDP growth) in periods of balance of payments stress.

**16. Based on the above assumptions, staff developed two scenarios to provide reasonable lower and upper bounds of longer-term demand.** The scenarios seek to translate the key structural changes—notably the improvement in macroeconomic conditions, the impact of HIPC/MDRI, and LICs' heightened exposure to global volatility—into upper- and lower-bound estimates of the average share of LICs (in terms of total quota of remaining PRGT-eligible countries) with some form of Fund financial support in place. To derive total demand, this share is then multiplied by access per type of facility, adjusting for the share of blend and nonblend countries in any given year.

- **Low case:** The low-case scenario assumes that the recent spike in lending around the global crisis is temporary, and that demand will revert to the downward trend seen in much of the 2000s, driven by the structural factors discussed above. Specifically, it is assumed that, on average over the two decade projection horizon, just under a third of LICs (measured as a share of total quota) have some form of Fund financial support in place. This is lower than in the most benign period of the past decade, and thus reflects an optimistic outlook for global economic conditions and LICs' ability to address future volatility.
- **High case:** The high-case scenario assumes that an average of 50 percent of LICs have some form of Fund financial support in place in any given year over the projection horizon. This would be in line with the historical average over the last decade, and thus reflects a more pessimistic view of global economic conditions and LICs' exposure to future volatility.

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<sup>9</sup> This can be modeled by assuming that quotas increase in line with GDP growth over the longer term, or, alternatively, that quotas stay constant but access norms and limits increase in line with GDP. The quota assumptions take into account the quota increase under the 14th review, which is assumed to take effect before 2015, and per-country demand in SDR terms is assumed to be broadly unaffected by this change (i.e., access per country in percent of quota would on average halve, although there would be some moderate redistribution of quotas between LICs as a result of the quota reform).

### C. Results of the Demand Simulations

17. **Under the low-case scenario, demand for concessional lending would average around SDR 1.1 billion over the projection period in nominal terms.** This would be equivalent to around 850 million per year in constant (2011) SDR terms, compared with lending SDR 1.1 billion per year over the period 2001–10.<sup>10</sup> Adding in the GRA resources accessed by blend countries, total lending would average SDR 1.7 billion in nominal terms or SDR 1.2 billion in real terms.

18. **Under the high-case scenario, demand for concessional lending would average SDR 1.9 billion over the projection period in nominal terms.** This would be equivalent to about SDR 1.4 billion in constant (2011) SDR terms. Including GRA lending for blend cases would result in annual lending volumes of around SDR 2.7 billion per year or around SDR 2.0 billion in real terms. Even in this scenario, IMF lending would represent not even 0.2 percent of PRGT-eligible countries' GDP and would thus have little impact on LICs' debt dynamics.

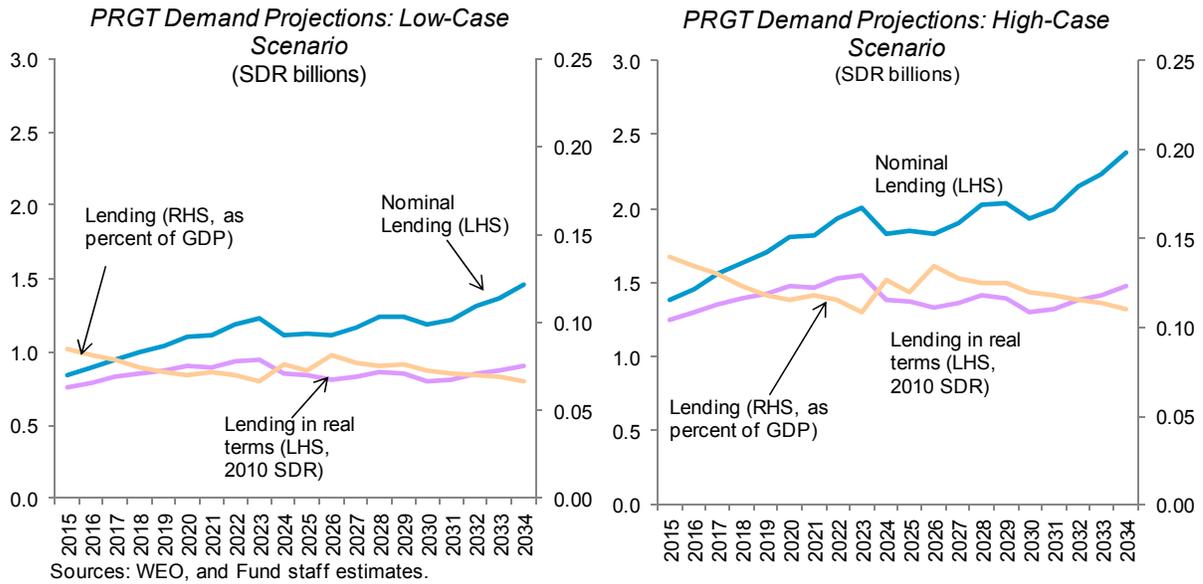
**Table 2. Potential Average Annual Demand for PRGT Resources**

	Nominal SDR, millions	In percent of GDP of PRGT-eligible countries
<b>Low-case lending scenario</b>		
<b>PRGT Financing</b>		
Average commitments 2015–34	1145	0.07
<b>PRGT + GRABlend Financing</b>		
Average commitments 2015–34	1665	0.11
<i>Memo Item</i>		
Average PRGT commitments 2003–08	565	0.11
<b>High-case lending scenario</b>		
<b>PRGT Financing</b>		
Average commitments 2015–34	1874	0.12
<b>PRGT + GRABlend Financing</b>		
Average commitments 2015–34	2706	0.18
<i>Memo Item</i>		
Average PRGT commitments 2001–10	977	0.19

Sources: WEO, and Fund staff estimates.

<sup>10</sup> Compounded by the inflation rate for the historical data, and assuming 2 percent inflation for the projection period.

19. **These projections turn out to be roughly comparable to two historical lending periods as a percentage of the total GDP of PRGT-eligible countries.** Under the low-case scenario, total demand (including the GRA component for blends) would average 0.11 percent of PRGT-eligible countries’ GDP, which is similar to the level of demand during the relatively benign global period 2003–08. Under the high-case scenario, total demand would average 0.18 percent of GDP, roughly analogous to the 0.19 percent of GDP in Fund concessional resources over the decade 2001–10, a period that included both the benign global environment in the middle of the decade as well as the recession at the start and the global crisis towards the end.



**Table 3. Potential Demand for PRGT Resources**

	Average number of PRGT eligible countries	Nominal SDR, millions	Real (2011) SDR, millions	In percent of GDP of PRGT-eligible countries
Average commitments 2001–10	78.0	977	1101	0.19
Average commitments 2003–08	78.3	565	656	0.11
Average commitments 2009–14	69.3	1890	1861	0.21
<b><u>Current self-sustained capacity</u></b>				
Average commitments 2015–24	58.6	700	593	0.05
Average commitments 2025–34	43.2	700	486	0.04
<b><u>Low-case lending scenario</u></b>				
<b><u>PRGT Financing</u></b>				
Average commitments 2015–24	58.6	1047	864	0.07
Average commitments 2025–34	43.2	1243	843	0.07
Average commitments 2015–34	50.9	1145	853	0.07
<b><u>PRGT + GRA Blend Financing</u></b>				
Average commitments 2015–24	58.6	1518	1250	0.11
Average commitments 2025–34	43.2	1812	1227	0.11
Average commitments 2015–34	50.9	1665	1238	0.11
<b><u>High-case lending scenario</u></b>				
<b><u>PRGT Financing</u></b>				
Average commitments 2015–24	58.6	1714	1413	0.12
Average commitments 2025–34	43.2	2034	1379	0.12
Average commitments 2015–34	50.9	1874	1396	0.12
<b><u>PRGT + GRA Blend Financing</u></b>				
Average commitments 2015–24	58.6	2467	2032	0.18
Average commitments 2025–34	43.2	2944	1993	0.17
Average commitments 2015–34	50.9	2706	2013	0.18

Sources: WEO, and Fund staff estimates.

Assumptions:

1. Assumes proposals for 14th review become effective by 2014 and access under facilities is halved. Thereafter annual access increases by 7.5 percent in line with GDP growth.
2. Assumes LICs' per capita income grows in line with their WEO growth projections up to 2015. From 2015 onwards, assumes growth at average of their WEO per capita growth rate 2006-15 and the median per capita growth rate for all LICs (7.5 percent). Population growth is assumed at 2.0 percent.
3. Inflation rate of 2 percent.
4. In order to simulate graduation, countries that are above the PRGT thresholds (twice the IDA operational cut-off for large countries, three times the cut-off for small countries) for two years are assumed to be removed from the PRGT-eligibility list.
5. SDR/US\$ exchange rate of 1.56