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Sustainable development: financing gap in the Arab region

Summary

The United Nations Conference on Sustainable Development (Rio+20), held in June 2012, tasked an open working group with formulating new development goals to succeed the Millennium Development Goals that have a 2015 deadline. Accordingly, sustainable development goals are being prepared and there is mounting interest in their quantification and measurement. Given the interlinkages between these goals, there is a risk of double counting efforts, because measures to achieve one goal might affect another goal.

The present paper provides some insight on the financing gap in Arab countries, the majority of which are estimated to be facing financing deficits, with cumulative total financing requirements that amount to \$3.6 trillion for the period 2015-2030.

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Introduction

- 1. Quantifying the financing gap for sustainable development is a challenging task given the inter-linkages between the sustainable development goals and that each goal has several sub-goals (objectives). For example, Goal 1 that aims to end poverty in all its forms everywhere includes objectives on, by 2030, eradicating extreme poverty measured as people earning less than \$1.25 a day; reducing at least by half those living in poverty in all its dimensions according to national definitions; providing equal rights for men and women with regard to economic resources; and building the resilience of the poor to vulnerable situations. The goals are therefore multi-faceted, with challenging indicators that are difficult to quantify, as in the case of Goal 4 (promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development), yet many indicators can have a cross-cutting impact on several goals. For example, if poverty levels are measured by per capita income below a certain standard (included under Goal 1), a decrease in poverty levels would have an effect on reducing hunger and improving food security and nutrition (included under Goal 2), thus helping to attain healthy lives (included under Goal 3).
- 2. Similarly, Goal 8 on full and productive employment and decent work for all relates to poverty levels and education standards and quality (Goal 4). As a result, measuring financing needs for sustainable development, without falling into the double-counting trap, becomes an extremely complex endeavor. Although this issue could open up further areas of academic research, it is imperative to resort to a less precise proxy to focus on practical steps and initiate an action plan towards sustainability, especially bearing in mind the pressing needs currently faced by many Arab countries.

I. METHODOLOGIES

- 3. In the past, the financing gap was defined as the difference between available financing sources at a given point in time and the resources needed to achieve a specific growth level.³ To estimate a required investment, several models have been developed,⁴ all of which depend on setting an arbitrary target growth rate. Table 1 identifies previous financing gap estimation attempts for Africa, Arab countries, the Middle East and North Africa (MENA) region, countries of the Islamic Development Bank (IsDB) and least developed countries. As demonstrated below, because of the different objectives, geographical coverage and methodologies, estimates for the financing gap can vary widely for the same region.
- 4. The World Bank⁵ has applied the following methodology in its estimation of the financing gap: estimating the external financing needs of developing countries, defined as the current account balance plus scheduled principal payments on private debt. This estimate is compared to a forecast of private capital flows, which includes new loans on private debt, net equity flows⁶ and net unidentified capital outflows.⁷ The difference between the calculated financing needs and the projected private capital flows

³ ESCWA, Assessing the financing gap in the Arab region (New York, 2013).

 $^{^{1}}$ General Assembly, Report of the Open Working Group of the General Assembly on Sustainable Development Goals, A/68/970 (2014).

² Ibid.

⁴ These include the Harrod and Domar Model (as outlined in the 1930s and 1940s and further developed by Chenery and Strout in the 1960s) and the Balance of Payments Constrained Growth Model (developed by Thirlwall and Hussain in 1982).

⁵ World Bank, Global Development Finance: Charting a Global Recovery (Washington, 2009).

⁶ In many cases, net equity flows are negative, representing net outflows.

⁷ Unidentified capital outflows represent a balancing entry equal to the difference between the current account deficit and all identified capital account transactions and the change in reserves. A portion of this item represents private capital transactions not declared to the authorities, while the other portion represents inconsistencies in the balance of payments reporting. This item was not forecasted and was assumed to be zero.

represents the financing gap.⁸ This methodology is used in the present paper, given that identifying the target growth rate needed to achieve the sustainable development goals is a challenging and debatable task.

TABLE 1. PREVIOUS FINANCING GAP ESTIMATES BY REGION

Author/							
Institution	Source	Region	Date	Objective	Gap		
World Bank	Global Economic Prospects	Africa	2009	Cover fiscal deficit	\$71.8 billion		
International Monetary Fund	Implications of the Global Crisis for Low-Income Countries	Africa	2009	Cover balance of payment deficits	\$51.4 billion		
M. N. Hussain	Exorcism of the ghost: An alternative growth model for measuring the financing gap	Africa	2000	Reach 7% growth in one year (1999)	\$152 billion		
African Development Bank	Africa and the global economic crisis: strategies for preserving the foundations of long-term growth	Africa	2009	To reach pre- crisis growth	\$50 billion		
African Development Bank	Africa and the global economic crisis	Africa	2009	To reach 7% growth	\$117 billion		
Arab Organization for Agricultural Development	2009 League of Arab States Social and Economic Summit	Arab	2010	Arab Food Gap	\$27 billion		
World Bank and Islamic Development Bank	Arab Financing Facility for Infrastructure	Arab	2011	Infrastructure to sustain growth	\$75-100 billion per year		
World Bank and Islamic Development Bank	Arab Financing Facility for Infrastructure	Arab	2011	Meet electricity demand	\$30 billion per year		
United Arab Emirates	2013 Annual Meeting of Arab Financial Institutions	Arab	2013	Closing existing food gap	\$41 billion in 2010		
ESCWA	Assessing the financing gap in the Arab region	Arab	2013	7% target growth rate	\$54.5-57.9 billion		
Islamic Development Bank	The Challenge of Achieving the Millennium Development Goals in IsDB Member Countries in the Post Crisis World	40 IsDB countries	2011	Poverty eradication	23.6% of GDP		
Islamic Development Bank	The Challenge of Achieving the Millennium Development Goals in IsDB Member Countries in the Post Crisis World	ISDB 40 countries	2011	Poverty eradication	\$140-420 billion per year		
Islamic Development Bank	The Challenge of Achieving the Millennium Development Goals in IsDB Member Countries in the Post Crisis World	MENA-8	2011	Poverty eradication	\$3.3-9.8 billion per year		
United Nations	Prototype Global Sustainable Development Report	All least developed countries	2014	Sustainable Development	\$50-75 billion per year		

Source: ESCWA, Assessing the financing gap in the Arab region, (New York, 2013); United Nations Department of Economic and Social Affairs, Prototype global sustainable development report (New York, 2014).

⁸ World Bank, 2009.

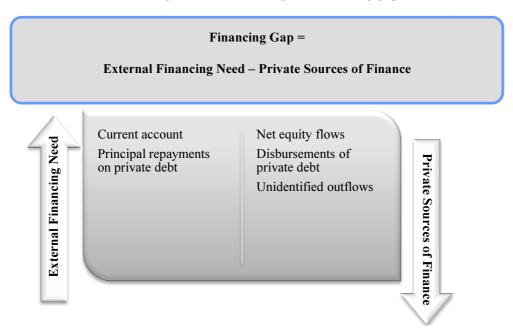


Figure 1. Calculating the financing gap

II. ESTIMATING THE FINANCING GAP

- 5. Two scenarios were developed to estimate the financing gap. Scenario I depends on the latest forecasts provided by the World Economic Outlook Database and published by the International Monetary Fund (IMF) in October 2014. It includes forecasts for the current account balances and gross domestic products (GDP) of most Arab countries, including least developed countries (except Palestine and the Syrian Arab Republic). Scenario II is based on the Economist Intelligence Unit (EIU) forecasts as at December 2014 and January 2015, hence more accurately reflecting the impact of the recent drop in oil prices. For least developed countries not covered by EIU, IMF World Economic Outlook figures were used. The results should remain consistent considering the fact that the drop in oil prices is not expected to have a major effect on least developed countries since they are not rich in oil resources.
- 6. Since there is no forecast of principal repayments and disbursements of private debt, the historical average for the period 2009-2013¹⁰ was used. In addition, net equity flows, including portfolio and net foreign direct investment, were projected as a ratio to GDP based on the average for the period 2009-2013. Table 2 shows the estimated financing gap for Arab countries in 2015 and 2016 for scenarios I and II.
- 7. In table 2, Arab countries have been classified as High Income (HI), Upper Middle Income (UMI), Lower Middle Income (LMI) and Least Developed Countries (LDC), in accordance with the OECD classifications. It shows that between 13 and 15 Arab countries are expected to have a financing deficit for 2015 and 2016, which is estimated to range between \$80 billion and \$85 billion annually. Scenario II, which is based on more updated projections of oil prices, results in a lower financing gap, given that the funding gap is mostly experienced by Arab countries which are net oil importers and accordingly stand to benefit from a drop in oil prices.

⁹ The IMF forecast in October 2014 was based on average oil prices of \$99.4/barrel in 2015 and \$97.3/barrel in 2016. In comparison, the Economist Intelligence Unit forecast was based on average oil prices of \$88/barrel in 2015 and \$85.2/barrel in 2016 for country reports published during December 2014. This estimate was further decreased to averages of \$80.3/barrel and \$84/barrel in both respective years for country reports issued during January 2015.

¹⁰ In some cases, the last available year was 2012.

TABLE 2. ESTIMATED FINANCING GAP FOR ARAB COUNTRIES IN 2015 AND 2016 FOR SCENARIOS I AND II

(Billions of United States dollars)

		Scena	rio I ^{a/}	Scenario II ^{b/}			
		Financing	Financing	Financing	Financing		
Classification	Country	gap/surplus 2015	gap/surplus 2016	gap/surplus 2015	gap/surplus 2016		
UMI	Algeria	-9.98	-12.12	-15.88	-17.50		
HI	Bahrain	2.86	2.57	1.35	0.77		
LDC	Comoros	-0.11	-0.12	-0.11	-0.12		
LDC	Djibouti	-0.76	-0.92	-0.76	-0.92		
LMI	Egypt	-17.57	-21.72	-11.45	-13.64		
UMI	Iraq	3.14	0.40	0.66	3.18		
UMI	Jordan	-6.34	-5.06	-4.60	-5.26		
HI	Kuwait	82.28	82.51	59.27	56.10		
UMI	Lebanon	-9.91	-10.45	-12.67	-12.49		
UMI	Libya	-12.45	-5.08	-2.49	-3.05		
LDC	Mauritania	-3.14	-2.76	-3.14	-2.76		
LMI	Morocco	-9.09	-8.92	-6.80	-7.30		
HI	Oman	5.23	3.05	-0.05	0.65 NA		
LMI	Palestine	NA	NA	NA			
HI	Qatar	58.73	50.82	17.07	17.58		
HI	Saudi Arabia	73.73	63.70	-5.73	0.26		
LDC	Somalia	NA	NA	NA	NA		
LDC	Sudan	-6.22	-6.29	-6.22	-6.29		
	Syrian Arab						
LMI	Republic	-4.51	-4.20	-4.51	-4.20		
UMI	Tunisia	-4.79	-4.39	-5.70	-5.74		
	United Arab						
HI	Emirates	51.79	50.17	28.36	19.27		
LDC	Yemen	-0.44	-0.64	-0.44	-0.64		
		Scena	rio I	Scenario II			
		Financing gap	Financing gap	Financing gap	Financing gap		
		2015	2016	2015	2016		
Number of A	rab countries						
with financing		13	13	15	13		
Total financir	ng gap (US\$ bn)	85.32	82.69	80.19	79.92		

 $[\]underline{a}$ / Mainly using IMF forecasts dated October 2014 for current account balances and GDP except for the Syrian Arab Republic where EIU forecasts were used due to the unavailability of forecasts by IMF. Principal repayments and disbursements of private debt were estimated in view of historical average levels. Net investment and portfolio flows were estimated as per the historical average to GDP.

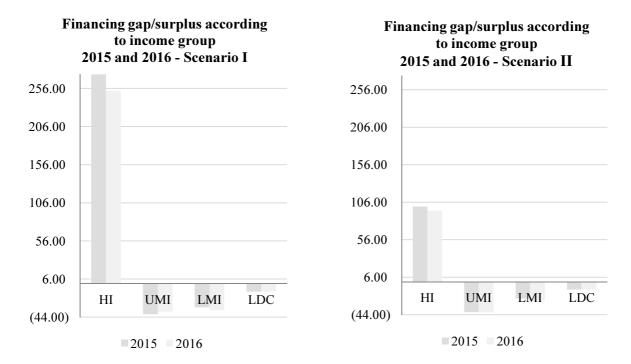
III. LIMITATIONS

8. In figure 2, as expected, a financing surplus is found in high income countries. However, the fact that upper middle income countries reflect a higher financing gap when compared to lower middle income countries, followed by least developed countries, is contrary to the common belief that least developed countries should exhibit the highest needs. The explanation is that, given that least developed economies are generally small, it is logical to assume that their financing deficit will also reflect small figures. Nevertheless, when considering their financing gap as a percentage of GDP, this figure becomes considerable. Forecasting processes do not necessarily put sustainable development goals at the forefront of the countries' spending priorities. Instead, the dominant *modus operandi*, which ignores sustainable

 $[\]underline{b}$ / Mainly using EIU forecasts dated December 2014 and January 2015 for current account balances and GDP except for Comoros, Djibouti, Mauritania, South Sudan, the Sudan and Yemen, where IMF forecasts were used due to the unavailability of forecasts by EIU. Principal repayments and disbursements of private debt and net private investment and portfolio flows are estimated in a similar manner to Scenario I.

development, is expected to continue. This is an important limitation of this analysis. The determination of additional anticipated growth in required financing – above the current forecasts – is to be done on a country-specific non-arbitrary basis, depending on prioritized sustainable development goals, to arrive at a more accurate estimate. Another limitation of the above findings is the unavailability of forecast data on Palestine and Somalia. Both factors are expected to yield a higher financing gap estimate for Arab countries.

Figure 2. Financing gap/surplus according to scenarios I and II (Billions of United States dollars)



9. There are other factors which may lead to lower estimates for the financing gap. As discussed above, inter-linkages between the various sectors could result in potential synergies. The improvement accomplished in one goal may generate positive outcomes in other goals, hence saving resources that would be dedicated towards the achievement of each individual goal. Efforts should be made by countries to arrive at more concise figures through inter-sectoral dialogue and identification of the various synergies between the different goals. In conclusion, the above estimates are purely indicative, providing an idea of the magnitude of the funding needed.

IV. FINANCING REQUIREMENTS IN THE ARAB REGION FOR THE PERIOD 2015-2030

10. Based on an alternative methodology, the financing requirements can be calculated according to Thirlwall-Hussein's (T-H) model, which is based on the Balance of Payments Constrained Growth. The T-H model emphasizes external financing needs: for a country to have sustained growth, increased demand will have to be supplied. The binding constraint is that, in order to import products, countries must acquire sufficient foreign exchange resources, meaning that they must be able to export their products. This constraint applies strongly to countries with low exports-to-GDP ratios, such as non-oil producing countries. Hence, a country's objective is to reduce the income elasticity of demand for imports (import products of lower added value, cheaper) and/or increase the income elasticity of demand for exports (export products of high added value). Depending on countries' export and import structure, they would need certain capital inflows for their economies to grow at certain rates (financing requirements).¹¹

¹¹ For more details, see Mohamad Nureldin Hussain, Exorcism of the ghost: an alternative growth model for measuring the financing gap, African Development Bank Economic Research Paper, No. 57 (2000).

11. The financing requirements for selected Arab countries over the period 2015-2030 are summarized in table 3 below. These estimates are based on exogenous economic growth forecasts (see the annex to the present document) and projections of previous works on financing gap estimations. The expected cumulative total financing requirements amount to \$3.6 trillion. There is great variability across countries. For example, while Morocco needs low levels of resources, the Sudan requires large amounts of support.

TABLE 3. SUMMARY OF FINANCING REQUIREMENTS FOR SELECTED ARAB COUNTRIES, 2015-2030 (Millions of United States dollars)

Country	Total
Egypt	519.413
Jordan	142.084
Lebanon	320.267
Morocco	142.241
Sudan	2 264.264
Syrian Arab Republic	335.361
Tunisia	79.401
Yemen	43.980
Total	3 597.011

12. It could be argued, however, that the T-H model is over simplistic. Other more complex models, such as the World Bank's Standard Model, have been developed that better reflect "the monetary implications of the balance of payment outcomes". However, the simplicity of the T-H model is also a strength, especially because the financing gaps estimated using the T-H model are generally in line with those of other methodologies. The T-H model has been praised as an important contribution to post-Keynesian theory.

V. FINANCING GAP IN THE ARAB REGION FOR THE PERIOD 2015-2030

- 13. Once future financing requirements have been estimated, the future capital inflows are forecast on the basis of countries' past ability to attract net external capital. Thus, the expected financing gap is the difference between expected financing requirements and inflows.
- 14. Table 4 presents estimates of the financing gap for selected Arab countries for the period 2015-2030. The expected cumulative total financing gap amounts to \$2.9 trillion. As with the requirements, there is great variability across countries.
- 15. While this calculation includes the reconstruction of the Syrian Arab Republic in the second column (estimated at \$250 billion), forecasted growth rates are not necessarily based on a sustainable development scenario and hence, the figures in table 4 arguably represent the lower band of the region's financing gap. For instance, the cost of environmental resources degradation is not included. Based on estimates of the ecological footprint of Arab countries, such cost amounts to an additional 5 per cent of GDP in the region.¹⁷

¹³ Thilak Ranaweera, Foreign aid, conditionality, and ghost of the financing gap: a forgotten aspect of the aid debate (2003).

¹² ESCWA, 2013.

¹⁴ ESCWA, 2013.

¹⁵ Audrey Verdier-Chouchane. The Hussain-Thirlwall Model: extensions and implications for development economics. In *African Development Review*, vol. 17, pp. 493-512 (2005).

¹⁶ ESCWA, 2013.

¹⁷ Arab Forum for Environment and Development, *Arab Environment 5: Survival Options: Ecological Footprint of Arab Countries* (2012).

Finally, the cost of rebuilding other Arab countries that have been heavily affected by conflict (e.g. Palestine) is not included, as its estimates are unclear.

TABLE 4. CUMULATIVE FINANCING GAP FOR SELECTED ARAB COUNTRIES, 2015-2030
(Millions of United States dollars)

Country	Financing gap	+Reconstruction of the Syrian Arab Republic
		1
Egypt	139.033	139.033
Jordan	31.536	31.536
Lebanon	213.541	213.541
Morocco	376	376
Sudan	2 188.250	2 188.250
Syrian Arab Republic	120.057	370.057
Tunisia	32.432	32.432
Yemen	11.465	11.465
Total	2 736.690	2 986.690

- 16. There are different policy instruments to mobilize resources to fill the gap and contribute to sustainable development. Through taxation and expenditure, Governments can raise public tax revenue for development. This can be done either through higher taxes (e.g. a larger taxpayers' base or higher tax rates), or through a reprioritization of spending. For revenues and spending, it is important to have a system that is transparent, efficient and equitable.
- 17. Domestically, it is also very important to have a macroeconomic framework that is conducive to development and favours access to finance by micro, small and medium enterprises, in the form of either equity, traditional credit or trade finance credit. The monetary authorities have an important role to play by formulating sound prudential regulations that promote remittances and efficient capital markets that can channel savings towards investment.
- 18. Externally, multinational donors can contribute with official development assistance, while private sector investments often take the form of foreign direct investments. Aspects such as competitiveness, market size and a business friendly environment that ensures investor protection are critical in this regard.
- 19. Finally, South-South cooperation and triangular development cooperation can contribute, not only through ensuring financial resources, but also through capacity-building and knowledge sharing.

VI. CONCLUSION

- 20. The exercise of estimating the financing gap of any given country is necessarily imprecise and mainly indicative since it is difficult to provide exact forecast figures alongside quantifiable future projects to achieve sustainable development. However, the present paper attempts to establish precise figures, according to the methodology used by the World Bank and Thirlwall and Hussein's Model.
- 21. As such, it estimates that the financing gap will reach between \$80 billion and \$85 billion annually in 2015 and 2016, in upper middle, lower middle income and least developed Arab countries. However, it is expected that the actual financing gap will be larger if sustainable development goals are taken into account. Current national development plans are still lagging behind in terms of prioritizing sustainable development. It is also important to bear in mind that the financing gap for sustainable development varies according to country-specific financing needs. The cumulative financing requirements for selected Arab countries to achieve sustained growth during over period 2015-2030 are estimated at \$3.6 trillion, with great variability across countries.

 $\frac{\text{Annex}}{\text{FORECASTED GROWTH RATES BY COUNTRY, 2015-2030}}$ (Percentage)

Country	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Egypt	5.8	5.4	8.4	6.5	5.3	4.5	4.9	4.8	5.1	4.9	4.7	5.7	5.8	6.0	6.1	6.2
Jordan	4.9	5.9	8.5	8.6	5.9	5.4	5.6	5.5	5.6	5.7	5.5	6.8	7.0	7.1	7.3	7.5
Lebanon	4.9	5.9	8.5	8.6	5.9	5.4	5.6	5.5	5.6	5.7	5.5	6.8	7.0	7.1	7.3	7.5
Morocco	4.8	6.2	7.6	8.3	5.9	5.4	5.2	5.0	4.8	5.4	5.2	5.5	5.5	5.5	5.4	5.4
Sudan Syrian Arab	4.9	5.9	8.5	8.6	5.9	5.4	5.6	5.5	5.6	5.7	5.5	6.8	7.0	7.1	7.3	7.5
Republic	4.9	5.9	8.5	8.6	5.9	5.4	5.6	5.5	5.6	5.7	5.5	6.8	7.0	7.1	7.3	7.5
Tunisia	4.6	5.1	7.1	8.5	5.3	4.5	4.2	4.3	4.2	4.3	4.2	5.5	5.6	5.8	5.9	6.1
Yemen	4.9	5.9	8.5	8.6	5.9	5.4	5.6	5.5	5.6	5.7	5.5	6.8	7.0	7.1	7.3	7.5
