

# Republic of Yemen, 2013 Article IV Consultation



# REPUBLIC OF YEMEN

## 2013 ARTICLE IV CONSULTATION

July 2013

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2013 Article IV consultation with Yemen, the following documents have been released and are included in this package:

- **Staff Report** for the 2013 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on April 24, 2013, with the officials of Yemen on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on July 3, 2013. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.
- **Informational Annex**
- **Debt Sustainability Analysis** prepared by the staffs of the IMF and the International Development Association.
- **Press Release** summarizing the views of the Executive Board as expressed during its July 19, 2013 discussion of the staff report that concluded the Article IV consultation.
- **Statement by the Executive Director** for Yemen.

The policy of publication of staff reports and other documents allows for the deletion of market-sensitive information.

Copies of this report are available to the public from

International Monetary Fund • Publication Services  
700 19<sup>th</sup> Street, N.W. • Washington, D.C. 20431  
Telephone: (202) 623-7430 • Telefax: (202) 623-7201  
E-mail: [publications@imf.org](mailto:publications@imf.org) Internet: <http://www.imf.org>

**International Monetary Fund**  
**Washington, D.C.**



# REPUBLIC OF YEMEN

## STAFF REPORT FOR THE 2013 ARTICLE IV CONSULTATION

July 2, 2013

### KEY ISSUES

**Background:** Political transition is advancing and economic reforms—supported by large external inflows including the 2012 Rapid Credit Facility (RCF)—helped Yemen stabilize its macroeconomy. However, the political and security situation remains fragile, and poverty and unemployment are widespread. Furthermore, the underlying fiscal deficit has recently widened, and large wage and subsidy outlays crowd out social spending and investment.

**Outlook and risks:** The fledgling recovery is projected to continue over the medium term, supported by the implementation of the authorities' economic plans. However, stronger reforms and donor support are needed to achieve sustainable high and inclusive growth as well as prevent a deterioration in public debt and the external position. Delays in reforms, shortfalls in donor support, or sabotage activities that curtail oil and electricity supply could undermine the stabilization gains, reduce growth prospects, and threaten fiscal and external sustainability. Managing these risks will require an unwavering commitment to, and broad-based support for, the reform agenda, and careful contingency planning.

**Policy Discussions** focused on how to safeguard macroeconomic stability, improve fiscal and external sustainability, and boost inclusive growth, while better protecting the poor. There was broad agreement on the need to reorient public expenditures to infrastructure and targeted transfers for social protection, increase non-hydrocarbon revenues, improve public finance management, and expedite structural policies to improve the business environment and develop the financial sector while preserving its stability. The authorities have announced initial measures to improve governance and efficiency in the energy sector. They agreed with staff on the need for comprehensive subsidies reforms, but are not ready to implement stronger measures that are needed to reduce the large energy subsidy bill. Postponing such reforms increases risks to macroeconomic stability and growth, hinders more effective social protection, and will require stronger adjustments down the road.

**Other Article IV Issues:** Further progress is needed to improve data, advance the WTO accession process, and strengthen capacity in AML/CFT.

Approved By  
**Daniela Gressani and  
 David Marston**

Discussions were held during March 20–30, 2013, and were resumed in Washington during April 19–24. The staff team comprised Messrs. Khaled Sakr (Head), Aidar Abdychev, Ali Al-Sadiq, Nabil Ben Ltaifa, and Ms. Inutu Lukonga (all MCD). Ms. Mira Merhi, Advisor to the Executive Director representing Yemen, and Messrs. Gazi Shbaikat, the Fund's resident representative and Fouad Kohlany, the economist in the Sana'a office participated in the discussion. The mission met with Minister of Finance Sakhr Al-Wageeh, Minister of Planning Mohamed Al-Saadi, Governor of the Central Bank Mohamed Bin Humam, and other senior officials. Discussions were also held with representatives of the financial sector, civil society, and the business and donor communities.

## CONTENTS

<b>CONTEXT</b>	<b>4</b>
<b>RECENT DEVELOPMENTS, OUTLOOK, AND RISKS</b>	<b>5</b>
A. Recent Developments	5
B. Outlook and Risks	6
<b>POLICY DISCUSSION—FROM RECOVERY TO SUSTAINABILITY AND INCLUSIVE GROWTH</b>	<b>13</b>
A. Fiscal Policies and Reforms: Achieving Sustainability and Creating Space for Growth-Enhancing Expenditures and Social Protection	13
B. Monetary and Exchange Rate Policies: Ensuring a Robust Monetary and Exchange Rate Policy Framework	17
C. The Financial Sector: Enhancing Intermediation and Contribution to Growth while Maintaining Stability	19
D. Structural Reforms: Facilitating Diversification and Inclusive Growth	20
E. Improving the Quality of Statistics for Economic Management	20
<b>STAFF APPRAISAL</b>	<b>21</b>
<b>BOXES</b>	
1. Energy Subsidies and Reforms	16
2. Exchange Rate Assessment	18
<b>FIGURES</b>	
1. Recent Economic Developments	8
2. Selected Real Sector Indicators	9

3. Selected Fiscal Indicators _____	10
4. Selected External Sector Indicators _____	11
5. Monetary and Financial Developments _____	12

## **TABLES**

1. Selected Economic Indicators, 2010–17 _____	23
2. General Government Finances, 2008–17 _____	24
3. General Government Finances, 2010–17 _____	25
4. Monetary Survey, 2009–13 _____	26
5. Summary Accounts of the Central Bank of Yemen, 2009–13 _____	27
6. Balance of Payments, 2010–17 _____	28
7. Indicators of Banking System Financial Soundness, 2006–12 _____	29
8. Illustrative Medium-Term Scenario, 2010–17 _____	30
9. Millennium Development Goals 1990–2011 _____	31

## **APPENDIXES**

I. Risk Assessment Matrix _____	32
II. Unemployment, Poverty, and Human Development Indicators in Yemen _____	33
III. Fiscal Policy and Structural Reforms in Yemen _____	34
IV. Monetary and Financial Reforms _____	41

## CONTEXT

1. **Yemen's geopolitical situation is critical from regional and global perspectives.** On the border of Saudi Arabia and overlooking al-Mandeb Strait across the Horn of Africa, Yemen is strategically important for stability in the region as well as security of key oil and commercial maritime routes. High unemployment and poverty contribute to political tensions that are further compounded by conflict with the Southern separatist and Houthi movements.
2. **In 2011, Yemen experienced a political crisis that triggered a political transition process and led to a decline in economic output.** The deterioration in security and supply bottlenecks aggravated the already high unemployment and poverty levels. Gross international reserves declined and the rial depreciated substantially. This, together with supply bottlenecks, led to double-digit inflation. The fiscal balance deteriorated moderately and foreign assistance declined somewhat, forcing the government to substantially cut public investment and further increase domestic borrowing. After nearly a year of social unrest, a political agreement supported by the Gulf Cooperation Council (GCC) led to the formation of a National Unity Government in December 2011 and the election of a new president in February 2012 to manage a two-year transition period.
3. **The political situation is gradually improving, but remains fragile.** The National Dialogue, which aims to achieve political reconciliation and prepare for a new constitution, started on March 18, 2013. All major political factions are participating, despite resistance from the Southern separatist and Houthi movements. The armed forces have been restructured but security remains poor, with frequent attacks on energy facilities.
4. **Fund-supported programs helped achieve macroeconomic stabilization.** The last Article IV Consultation was concluded on January 8, 2010<sup>1</sup> and Executive Directors highlighted the need for prudent macroeconomic policies and sustained structural reforms to restore stability, support growth, and reduce poverty. The authorities have been generally receptive to Fund policy advice, particularly when supported by Fund-arrangements. Before its cancellation on April 4, 2012, the Extended Credit Facility (ECF) program, which had been approved on July 30, 2010, helped in stabilizing the rial, safeguarding foreign exchange reserves, and advancing important fiscal reforms—including the introduction of the General Sales Tax (GST). Performance in the first half of 2012 under the RCF that followed the ECF was also strong. The authorities met all the indicative targets under the RCF and implemented additional fiscal measures, including some fuel price increases.
5. **Nevertheless, enormous challenges remain.** Unemployment—currently estimated to average 25 percent and about 40 percent for the youth—is very high, and poverty and malnutrition are widespread (Appendix II). The large share of wages and generalized subsidies constrain pro-

<sup>1</sup> Yemen's Article IV consultation was delayed due to the political crisis and to give the new government time to formulate a medium-term strategy

growth and pro-poor expenditures, and adversely impacts fiscal sustainability. Yemen also faces severe water shortages that can have serious social and economic implications over the medium and long term.

**6. The authorities have developed an economic reform agenda to address these challenges.** These reforms include raising non-hydrocarbon revenue, enhancing financial stability and intermediation, strengthening institutions and governance, and improving the investment climate to boost growth and reduce oil dependence. They also include governance and efficiency measures in the energy sector, but leave out staff's proposal for a gradual increase in fuel prices in order to reduce generalized subsidies and re-direct resources to more effective social protection and infrastructure investment.

**7. Donors have pledged substantial resources to support Yemen's political transition and economic reform.** The Friends of Yemen have pledged about \$8 billion for the three year period 2012-2014 to support projects included in the Transitional Program for Stabilization and Development. So far \$1.8 billion has been disbursed, including \$1 billion Saudi deposit at the Central Bank of Yemen (CBY).

## RECENT DEVELOPMENTS, OUTLOOK, AND RISKS

### A. Recent Developments

**8. The macroeconomic situation stabilized in 2012 but the recovery remains fragile.** After contracting by more than 12 percent in 2011, real GDP is estimated to have grown by 2.4 percent in 2012, reflecting an easing of supply bottlenecks and utilization of part of idle capacity. On the other hand, oil production declined further, due to continued sabotage of the pipelines. Average inflation declined to 9.9 percent from 19.5 percent in 2011, reflecting the appreciation of the rial to its pre-crisis level, the moderation of international food prices, and the easing of supply shortages. Money supply grew faster than nominal GDP, particularly in the second semester, driven by government borrowing, while private sector credit contracted marginally (Figure 1).

**9. The external position has strengthened substantially in 2012, due largely to exceptional Saudi support.** The current account deficit narrowed in 2012 to about 1 percent of GDP compared to 4.1 percent in the preceding year. Imports and non-hydrocarbon exports showed a strong recovery from their sharp decline in the previous year, while oil exports suffered from frequent sabotage of the key pipeline. Transfers increased, reflecting a Saudi oil grant of around \$2 billion and strong growth in workers' remittances. The capital account also benefited from a \$1 billion Saudi deposit at CBY. Consequently, gross reserves increased to \$5.6 billion, equivalent to about 5.5 months of imports.

**10. The budget deficit widened to 6.3 percent of GDP due to higher spending, including on wages and subsidies.** Notwithstanding some increases in domestic fuel prices, subsidies increased to about 9 percent of GDP. Furthermore, the hiring of additional government employees

and the payment of retroactive wage settlements led to an increase in the wage bill to about 11 percent of GDP. Capital spending increased but remained below its pre-crisis level. On the revenue side, the decline in oil revenue was more than compensated for by an increase in tax revenue and the exceptional level of Saudi grants. The non-hydrocarbon primary deficit excluding grants deteriorated to 21.1 percent of GDP, compared to 17.6 percent a year earlier. Public debt remained moderate at about 48 percent of GDP, with the external part constituting about 18 percent.

**11. Money supply in 2012 increased by 21 percent, reflecting higher net foreign assets and net credit to the government.** Most of this increase took place in the second semester, which was beyond the indicative benchmarks set under the RCF. With the deceleration in inflation, the CBY reduced the policy interest rate in October 2012 from 20 to 18 percent, and again to 15 percent in February 2013. However, despite the substantial excess reserves in the banking system, private sector credit contracted slightly, reflecting the still high real interest rate, the fledgling recovery, and the high credit risk. On the other hand, net claims on government increased by 29 percent.

**12. The banking system is stable, notwithstanding some vulnerabilities.** Banks are on aggregate profitable and liquid with the capital adequacy ratio estimated at 29.6 percent at end December 2012, partly due to the large share of zero risk-weighted government securities in the banks' portfolios and the high interest rates earned on these securities.<sup>2</sup> However, non-performing loans stood at 25.5 percent, reflecting the level of credit risk and some deficiencies in commercial banks' risk management capacities.<sup>3</sup> Islamic banks are also challenged by limited eligible domestic investment opportunities. Financial markets and the payment system that are essential for banks' capacity to manage liquidity are underdeveloped.

## B. Outlook and Risks

**13. The authorities have developed a reform plan to safeguard macroeconomic stability and begin to address structural challenges with a view to achieve fiscal consolidation and create an enabling environment for growth.** The plan includes a broad range of measures to increase tax revenues, contain wages, strengthen bank supervision, improve efficiency and governance. The authorities have begun to implement some of the measures including in the energy sector. However, the gradual fuel price adjustment that is critical for reducing the magnitude of subsidies to create fiscal space for pro-growth infrastructure expenditures and pro-poor targeted transfers for social protection is currently not included in this plan.

<sup>2</sup> At end-2012, government paper in the balance sheet of conventional banks that participate in treasury securities auctions accounted for around 50 percent of their total assets. Islamic banks do not participate in the treasury bills and bond markets and, place their money mostly in foreign assets, which at end-2012 accounted for 64 percent of their total assets.

<sup>3</sup> The large share of NPLs does not currently pose stability risks because private sector credit accounts for a small share of total assets.



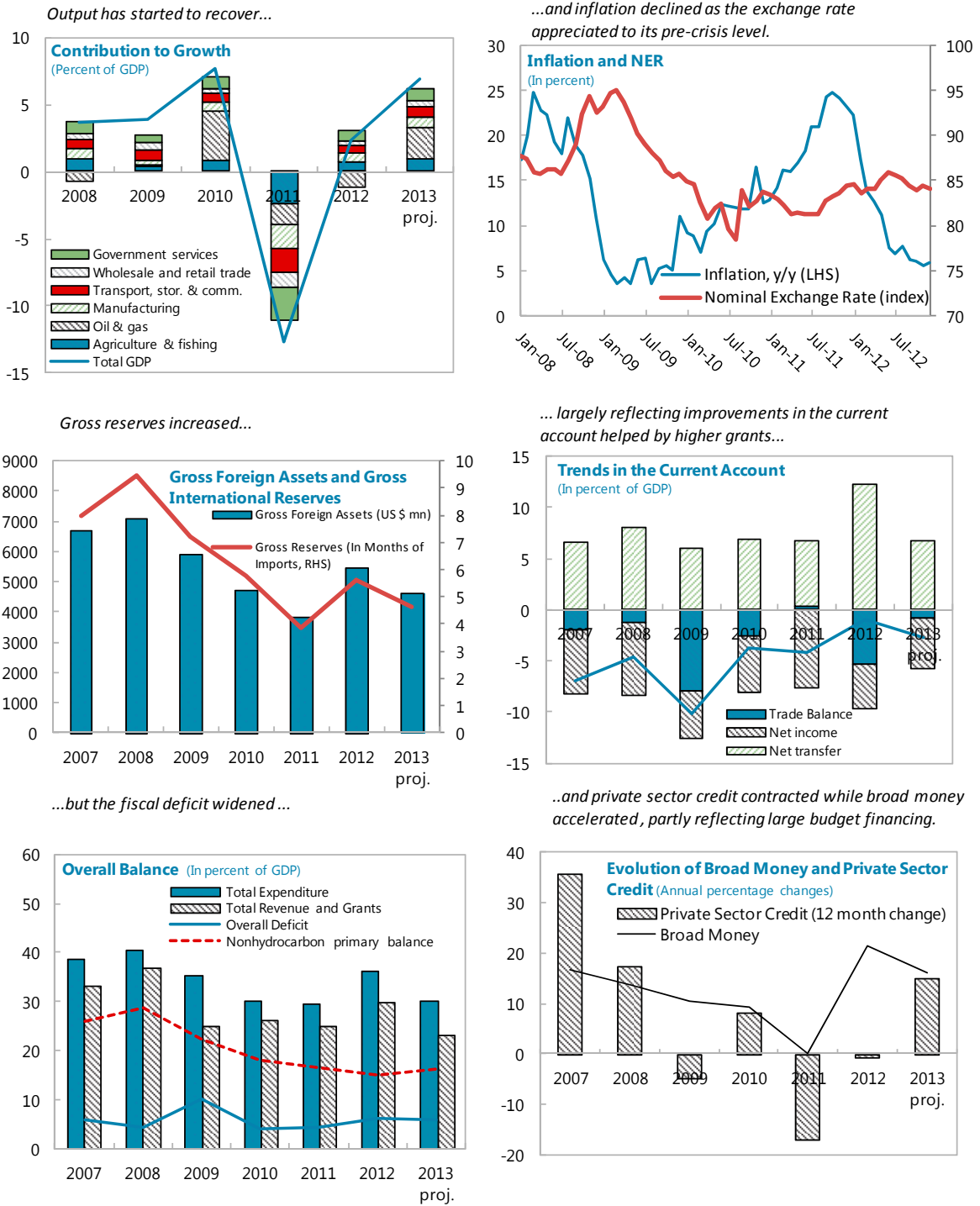
**14. Under this policy scenario, staff projects that GDP growth would average around 4 percent over the medium term** (Tables 1 and 8). This growth is underpinned by non-hydrocarbon growth which is projected to range between 4.0–4.5 percent over the medium term, helped by a steady increase in utilizing idle capacity, donor-supported investment, and structural reforms. Oil production on the other hand is expected to recover partially as the political transition progresses and sabotage activities are reduced, but would thereafter resume its long term declining trend. Given the limited financing availability, infrastructure and social spending would be less than desirable, and fiscal adjustment would still be moderate. As a result public debt would increase gradually over the medium term, to reach about 55 percent of GDP. Inflation is projected to moderate only slightly over the medium term given the fiscal path. The external position would worsen in the absence of stronger reforms or additional external support, with the current account deficit widening to about 4 percent of GDP and official reserves coverage declining to 2.5–3.0 months of imports.

**15. Delays in implementing comprehensive, yet gradual, energy subsidies reform would necessitate a sharper future adjustment.** Gradual energy price adjustments would create room for higher infrastructure investment and effective social spending that would enhance growth and employment creation and better protect the poor. At the same time, it would enhance fiscal and external sustainability, keeping public debt at below 50 percent of GDP and reserves coverage at above 3 months of imports. Stronger reforms would also encourage somewhat higher donor disbursement, although such an increase would be limited, since most of the pledges are project-related. The impact on donor support for additional budget capital spending would, however, be larger, although this would be mitigated by recent support from regional donors, including the Arab Monetary Fund, which recently approved additional budget support of almost \$100 million for this year.

**16. There are potential risks to the outlook, which are summarized, along with mitigating policies, in the Risk Assessment Matrix** (Appendix I). These risks include political and security developments, a decline in international oil prices, shortfall in donor support, and a further tightening of expatriate labor controls in Saudi Arabia leading to lower remittances. On the upside, the representation of all political parties in the National Dialogue and the coalition nature of the National Unity Government bodes well for policy continuity. Mitigating the risks will require an unwavering commitment to the reform process, including a gradual implementation of comprehensive reforms of generalized subsidies, greater transparency and pro-active communication on the benefits of reforms, and careful contingency planning.

**17. The authorities are cognizant of these risks and have been making efforts to mitigate them.** The National Dialogue is the key building block for political stability and security. There are also on-going efforts to deter sabotage of oil pipelines. To speed up disbursement of donor financing, in February 2013 the government established a new Executive Bureau for the Acceleration of Aid Absorption (EBAAA) to improve project preparation and coordination. It also set up a Mutual Accountability Framework in coordination with the World Bank, aimed at monitoring progress in donors' assistance and following up on their commitments.

**Figure 1. Yemen: Recent Economic Developments**

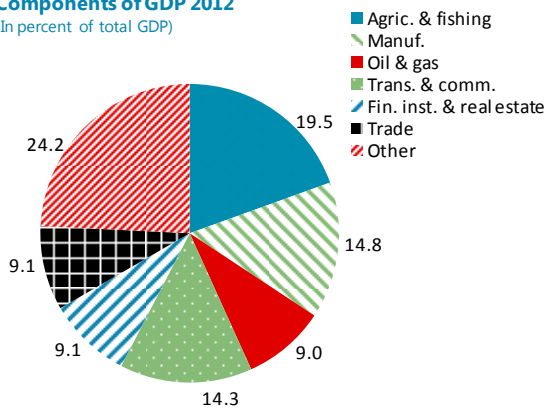


Sources: Yemeni authorities and Fund staff estimates.

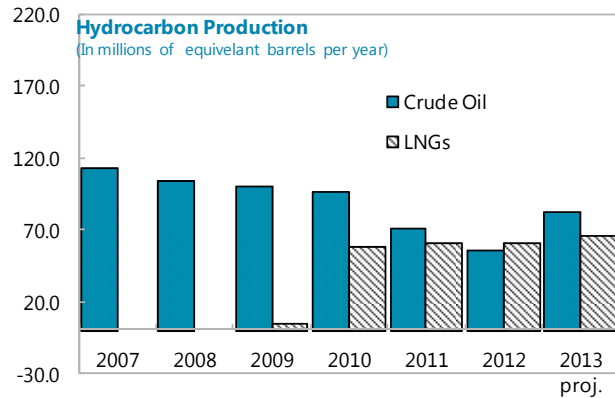
**Figure 2. Yemen: Selected Real Sector Indicators**

The hydrocarbon sector contributes around ten percent of GDP...

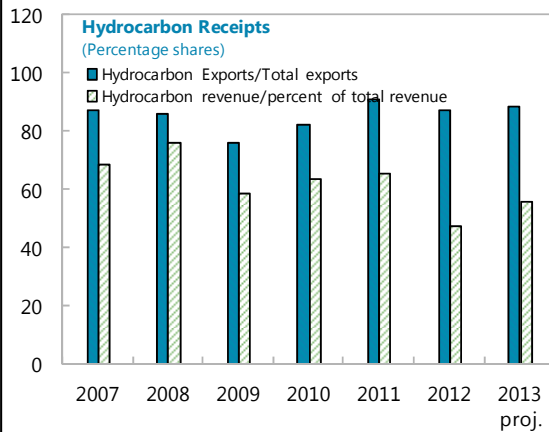
**Components of GDP 2012**  
(In percent of total GDP)



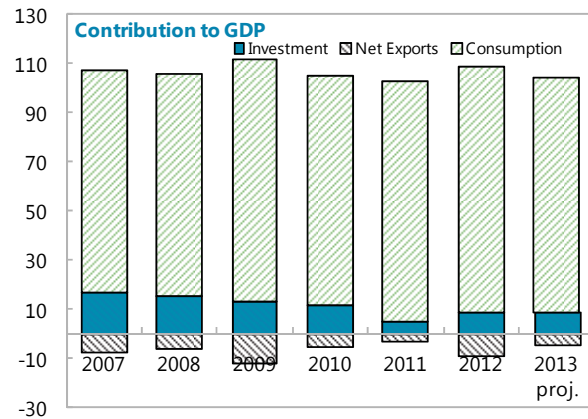
...and its production declined in recent years...



...but it continued to play a key role.



Domestic investment levels are low,...

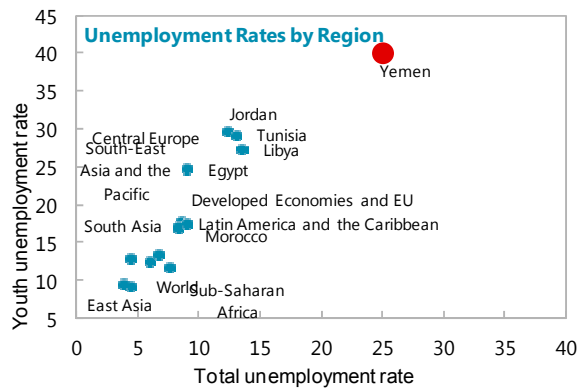


...the business environment is poor,...

**Yemen: Doing Business**



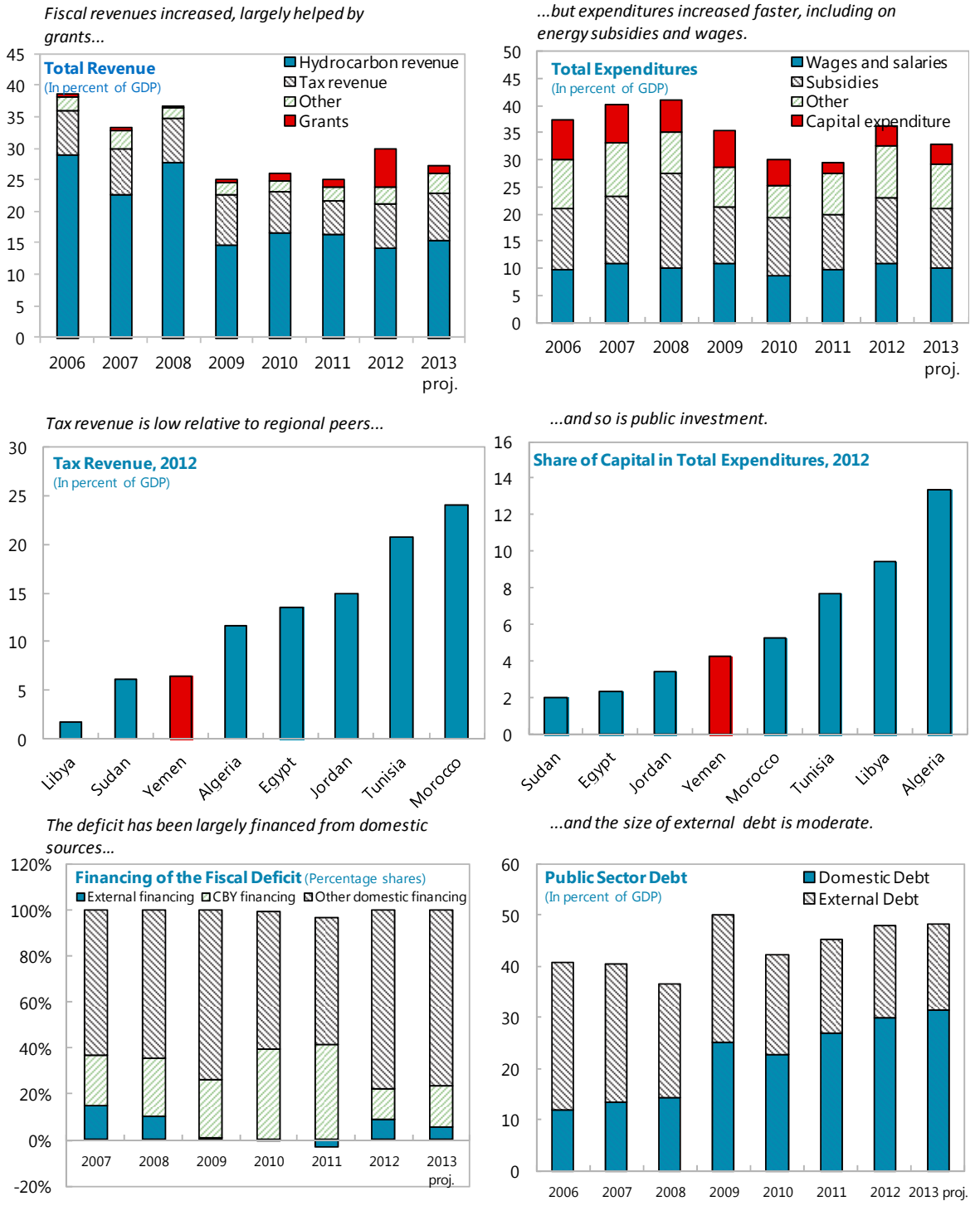
...and unemployment is very high.



<sup>1</sup>Egypt, Jordan, Libya, Morocco, Tunisia, and Yemen. (latest available data, percent)

Sources: Yemeni authorities, ILO, and Fund staff estimates.

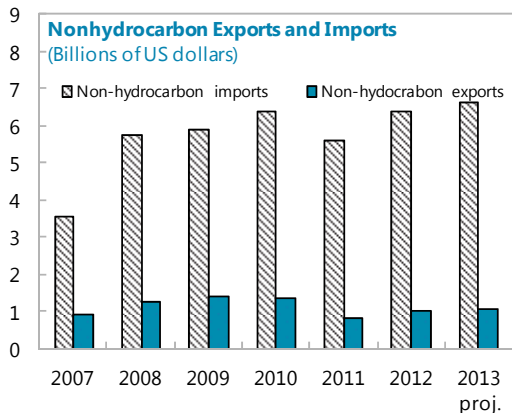
**Figure 3. Yemen: Selected Fiscal Indicators**



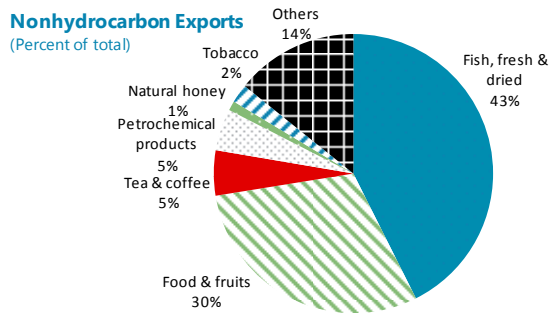
Sources: Yemeni authorities and Fund staff estimates.

**Figure 4. Yemen: Selected External Sector Indicators**

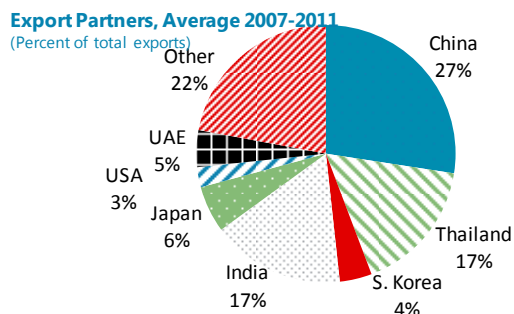
Exports and imports have started to recover.



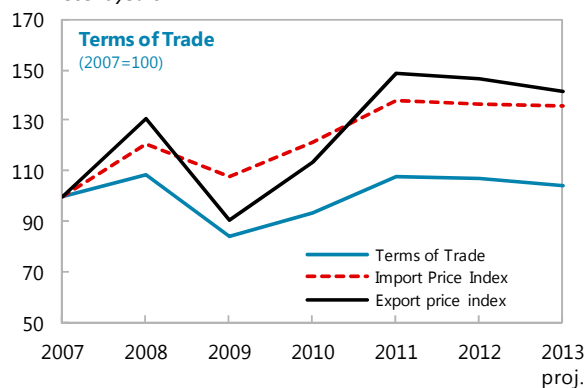
Main nonhydrocarbon exports are fish and food products.



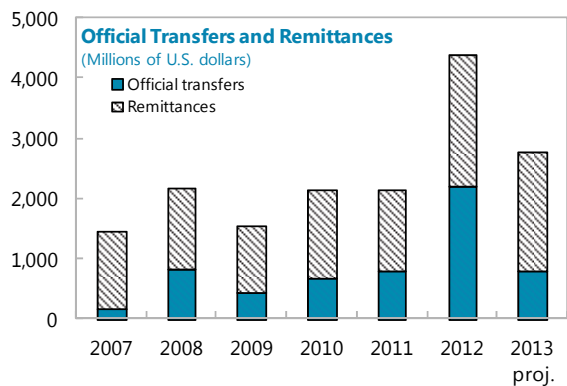
Major export partners, mainly Asia, exhibited relative resilience...



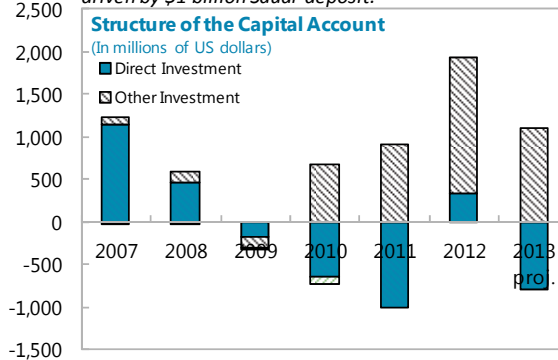
...and terms of trade remained broadly unchanged in recent years.



Grants and remittances increased...



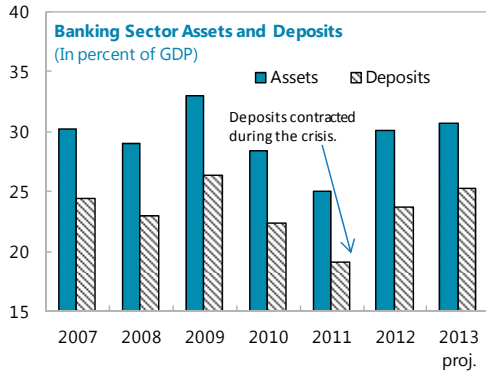
...and the capital account also improved, partly driven by \$1 billion Saudi deposit.



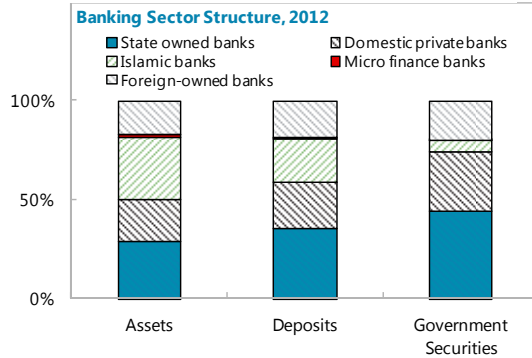
Sources: Yemeni authorities and Fund staff estimates.

**Figure 5. Yemen: Monetary and Financial Developments**

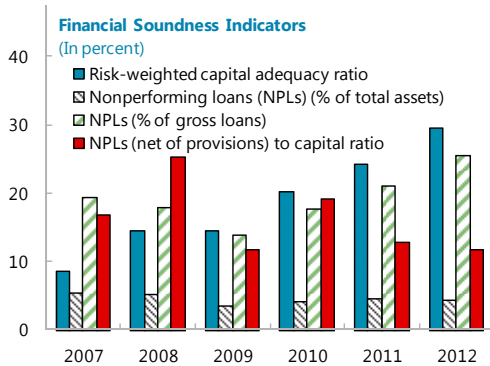
*Yemen's banking system is small and contracted further during the crisis...*



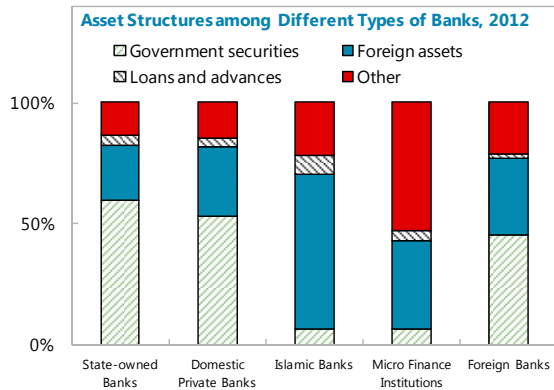
*...and banks' operations are segmented by ownership type.*



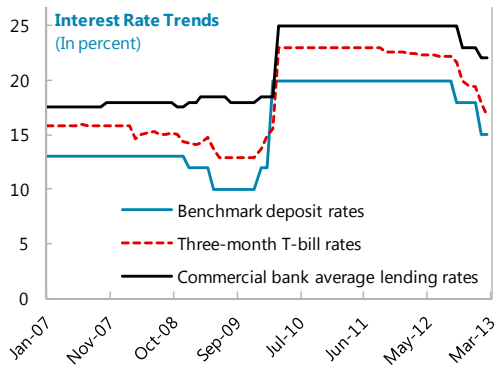
*The high CAR reflects the large share of government papers in bank assets.*



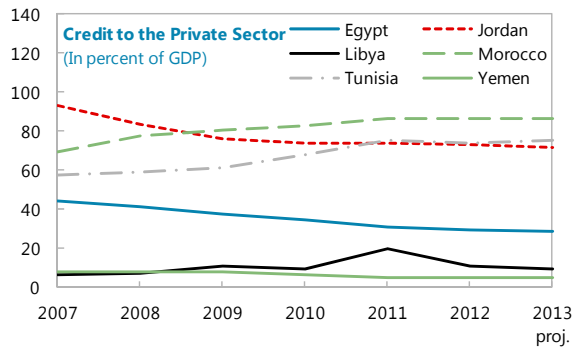
*Government financing needs crowd out the private sector.*



*Interest rates remain high despite the recent cuts...*



*...and bank intermediation is among the lowest in the region.*



Sources: Yemeni authorities, and Fund staff estimates.

## POLICY DISCUSSION—FROM RECOVERY TO SUSTAINABILITY AND INCLUSIVE GROWTH

**18. The main policy challenges facing Yemen are the need to safeguard macroeconomic stability and create the conditions for sustained high and inclusive growth to reduce unemployment and poverty.** The authorities agree that this will require substantial reforms in the fiscal, monetary, financial, and structural areas. They also recognize that economic and social stability hinges on improving living standards, and have begun to implement the reform agenda.

**19. The policy discussions therefore centered on four main pillars:** (i) Restructuring public expenditures and increasing non-hydrocarbon revenue (ii) Enhancing the monetary and exchange rate policy framework; (iii) deepening the financial sector while preserving its stability; and (iv) underpinning growth with structural reforms aimed at further improving public financial management, governance, and the business environment. Staff also discussed debt sustainability, trade, anti-money laundering and combating the financing of terrorism (AML/CFT) efforts, and the adequacy of economic and financial statistics.

### A. Fiscal Policies and Reforms: Achieving Sustainability and Creating Space for Growth-Enhancing Expenditures and Social Protection

**20. The authorities and staff broadly agreed on the urgency of fiscal reforms.** There was also agreement that reforms should aim to improve sustainability and create fiscal space for an increase in pro-poor and pro-growth spending, while enhancing public financial management.

**21. The fiscal targets in the 2013 budget are consistent with achieving some consolidation.** Assuming adherence to the government's reform plan, the overall deficit would decline from 6.3 percent of GDP in 2012 to 5.8 percent in 2013 and fluctuate around that level over the medium term (Table 3). The underlying fiscal position would improve over the medium term, but the public debt would increase from 48 percent of GDP at present to about 55 percent of GDP.

**22. The authorities aim to raise non-oil revenues by increasing tax collections and improving tax and customs administration.** The ratio of tax revenue to GDP is currently low by regional and international standards (Figure 3 and Appendix III). Efforts would focus on improving compliance of large tax payers, combating evasion, and strengthening customs administration. In this regard, the authorities plan to: (i) introduce pre-shipment inspection of imports to reduce under-invoicing; (ii) upgrade IT systems in both the tax and customs authorities to facilitate timely sharing of data and real-time monitoring of inspection areas; (iii) not allow any amendments to the 2010 Investment Law that may include extension of tax or customs exemptions, new or retroactive; and (iv) review tax legislation, with a view to introduce further enhancements.

**23. The authorities have taken initial steps to improve efficiency and governance in the energy sector, but their plan does not fundamentally address the large and untargeted energy subsidies.** These subsidies which currently absorb about 9 percent of GDP and around two thirds of hydrocarbon revenues reduce space for pro-growth and pro-poor expenditures, and disproportionately benefit the better off (Box 1). Staff therefore recommended a gradual increase in selected fuel prices and unifying diesel prices, while increasing infrastructure investment and targeted transfers to mitigate the impact on the poor.<sup>4</sup> Staff also recommended launching a broad public communication campaign to build greater understanding of the costs of the generalized energy subsidies and the benefits from reform. The authorities have since taken steps to unify the price of diesel across most users, including in particular the electricity sector.<sup>5</sup> They also recognize the need for subsidies reform, but are not ready to implement stronger, even if gradual, measures at this stage.

**24. The authorities plan to contain the wage bill, which has exceeded 11 percent of GDP.** The nominal wage bill will increase in 2013, reflecting a decision in early 2012 to make generalized payment of some benefits that were originally granted to selected public sector employees. However, in relation to GDP, the wage bill is projected to decline to about 10 percent, assuming no further extension or retroactive granting of additional compensation. The authorities agreed with staff's recommendation to put in place a plan to eliminate ghost workers and double dippers, which includes full implementation of the biometric identification system throughout the civil service as well as the military and police.

**25. The deficit will be financed by a combination of domestic borrowing, concessional external support, and some use of reserves.** Staff encouraged the authorities and donors to work on expediting disbursement of pledges and to mobilize more external funds for the budget in order to reduce crowding out of the private sector and to continuing relying on concessional borrowing to avoid increasing the debt service burden. Staff also suggested issuing more Sukuk in place of treasury bills to tap into the excess liquidity in Islamic banks and reduce the cost of borrowing. In staff's view, some drawdown of reserves is feasible given the current comfortable level equivalent to more than 5 months of imports, which is due to the exceptional external support in 2012. However, over the medium term, stronger reforms and donor support will be needed to avoid a steady decline in reserves to a level that would impair capacity to deter speculations or smooth exogenous shocks.

**26. The debt sustainability analysis was updated and points to a moderate level of debt distress (Appendix II).** This is an upgrade from past analyses which pointed to high distress. Past analyses projected the net present value (NPV) of exports to exceed the threshold on the assumption that oil reserves would be depleted in the near to medium term. This assumption has

<sup>4</sup> The Social Welfare Fund (SWF) and the Social Development Fund (SDF) operate relatively well and can provide social protection that is more effective and efficient than energy subsidies.

<sup>5</sup> The electricity sector had been paying about half of the prevailing domestic price.



been updated in view of the low level of extraction of proven reserves over the past years and the use of credible estimates from well-established international sources that report a higher level of proven reserves. Thus, oil exports, while still declining, are projected to last for a longer period than previously assumed.

**27. The authorities indicated their determination to keep the deficit within their target.**

Staff cautioned that fiscal slippages would increase the financing gaps which, in the absence of additional donor support, would require increasing domestic financing with further adverse consequences for macroeconomic stability, fiscal and external sustainability, and private sector credit. The authorities shared staff's view and indicated plans to instruct in writing spending agencies, including in line ministries, to strictly stay within the budget. Unforeseen and unavoidable outlays over and above the budget spending envelope will have to be accompanied by compensatory cuts in lower priority spending.

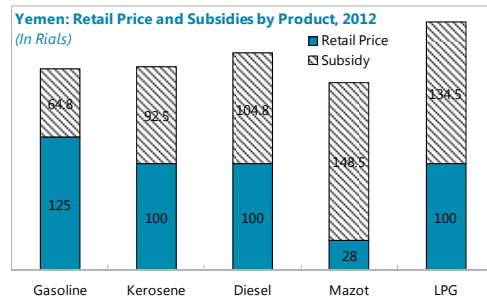
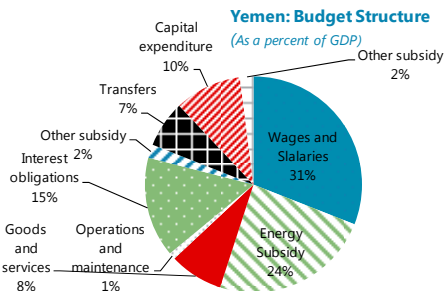
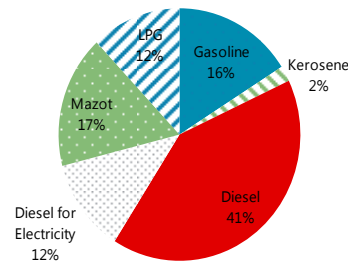
**28. The authorities are also continuing to implement reforms to strengthen public financial management**, including strengthening the treasury functions at the ministry of finance and improving the process for planning and execution of public spending. These reforms include: (i) closing multiple government accounts and moving them into a treasury single account; (ii) rolling out of the Accounting-based Financial Management Information System (AFMIS) to line ministries and local governments; and (iii) implementing the cash management and commitment control systems. These reforms and their time lines are being coordinated with technical assistance experts.

### Box 1. Yemen: Energy Subsidies and Reforms

**Energy subsidies in Yemen are very high and represent a major drain on the budget and Yemen’s exhaustible resources.** While the subsidy bill is at less than its peak of 14 percent of GDP in 2008, it remains high, registering about 9 percent of GDP in 2012. This amount constitutes two thirds of hydrocarbon revenue, and exceeds the total of infrastructure and social expenditures. Fuel prices remain substantially lower than international prices, even after the increase in domestic prices of some oil derivatives in 2011 and 2012. An IMF technical assistance mission in 2012 has looked closely at the impact of energy subsidies and different scenarios for reform that would ensure social protection to mitigate the impact of price adjustments.

While the subsidy bill is at less than its peak of 14 percent of GDP in 2008, it remains high, registering about 9 percent of GDP in 2012. This amount constitutes two thirds of hydrocarbon revenue, and exceeds the total of infrastructure and social expenditures. Fuel prices remain substantially lower than international prices, even after the increase in domestic prices of some oil derivatives in 2011 and 2012. An IMF technical assistance mission in 2012 has looked closely at the impact of energy subsidies and different scenarios for reform that would ensure social protection to mitigate the impact of price adjustments.

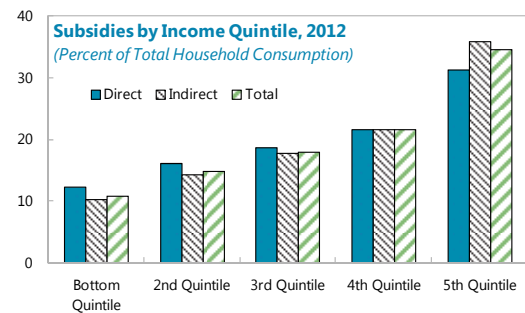
**Subsidies by Product Type**  
(In percent of Total)



**Energy subsidies are not targeted and create major economic distortions and opportunities for corruption.** In particular, these generalized subsidies benefit mainly the rich—since they consume most fuel and electricity—and provide incentives for overconsumption, inefficiencies, and smuggling. Furthermore, they exacerbate Yemen’s critical environmental problems by artificially reducing the cost of pumping scarce underground water.

In particular, these generalized subsidies benefit mainly the rich—since they consume most fuel and electricity—and provide incentives for overconsumption, inefficiencies, and smuggling. Furthermore, they exacerbate Yemen’s critical environmental problems by artificially reducing the cost of pumping scarce underground water.

**Reducing energy subsidies would create fiscal space for more growth-enhancing expenditures and more efficient and effective social protection.** Capital expenditures have in the past borne the brunt of fiscal adjustment and the space for increasing efficient social protection to poor families has been limited. A gradual reduction in energy subsidies would create sufficient space for these pro-growth pro-poor expenditures, while improving fiscal sustainability.



## B. Monetary and Exchange Rate Policies: Ensuring a Robust Monetary and Exchange Rate Policy Framework

**29. Monetary policy should continue to focus on achieving price stability, while supporting private sector credit growth.** Despite the recent reduction in the benchmark deposit rate, real interest rates remain high and constrain demand for credit. The authorities agreed with staff recommendations to consider further cuts in the benchmark rate, if inflation declines further, while remaining vigilant to both upside and downside risks and standing ready to adjust policies.

**30. The monetary policy framework would benefit from modification and there is need to develop interbank markets.** The authorities currently target banks' minimum interest rate on deposits, which is used as the benchmark for other rates, including treasury bills. (Appendix IV). The authorities noted that the framework has succeeded in stabilizing prices and the exchange rate. However, staff noted concerns that the use of a high benchmark deposit rate increases the cost of funding for the government and for banks and leads to high lending rates. Moreover, the combination of high interest rates and stable exchange rate creates an incentive for speculative capital flows. The absence of interbank markets also reduces the effectiveness of monetary policy transmission. The authorities agreed on the need to replace the current benchmark rate with a more conventional framework, to enhance monetary policy tools and to develop interbank markets. They requested technical assistance to ensure appropriate sequencing so as to achieve a seamless transition.

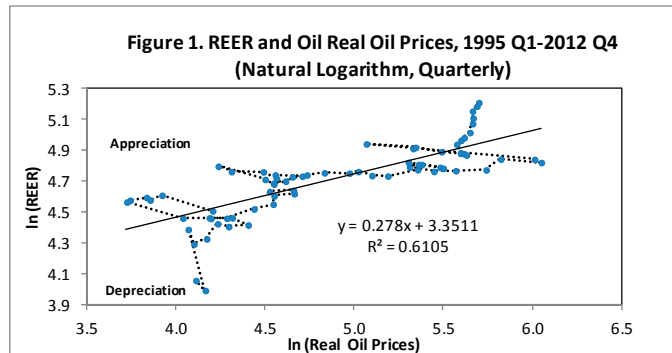
**31. Islamic finance instruments are needed to improve the efficacy of monetary policy and deepen the financial sector.** Islamic banks constitute about one third of the banking sector assets, and do not participate in the treasury bill and bond markets since these instruments are not Sharia compliant. The government has not issued any Sukuks after the debut of the two initial issues in 2011 and 2012, hence Islamic banks have excess liquidity that is largely invested in foreign assets. The authorities agreed with staff recommendation to improve the framework for Sukuk issuance and to build the necessary technical capacity at the Ministry of Finance and the CBY.

**32. The exchange rate is assessed to be broadly in line with fundamentals, but greater flexibility would help preserve reserves and support competitiveness** (Box 2). The reserves level, equivalent to more than 5 months of imports, while currently adequate largely is helped by the Saudi deposit and will likely decline gradually unless the exceptional external support of 2012 is repeated. Staff noted the need for a greater degree of exchange rate flexibility as a buffer to shocks and to support efforts to diversify exports, by enhancing the competitiveness of the non-hydrocarbon sector. The authorities broadly agreed with this analysis and intend to continue to maintain a system that allows the exchange rate to reflect market fundamentals and to limit interventions in the foreign exchange market to smoothing out volatility. They agreed that fiscal policy will also need to be supportive of the exchange rate and inflation objectives.

### Box 2. Exchange Rate Assessment

**Staff’s econometric estimates suggest that the rial is broadly in line with fundamentals. Increased flexibility in the exchange rate is, however, desirable in order to protect reserves and support output and export diversification.**

The level of the Yemeni rial has been closely related to oil prices, reflecting the large share of oil receipts in exports (87 percent) and government revenues (63 percent). A simple univariate regression of the real effective exchange rate (REER) on real oil prices for the period 1995–2012 suggests that a one percent increase in oil prices leads to a real appreciation of about



0.3 percent. Indeed, the relation between the REER and real oil prices (see figure 1) demonstrate this pattern. Large deviations of the REER from its trend level were associated with large changes in oil prices. An error-correction regression suggests that deviations from the equilibrium REER measured by oil prices are corrected by 8 percent on average in the following quarter.

**CGER-type analyses show mixed results.** The macroeconomic balance approach suggests some overvaluation (2.3 percent) while the external sustainability approach points to an undervaluation (-8.5 percent). These two approaches suggest that the real exchange rate is broadly in line with fundamentals.

While the equilibrium real exchange rate approach suggests a very large overvaluation (73.3 percent), the fit of the regression of this approach is not good for oil exporting countries because of severe data limitation for this type of analysis, such as data on relative productivity and net foreign assets 1/.

Yemen: Assessment of the Real Effective Exchange Rate

I. Macroeconomic balance 1/	II. External sustainability 2/	III. Equilibrium real exchange rate 3/
[Misalignment as percentage deviation from estimated equilibrium, overvaluation (+), undervaluation (-)].		
2.3	-8.5	73.3

1/ Measures the adjustment needed to eliminate the gap between an estimated current account "norm"—obtained from applying CGER cross-country panel regression coefficients to Yemeni data—and the projected "underlying" medium-term current account balance for Yemen.  
 2/ Provides an estimate of the adjustment needed to stabilize Yemen's net foreign assets (NFA) to GDP ratio.  
 3/ Estimates the deviation between the actual and the "equilibrium" REERs. The latter is obtained by applying coefficients from the CGER cross-country panel regression to Yemeni data.

<sup>1</sup> Bems, Rudolfs and Irineu de Carvalho Filho, 2009. *Exchange Rate Assessments: Methodologies for Oil Exporting Countries*, IMF Working Paper 09/281.

## C. The Financial Sector: Enhancing Intermediation and Contribution to Growth while Maintaining Stability

**33. Financial sector policies aim at facilitating credit growth while maintaining the health of the banks.** Yemen's banking sector plays a small intermediation role.<sup>6</sup> Besides the high lending rates that constrain demand, banks are reluctant to lend to the private sector due to weaknesses in the insolvency regime and judiciary infrastructure for enforcing creditor rights, in addition to the weak economic environment. The large financing needs of the government also crowd out the private sector.<sup>7</sup> The authorities, with assistance from the World Bank, have developed a credit registry and also assigned specialized judges to commercial cases, but additional reforms are needed to enhance their effectiveness. It would also be useful to establish a collateral registry, and for the CBY to undertake loan surveys to better understand credit conditions.

**34. Banking supervision is being strengthened.** Yemen's banking system is on aggregate stable, although there is some vulnerability related to high credit risk, loan concentrations, and insider lending. The authorities, with METAC support, have identified areas for reform, including: (i) developing the regulatory and supervisory framework for Islamic banking; (ii) improving processes for data submission by commercial banks; (iii) developing a data warehouse to improve communication with banks; (iv) enhancing corporate governance; (v) strengthening consolidated supervision, cross border supervision, and macro prudential surveillance; and (vi) increasing oversight of risk management practices in commercial banks.

**35. The authorities are also improving the legal and operational framework for bank resolution.** Though the banking law gives the CBY powers to resolve banks, there are important gaps in the tools and operational capacity. The CBY, in coordination with technical assistance experts, is currently developing guidelines for Prompt Corrective Action (PCA). The Fund has completed a review of the Banking Act which will help in developing a comprehensive strategy to address gaps.

**36. The authorities are making some progress in addressing FATF recommendations but certain AML/CFT deficiencies remain.** The Financial Intelligence Unit has been strengthened, including by giving it more independence. However, it still remains to become fully operational and effective. In line with the action plan agreed with FATF, the authorities committed to: (i) adequately criminalize money laundering and terrorist financing; (ii) establish and implement adequate procedures to identify and freeze terrorist assets; and (iii) to develop the monitoring and supervisory capacity of the CBY and the Financial Intelligence Unit (FIU). Adequate progress is urgently needed to prevent the FATF to call its members to apply counter-measures which could have an adverse impact on the Yemen economy, including loss of international bank relationship and of higher financial intermediation costs.

<sup>6</sup> Private sector credit as a percentage of GDP was estimated at 5 percent of GDP and accounted for only 15 percent of banking system assets.

<sup>7</sup> Over 50 percent of the banking system assets are in government paper and another 25 percent is in foreign assets.

## D. Structural Reforms: Facilitating Diversification and Inclusive Growth

**37. Higher and inclusive growth will require tackling structural impediments, in addition to addressing the macroeconomic challenges.** This will require measures to improve the business environment and to reduce the high unemployment and poverty, including through improved governance, infrastructure investment and a job creating growth strategy.

**38. Staff agreed with the authorities' plan to expedite and broaden structural reforms.** Yemen currently ranks very low in ease of doing business. The business climate is constrained by a complicated regulatory environment, uncertain property rights, and limited access to domestic finance, particularly to SMEs that have potential to boost inclusive growth and job creation. Improvements in governance and transparency will be critical. Poor governance and corruption are reported to be endemic and localized patronage continues to be a strong element of social protection. The authorities agree on the need for enhanced transparency and a well functioning legal infrastructure. Yemen finalized the negotiations on the WTO membership with all but one of its members, and hope to achieve accession soon.

**39. Yemen's infrastructure is inadequate to support economic and social development.** It is the least electrified country in the MENA region, with a total power capacity catering for only half of the demand. The Energy Information Administration (EIA) estimates that approximately 35 percent of the urban population and 5 percent of rural households have access to electricity, with supply remaining intermittent and more recently a target for sabotage activities. Other infrastructure is also lacking, including the housing stock. Staff underscored the need to channel donor support to improve the road and energy infrastructure and the provision of health and education services.

**40. The authorities have begun to further enhance CBY independence and governance framework.** An update safeguards assessment was concluded in June 2013 and noted that steps have been taken to strengthen governance at the CBY with the appointment of new members to the Board and the establishment of an Audit Committee, which has members with financial expertise. However, political and economic events have strained CBY's financial autonomy with the CBY extending credit to the government beyond limits specified in the law. The authorities indicated that they plan to develop a schedule for repayment of this credit. In addition, and more generally, they agreed to ensure central bank operational independence and have recently published its full audited financial statements.

**41. Addressing the high unemployment and poverty remains a priority.** The already high unemployment levels could be made worse by the tightening of immigration controls in the Gulf region. Addressing the unemployment challenge and poverty will require a multifaceted approach, including improving the structure of public spending, enhancing the business environment and access to financial services, supporting SME's, and reforming education and vocational training.

## E. Improving the Quality of Statistics for Economic Management

**42. Improving financial and economic statistics is key to enhancing analysis and guiding policy formulation.** While data are broadly adequate for surveillance, there are important gaps in quality and coverage of GDP statistics, and improvements are needed for output as well as inflation, unemployment, and balance of payments statistics. The authorities indicated that they are addressing the deterioration in capacity that occurred in recent years. Some progress is already being made in improving national accounts and CPI statistics.

## STAFF APPRAISAL

**43. Despite a challenging environment, the Yemeni authorities made progress towards achieving macroeconomic stability and advancing political transition.** Economic activity has picked up, inflation declined substantially, and the exchange rate has appreciated to its pre-crisis level. The national dialogue for political reconciliation is advancing, the security forces have been restructured, and elections are scheduled for February 2014.

**44. However, substantial challenges remain.** The recovery is still at an early stage and could be weakened by the continued sabotage of key oil pipelines that curtail production. The underlying fiscal position deteriorated in 2012, despite large grants, and near and medium term financing needs are large. The large share of wages and generalized energy subsidies in the budget constrains space for pro-poor and pro-growth expenditures. Unemployment remains very high, especially among the youth, and poverty and malnutrition are widespread. Serious environmental challenges, including the rapid extraction of scarce ground water, pose economic and social risks. Economic prospects will, therefore, depend critically on sustained implementation of reforms, further progress on the political and security fronts, and continued donor support, including for budget financing.

**45. Fiscal policy should focus on reorienting expenditures from energy subsidies to pro-growth capital expenditures and targeted transfers for social protection.** Energy subsidies represent a large drain on the budget, absorbing two thirds of hydrocarbon revenues and reducing resources that could be invested for economic growth and social development. The recent decision to unify the price of diesel in order to improve efficiency and governance is welcome but needs to be complemented with an urgent implementation of comprehensive, albeit gradual, subsidy reform. Such reform would create room to finance the much needed infrastructure investment and targeted transfers. An increase in these transfers and proactive communication by the government on the benefits of subsidy reforms could help build public support.

**46. The authorities' plans to increase non-oil revenues and contain the wage bill are welcome.** Containing the wage bill and eliminating ghost workers would be critical to enhancing fiscal sustainability. It is also important to continue to strengthen compliance of large tax payers, avoid tax exemptions, and enhance customs administration, including by introducing pre-shipment inspection of imports. Strengthening budget control and treasury operations would help improve public finance management. Furthermore, strict adherence to the budget targets is necessary to avoid an increase in the already large financing needs. Contingency measures should be drawn and implemented as needed to safeguard the deficit targets, while protecting social outlays.

**47. The authorities need to further advance recent efforts to ensure timely donor disbursement of pledges and attract budget support.** Strict implementation of reforms would serve as a catalyst for donor support. Close collaboration and monitoring through the Mutual Accountability Framework and effective operation of the Executive Bureau to improve project preparation would also be critical. External assistance is key to reducing the crowding out of private sector credit and lowering the cost of borrowing. Furthermore, timely and increased concessional support from donors will be critical to help cushion the impact of any future subsidies reform. At the same time, continued prudence in external borrowing would help maintain the recently upgraded moderate level of debt distress.

**48. Monetary and exchange rate policy has provided an anchor to inflation but improvements are needed to the framework.** The monetary policy framework needs to gradually move from direct control of interest rates and reliance on the primary market of government papers to a more efficient indirect approach that would also help develop the interbank market and enhance banks' liquidity management. Increased issuance of Sukuk would help absorb the excess liquidity of Islamic banks and lower the cost of government borrowing. Furthermore, reduced domestic public borrowing will be critical in providing space for banks to extend credit to the private sector and lower interest rates in order to support private sector credit. The exchange rate is estimated to be broadly in line with fundamentals, but greater flexibility is desirable to preserve reserves, provide a cushion against external shocks and support export diversification.

**49. Developing the financial system while preserving its health is needed to promote inclusive growth.** Expanding access to financial services will require enhancing the collection and dissemination of credit information while strengthening supervision and banks' ability to assess risks and collect collateral. In this regard, staff welcomes the ongoing effort to improve banking supervision, regulation and resolution framework as well as the financial infrastructures. The authorities are encouraged to further improve the AML/CFT framework.

**50. Structural reforms aimed at improving governance and the business environment are also essential to support growth and job creation.** To achieve higher and inclusive growth, it is imperative to address the infrastructure gaps, improve the business climate and level the playing field, promote access to financial services, and strengthen public institutions. Improved security of the oil pipeline and electricity transmission should be given priority. In addition, strengthening implementation capacity would help expedite donor disbursements for project finance and could help alleviate critical infrastructure bottlenecks.

**51. The data provided to the Fund are broadly adequate for surveillance.** However, improvements are needed, particularly in national accounts, CPI, and balance of payments statistics. Development of other high frequency economic indicators would enhance analysis and better guide policy formulation.

**52. It is recommended that the next Article IV consultation take place on the standard 12 month cycle.**



**Table 1. Republic of Yemen: Selected Economic Indicators, 2010–17**

	2010	2011	2012	2013	2014	2015	2016	2017
			Est.			Proj.		
(Change in percent, unless otherwise indicated)								
<b>Production and prices</b>								
Real GDP at market prices	7.7	-12.7	2.4	6.0	3.4	3.9	3.8	4.0
Real nonhydrocarbon GDP	4.4	-12.5	4.0	4.0	4.0	4.5	4.5	4.5
Real hydrocarbon GDP	46.9	-14.5	-11.5	26.2	-1.8	-1.5	-3.2	-1.2
Consumer price index (annual average)	11.2	19.5	9.9	12.0	12.0	11.0	10.0	9.0
Consumer price index (eop)	12.5	23.2	5.8	...	...	...	...	...
Hydrocarbon production (1,000 barrels/day)	426	364	321	406	399	393	380	376
Crude oil 1/	264	197	154	226	232	226	213	209
LNG (oil equivalent)	162	167	167	180	167	167	167	167
(In percent of GDP)								
<b>Government finance</b>								
Total revenue and grants	26.0	25.0	29.9	27.2	26.9	25.9	24.8	24.7
Total expenditure	30.1	29.4	36.2	33.0	32.7	31.7	30.5	30.0
Overall balance (cash basis)	-4.0	-4.4	-6.3	-5.8	-5.8	-5.8	-5.7	-5.3
Nonhydrocarbon primary balance (cash)	-18.1	-16.5	-15.0	-16.4	-15.9	-14.4	-13.0	-12.3
Excluding grants	-19.3	-17.6	-21.1	-17.6	-17.4	-16.0	-14.6	-14.0
Gross Public Sector Debt	42.2	45.2	47.8	48.1	50.2	51.8	53.6	54.8
External debt	19.3	18.3	17.9	16.7	17.0	17.6	18.5	19.2
Domestic debt	22.9	26.8	29.9	31.5	33.2	34.3	35.1	35.6
(Twelve-month change in percent)								
<b>Monetary data</b>								
Broad money	9.2	0.0	21.5	16.0	...	...	...	...
Reserve money	7.7	15.8	12.9	10.0	...	...	...	...
Credit to private sector	8.2	-16.9	-0.6	15.0	...	...	...	...
Benchmark deposit interest rate (percent)	20.0	20.0	18.0	15.0	...	...	...	...
Velocity (non-oil GDP/M2)	2.1	2.1	2.2	2.1	...	...	...	...
(In millions of U.S. dollars, unless otherwise indicated)								
<b>External sector</b>								
Exports, f.o.b.	7,650	8,662	7,908	9,149	9,439	9,165	8,750	9,056
Hydrocarbon	6,281	7,850	6,891	8,061	8,285	7,948	7,466	7,702
Nonhydrocarbon	1,369	812	1,017	1,088	1,153	1,217	1,284	1,354
Imports, f.o.b.	-8,473	-8,543	-9,805	-9,797	-10,106	-10,347	-10,600	-11,177
Hydrocarbon	2,073	2,578	3,405	3,140	3,186	3,112	3,002	3,196
Nonhydrocarbon	6,400	5,964	6,400	6,656	7,234	7,598	7,980	8,079
Current account (percent of GDP)	-3.7	-4.1	-0.9	-2.7	-3.4	-3.7	-4.2	-3.8
<b>Memorandum items</b>								
Gross foreign reserves	5,081	3,974	5,590	4,743	3,724	3,099	2,864	2,915
In months of imports	5.8	3.9	5.6	4.6	3.6	2.9	2.6	2.7
Exchange rate (eop) (YRIs per U.S. dollar)	213.8	227.5	214.9	...	...	...	...	...
Real effective exchange rate (2008 = 100)	99.6	108.4	121.8	...	...	...	...	...
<b>Nominal GDP at market prices</b>								
In billions of Yemeni rials	6,817	7,083	7,588	8,870	9,985	11,250	12,549	13,967
In millions of U.S. dollars	31,046	33,129	35,381	...	...	...	...	...
Per capita GDP (in U.S. dollars)	1,272	1,318	1,367	...	...	...	...	...
Population (in thousands)	24,398	25,130	25,884	...	...	...	...	...

Sources: Yemeni authorities; and Fund staff estimates and projections.

1/ The sharp decline in crude oil production reflects the impact of oil pipeline sabotage in 2011 and 2012.

**Table 2. Republic of Yemen: General Government Finances, 2010–17**  
(In billions of Yemeni rials)

	2010	2011	2012	2013		2014	2015	2016	2017
			Est.	Gov. Approved Budget	Proj. @ US\$98 per bbl	Proj.	Proj.	Proj.	Proj.
Total revenue and grants	1,774	1,772	2,268	2,039	2,414	2,691	2,912	3,117	3,448
Hydrocarbon revenue	1,120	1,156	1,071	1,022	1,348	1,443	1,462	1,440	1,530
<i>Of which:</i>									
Crude oil exports	577	749	764	413	704	772	776	758	897
LNG exports	21	38	34	97	67	70	76	82	151
Nonhydrocarbon revenue	571	533	734	920	961	1,101	1,277	1,477	1,683
Tax revenue	450	376	534	628	670	768	899	1,057	1,212
Income taxes	210	186	250	261	293	340	389	440	497
Taxes on goods and services	164	125	187	251	237	273	320	392	445
Custom taxes	65	55	85	100	123	139	171	205	248
Other taxes	11	11	12	17	17	16	18	20	22
Nontax	121	156	200	292	292	333	379	420	471
Grants	83	84	464	97	104	146	172	200	235
Total expenditure and net lending	2,050	2,086	2,749	2,668	2,926	3,269	3,569	3,833	4,188
Current expenditure	1,734	1,945	2,468	2,190	2,605	2,831	3,096	3,371	3,637
Wages and salaries	590	701	840	906	906	1,002	1,104	1,225	1,328
Goods and services	188	168	224	254	255	280	315	351	391
Operations and maintenance	27	26	33	31	35	51	43	48	53
Interest obligations	163	303	412	365	407	432	496	530	557
Domestic	148	288	398	347	387	409	470	499	524
External	15	15	15	18	20	23	27	30	33
Subsidies and transfers	734	712	913	587	955	1,012	1,078	1,151	1,234
Subsidies	591	567	708	401	750	781	818	860	911
Transfers <sup>1/</sup>	143	146	204	185	205	231	260	290	323
Other	33	36	47	48	48	53	60	67	75
Capital expenditure	316	140	281	477	321	439	473	461	551
Of which: foreign financed	54	140	104	142	126	199	276	336	384
Net lending	0	0	0		0	0	0	0	0
Overall balance	-275	-313	-481	-628	-512	-579	-657	-716	-741
Discrepancy	0	-40	-7	...	0.0	0	0	0	0
Financing	276	354	488	...	512	579	657	716	741
External	-4	-23	50	...	33	55	114	166	175
<i>Of which:</i>									
IMF ECF					0.0	0.0	0.0	0.0	
Domestic	280	377.0	438.2	...	478.4	523	543	550	566
Memorandum items:									
Nonhydrocarbon primary balance (cash)	-1,233	-1,166	-1,139	...	-1,453	-1,590	-1,624	-1,627	-1,714
Excluding grants	-1,316	-1,250	-1,603	...	-1,558	-1,737	-1,796	-1,826	-1,949
Gross public debt	2,876	3,199	3,627	...	4,270	5,013	5,833	6,731	7,656

Sources: Ministry of Finance; Ministry of Planning; and Fund staff estimates.

<sup>1/</sup> The figures reflect a retroactive payment in 2012 for unpaid allocations for 2011; and in 2013 an increase in monthly transfers per eligible family

**Table 3. Republic of Yemen: General Government Finances, 2010–17**  
(In percent of GDP)

	2010	2011	2012	2013	2013	2014	2015	2016	2017
			Est.	Gov. Approved Budget	Proj. @ US\$98 per bbl	Proj.	Proj.	Proj.	Proj.
Total revenue and grants	26.0	25.0	29.9	23.0	27.2	26.9	25.9	24.8	24.7
Hydrocarbon revenue	16.4	16.3	14.1	11.5	15.2	14.5	13.0	11.5	11.0
<i>Of which:</i>									
Crude oil exports	8.5	10.6	10.1	4.7	7.9	7.7	6.9	6.0	6.4
LNG exports	0.3	0.5	0.4	1.1	0.8	0.7	0.7	0.7	1.1
Nonhydrocarbon revenue	8.4	7.5	9.7	10.4	10.8	11.0	11.4	11.8	12.0
Tax revenue	6.6	5.3	7.0	7.1	7.5	7.7	8.0	8.4	8.7
Income taxes	3.1	2.6	3.3	2.9	3.3	3.4	3.5	3.5	3.6
Taxes on goods and services	2.4	1.8	2.5	2.8	2.7	2.7	2.8	3.1	3.2
Custom taxes	1.0	0.8	1.1	1.1	1.4	1.4	1.5	1.6	1.8
Other taxes	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nontax	1.8	2.2	2.6	3.3	3.3	3.3	3.4	3.3	3.4
Grants	1.2	1.2	6.1	1.1	1.2	1.5	1.5	1.6	1.7
Total expenditure and net lending	30.1	29.4	36.2	30.1	33.0	32.7	31.7	30.5	30.0
Current expenditure	25.4	27.5	32.5	24.7	29.4	28.3	27.5	26.9	26.0
Wages and salaries	8.7	9.9	11.1	10.2	10.2	10.0	9.8	9.8	9.5
Goods and services	2.8	2.4	2.9	2.9	2.9	2.8	2.8	2.8	2.8
Operations and maintenance	0.4	0.4	0.4	0.3	0.4	0.5	0.4	0.4	0.4
Interest obligations	2.4	4.3	5.4	4.1	4.6	4.3	4.4	4.2	4.0
Domestic	2.2	4.1	5.2	3.9	4.4	4.1	4.2	4.0	3.8
External	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Subsidies and transfers	10.8	10.1	12.0	6.6	10.8	10.1	9.6	9.2	8.8
Subsidies	8.7	8.0	9.3	4.5	8.5	7.8	7.3	6.9	6.5
Transfers 1/	2.1	2.1	2.7	2.1	2.3	2.3	2.3	2.3	2.3
Other	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Capital expenditure	4.6	2.0	3.7	5.4	3.6	4.4	4.2	3.7	3.9
<i>Of which: foreign financed</i>	0.8	2.0	1.4	1.6	1.4	2.0	2.5	2.7	2.7
Overall balance	-4.0	-4.4	-6.3	-7.1	-5.8	-5.8	-5.8	-5.7	-5.3
Discrepancy	0.0	-0.6	-0.1	...	0.0	0.0	0.0	0.0	0.0
Financing	4.0	5.0	6.4	...	5.8	5.8	5.8	5.7	5.3
External	-0.1	-0.3	0.7	...	0.4	0.6	1.0	1.3	1.3
Domestic	4.1	5.3	5.8	...	5.4	5.2	4.8	4.4	4.0
Memorandum items:									
Nonhydrocarbon primary balance (cash)	-18.1	-16.5	-15.0	...	-16.4	-15.9	-14.4	-13.0	-12.3
Excluding grants	-19.3	-17.6	-21.1	...	-17.6	-17.4	-16.0	-14.6	-14.0
Gross public debt	42.2	45.2	47.8	...	48.1	50.2	51.8	53.6	54.8

Sources: Ministry of Finance; Ministry of Planning; and Fund staff estimates.

1/ The figures reflect a retroactive payment in 2012 for unpaid allocations for 2011; and in 2013 an increase in monthly transfers per eligible family

**Table 4. Republic of Yemen: Monetary Survey, 2009–13**  
(In millions of Yemeni rials)

	2009	2010	2011	2012	2013 Proj.
Net foreign assets	1,807,289	1,693,179	1,380,298	1,549,819	1,422,127
Central Bank of Yemen	1,405,181	1,216,424	918,614	1,036,672	868,842
Commercial banks	402,108	476,755	461,684	513,147	553,285
Net domestic assets	268,864	573,970	887,966	1,207,014	1,776,582
Net domestic credit	1,032,673	1,319,762	1,637,180	2,060,741	2,475,509
Net claims on central government	533,044	780,456	1,092,435	1,409,938	1,766,560
Central Bank of Yemen	13,483	199,407	482,541	557,419	670,973
Commercial banks	519,561	581,049	609,894	852,518	1,095,587
Net claims on nongovernment enterprises	499,630	539,306	544,744	650,803	708,949
Claims on private sector by commercial banks	394,323	426,846	354,654	352,426	405,290
Claims on public enterprises	95,509	100,974	177,794	277,040	279,122
Claims on mixed enterprises	9,798	11,486	12,296	21,337	24,537
Pension fund deposits in CBY	-76,030	-65,358	-59,437	-57,709	-52,963
Other Items (net)	-763,809	-745,792	-749,213	-853,726	-698,927
Valuation adjustment	-254,644	-236,203	-241,736	-256,293	-233,036
Capital and reserves	-183,006	-219,872	-227,994	-244,418	-281,119
Other (net)	-326,159	-289,717	-279,483	-353,016	-184,772
Broad money	2,076,154	2,267,149	2,268,264	2,756,834	3,198,709
Money	758,561	786,560	993,031	1,104,891	1,181,508
Currency outside banks	532,372	547,284	777,407	803,407	823,493
Demand deposits	226,189	239,276	215,624	301,483	358,015
Quasimoney	611,403	637,268	613,548	857,689	1,121,472
Foreign currency deposits	630,161	777,964	602,249	736,545	842,766
Memorandum items:					
Broad money (annual percentage change)	10.6	9.2	0.0	21.5	16.0
Reserve money (annual percentage change)	11.2	7.7	15.8	12.9	10.0
Credit to private sector (annual percentage change)	-4.8	8.2	-16.9	-0.6	15.0
Currency to broad money (in percent)	25.6	24.1	34.3	29.1	25.7
Foreign currency deposits to total deposits	40.8	45.2	40.4	37.7	35.5
Non-oil GDP velocity (average)	2.0	2.1	2.1	2.2	2.1

Sources: Central Bank of Yemen; and Fund staff estimates.

**Table 5. Republic of Yemen: Summary Accounts of the Central Bank of Yemen, 2009–13**  
(In millions of Yemeni rials)

	2009	2010	2011	2012	2013 Proj.
Net Foreign Assets	1,405,181	1,216,424	918,614	1,036,672	868,842
Assets	1,450,952	1,270,278	968,792	1,323,225	1,198,186
Liabilities	-45,770	-53,855	-50,178	-286,553	-329,344
Net Domestic Assets	-639,997	-392,109	35,894	40,940	316,839
Net claims on government	13,483	199,407	482,541	557,419	670,973
Claims	329,668	477,489	718,984	707,902	821,456
Budget financing	329,668	477,489	718,984	707,902	821,456
Deposits	-316,185	-278,081	-236,443	-150,482	-150,482
Net claims on non-government/non-bank entities	-122,035	-118,681	14,637	101,703	121,989
Claims on public sector enterprises	79,614	82,862	157,365	259,692	259,692
Deposits and CDs	-201,649	-201,543	-142,728	-157,989	-137,703
Pension Fund Deposits	-76,030	-65,358	-59,437	-57,709	-52,963
Local Currency	-24,817	-22,889	-16,702	-21,054	-18,537
Foreign Currency	-51,212	-42,469	-42,735	-36,655	-34,426
Net claims on commercial banks	0	0	0	-91,890	0
Claims	0	0	0	0	0
Certificates of deposits held by banks	0	0	0	-91,890	0
Other Items (net)	-531,445	-472,835	-461,283	-526,293	-476,123
Valuation adjustment	254,644	236,203	241,736	256,293	233,036
Other	-786,089	-709,038	-703,019	-782,585	-709,160
Reserve Money	765,184	824,315	954,508	1,077,612	1,185,680
Currency outside banks	532,372	547,284	777,407	803,407	823,493
Currency with banks	19,346	24,114	22,878	29,390	34,680
Commercial bank deposits (reserves)	213,466	252,917	154,223	244,815	327,508
Local Currency	102,107	111,427	77,707	159,411	218,619
Foreign Currency	111,359	141,490	76,517	85,404	108,889
Memorandum Items					
Gross foreign assets	1,288,380	1,086,320	849,541	1,201,166	1,054,871
US\$ million	6,213	5,081	3,974	5,590	4,743

Source: Central Bank of Yemen; and Fund staff estimates.

**Table 6. Republic of Yemen: Balance of Payments, 2010–17**  
(In millions of U.S. dollars)

	2010	2011	2012	2013	2014	2015	2016	2017
			Est.	Proj.				
Current account	-1,154	-1,365	-329	-1,092	-1,467	-1,647	-1,919	-1,813
Goods and services	-1,560	-947	-3,124	-1,829	-1,874	-2,249	-2,700	-2,834
Trade balance	-823	120	-1,897	-647	-667	-1,182	-1,851	-2,121
Exports, f.o.b.	7,650	8,662	7,908	9,149	9,439	9,165	8,750	9,056
Hydrocarbon 1/	6,281	7,850	6,891	8,061	8,285	7,948	7,466	7,702
Nonhydrocarbon	1,369	812	1,017	1,088	1,153	1,217	1,284	1,354
Imports, f.o.b.	8,473	8,543	9,805	9,797	10,106	10,347	10,600	11,177
Hydrocarbon 1/	2,073	2,578	3,405	3,140	3,186	3,112	3,002	3,196
Nonhydrocarbon	6,400	5,964	6,400	6,656	6,920	7,234	7,598	7,980
Services, net	-737	-1,066	-1,227	-1,182	-1,207	-1,067	-850	-714
Credit	1,612	1,248	1,453	1,539	1,622	1,842	2,082	2,328
Debit	-2,349	-2,314	-2,680	-2,721	-2,829	-2,909	-2,932	-3,042
Income	-1,717	-2,552	-1,574	-2,018	-2,436	-2,420	-2,336	-2,322
<i>Of which: Hydrocarbon company profits</i>	-1,614	-2,079	-1,213	-1,929	-2,022	-1,851	-1,768	-1,723
Current transfers	2,123	2,134	4,370	2,755	2,843	3,022	3,118	3,344
General government's transfer, net 2/	647	775	2,190	774	783	846	909	1,000
Workers' remittances, net	1,476	1,359	2,180	1,980	2,060	2,176	2,209	2,344
Capital and financial account	-59	-94	1,938	321	255	829	1,575	1,845
Direct investment, net	-646	-1,000	345	-791	-710	-669	-238	-153
Hydrocarbon 3/	-1,071	-1,200	45	-1,191	-1,239	-1,198	-1,100	-1,003
Nonhydrocarbon	425	200	300	400	529	529	862	850
Medium- and long-term loans, net	146	-80	115	367	237	448	606	596
Disbursements	301	95	310	589	565	815	990	1,014
Amortization	154	175	194	222	328	367	385	418
Commercial banks, net	-291	70	-229	-100	50	200	375	550
Other, net	731	916	1,706	845	678	849	833	852
Errors and omissions	43	73	-75	0	0	0	0	0
Overall balance	-1,170	-1,385	1,534	-771	-1,211	-819	-343	32
Financing	1,170	1,385	-1,534	771	1,211	819	343	-32
Central bank net foreign assets (- increase)	1,055	1,410	-1,626	771	1,211	819	353	-13
Net purchase from IMF	26	-25	93	0	0	0	-11	-20
Purchases	53	0	93	0	0	0	0	0
Repurchases	-27	-25	0	0	0	0	-11	-20
Exceptional financing (Algeria debt relief)	88	0	0	0	0	0	0	0
Memorandum items:								
Current account including grants (percent of GDP)	-3.7	-4.1	-0.9	-2.7	-3.4	-3.7	-4.2	-3.8
Central bank gross foreign reserves 4/	5,081	3,974	5,590	4,743	3,724	3,099	2,864	2,915
(months of imports)	5.8	3.9	5.6	4.6	3.6	2.9	2.6	2.7
External public debt (percent of GDP)	19.3	18.3	17.9	16.7	17.0	17.6	18.5	19.2
Export oil price (U.S.\$/barrel)	77.2	102.7	101.2	97.7	97.0	93.2	90.4	87.9
Nonhydrocarbon export (growth)	-3.7	-40.7	25.2	7.0	6.0	5.5	5.5	5.5
Nonhydrocarbon imports (growth)	8.4	-12.3	14.0	4.0	4.0	4.5	5.0	5.0

Sources: Central Bank of Yemen; and Fund staff estimates and projections.

1/ Hydrocarbon includes oil and LNG sectors.

2/ Data includes Saudi grant in kind in 2011 of 3 million barrels of crude oil, and about US\$ 1.8 million of refined oil products in 2012. Figures from 2013 onwards reflect committed donor disbursements.

3/ The negative direct investment numbers reported in the table reflects cost recovery by foreign gas and oil companies. In 2012, this also reflects the expiration of the foreign concession of Masila oil block and the transfer of its ownership back to government.

4/ A large increase of gross reserves in 2012 is associated Saudi US\$ 1 billion deposits at the CBY.

**Table 7. Republic of Yemen: Indicators of Banking System Financial Soundness, 2006–12 1/**  
(In percent; unless otherwise indicated)

	2006	2007	2008	2009	2010	2011	2012
<b>Capital adequacy:</b>							
Risk-weighted capital adequacy ratio	12.0	8.7	14.6	14.6	20.2	24.3	29.6
Capital (net worth) to assets	6.5	4.9	8.7	8.2	9.3	10.6	8.8
<b>Portfolio quality:</b>							
Nonperforming loans to total assets	5.7	5.4	5.2	3.5	4.2	4.7	4.4
Nonperforming loans to gross loans	23.0	19.5	18.0	13.9	17.7	21.2	25.5
Nonperforming loans net of provisions to capital	28.0	16.9	25.3	11.8	19.2	12.9	11.8
Provisions against problem loans/problem loans	66.0	44.0	62.3	70.3	57.0	70.6	76.2
Total capital and reserves/problem loans	120.0	123.4	168.2	251.4	223.7	227.5	202.0
<b>Portfolio performance:</b>							
Average return on assets	1.2	1.6	1.0	0.9	1.3	1.5	1.2
Average return on equity	17.3	19.7	11.4	9.6	14.1	14.2	13.6
Interest margin to gross income	36.1	33.7	33.9	33.4	30.5	33.4	28.6
Noninterest expenses to gross income	19.6	19.8	22.5	26.4	21.9	23.6	23.5
Trading and fee income to gross income	8.6	7.7	7.8	7.7	14.1	12.0	12.8
<b>Exposure to exchange rate risk</b>							
Total foreign currency assets (in billions of rials)	469.3	576.3	646.4	754.4	900.2	769.4	868.9
Total foreign currency liabilities (in billions of rials)	458.1	520.1	557.1	635.2	795.7	655.7	785.1
Net exposure/total capital and reserves	38.2	65.1	75.1	83.2	59.2	62.6	43.2
Forex credits/forex deposits	30.5	42.3	45.1	37.4	33.6	36.2	32.8

Source: Central Bank of Yemen.

1/ Data refers to all banks except the Housing Bank and CACbank. 2006 data included CAC.

\* Audited financial statements.

\*\* Monthly data received from the banks.

**Table 8. Yemen: Illustrative Medium-Term Scenario, 2010–17**

	2010	2011	2012	Projection				
				2013	2014	2015	2016	2017
(In percent of GDP unless otherwise indicated)								
Real GDP growth rate (in percent)	7.7	-12.7	2.4	6.0	3.4	3.9	3.8	4.0
Real nonhydrocarbon GDP (in percent)	4.4	-12.5	4.0	4.0	4.0	4.5	4.5	4.5
hydrocarbon production (1,000 barrels/day)	426.0	364.1	321.3	406.5	399.3	393.4	379.9	376.2
Crude export oil price (U.S. dollar/barrel)	77.2	102.7	101.2	97.7	97.0	93.2	90.4	87.9
CPI (percent change; average)	11.2	19.5	9.9	12.0	12.0	11.0	10.0	9.0
Total revenue and grants	26.0	25.0	29.9	27.2	26.9	25.9	24.8	24.7
Hydrocarbon	16.4	16.3	14.1	15.2	14.5	13.0	11.5	11.0
Nonhydrocarbon	8.4	7.5	9.7	10.8	11.0	11.4	11.8	12.0
Grants	1.2	1.2	6.1	1.2	1.5	1.5	1.6	1.7
Total expenditure	30.0	29.4	36.2	33.0	32.5	31.4	30.2	29.6
Current	25.4	27.5	32.5	29.4	28.1	27.2	26.5	25.6
Capital	4.6	2.0	3.7	3.6	4.4	4.2	3.7	3.9
Overall budget balance (cash basis)	-4.0	-4.4	-6.3	-5.8	-5.8	-5.8	-5.7	-5.3
Nonhydrocarbon primary budget balance	-18.1	-16.5	-15.0	-16.4	-15.9	-14.4	-13.0	-12.3
Excluding grants	-19.3	-17.6	-21.1	-17.6	-17.4	-16.0	-14.6	-14.0
Consumption	93.4	97.4	100.1	95.7	94.5	95.1	96.2	95.8
Private	81.6	84.8	85.7	82.2	81.1	82.1	83.3	83.1
Public	11.8	12.6	14.5	13.5	13.4	13.0	12.9	12.7
Gross Domestic Investment	11.6	5.5	8.7	8.9	9.9	10.0	9.7	10.2
Private	7.0	3.5	5.0	5.3	5.5	5.8	6.0	6.3
Public	4.6	2.0	3.7	3.6	4.4	4.2	3.7	3.9
Gross national savings	7.9	1.4	7.8	6.2	6.5	6.2	5.5	6.4
Private	7.3	3.8	10.4	8.3	7.9	7.9	7.5	7.7
Public	0.6	-2.4	-2.6	-2.2	-1.4	-1.6	-2.0	-1.4
Saving/investment gap	-3.7	-4.1	-0.9	-2.7	-3.4	-3.7	-4.2	-3.8
private consumption per capita ( in US dollar)	1038	1117	1171	1247	1263	1284	1306	1318

Sources: Yemeni authorities; and Fund staff estimates and projections.



**Table 9: Republic of Yemen: Millennium Development Goals, 1990–2011**

	1990	1995	2000	2005	2008	2009	2010	2011
<b>Goal 1: Eradicate extreme poverty and hunger</b>								
Employment to population ratio, 15+, total (%)	...	39.7	39.8	39.6	40.6	41	41.3	40.9
Employment to population ratio, ages 15-24, total (%)	...	24.1	26.4	25.4	26.1	26.3	26.3	25.3
Poverty gap at \$1.25 a day (PPP) (%)	...	...	...	4.18	...	...	...	...
Poverty headcount ratio at \$1.25 a day (PPP) (% of population)	...	...	...	17.53	...	...	...	...
<b>Goal 2: Achieve universal primary education</b>								
Literacy rate, youth female (% of females ages 15-24)	...	...	...	...	...	...	74.1	...
Literacy rate, youth male (% of males ages 15-24)	...	...	...	...	...	...	96.0	...
Persistence to last grade of primary, total (% of cohort)	...	...	...	...	...	...	75.7	...
Primary completion rate, total (% of relevant age group)	...	...	...	60.64	62.61	...	63.2	62.9
Total enrollment, primary (% net)	...	...	...	76.53	74.44	...	78.2	76.4
<b>Goal 3: Promote gender quality and empower women</b>								
Proportion of seats held by women in national parliaments (%)	4.1	...	0.7	0.3	0.3	0.3	0.3	0.3
Ratio of female to male primary enrollment (%)	...	...	...	74.0	80.5	...	81.7	81.6
Ratio of female to male secondary enrollment (%)	...	...	...	49.0	56.8	...	62.2	63.4
Ratio of female to male tertiary enrollment (%)	...	...	27.3	36.5	...	...	...	...
<b>Goal 4: Reduce child mortality</b>								
Immunization, measles (% of children ages 12-23 months)	69	40	71	76	73	69	73	71
Mortality rate, infant (per 1,000 live births)	88.5	79.5	71.4	64.5	60.7	59.4	58.3	57
Mortality rate, under-5 (per 1,000)	126	111.9	99.1	88.2	82.3	80.2	78.5	76.5
<b>Goal 5: Improve maternal health</b>								
Adolescent fertility rate (births per 1,000 women ages 15-19)	...	...	98.4	83.8	76.3	73.7	71.2	68.6
Births attended by skilled health staff (% of total)	...	...	...	...	...	...	...	...
Maternal mortality ratio (per 100,000 live births)	610	520	380	270	...	...	200	...
Malaria cases reported	11,384	500,000	1,394,495	...	44,206	55,446	106,697	...
<b>Goal 6: Combat HIV/AIDS, malaria and other diseases</b>								
AIDS estimated deaths (UNAIDS estimates)	100	100	500	1,000	1,300	1,400	1,500	1,600
Prevalence of HIV, total (% of population ages 15-49)	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
Tuberculosis case detection rate (% of all forms)	28.0	69.0	67.0	54.0	61.0	67.0	76.0	79.0
Tuberculosis death rate (per 100,000 people)	32.0	23.0	19.0	14.0	9.8	8.3	6.7	5.0
Tuberculosis treatment success rate (% of registered cases)	...	52.0	72.0	80.0	85.0	88.0	87.0	...
Incidence of tuberculosis (per 100,000 people)	137	137	116	81	60	54	49	44
<b>Goal 7: Ensure environmental sustainability</b>								
Forest area (% of land area)	1.04	...	1.04	1.04	...	...	1.04	1.04
Improved sanitation facilities (% of population with access)	24.0	32.0	39.0	47.0	52.0	52.0	53.0	...
Improved water source (% of population with access)	67.0	63.0	60.0	57.0	55.0	55.0	55.0	...
Marine protected areas (% of total surface area)	0.00	0.00	1.77	1.77	1.77	1.77	1.77	...
CO2 emissions (metric tons per capita)	0.80	0.74	0.83	0.97	1.00	1.03	...	...
<b>Goal 8: Develop a global partnership for development</b>								
Internet users (per 100 people)	0.00	...	0.08	1.05	6.89	9.96	12.35	14.91
Mobile cellular subscriptions (per 100 people)	0.00	0.05	0.18	11.03	28.48	35.63	46.09	47.05
Telephone lines (per 100 people)	1.04	1.23	1.96	4.37	4.25	4.27	4.35	4.33
<b>General indicators</b>								
Life expectancy at birth, total (years)	56.1	57.4	59.7	62.6	64.1	64.6	65.0	65.5
Fertility rate, total (births per woman)	8.66	7.62	6.49	5.76	5.41	5.31	5.20	5.09
Net ODA received per capita (current US\$)	37.6	11.3	17.6	14.4	19.0	23.9	27.6	19.2

Source: Millennium Development Goals database (the World Bank)

## Appendix I. Risk Assessment Matrix

Source of Risks	Probability of occurrence	Potential Impact	Nature of vulnerabilities and expected impact if risk materializes
Political instability and/or a deterioration in security	M	H	The political transition is fragile as tensions persist and the high unemployment, especially among the youth remains. If the risks materialize, it would disrupt economic activity and test the political resolve to implement reforms. Continued collaborative political dialogue, greater transparency, an unwavering implementation of the reform agenda and proactive communication of the benefits of the reforms could help build public support.
A sharp decline in oil production	M	H	Oil production has declined significantly because of sabotage activities and inadequate investments. A sustained large decline in oil production would adversely impact the external and fiscal accounts. Improvements in security and increased investment could help mitigate the risks.
Declines in global growth leading to lower hydrocarbon demand and prices	L	M	A slowdown in global demand for oil and gas would affect fiscal and external sustainability, given Yemen's dependence on hydrocarbons for exports and fiscal revenues. There could also be negative spillovers from the GCC countries through aid, remittances, FDI, and trade. Contingency plans that identify lower priority public spending should be drawn, maintenance of reserve buffers and greater flexibility in the exchange rate could help minimize the potential impact.
Shortfall in donor support	M	H	Shortfalls in the disbursement of pledged donor funds would reduce capital expenditures needed to foster growth, employment creation, and poverty reduction. Greater transparency and enhanced implementation capacity could help expedite donor disbursements.
Stricter immigration controls in the GCC countries, particularly Saudi Arabia	M	M	Remittances averaged around 6 percent of GDP in 2012 and about 2 million Yemenis are estimated to work in Saudi Arabia. Thus, unemployment and poverty could increase and the external position adversely impacted. Job creating reforms could help absorb displaced workers.
High bank exposure to government paper	L	L	The large share of government paper in banks' assets against the backdrop of large financing gaps in the budget exposes the banking system to sovereign risk and increases the correlation between fiscal and banking system vulnerabilities. Fiscal consolidation will be key to reducing the risks.

## Appendix II. Unemployment, Poverty, and Human Development Indicators in Yemen<sup>1</sup>

**1. Unemployment is one of the most important challenges facing Yemen.** It contributes to undermining political and security stability particularly as it is highly concentrated among the youth. Estimates of unemployment range from 15 to 40 percent, with the Central Statistical Organization of Yemen at the lower end of this range. The labor force is only about 40 percent of the total population in the age group 15–64, with men constituting about 90 percent. The population is very young (42 percent is under the age of 15 and 65 percent is under the age of 24) and growing rapidly (3.0 percent annually).

**2. The 2011 political crisis further aggravated unemployment.** Due to the suspension of most investment projects and the decline in economic activity, many workers were laid off or forced to take unpaid leave or lower salaries. Unofficial estimates suggest that as many as to one million workers may have lost their jobs during the crisis.

**3. Immigration reforms in the Gulf region could worsen the unemployment situation.**

About 2 million Yemenis are reported to be working in Saudi Arabia and worker's remittances to Yemen, mostly from Saudi Arabia, average around 6 percent of GDP. Repatriation of workers back to Yemen could add the high unemployment rate and further erode incomes through its impact on remittances.

	Poverty in Yemen (in percent of total population)		
	2009	2010	2011
Urban	29.9	29.2	42.4
Rural	47.6	47.3	59.0
Overall	42.8	42.3	54.4

Source: Joint Social and Economic Assessment, the World Bank.

**4. Nearly half the population lives below the poverty line of \$2 a day.** Poverty is estimated to have risen from about 43 percent of the population in 2009 to almost 55 percent in 2011. Poverty is especially high in rural areas, which are home to about 73 percent of the population and 84 percent of the poor.

**5. Other social indicators are also alarming.** In addition to the 2011 political crisis, the 2010–11 increase in international food prices contributed to exacerbating poverty. The U.N. World Food Program estimates that nearly 45 percent of the population was food insecure in 2012. According to the World Bank, Yemen has one of the highest malnutrition rates in the world. Almost 60 percent of children under the age of five have chronic malnutrition, 35 percent are underweight, and 13 percent have acute malnutrition. In addition, 27 percent of pregnant women and 35 percent of lactating women are malnourished. Maternal mortality, at 365 per 100,000 live births, is among the highest in the world. The infant mortality rate stood at 69 per 1,000 live births in 2009. In general, Yemen ranks poorly in all social indicators and occupies the 154th position (out of 184) on the U.N. Human Development Indicators list.

<sup>1</sup> Prepared by Mr. Ali Al-Sadiq

## Appendix III. Fiscal Policy and Structural Reforms in Yemen<sup>9</sup>

### A. Overview

**1. There is an urgent need to restructure government finances to create space for effective social spending and the much needed scaling up of public sector investment while enhancing long term fiscal and external sustainability.** Oil receipts, which make up about half of total budget revenues, are on a declining trend. At the same time, tax revenues, which are less than 25 percent of total revenues, have remained low at about 7 percent of GDP or less recently. On the expenditure side, current expenditures make up about 80–90 percent of total expenditures, with wages and subsidies accounting for about two thirds of current expenditures and public investment remaining at less than 15 percent of total expenditures. Fuel subsidies account for over 25 percent of total expenditures and about 9 percent of GDP.

**2. Prior to the 2011 political crisis, some progress was made in developing a modern tax system.** A modern investment law was introduced in 2010. A general sales tax (GST) was fully implemented and most income tax and customs exemptions were eliminated in 2010. The Tax Authority was reorganized along functional lines. The new law introduced self-assessment, strengthened the penalty regime, and classified taxpayers under large, medium, small, and micro-enterprise. However, progress in these reforms stalled during the political crisis in 2011, and there was a decline in compliance and lower tax revenues. Revenue collection recovered in 2012, rising to about 7 percent of GDP. Nonetheless, further efforts are needed to improve compliance and reduce tax evasion.

**3. Substantial scope remains to improve the tax regime.** There is an urgent need to rationalize the General Sales Tax (GST) registration and to improve coordination between Tax and Customs Authorities. Furthermore, the number of registered taxpayers—about 3080, of which 2000 are large tax payers—is very low. Yemen has a cumbersome tax system. The supporting tax documentation necessary to file a tax is complex and subject to different interpretations. In addition, enforcement powers of the Tax Authority are not sufficient—and were further weakened during the crisis. There is a need to start a new partnership with the business community to strengthen tax compliance, strengthen penalty provisions, and enhance capacity to perform tax audits.

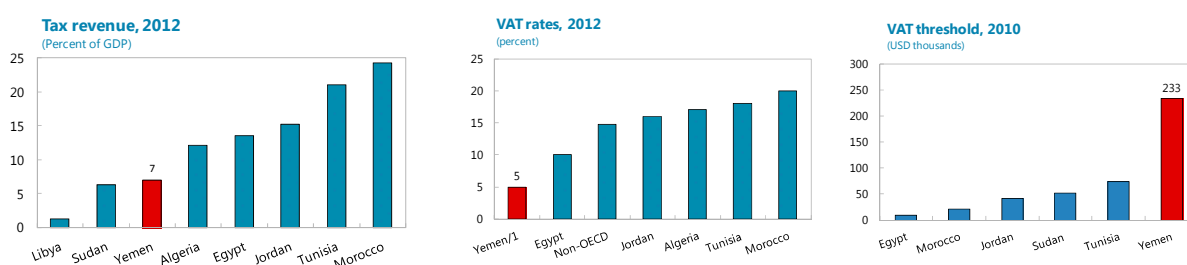
**4. Some positive steps were made in the Public Financial Management (PFM) area through 2010, but more remains to be done.** These included: (i) piloting the Accounting-based Financial Management Information System (AFMIS) in four line ministries; (ii) developing medium-term fiscal estimates; and (iii) establishing a cash management unit. However, the overall pace of the PFM reforms, remains slow. There remains challenges to an establishing single treasure account (STA) including: (i) a fragmented management of the PFM reform process; (ii) a weak and dispersed institutional framework for PFM reforms, in particular in the treasury area; and (iii) a general lack of

<sup>9</sup> Prepared by Mr. Nabil Ben Ltaifa and Ms. Dragana Ostojic.

financial discipline, in particular, overrides of expenditure controls that could significantly undermine the effectiveness of the planned new expenditure control systems.

## B. Cross Country Perspective<sup>10</sup>

**5. Yemen's overall tax to GDP ratio is relatively low.** Tax to GDP ratio is about 7 percent compared with about 13 percent in low income countries, and about 13.6 percent for comparator countries. Key contributing factors include the low general sales tax (GST) rate of 5 percent (the lowest among the comparator countries) and the high threshold for paying GST tax (e.g., Yemen's GST threshold is \$233,000, for Morocco it is \$21,000). Additional key factors include capacity constraints in tax and customs administrations, low compliance, and lack of confidence and low collaboration between the tax authorities and the business community.



Sources: National authorities; and Fund staff estimates.

<sup>1</sup> Data from 2011.

**6. Almost one-half of tax revenues come from income taxes (in particular taxes on wages and salaries), which are usually easy to collect.** Revenues from taxes on goods and services, at less than 3 percent of GDP, are well below the low-income countries' average of 5 percent of GDP.

Yemen: Selected Comparison of Tax Structure, 2012<sup>1</sup> (percent of GDP)

Country	Total revenues and grants	Tax revenues	Non-oil revenues	Taxes on income, profits, and capital gains				Taxes on goods and services		Trade taxes	Other taxes	
				Total	Individual	Corporate	Wages and salaries	Total	GST or VAT			Excises
Algeria <sup>2</sup>	39.7	18.8	21.1	5.5	3.5	1.9		4.3		2.2	0.2	
Egypt	19.7	13.4		6.8	1.4	4.5		5.5	4.8	0.7	1.0	0.2
Jordan	26.2	15.3		3.3	0.4	2.6		9.9	1.5		1.4	0.5
Libya	72.3	1.2	3.1	0.5							0.7	
Morocco	28.1	24.2		9.2				12.0			1.1	0.6
Sudan	10.0	6.2	7.2	0.6				3.4			2.1	0.0
Tunisia	24.0	21.1		8.9					6.3	2.2	1.0	3.0
Yemen	29.6	7.0	9.7	3.3	1.8	1.1	2.0	2.5			1.1	0.2

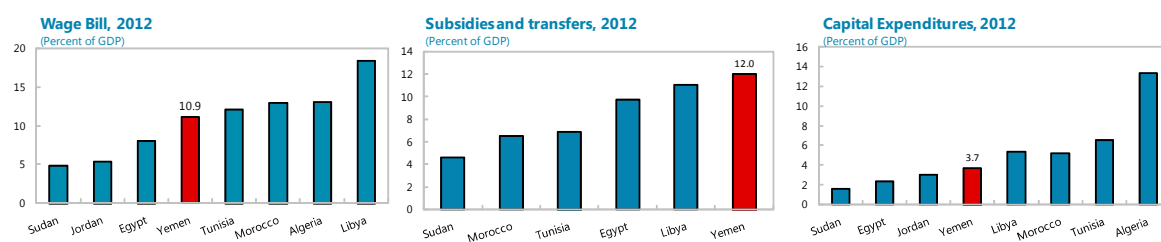
Sources: National authorities; and Fund staff calculations.

<sup>1</sup> 2012 data or latest available; Yemen data for taxes on corporate and wages and salaries from 2010.

<sup>2</sup> Data as percent of non-hydrocarbon GDP, except for total revenues and grants.

<sup>10</sup> Comparator countries include Algeria, Egypt, Jordan, Libya, Morocco, Sudan, and Tunisia.

**7. Government expenditures have been persistently dominated by the rise in recurrent spending.** Spending on wages and subsidies continues to be high and rising. Wages which were estimated to be around 10 percent of GDP in 2011 increased to about 11 percent of GDP in 2012, following the government's decision to increase wages in 2011 in response to demonstrations and mounting social tensions. This is high, even when compared to the average of about 8 percent of GDP in Middle East and North Africa (MENA) region. Subsidies have registered about 9 percent of GDP in recent years compared to 7 percent in MENA. In contrast, capital expenditures continue to suffer—declining from about 5 percent of GDP before the crisis to about 2–4 percent of GDP in 2011–12, and are very low compared to the 9 percent of GDP for MENA.



Sources: National authorities; and Fund staff calculations.

## C. Priority Measures

**8. The main objective of fiscal policy for 2013 and the medium terms is to strengthen fiscal consolidation and create space for increasing targeted social spending and much infrastructure investment.** Priority reforms should aim at reducing energy subsidies, containing the wage bill, and improving tax collection. In addition, improving public financial management and transparency would help mobilize much needed foreign aid and bridge the resource gap to increase pro-growth and pro-poor spending. Financial and technical assistance support from donors are essential to jump start the reform agenda, mitigate any social effects.

## D. Tax Policy

**9. The main focus of reforms in 2013 should be to carry forward the measures aimed at strengthening tax administration, simplifying tax procedures, and reinvigorating the partnership with the business community** to build confidence and improve tax compliance.

**10. The scope for introducing new tax policy measures in 2013 is somewhat hindered** given by the current political environment and the time required for passing new legislation in this area. However, the authorities indicated that they will oppose any amendments to the 2010 investment law that may weaken tax collection, including the extension or granting of any new tax or customs exemptions.

**11. Over the medium-term reforms should focus on:**

- Reducing to the extent possible, if not completely eliminating, existing tax exemptions and expanding the tax base.
- Increasing gradually the GST tax rate toward the average for low-income countries.
- Reducing the GST threshold to a “reasonably high level”, once tax administration is more efficient and ready to handle a larger number of cases.<sup>11</sup>
- Establishing a regular and periodic review of tax policy and reforms to increase efficiency and close potential loopholes.

**E. Tax Administration****12. Immediate tax administration reforms measures should include:**

- Improving coordination between tax and customs authorities.
- Expanding the tax base by increasing number of taxpayers (subject to GST) by 20 percent. Opening (and making fully operational) medium taxpayers’ offices in Sana’a and major cities.
- Simplifying tax procedures by strengthening risk analysis in conjunction with the implementation of self assessments.
- Empowering the tax authority to enforce collections and introduce a penalty regime.
- Improving capacity of risk based ex-post tax audits by developing risk profiles for large and medium taxpayers.

**13. Medium term measures in the area of tax administration should include:**

- Opening more taxpayer’s offices in phases to cover all governorates.
- Continuing tax-simplification procedures and strengthening enforcement of collection in order to increase tax revenues.

**F. Customs Administration**


---

<sup>11</sup> In 2013, the authorities raised the threshold anew from Yrls 50 million to Yrls 200 million to focus the tax administration’s efforts on the larger tax payers, particularly to improve compliance.

**14. Reforms in the area of customs administration reform should include:**

- Introducing pre-shipment inspection of imports by hiring the services of a reputable international company to reduce under-invoicing of imports and improve customs revenue.
- Developing and updating the reference price database as a module of Automated System for Customs Data (ASYCUDA) to prevent under-invoicing.
- Replacing the physical inspection of consignment with selective inspection generated by ASYCUDA, but only after establishing an appropriate information database and improving staff capacity to identify consignments with risk to revenue.

**G. Restructuring of Expenditures**

**15. Expenditure reforms should focus on improving the structure of spending.** This will require a gradual reduction in fuel subsidies and wages in percent of GDP and recovery of hydrocarbon revenues from the low level of 2012. In 2013, the decline in subsidies is projected to result mainly from the full year effect of increases in the prices of diesel and kerosene which took effect in April 2012 and from governance and efficiency measures.

**16. Rationalizing energy consumption by government agencies will enhance the credibility of the government efforts.** As a first step, the authorities have decided to unify the price of diesel across most users, including in particular the electricity sector.<sup>12</sup> This measure is not expected to reduce the very large subsidies' bill, as the public electricity company and the private energy providers (leased energy) will be fully compensated to avoid an increase in retail electricity prices. The reform will, however, help reduce incentives for leakages and inefficient consumption of energy, thereby supporting policies to fight vested interest and smuggling, and phasing out inefficient energy production schemes. For the private sector, some rationing through a coupons system could be considered in the future to allocate/limit subsidized fuel consumption by private agents.

**17. Gradually increase the retail prices for fuel and electricity.** This reform is crucial to Yemen's fiscal adjustment over the medium-term, but also politically difficult. Targeted mitigating measures—including through direct cash transfers—will have to be implemented in parallel with the gradual increase in fuel prices to offset the effects on low income households (at the least the bottom 40 percent of the population).

---

<sup>12</sup> The electricity sector had been paying about half of the prevailing domestic price.



**18. Other reforms** include curtailing non-essential current expenditures in order to create fiscal space for increased capital and social spending and re-examine policy of subsidizing public enterprises.

## H. Public Financial Management

### 19. Immediate reforms should focus on:

- Developing a roadmap for Public Financial Management (PFM) reforms and speeding up the transition to a comprehensive treasury system, while rolling out an Accounting- based Financial Management Information System (AFMIS) to additional line ministries.
- Developing a macroeconomic model for cash flow estimates, using seasonal trends of aggregate budget data and revenue estimates.
- Introducing monthly reporting on incurred and outstanding commitments, received and outstanding invoices, and payments made.

### 20. Medium-term measures should include:

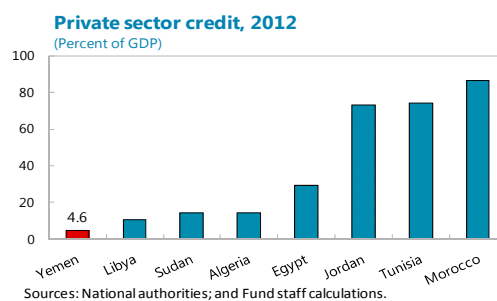
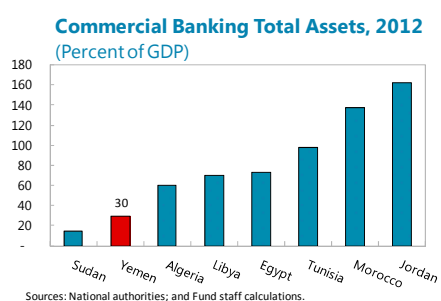
- Establishment of a Treasury in the Ministry of Finance.
- Developing cash management and commitment control functions, while enforcing regulations that do not allow override of expenditures.
- Incorporating special funds and applicable donor funds into the single treasury account structure.
- Rolling out the AFMIS to remaining ministries, and governorates, for budget preparation and execution, while developing accompanying modules (cash management, commitment control, debt management).Improving the management of oil revenues and develop a strategy to extend the life of oil sector in collaboration with ministry of oil.

## Appendix IV. Monetary and Financial Reforms<sup>1</sup>

### A. State of the Financial System

#### 1. Yemen’s financial system is relatively small compared to other countries in the region.<sup>2</sup>

Total assets at end 2012 were estimated at 30 percent of GDP, much less than the comparable countries. Private sector credit, an important factor in growth, is around 5 percent of GDP. Banking and other financial activities are concentrated around Sana’a and Aden as rural branches are considered non-economical. The postal services, with relatively large branch network, including non-banked rural areas, provide basic banking services (excluding lending).



**2. The financial system is bank dominated.** Banks account for 72 percent of the financial system assets and pensions follow distantly with 26 percent. Other sectors (insurance, foreign exchange bureaus and micro finance) are miniscule, there are no equity markets and the debt market consists mainly of government treasury bills and bonds. The government has not issued any Sukuks after the debut of the two initial issues in 2011 which matured in April 2013.

**Yemen: Financial System Structure, December 2011**

Financial System Components	Total Number of Institutions	Percentage Share
Banking Sector	19	72.6
Insurance Companies	15	0.5
Pensions	4	26
Post	1	0.6
Foreign Exchange (FX) Bureaus	541	0.1
Micro Finance Institutions (MFIs)	10	0.2

Source: Central Bank of Yemen

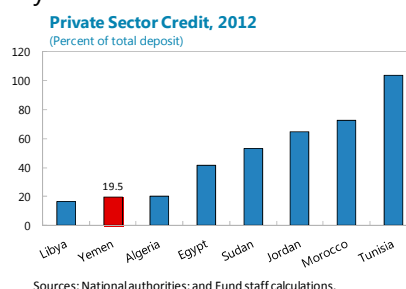
#### 3. The banking sector is highly concentrated. At

end 2012, there were 17 banks licensed to operate in Yemen and two micro finance institutions. The four largest banks account for over half the banking system assets while the 8 smallest banks have less than 20 percent of the assets.

<sup>1</sup> Prepared by Ms. Inutu Lukonga and Mr. Abdul Naseer.

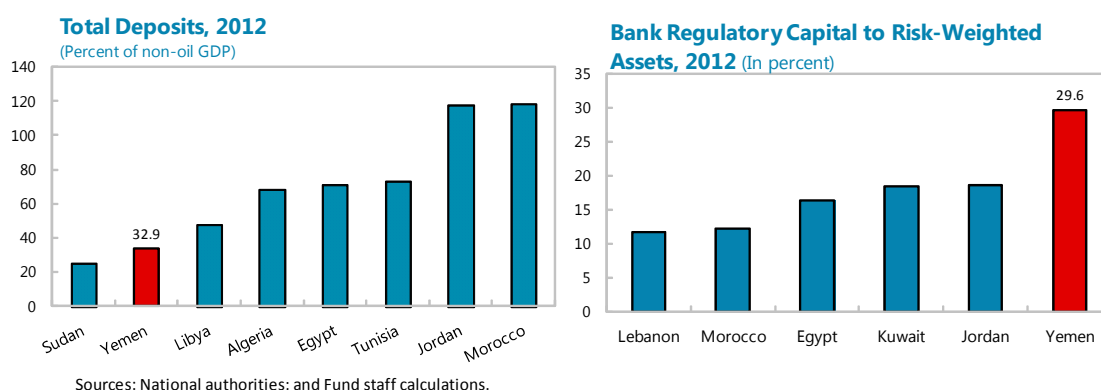
<sup>2</sup> Comparators include Algeria, Egypt, Jordan, Libya, Morocco, Sudan, Syria, and Tunisia.

**4. The banking system is also segmented in the nature of operations.** The commercial banking sector consists of 12 conventional banks and 5 Islamic banks. In terms of ownership, the conventional banks include 3 state-controlled banks, 4 domestic private banks, and 5 are branches of foreign owned banks while Islamic banks include one state controlled bank and 4 privately owned banks. Islamic banks have 31 percent of the market share, followed closely by state-owned banks with 28.7 percent and domestic private banks with 21.6 percent. Foreign owned banks account for 16.9 percent and micro finance accounts for 14 percent of the market. State-owned banks are heavily invested in government securities and hold about 50 percent of all government securities issued and the balance is almost split equally between domestic private banks and foreign owned banks. Islamic banks do not participate in the market for treasury bills and bonds since these securities are not Sharia compliant and about 60 percent of their assets are invested in foreign assets. Competition is generally weak due to dominance of a few, mainly public sector banks.



**5. The involvement of banking system in the economy is among the lowest in the region.** Banks hold proportionately more assets in government papers, and lending to private sector is less than 30 percent of deposits which is much lower than comparator countries. Lending is concentrated in a few traditional borrowers and is mostly for short-term finance and trade rather than investment.

**6. Despite rapid growth in recent years, bank intermediation is low.** The Yemeni economy

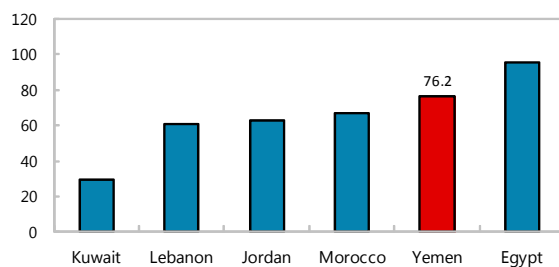


remains a cash economy and the share of the population that have bank accounts is reported to be in single digits. At end 2012, the ratio of M2 to non oil GDP was estimated at 50 percent, which is well below the regional average while currency in circulation, at 29 percent of M2, is very high.

**7. Indicators of soundness are satisfactory but there is need for vigilance.** Although the overall capitalization level of the banking system is above the minimum required level, a couple of banks are not compliant and non-performing loans (NPLs), at 25 percent, are high and has increased from its 2011 level of 20.6 percent. However, the high NPLs are more indicative of credit risk rather

**Bank Provisions to Nonperforming Loans, 2012**

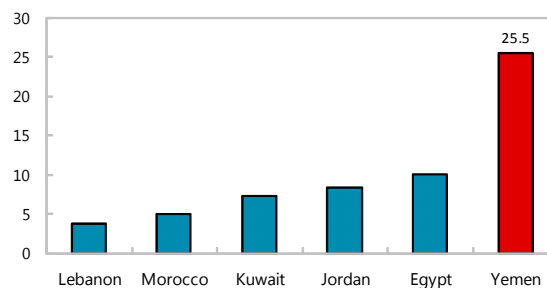
(In percent)



Sources: National authorities; and Fund staff calculations.

**Nonperforming loans to gross loans, 2012**

(In percent)



than stability risks because most lending are to the government and private sector credit accounts for a very small share of the banks' assets. However, if government financing requirement decrease overtime, banks will have to look for other—relatively more risky—avenues. NPLs could increase unless prudent supervisory controls are in place and are strictly enforced across the board.

**8. Non-bank financial institutions and markets are small and underdeveloped.** The postal system, which provides deposit services, pensions and transfer services to non-banked rural areas, is fully computerized and functions adequately. However, other key supporting institutions and financial markets are either nonexistent or play a limited role. Pension funds, the main liquid non-bank financial market participants, serve as a captive source of government finance and invest in Treasury bonds at below treasury bill rates. Insurance activity is insignificant, fragmented, and unsupervised. The money market is limited to treasury bills auctions, and interbank money and foreign exchange markets have not developed. Leasing is still insignificant.

## B. Banking Regulation, Supervision and Resolution

**9. The authorities are making efforts to reform the framework for banking regulation and supervision.** Regulation and supervision of banks is governed by the banking law number 38 of 1998. Islamic banks are subject to a separate law which was originally issued under law no. 21 in 1996 and later revised under law no. 16 in 2009. However, there are no separate regulations, instructions issued or reporting requirements for Islamic banks. More generally, legal provisions need enhancing across a range of areas including licensing, supervisory powers, consolidated and cross border supervision and issuance of prudential regulations. Supervision is constrained by limited resources and training opportunities for supervisors. Also, the law does not include a clause on legal protection of supervisors and while it establishes some corporate governance requirements, detailed guidelines or instructions on corporate governance for banks are yet to be issued.

**10. The framework for supervision is risk based, but there are important shortcomings.** Inspectors perform their work according to a risk focused onsite manual, but risk based policies for onsite inspections are yet to be developed. In particular, there are no clear policies for the frequency and scope of inspection missions that take into consideration the systemic importance of banks, their weaknesses and their problems. Coordination between onsite and off-site supervision is also

not as effective as it should normally be. Inspection of full-fledged Islamic banks is currently being performed in a similar manner to that of the conventional banks.

**11. The regime for corrective and remedial powers and enforcement could be improved.**

The banking law and regulations allow the CBY to take a series of enforcement measures to solve any weaknesses in banks' performance and violations of prudential requirements, but there is no systematic or structured process to implement the enforcement framework. The criteria and parameters that would trigger the application of enforcement measures and the progressive actions to be applied in case of non compliance are not stipulated.

**12. Macro prudential surveillance is also not developed.**

The CBY does not undertake stress testing and there are yet no guidelines on stress testing requirements for banks. Data for undertaking stress testing is also not yet collated. The current manual process for banking submitting returns to the CBY also does not bode well for effective surveillance.

**13. The bank resolution framework needs improvement.**

The CBY has powers to approve voluntary liquidation, to revoke licenses in specified cases and to reorganize or liquidate banks including appointing conservators. However, a number of areas need strengthening, including the triggers for placing a bank under official administration, the deadline for terminating official administration, powers to override shareholders and provisions for judicial review, the context for reorganizing banks and license revocation.

## C. The Monetary Policy Framework and Operations

**14. The economy is largely cash based, thereby reducing the efficacy of the interest rate as a tool for monetary policy.**

Money markets are limited to primary issuance of treasury bills of 3, 6, and 12 months. The government also issues 3 year bonds and introduced Sukuk in 2011 to help manage liquidity of Islamic banks, but there has been no issuance after the two first issues. There is no overnight money market, interbank market for foreign exchange, or secondary trading of bonds. Islamic banks do not participate in the treasury bill market in line with Sharia'a.

**15. The CBY has a broad range of tools for conducting monetary policy but the principal tool has been direct control of interest rates.**

The CBY sets a minimum interest rate on time and savings deposits that serves as a benchmark for other interest rates. Other monetary policy tools include unremunerated reserve requirements (7 percent on rials deposits and 10 percent on foreign currency deposits); a rediscount facility at a penalty rate; an overdraft facility; treasury bill auction; repurchase operations; foreign exchange sales; and certificates of deposits. The interest rate structure for treasury bills and bonds has an inverted yield curve that is not anchored on inflation expectations.

**16. In principle, the CBY operates a free floating exchange rate regime and targets monetary aggregates with the final aim of maintaining price stability, but in practice it targets the exchange rate.**

Imported food accounts for a large share in the consumer basket and the authorities are cognizant of potential for pass through to inflation. The "benchmark" or

minimum interest rate on time and savings deposits at banks has been a principal tool to enhance the attractiveness of the rial and ensure exchange rate stability.

**17. The benchmark rate determines the structure of interest rates.** It increases banks' funding cost and lending rates and sets the floor for banks to bid on the treasury bill interest rates. The CBY also uses it to set rates on key monetary policy instruments, including the commercial banks' overdraft facility, repos, and Central Bank deposits.

**18. High interest rates present several risks.** They attract more rial deposits but reduce credit in rials, leaving banks with additional liquidity which is either invested in government securities or foreign assets and increases the net open position. Second, it has potential to create adverse selection in borrowers and increase banks' non performing loans as borrowers might not be able to pay the high rates. Third, it encourages banks to refuse remunerated domestic deposits and thereby discourages financial intermediation. Fourth, the combination of high interest rates and a stable exchange rate could encourage carry trade activities.

## PRIORITY REFORMS

**19. Financial deepening is needed to improve the efficient allocation of productive resources.** There is a need to enhance competition, provide business friendly environment, and to lower the cost of doing business. This requires addressing factors that constrain access to credit, including non-user-friendly loan process, inadequate credit information, delays in legal proceedings, and difficulties to realize collaterals. There is also a particular need to improve the data base and dissemination of credit history and collateral information for SME sector. The administered interest rate regime also contributes to high lending rates and constrains credit demand, thus it is important to revisit the monetary policy framework.

**20. Banking supervision needs strengthening to ensure continued health of the financial system.** There is scope for improvement in a number of areas including: (i) closing the gaps in the legal framework; (ii) improving the coordination of off-site supervision and on-site inspection and implementing full-fledged risk based supervision; (iii) addressing the high credit risk by strengthening banks' credit risk management systems as well as supervisory oversight and enforcement; (iv) addressing the problems of concentrated and related parties' lending as well as large exposures; (v) ensuring compliance with corporate governance which is exacerbated by the predominance of large family business groups; (vi) strengthening supervision of Islamic banks; . There is also a general need to enhance the enforcement of existing regulations, adopt international accounting and audit standards to promote transparency and reliability of information and to ensure timely corrective actions, where required.

**21. Macro prudential supervision could also help strengthen banking system stability.** There is a need to develop capacity in stress testing both in terms of building the staff expertise and the data needed to undertake stress testing. Current efforts to introduce electronic submission of

data from commercial banks could help in providing timely data and efforts to improve the data warehouse could usefully be expedited.

**22. The development of non-bank financial sector is equally important.** Policies should facilitate the development of microfinance institutions to self sustaining levels and appropriate prudential and supervision rules as well as supervisory skills specific to the sector should be developed. This would help enhance competition and modernize the sector to reduce the cost of financing for small enterprises and individual borrowers.

**23. Development of secondary market for treasury bills could also help deepen financial markets.** There is need to develop the institutional framework and introduce longer term maturity government bonds (which will also eventually provide a basis for corporate bond and equity markets).

**24. Efforts to improve the payments system should be expedited.** The economy remains dependent on cash payments and the current payments system provides only for checks, which are not used much. With assistance from the World Bank, the CBY has been making efforts to improve the system by providing a legal basis for electronic settlements, and handle payments of civil service salaries and public utility bills more easily. Expansion of ATMs, supplemented by direct depositing of some government salaries, has improved the services. However, the lack of modern electronic communications facilities has been a problem. Improvements in the payment system could help improve efficiencies in the banking system as well as facilitate monetary policy conduct.

**25. For monetary policy, the recommendations of the MCM TA Mission should be given consideration.** The Fund has in the context of the TA missions recommended replacing the benchmarked minimum deposit rate with active liquidity management. In case of exchange rate pressures, tightening liquidity would be a more efficient instrument to stabilize the exchange rate and would allow for a smoother adjustment of the interest rate.





# REPUBLIC OF YEMEN

## STAFF REPORT FOR THE 2013 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

July 2, 2013

Prepared By

Middle East and Central Asia Department (In Consultation  
with Other Departments)

### CONTENTS

<b>FUND RELATIONS</b>	<b>2</b>
<b>WORLD BANK RELATIONS</b>	<b>6</b>
<b>STATISTICAL ISSUES</b>	<b>10</b>

## FUND RELATIONS

(As of May 31, 2013)

**Membership Status:** Joined: May 22, 1990;

Article VIII

**General Resources Account:**

	SDR Million	%Quota
Quota	243.50	100.00
Fund holdings of currency (Exchange Rate)	243.49	99.99
Reserve Tranche Position	0.01	0.01

**SDR Department:**

	SDR Million	%Allocation
Net cumulative allocation	232.25	100.00
Holdings	164.64	70.89

**Outstanding Purchases and Loans:**

	SDR Million	%Quota
RCF Loans	60.88	25.00
ECF Arrangements	34.79	14.29

**Latest Financial Arrangements:**

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
ECF	Jul 30, 2010	Apr 04, 2012	243.50	34.79
ECF <sup>1/</sup>	Oct 29, 1997	Oct 28, 2001	264.75	238.75
EFF	Oct 29, 1997	Oct 28, 2001	72.90	46.50

<sup>1/</sup> Formerly PRGF.

SDR = US\$ 1.51335 as of June 20, 2013

**Projected Payments to Fund <sup>2/</sup>**

**(SDR Million; based on existing use of resources and present holdings of SDRs):**

	Forthcoming				
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Principal				6.96	13.05
Charges/Interest	0.02	0.04	0.28	0.27	0.25
<b>Total</b>	0.02	0.04	0.28	7.23	13.30

<sup>2/</sup> When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

**Safeguards Assessment:**

An update safeguards assessment was completed in June 2013 with respect to a disbursement made under the Rapid Credit Facility in April 2012. The updated assessment noted that steps have been initiated to strengthen CBY governance and financial statements are prepared and audited in accordance with international standards. The CBY has enhanced transparency with the publication of the full set of audited financial statements as recommended by the update assessment. The

assessment also recommended that the CBY, in coordination with the Ministry of Finance, finalize an agreement on repayment terms for credit extended to the government and that the capacity of the internal audit function be further developed.

### **Exchange Arrangements:**

The currency of Yemen is the Yemeni rial. Under the IMF's classification, Yemen is currently considered to have "other managed" arrangement.

Yemen has accepted the obligations of Article VIII, Sections 2, 3, and 4, of the Articles of Agreement and maintains an exchange system that is free of multiple currency practices and restrictions on the making of payments and transfers for current international transactions. In accordance with UN Security Council Resolutions, Yemen has taken measures to block the accounts of certain individuals and organizations and has notified the Fund of these measures in accordance with Decision 144.

### **Article IV Consultation:**

The latest Article IV consultation was concluded on January 8, 2010. Yemen is on the standard 12-month consultation cycle.

### **FSAP Participation:**

FSAP (with the World Bank), October–November 2000.

### **Technical Assistance:**

#### a. IMF:

FAD—Pension Reform, August 2001

FAD—Reform of the Budgetary Process, April 2002

FAD—Public expenditure management expert installation, September 2002

FAD—Tax policy, tax administration and customs reform, October–November 2002

FAD—Public Expenditure Management Advisor, August 2003–January 2004

FAD—Public Expenditure Management, March–April 2004

FAD—Support to LTO, April 2005

FAD—GST Implementation, April 2005

FAD—Support to LTO and GST Implementation, November 2005

FAD—Reforming Tax Administration and implementing GST, June 2006

FAD—Treasury Function and Related PFM Reforms, July 2007

FAD—Participation in World Bank Review Mission, June 2009

FAD—METAC revenue administration advisor and short term expert, June–July 2009

FAD—METAC revenue administration advisor and short term expert, May 2010

FAD—METAC revenue administration advisor and short term expert, August 2010

FADM—ETAC revenue administration advisor and short term expert, November 2010

FAD—Developing Core Treasury Functions, December 2010

FAD—Revenue Administration Assessment Mission, February 2011

FAD—Energy Subsidy Reform, December 2012

LEG—AML/CFT Diagnostic, May 2006

LEG—AML/CFT Legal drafting, November 2006

LEG—Desk Review of Payment System, January 2011

MAE—Foreign reserves management, February-March 2001

MAE—Technical Assistance and Training Coordination and Expenditure Resource Mobilization, March 2005

MAE—ST Regional Expert Assignment, June-July 2005

MAE—ST Regional Expert Assignment, August 2005

MAE—Support for the regulatory framework of the Central Bank of Yemen, September-October 2005

MFD—Liquidity Management, March-April 2005

MFD—Regional Advisor, September 2005

MFD—Payment Systems and Monetary Operations, October 2005

MFD—Support for the Central Bank of Yemen credit Registry, November-December 2005

MCM—METAC-Technical Assistance on Banking Supervision, May 2006

MCM—Banking supervision, June-July 2006

MCM—Credit Registry, July 2006

MCM—METAC- Banking Supervision, December 2006

MCM—METAC – Needs Assessment Visit, March – April 2007

MCM—Payment systems, January – February 2008

MCM—Developing the Government Sukuk Market, July 2009

MCM—METAC- Banking Supervision, November 2009

MCM—Developing the Government Sukuk Market, May 2010

MCM—Developing the Government Sukuk Market, July 2010

MCM—METAC – Developing Debt Management Capacity, July 2010

MCM—METAC- Banking Supervision, August 2010

MCM—Developing the Government Sukuk Market, February 2011

MCM—METAC – Developing Debt Management Capacity, February 2011

MCM—METAC- Banking Supervision, October 2012

MCM—METAC- Strengthening Prompt Corrective Action (PCA), March 2013

OTM—TCAP Review, March 2004  
 OTM—Yemen - TCAP, March-April 2004  
 OTM—METAC – Needs Assessment Mission, February 2005

STA—Balance of payments statistics, January 2003  
 STA—Government Finance Statistics, January 2004  
 STA—National Accounts Statistics, January 2004  
 STA—National Accounts Statistics, May-June 2004  
 STA—Balance of payments statistics, September 2005  
 STA—Multisector Statistics Mission, August – September 2007  
 STA—Balance of Payments – January 2009  
 STA—Consumer Price Index/Producer Price Index Mission, June-July 2009  
 STA—Balance of Payments – July 2009  
 STA—National Accounts Statistics, July 2009  
 STA—Consumer Price Index/Producer Price Index Mission  
 STA—National Accounts Statistics, December 2010  
 STA—Producer Price Index Mission – February 2010  
 STA—METAC- Producer Price Index Mission, December 2012  
 STA—METAC- Consumer Price Index Mission, December 2012  
 STA—National Accounts Statistics, February 2013

b. UNDP/IMF/DFID Program:

FAD—LTE on budget management, March 1998–June 2001, and September 2002–January 2004  
 MAE—LTE on bank supervision, May 1997–May 2001  
 MED—LTE on debt management, July 1997–March 2001  
 STA—LTE on balance of payments statistics, February 1998–February 2000  
 FAD—Peripatetic experts on customs reform, July 1999–July 2001  
 STA—Peripatetic expert on national accounts, September 2001–August 2002  
 MAE—Peripatetic expert on foreign reserves management since April 2002

c. IMF/World Bank Program:

MAE—FSAP, October–November 2000  
 FAD—AFMIS Inspection Mission, September-October 2004

**Resident Representatives:**

Mr. Gazi Shbaikat.

**TA Coordinator**

Mr. Ahmad Skeik Ebid.

## WORLD BANK RELATIONS

1. As of mid-June, the active IDA and TF portfolio in Yemen includes 31 projects with US\$930 million in commitments, of which about US\$655 million in undisbursed balances remain. The Bank is pursuing efforts to restructure its portfolio in Yemen, with a view to improving implementation performance, which was affected by the political turmoil. Bank's regular implementation support efforts are complemented by third-party monitoring and independent verification measures to ensure satisfactory progress and fiduciary integrity of its ongoing portfolio.
2. The new framework for Bank support to Yemen (an ISN) was endorsed by the Board in November 2012. It lies on three strategic pillars: (i) achieving quick wins and protecting the poor by creating short-term jobs, restoring basic services, improving access to social safety nets, and revitalizing livelihoods; (ii) promoting growth and improving economic management by helping maintain macro stability, strengthening fiscal policies and public financial management, and improving the enabling environment for private sector growth and competitiveness; and (iii) enhancing governance and local service delivery by supporting transparency, accountability, capacity building, institutional strengthening, and improved citizen engagement. Bank work in the next 12 to 18 months is listed below.

**YEMEN : Joint Management Action Plan (JMAP)**

(As June 3, 2013)

<b>Title</b>	<b>Products</b>	<b>Provisional Timing of Missions (if relevant)</b>	<b>Delivery/Expected Date</b>
<b>A. Mutual information on relevant work programs</b>			
<b>Bank work program in next 12 months</b>	Emergency Recovery Grant (\$100 m IDA)	Completed	February 2013
	AF for SFD - LIW for Youth and Child Nutrition (\$25 m IDA)	Completed	March 2013
	Basic Education II (\$66 m IDA)	Completed	February 2013
	Road Asset Management (\$40 m IDA)	Completed	February 2013
	AF for Health and Nutrition (\$10 m IDA)		FY14
	AF for PFM Modernization Project (\$5 m IDA)	Completed	May 2013
	Enhancing Financial Inclusion, Transparency and Stability Project (IDA)		FY14
	Accountability and Transparency Enhancement –Support to SNAAC (\$5 m Deauville Partnership Transition Fund)		FY14
	Enterprise Revitalization and Employment Pilot (\$4.5 million Deauville Partnership Transition Fund)	Completed	January 2013
	Yemen Telecom Sector Reform (Transition Fund)		FY14
	Government-CSOs Partnership (\$1.5 m Transition Fund)	Completed	February 2013
	Conducting a new Household Budget Survey (MDTF)		September 2013
	Gender Challenges AAA	Completed	June 2013
	Water TA		FY14
	Stocktaking of Youth Issues AAA		FY14
IFC Business Edge Advisory Program (IFC)		FY13-14	

	Workforce Development Benchmarking AAA		FY14
	Customs Assessment TA		FY14
	Growth Study	September 2014	FY14
	IFC support for PPPs, MSME finance, and Corporate Governance (IFC)		FY14
<b>IMF work program in next 12 months</b>			
	Technical assistance on Enforcement Framework and FXR	March 2013	March 2013
	Technical assistance on National Accounts	February 2013	February 2013
	Technical assistance on tax and customs administration and tax policy		December 2013
	Technical assistance Needs Assessment	February 2013	February 2013
	The 2013 Article IV consultations mission	March 2013	April 2013
	Staff Visit – Review of macroeconomic development and discussions of the macroeconomic framework and main parameters of the 2014 budget.	October 2013	October 2013
<b>B. Request for work program inputs (as needed)</b>			
<b>Fund request to Bank</b>	DSA	March 2013	June 2013
	Reform of the Social Welfare Fund to make its targeting more effective, while strengthening its legal framework and bringing its operations in line with stated social objectives and fiscal possibilities.		
	Improving efficiency and governance in oil refineries, distributing and retail to help reduce the subsidy bill.		



Civil service reform to control the wage bill.

TA on the new hydrocarbon sector legislation, organization, advise on tender for exploration of reserves.

A study on the Accounting Subsidy and growth forecast.

**Bank request to Fund**

TA on tax revenue management.

Technical assistance on supervision.

**C. Agreement on joint products and missions (as needed)**

**Joint products in next 12 months**

DSA

March 2013

June 2013

## STATISTICAL ISSUES

1. Data remain broadly adequate to conduct surveillance. However, some weaknesses persist (including delays in reporting). A broad effort is in place to address shortcomings in most data with technical assistance from the Fund and other donors. In particular, national accounts data should be a priority for improvement.

2. The Republic of Yemen has participated in the General Data Dissemination System (GDDS) since April 26, 2001. While some progress has been made, considerable scope remains to improve the collection and dissemination of economic statistics, in line with Yemen's commitments under the GDDS.

3. The most reliable and timely data are those on the **monetary sector** produced by the Central Bank of Yemen (CBY). The CBY disseminates data on total official reserve assets and monetary statistics with a lag of one month. To strengthen monetary statistics further, a multisector mission in August 2000 recommended that: (a) repurchase agreements be treated as collateralized loans; (b) all nonstandard loans be reclassified as claims on the relevant sector; (c) counterparty for several monetary accounts be more accurately identified; and (d) a number of monetary accounts be disaggregated so as to present position on a single financial instrument. In June 2003, the authorities began reporting to STA a more disaggregated set of data that allowed for improved sectoral and instrument classification. Publication of the revised monetary statistics for December 1999 and onward, based on the more detailed data reporting, began in the August 2003 issue of *IFS*. In March 2007, with the availability of more detailed data, the definition of broad money was broadened to include the deposits of the pension funds, starting with data for December 1999. CBY does not yet report monetary data to STA using Standardized Report Forms (SRFs).

4. Although important progress has been achieved in terms of coverage, classification, and compilation methods of **national accounts** in accordance with the *System of National Accounts 1993 (1993 SNA)*, significant work remains to be done to improve quality of the data and the compilation methods. The Central Statistical Organization (CSO) has benefited from substantial TA in national accounts and price statistics provided by METAC and with the support of the IMF's Statistics Department (STA). A series of peripatetic missions have been conducted to date, with the most recent mission on national accounts conducted during December 2010. As a result of this support, the CSO has succeeded in (i) improving the GDP estimates at current and constant prices for the period 1999–2005; (ii) constructing the new GDP series for 2000–2008, which include GDP (public and private) by economic activities at current and constant prices, and expenditure components of GDP at current prices; (iii) partially solving fluctuations in the nominal GDP values as well as in the volume measures of GDP for select economic activities; and (iv) addressing various methodological issues including assumptions concerning the intermediate consumption in different activities. The assistance from United Nations Economic and Social Commission for West Asia (ESCWA) during 2007, 2008 and 2009, has resulted in a new National Accounts series, which the CSO has adopted and published on their website (June 2009).

5. However, the up STA mission noticed a number of weaknesses. Notably the non-observed economy, updating the frame and the sampling design for economic survey, using an improved set of deflators for calculating the GDP and GDP expenditure components at constant prices, conducting small surveys to update assumptions as in agriculture for estimating the inputs, and conducting a labor force survey since the last survey dates back to 1999. A follow up mission to help CSO address these weaknesses is planned for February 2013. Regarding **price statistics**, some improvements have been made in the compilation of the consumer price index and the production of foreign trade price indices. As part of *Middle East Technical Assistance Center (METAC)*'s work program a technical assistance (TA) mission on price statistics visited Sana'a during December 2–13, 2012 to assist the CSO in developing and compiling a Producer Price Index (PPI). With the assistance of STA, the CSO has constructed a CPI that is consistent with international standards, with weights derived from the 1998 Households Budget Survey (HBS). The Consumer Price Index (CPI) has a broad geographic coverage and a sufficient number of consumption items, although some deficiencies remain in data collection practices. STA real sector missions have recommended further improving the sources of data in general, expanding the price statistics to cover different areas, and enhancing training and internal coordination within the CSO. Staff of CSO is currently working on updating the weights of the CPI basket to reflect the results of the 2005 HBS, and are considering reducing the number of commodities in the basket from the current coverage of 900 goods in the basket. To address problems in the field, the CSO has introduced a new framework to ensure consistency in data collection according to the following criteria: timing, good specifications, and location.

6. **Fiscal** data reliability and timeliness are improving. Fiscal data are published in the quarterly *Bulletin of Government Finance Statistics (GFS Bulletin)* on the Ministry of Finance website ([www.mof.gov.ye](http://www.mof.gov.ye)), which provides annual, quarterly, and monthly data with significant lags and irregularity. The authorities have reported data for publication in the *Government Finance Statistics Yearbook* from 2000 onwards; the latest data are estimates for 1999. No sub-annual data are reported for publication in *International Financial Statistics*. The GFS mission that visited Sana'a in January 2004 found that, while data coverage and detail had improved, there were still numerous departures from international standards in classification and coverage. The mission encouraged the authorities to include additional information on financing and debt in the *GFS Bulletin*. The mission also recommended that the authorities expand their data dissemination by communicating the *GFS Bulletin*, or the relevant data, to the IMF Statistics Department for re-dissemination and for renewing the dialogue and remote technical assistance for developing their GFS. The August-September 2007 Multisector Statistics mission found that many of the previously identified weakness data compilation and timeliness remained. The concepts and definitions used to compile GFS are in transition from GFS 1986 to GFSM 2001, and the authorities' *GFS Bulletin* reports fiscal data using a mixture of both.

7. The CBY is responsible for compiling and disseminating **balance of payments** statistics, and more recently, the international investment position (IIP) statistics based on the IMF's *Balance of Payments Manual, fifth edition*. Compilation tasks are performed on a rather ad hoc basis, mostly relying on survey-based questionnaires with a response rate that is generally poor. The quality of

the questionnaires themselves is also weak due to the limited expertise and experience in developing such material. Further compounding the weak quality of the statistics are inadequacies in documented sources and methods, and the limited financial and material resources dedicated to balance of payments compilation. The CBY publishes quarterly external debt statistics within one quarter of the reference period for the banking sector, general government, and monetary authority. Successive STA balance of payments statistics missions (2002, 2003, and 2005) have sought to facilitate implementation of the action plan recommended by the IMF's resident advisor on balance of payments statistics (1998–2000), with only limited success. Coverage of the oil and gas industry transactions remains weak. Data questionnaires on Foreign Direct Investment (FDI) and selected items in services have either been discontinued or not followed up. The shortage of qualified staff dedicated to the compilation as well as weak coordination between the CBY and other government agencies (such as the customs authority, the CSO, and the ministry of oil and mining resources) are partly responsible for the slow progress. STA missions have consistently called for better coordination between the CBY and other government agencies for timely and effective data collection and compilation, improved staffing and training, and the reinstatement of discontinued surveys. A balance of payments mission in September 2005 found that the CBY had made some progress on increasing manpower and equipment in the balance of payments division, as well as training through the Arab Monetary Fund (AMF). The mission also focused on the present method of estimating inward worker's remittances. Yemen has submitted quarterly balance of payments data to STA until end-2006, although the latest data published in the *IFS* and *Balance of Payments Statistics Yearbook (BOPSY)* relate to end-2005. Quarterly IIP data has also been supplied to STA for 2003 and 2004.

**Table of Common Indicators Required for Surveillance  
(As of June 3, 2013)**

	Date of Latest Observation	Date Received	Frequency of Data 6/	Frequency of Reporting 6/	Frequency of Publication 6/
Exchange rates	Jun 2013	Jun 2013	D	D	D
International reserve assets and reserve liabilities of the monetary authorities 1/	Jun 2013	Jun 2013	W	W	Q
Reserve/base money	Apr 2013	Jun 2013	M	M	M
Broad money	Apr 2013	Jun 2013	M	M	M
Central bank balance sheet	Apr 2013	Jun 2013	M	M	M
Consolidated balance sheet of the banking system	Apr 2013	Jun 2013	M	M	M
Interest rates 2/	Feb 2013	Feb 2013	M	M	M
Consumer price index	April 2013	May 2013	M	M	M
Revenue, expenditure, balance and composition of financing 3/—general government 4/	Dec 2012	Feb 2013	M	I	Q
Revenue, expenditure, balance and composition of financing 3/—central government	Dec 2012	Feb 2013	M	I	Q
Stocks of central government and central government-guaranteed debt 5/	Dec 2012	Feb 2013	M	M	M
External current account balance	Dec 2012	Feb 2013	A	A	A
Exports and imports of goods and services	Dec 2012	Feb 2013	A	A	A
GDP/GNP	2012	Jan 2013	A	A	A
Gross external debt	2012	Feb 2013	Q	Q	Q
International Investment Position	2010	2010	Q	A	A

1/ Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.

2/ Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

3/ Foreign, domestic bank, and domestic nonbank financing.

4/ The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

5/ Including currency and maturity composition.

6/ Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A), Irregular (I); Not Available (NA).



# REPUBLIC OF YEMEN

## STAFF REPORT FOR THE 2013 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

July 2, 2013

Approved By  
**Daniela Gressani and  
David Marston (IMF) and  
Manuela V. Ferro and  
Jeffrey D. Lewis (IDA)**

Prepared by the Staffs of the International Monetary Fund  
and the International Development Association.

*Based on the updated Debt Sustainability Analysis (DSA) reflecting the most recent information, Yemen's risk of debt distress is upgraded from "high" to "moderate." The improved debt outlook reflects updated projections of hydrocarbon exports in view of the low depletion rates of recent years and official proven reserves figures, which are consistent with data published by well established sources.<sup>1</sup> All the relevant debt indicators are below the policy-dependent thresholds in the baseline scenario. One indicator, however, breaches the threshold in the stress scenario. Specifically, Yemen remains vulnerable to less favorable borrowing terms and to an abrupt decrease in exports, possibly associated with a sharp decrease in oil prices.*

---

<sup>1</sup> This DSA updates the previous DSA prepared for the staff report for request for RCF (EBS/12/37), Supplement 1).

## BACKGROUND

1. **Yemen's public external debt-to-GDP is at a relatively low level of 17.9 percent of GDP as of end-2012.** The external borrowing by the private sector is currently negligible, and the debt sustainability analysis mainly includes public debt. The stock of public external debt is moderate partly due to Yemen's limited access to non-concessional borrowing.
2. **Yemen's external debt is owed mostly to official creditors and the stock of debt is mostly concessional.** Of the total external debt of \$6.2 billion, half is owed to multilateral creditors.<sup>2</sup> The other half is owed to bilateral creditors, with the largest creditors being Russia (\$1.2 billion), Saudi Arabia (\$0.4 billion), Japan (\$0.3 billion), and Kuwait (\$0.2 billion). Regional donors have played an important role in providing assistance in 2012.
3. **In August 2012, the Friends of Yemen pledged around \$8 billion dollars in aid for the period 2012-2014.** These figures do not include the exceptional \$2 billion grant provided in 2012 by Saudi Arabia in support of the budget. Of the Friends of Yemen pledges, the amount committed thus far—i.e., already allocated by donors to specific projects—is \$6 billion, and the amount disbursed so far is about \$1.8 billion (including the \$1 billion Saudi deposit at the central bank). However, most of these pledges are for project financing which are not part of the government budget.
4. **Yemen has borrowed more recently on some non-concessional terms from the Arab Monetary Fund to address imminent budget financing needs.** Total borrowing from the AMF has risen from around \$99 million at end 2010 to about \$260 million, and an additional \$100 million loan was signed and disbursed in 2013. Other regional organizations, including the Arab Fund for Economic and Social Development and Islamic Development Bank, have also stepped up their efforts soon after the GCC-brokered deal was agreed and the interim government established in December 2011. Given that the total amount of loans is relatively small compared to GDP and that they carry a high grant element, these loans would not affect debt sustainability.
5. **This DSA updates the 2011 DSA (EBS/12/37—Supp. 1; 3/22/12).** It incorporates more recent macroeconomic data including new data on oil and gas exports, actual debt data, and recent WEO projections of key economic variables, including international oil and gas prices. In addition, the assumption that oil exports will stop suddenly within several years has been replaced by the assumption that they decline steadily at a rate of about 3 percent a year.
6. **The Yemeni authorities' agreed with the staff's assessment.** The staff however cautioned against the downside risks, especially in view of the projected decline, albeit gradual, in oil revenues and the risk of a deterioration in the fiscal and external accounts, in case of slippages in the policy stance, in addition to the high vulnerability to adverse economic developments highlighted by the stress tests.

<sup>2</sup> Excluding the Saudi deposit at the CBY of \$1 billion.

## MACROECONOMIC ASSUMPTIONS

7. The baseline macroeconomic framework underlying the DSA is broadly the same as the previous one, except for oil production and exports as explained above. Detailed assumptions are discussed below (Box 1).

### Box 1. Assumptions for the Macroeconomic Framework

**Growth:** In the medium term (2013–18), real GDP growth averages about 4.1 percent, which is slightly lower than the 10-year historical average before the political turmoil (4.3 percent), reflecting the recent political settlement, increased international assistance, restoration of activities, and revitalization of idle production capacity. It converges to average 4.5 percent over the long term (2019–33). Given the gradually declining oil production, non-hydrocarbon growth is essential and requires increased credit to the private sector. The recent cuts in the policy interest rate were a good move and further cuts in interest rates are envisaged as inflation and exchange rates stabilize. The interim government would gradually conduct structural reforms to improve the investment environment, including security conditions, and attract sizeable donor-funded public investment. Revitalization of the domestic debt market, including further issuance of Sukuk, and reprioritization of expenditures should support infrastructure investment, boosting non-hydrocarbon growth. The assumptions that non-hydrocarbon growth rates average 4.4 percent in the medium term (2013–18) and 4.7 percent in the long term, are basically in line with the historical experience: the sector grew at an average rate of 4.9 percent during 2001–10 before the political crisis.

**Hydrocarbon Sector:** One of the key changes in the assumptions is that oil production continues towards the end of the projection period rather than being depleted in 2022, in line with the revised authorities' projections. The above revision is also consistent with the assessment of credible independent sources (e.g. British Petroleum Oil Statistics, Oil & Gas Journal, and Economic Intelligence Unit), which put Yemen's proven oil reserves at about 3 billion barrels. Assuming a recovery in oil production over the medium-term, and subsequent declines of three percent per year over the long-term, Yemen would use only about half of the proven reserves by 2033. Yemen has a large potential in the LNG sector too. This DSA assumes no increase in LNG over the medium-term and a gradual average annual increase of 5 percent from 2019 onwards.

**Inflation:** Inflation stays relatively high but remains at the single digit in the medium term, due to continued fiscal pressure and recovery of economic activities. It moderates afterwards to an average of 6.8 percent in the long term assuming stable international food and fuel prices and that the central bank refrains from financing the government budget and continues to stabilize the real exchange rate.

**Public finance:** After experiencing a relatively large fiscal deficit of around 5.8 percent of GDP in 2013, fiscal adjustment continues over the projection period. An increase in non oil revenues, through recently introduced General Sales Tax and strengthening of tax and customs administration, partly offsets a gradual decrease in oil revenues. Total revenues (excluding grants) over GDP ratio hovers around 20 percent. On the expenditure side, expenditure restraints, including moderate efforts to control the public wage bill and fuel subsidies. These expenditure controls are broadly in line with projected real GDP growth, which would allow overall expenditures to decline from 33.0 percent in 2013 to 22.1 percent in 2033. As a result, the overall fiscal deficit over GDP gradually declines to around 2.2 percent in 2033.



**External sector:** Exports are expected to decrease in the medium term reflecting declining oil productions. However, a gradual increase in non-oil exports and, more importantly, in LNG exports is to offset a decrease in oil exports in the long run. Non-hydrocarbon exports growth would be around 5.9 percent in the medium term after a large decline during the crisis, and then stabilize at around 6.0 percent in the long run. Import growth is modest at average 2.8 percent over the projection period, reflecting moderate fiscal adjustment and imports substitution. The current account deficit would gradually increase to over 3.6 percent of GDP in the medium term but slowly worsen over the projection period. Official creditors, broadly consistent with commitments made in the Friend of Yemen meeting, are expected to resume providing financing on favorable terms, mainly in the form of grants. Improved security conditions and business environment would attract more foreign direct investment and allow for more commercial borrowing.

## DEBT SUSTAINABILITY ANALYSIS

### A. External DSA

#### Baseline

**8. Under the baseline scenario all debt indicators are below the policy-dependent thresholds over the projection period.** However, the PV of debt-to-exports ratio is the only indicator that rises close to the threshold over the long term, but does not at any time exceed it through the end of the projection in 2033.

#### Stress tests and alternative scenarios

**9. Under the alternative scenarios and stress tests, all indicators remain below the policy-dependent thresholds with one exception.** The PV of debt-to-export ratio under the most extreme shock quickly rises above the threshold of 100 percent starting in 2015, and peaking in 2023 at 180 percent (B2). This highlights Yemen's high dependence on oil exports for its long term external sustainability. However, the vulnerability to such a shock is expected to decline over the long term as the share of non-oil exports pick up.

### B. Public DSA

**10. Yemen's nominal debt-to-GDP ratio would exceed the 50 percent mark in 2015 and remains above it through 2020.** This debt-to-GDP ratio would peak in 2018 at 58 percent and declines through the remainder of the projection period, reaching about 32.5 percent in 2033.

**11. The alternative scenarios highlight the importance for Yemen to embark on a fiscal consolidation path.** The PV of public debt to GDP is vulnerable to growth shocks (A3) (B1).

## CONCLUSION

**12. Based on the updated macroeconomic assumptions and ongoing reforms, Yemen's risk of debt distress is upgraded to "medium" from "high."** This reflects in particular the revised assumption on oil output beyond 2022.

**Table 1a. Yemen, Republic of: Public Sector Debt Sustainability Framework, Baseline Scenario, 2010–2033**

(In percent of GDP, unless otherwise indicated)

	Actual			Average <sup>5/</sup>	Standard Deviation <sup>5/</sup>	Estimate					Projections			2019-33 Average
	2010	2011	2012			2013	2014	2015	2016	2017	2018	2013-18 Average	2023	
<b>Public sector debt 1/</b>	42.2	45.2	47.8			48.1	50.2	51.8	53.6	54.8	57.9		46.5	32.5
<i>of which: foreign-currency denominated</i>	19.3	18.3	17.9			16.7	17.0	17.6	18.5	19.2	19.9		19.2	14.5
Change in public sector debt	-7.7	3.0	2.6			0.3	2.1	1.6	1.8	1.2	3.1		-2.1	-0.6
Identified debt-creating flows	-8.0	2.8	3.5			-0.7	1.9	1.4	1.6	0.9	2.7		-2.2	-0.5
Primary deficit	1.6	0.2	0.9	1.6	3.4	1.2	1.5	1.4	1.5	1.3	2.8	1.6	-0.7	0.6
Revenue and grants	26.0	25.0	29.9			27.2	26.9	25.9	24.8	24.7	23.4		21.5	19.8
<i>of which: grants</i>	1.2	1.2	6.1			1.2	1.5	1.5	1.6	1.7	1.6		1.2	0.6
Primary (noninterest) expenditure	27.7	25.2	30.8			28.4	28.4	27.3	26.3	26.0	26.2		20.8	20.4
Automatic debt dynamics	-9.6	2.7	2.6			-1.8	0.4	0.0	0.1	-0.4	0.0		-1.5	-1.1
Contribution from interest rate/growth differential	-6.1	5.7	2.9			-1.1	-0.1	-0.3	-0.3	-0.6	-0.4		-1.6	-1.1
<i>of which: contribution from average real interest rate</i>	-2.6	-0.4	3.9			1.6	1.5	1.6	1.6	1.4	1.6		0.4	0.3
<i>of which: contribution from real GDP growth</i>	-3.6	6.1	-1.1			-2.7	-1.6	-1.9	-1.9	-1.9	-1.9		-2.1	-1.4
Contribution from real exchange rate depreciation	-3.5	-3.1	-0.3			-0.8	0.5	0.3	0.4	0.2	0.3		...	...
Other identified debt-creating flows	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Residual, including asset changes	0.3	0.1	-0.9			1.0	0.1	0.2	0.2	0.3	0.3		0.0	-0.1
<b>Other Sustainability Indicators</b>														
<b>PV of public sector debt</b>	...	...	44.0			44.6	46.6	48.1	49.7	50.7	53.7		43.3	30.3
<i>of which: foreign-currency denominated</i>	...	...	14.1			13.1	13.4	13.8	14.6	15.1	15.7		16.0	12.4
<i>of which: external</i>	...	...	14.1			13.1	13.4	13.8	14.6	15.1	15.7		16.0	12.4
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	4.6	5.0	6.9			6.3	6.4	6.5	6.4	5.9	7.0		2.5	2.8
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	147.1			163.8	172.9	185.9	200.1	205.6	229.6		201.7	153.0
PV of public sector debt-to-revenue ratio (in percent)	...	...	185.0			171.2	182.8	197.6	213.8	220.6	246.7		213.6	157.4
<i>of which: external 3/</i>	...	...	59.2			50.4	52.6	56.8	62.7	65.8	72.2		78.8	64.3
Debt service-to-revenue and grants ratio (in percent) 4/	11.5	19.3	20.1			18.9	18.4	19.4	19.8	18.6	18.2		14.6	11.0
Debt service-to-revenue ratio (in percent) 4/	12.0	20.3	25.3			19.8	19.5	20.7	21.1	20.0	19.6		15.4	11.3
Primary deficit that stabilizes the debt-to-GDP ratio	9.3	-2.8	-1.7			0.8	-0.6	-0.2	-0.3	0.1	-0.3		1.5	1.1
<b>Key macroeconomic and fiscal assumptions</b>														
Nominal GDP (local currency)	6816.7	7083.1	7588.5			8870.1	9985.3	11249.9	12548.9	13966.8	15242.5		25867.7	75949.7
Real GDP growth (in percent)	7.7	-12.7	2.4	2.5	5.5	6.0	3.4	3.9	3.8	4.0	3.7		4.1	4.4
Average nominal interest rate on public debt (in percent)	6.4	10.4	13.0	8.9	6.5	11.3	10.1	9.9	9.1	8.3	7.3		9.3	5.7
Average nominal interest rate on forex debt (in percent)	1.2	0.9	1.3	1.2	0.2	1.6	1.4	1.4	1.4	1.5	1.4		1.4	0.7
Average nominal interest rate on domestic debt (in percent)	11.5	18.4	20.9	17.7	3.1	17.0	14.7	14.2	12.9	11.9	10.5		13.5	9.0
Average real interest rate (in percent)	-5.6	-0.8	8.9	1.9	5.6	3.6	3.2	3.3	3.1	2.7	3.0		3.2	0.9
Average real interest rate on foreign-currency debt (in percent)	-1.9	-2.1	-2.0	-2.3	0.6	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1		-2.1	-2.1
Average real interest rate on domestic debt (in percent)	-10.2	-0.5	15.6	6.1	11.7	6.1	5.3	5.3	5.1	4.5	5.0		5.2	2.4
Exchange rate (LC per US dollar)	213.8	213.8	215.9	201.4	11.3	222.4	244.7	264.1	285.2	302.2	317.3		272.6	404.9
Nominal depreciation of local currency (percentage change in LC per dollar)	3.1	0.0	1.0	1.9	1.7	3.0	10.0	7.9	8.0	6.0	5.0		6.6	5.0
Exchange rate (US dollar per LC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Nominal appreciation (increase in US dollar value of local currency, in percent)	-3.0	0.0	-1.0	-1.9	1.6	-2.9	-9.1	-7.4	-7.4	-5.6	-4.8		-6.2	-4.8
Real exchange rate depreciation (in percent, + indicates depreciation)	-15.3	-14.2	-1.4	-6.5	10.9	-4.6	...	...	...	...	...		...	...
Inflation rate (GDP deflator, in percent)	24.2	19.0	4.6	12.0	11.2	10.3	8.9	8.4	7.5	7.0	5.3		7.9	6.4
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.1	-0.2	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.1
Grant element of new external borrowing (in percent)	...	...	...	...	...	22.1	21.9	21.8	21.8	21.8	20.4		21.6	20.4

Sources: Country authorities; and staff estimates and projections.

1/ Indicate coverage of public sector, e.g. general government or nonfinancial public sector. Also whether net or gross debt is used.]

2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

3/ Revenues excluding grants.

4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

**Table 2a. Yemen, Republic of: Sensitivity Analysis for Key Indicators of Public Debt 2013–2033**  
(In percent)

	Projections							
	2013	2014	2015	2016	2017	2018	2023	2033
<b>PV of Debt-to-GDP Ratio</b>								
<b>Baseline</b>	45	47	48	50	51	54	43	30
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	45	47	50	52	54	57	62	70
A2. Primary balance is unchanged from 2013	45	46	48	49	50	51	50	46
A3. Permanently lower GDP growth 1/	45	47	50	53	56	61	62	85
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-2015	45	51	60	65	69	75	75	78
B2. Primary balance is at historical average minus one standard deviations in 2014-2015	45	50	55	56	57	60	49	35
B3. Combination of B1-B2 using one half standard deviation shocks	45	50	55	59	62	67	62	58
B4. One-time 30 percent real depreciation in 2014	45	53	54	56	57	59	49	37
B5. 10 percent of GDP increase in other debt-creating flows in 2014	45	56	58	59	60	63	51	36
<b>PV of Debt-to-Revenue Ratio 2/</b>								
<b>Baseline</b>	164	173	186	200	206	230	202	153
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	164	175	191	208	218	240	287	349
A2. Primary balance is unchanged from 2013	164	172	184	197	202	219	233	233
A3. Permanently lower GDP growth 1/	164	176	193	213	226	259	286	425
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-2015	164	190	230	259	277	319	347	393
B2. Primary balance is at historical average minus one standard deviations in 2014-2015	164	186	212	227	232	257	228	175
B3. Combination of B1-B2 using one half standard deviation shocks	164	185	213	236	249	283	286	290
B4. One-time 30 percent real depreciation in 2014	164	197	210	224	229	254	229	188
B5. 10 percent of GDP increase in other debt-creating flows in 2014	164	208	222	237	242	268	238	183
<b>Debt Service-to-Revenue Ratio 2/</b>								
<b>Baseline</b>	19	18	19	20	19	18	15	11
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	19	19	20	21	20	20	34	51
A2. Primary balance is unchanged from 2013	19	18	19	19	18	16	25	33
A3. Permanently lower GDP growth 1/	19	19	20	21	22	23	33	75
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-2015	19	20	23	28	33	37	50	67
B2. Primary balance is at historical average minus one standard deviations in 2014-2015	19	18	21	30	31	28	21	15
B3. Combination of B1-B2 using one half standard deviation shocks	19	19	22	27	27	30	35	43
B4. One-time 30 percent real depreciation in 2014	19	19	21	22	22	22	21	20
B5. 10 percent of GDP increase in other debt-creating flows in 2014	19	18	23	46	26	37	22	17

Sources: Country authorities; and staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.

**Table 3a. External Debt Sustainability Framework, Baseline Scenario, 2010–2033 1/**  
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average	Standard Deviation	Projections						2013-2018			2019-2033	
	2010	2011	2012			2013	2014	2015	2016	2017	2018	Average	2023	2033	Average	
<b>External debt (nominal) 1/</b>	<b>21.1</b>	<b>20.4</b>	<b>20.3</b>			<b>19.2</b>	<b>20.2</b>	<b>21.6</b>	<b>23.3</b>	<b>24.6</b>	<b>26.2</b>				<b>27.9</b>	<b>22.5</b>
<i>of which: public and publicly guaranteed (PPG)</i>	19.3	18.3	17.9			16.7	17.0	17.6	18.5	19.2	19.9				19.2	14.5
Change in external debt	-5.0	-0.7	-0.1			-1.1	1.0	1.3	1.7	1.4	1.6				0.1	-0.9
Identified net debt-creating flows	0.8	5.8	-1.3			3.6	4.5	4.5	3.9	3.3	2.6				3.4	0.4
<b>Non-interest current account deficit</b>	<b>3.5</b>	<b>3.9</b>	<b>0.7</b>	<b>2.9</b>	<b>4.6</b>	<b>2.4</b>	<b>3.2</b>	<b>3.4</b>	<b>3.9</b>	<b>3.4</b>	<b>3.0</b>				<b>4.4</b>	<b>1.1</b>
Deficit in balance of goods and services	5.0	2.9	8.8			4.5	4.4	5.1	5.9	6.0	4.9				5.6	2.7
Exports	29.8	29.9	26.5			26.4	25.9	24.9	23.7	23.9	23.3				18.7	16.1
Imports	34.9	32.8	35.3			30.9	30.3	30.0	29.6	29.9	28.1				24.2	18.8
Net current transfers (negative = inflow)	-6.8	-6.4	-12.4	-7.7	2.0	-6.8	-6.7	-6.8	-6.8	-7.0	-7.0				-6.2	-5.6
<i>of which: official</i>	-2.1	-2.3	-6.2			-1.9	-1.8	-1.9	-2.0	-2.1	-2.0				-1.5	-0.6
Other current account flows (negative = net inflow)	5.3	7.5	4.2			4.7	5.5	5.2	4.8	4.4	5.1				5.1	4.0
<b>Net FDI (negative = inflow)</b>	<b>2.1</b>	<b>3.0</b>	<b>-1.0</b>	<b>-0.8</b>	<b>3.4</b>	<b>2.0</b>	<b>1.7</b>	<b>1.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.1</b>				<b>-0.3</b>	<b>-0.3</b>
<b>Endogenous debt dynamics 2/</b>	<b>-4.7</b>	<b>-1.2</b>	<b>-1.1</b>			<b>-0.8</b>	<b>-0.4</b>	<b>-0.5</b>	<b>-0.4</b>	<b>-0.4</b>	<b>-0.4</b>				<b>-0.7</b>	<b>-0.4</b>
Contribution from nominal interest rate	0.2	0.2	0.2			0.3	0.2	0.3	0.4	0.5	0.5				0.5	0.5
Contribution from real GDP growth	-1.6	2.5	-0.5			-1.1	-0.6	-0.8	-0.8	-0.9	-0.9				-1.2	-1.0
Contribution from price and exchange rate changes	-3.3	-3.8	-0.8			...	...	...	...	...	...				...	...
<b>Residual (3-4) 3/</b>	<b>-5.8</b>	<b>-6.6</b>	<b>1.2</b>			<b>-4.7</b>	<b>-3.4</b>	<b>-3.1</b>	<b>-2.2</b>	<b>-1.9</b>	<b>-1.1</b>				<b>-3.3</b>	<b>-1.3</b>
<i>of which: exceptional financing</i>	-0.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0
PV of external debt 4/	...	...	16.5			15.6	16.6	17.8	19.3	20.5	22.0				24.7	20.3
In percent of exports	...	...	62.3			59.2	64.2	71.6	81.5	85.8	94.8				132.4	125.9
<b>PV of PPG external debt</b>	<b>...</b>	<b>...</b>	<b>14.1</b>			<b>13.1</b>	<b>13.4</b>	<b>13.8</b>	<b>14.6</b>	<b>15.1</b>	<b>15.7</b>				<b>16.0</b>	<b>12.4</b>
In percent of exports	...	...	53.2			49.7	51.8	55.6	61.5	63.3	67.6				85.6	76.7
In percent of government revenues	...	...	59.2			50.4	52.6	56.8	62.7	65.8	72.2				78.8	64.3
<b>Debt service-to-exports ratio (in percent)</b>	<b>2.8</b>	<b>2.6</b>	<b>3.0</b>			<b>3.0</b>	<b>3.4</b>	<b>3.7</b>	<b>4.4</b>	<b>4.4</b>	<b>4.6</b>				<b>5.9</b>	<b>6.5</b>
<b>PPG debt service-to-exports ratio (in percent)</b>	<b>2.8</b>	<b>2.6</b>	<b>2.9</b>			<b>3.0</b>	<b>3.3</b>	<b>3.4</b>	<b>3.9</b>	<b>3.5</b>	<b>3.6</b>				<b>4.1</b>	<b>4.6</b>
<b>PPG debt service-to-revenue ratio (in percent)</b>	<b>3.3</b>	<b>3.3</b>	<b>3.2</b>			<b>3.0</b>	<b>3.4</b>	<b>3.5</b>	<b>4.0</b>	<b>3.7</b>	<b>3.9</b>				<b>3.8</b>	<b>3.8</b>
Total gross financing need (Billions of U.S. dollars)	2.0	2.6	0.2			2.1	2.5	2.6	2.5	2.2	2.0				3.4	2.3
Non-interest current account deficit that stabilizes debt ratio	8.5	4.7	0.8			3.6	2.1	2.1	2.2	2.0	1.4				4.3	2.0
<b>Key macroeconomic assumptions</b>																
Real GDP growth (in percent)	7.7	-12.7	2.4	2.5	5.5	6.0	3.4	3.9	3.8	4.0	3.7	4.1	4.4	4.5	4.5	
GDP deflator in US dollar terms (change in percent)	14.7	22.3	4.3	10.2	10.9	7.9	2.2	-0.4	-0.4	0.1	-0.2	1.5	1.4	1.6	1.4	
Effective interest rate (percent) 5/	1.2	0.9	1.2	1.2	0.3	1.4	1.4	1.5	1.7	2.1	2.1	1.7	1.8	2.5	2.2	
Growth of exports of G&S (US dollar terms, in percent)	30.6	7.0	-5.5	6.6	21.7	14.2	3.5	-0.5	-1.6	5.1	0.5	3.5	4.4	4.1	3.5	
Growth of imports of G&S (US dollar terms, in percent)	8.2	0.3	15.0	12.0	15.3	0.3	3.3	2.5	2.1	5.1	-2.6	1.8	3.5	3.3	3.2	
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	22.1	21.9	21.8	21.8	21.8	20.4	21.6	20.4	20.4	20.4	
Government revenues (excluding grants, in percent of GDP)	24.8	23.8	23.8			26.0	25.5	24.4	23.2	23.0	21.8				20.3	19.3
Aid flows (in Billions of US dollars) 7/	0.7	0.5	2.5			0.6	0.8	0.9	1.0	1.1	0.8				0.8	0.7
<i>of which: Grants</i>	0.4	0.4	2.2			0.5	0.6	0.7	0.7	0.8	0.8				0.8	0.7
<i>of which: Concessional loans</i>	0.3	0.1	0.3			0.2	0.1	0.2	0.3	0.3	0.0				0.0	0.0
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			1.5	1.8	1.9	2.1	2.1	2.0				1.5	0.7
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			56.9	62.9	57.3	54.9	56.3	56.8				56.3	52.8
<b>Memorandum items:</b>																
Nominal GDP (Billions of US dollars)	31.0	33.1	35.4			40.5	42.8	44.2	45.7	47.6	49.2				65.4	118.0
Nominal dollar GDP growth	23.5	6.7	6.8			14.4	5.6	3.4	3.3	4.1	3.5	5.7	5.8	6.2	6.0	
PV of PPG external debt (in Billions of US dollars)	...	...	4.9			5.2	5.5	5.9	6.4	7.0	7.6				10.2	14.3
(PVt-PVt-1)/GDPt-1 (in percent)	...	...	...			0.8	0.6	1.0	1.2	1.3	1.2	1.0	0.9	0.3	0.7	
Gross workers' remittances (Billions of US dollars)	1.6	1.4	2.3			2.1	2.1	2.3	2.3	2.5	2.6				3.3	6.2
PV of PPG external debt (in percent of GDP + remittances)	...	...	13.2			12.5	12.8	13.2	13.9	14.4	14.9				15.2	11.8
PV of PPG external debt (in percent of exports + remittances)	...	...	42.9			41.7	43.4	46.1	50.7	52.0	55.3				67.5	57.8
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.4			2.5	2.8	2.8	3.3	2.9	3.0				3.2	3.4

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as  $[r - g - \rho(1+g)] / (1+g+\rho+g)$  times previous period debt ratio, with  $r$  = nominal interest rate;  $g$  = real GDP growth rate, and  $\rho$  = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Assumes that PV of private sector debt is equivalent to its face value.

5/ Current-year interest payments divided by previous period debt stock.

6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

7/ Defined as grants, concessional loans, and debt relief.

8/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

**Table 3b. Yemen, Republic of: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2013–2033**

(In percent)

	Projections							2033
	2013	2014	2015	2016	2017	2018	2023	
<b>PV of debt-to GDP ratio</b>								
<b>Baseline</b>	13	13	14	15	15	16	<b>16</b>	12
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2013-2033 1/	13	10	7	6	5	5	<b>-1</b>	2
A2. New public sector loans on less favorable terms in 2013-2033 2	13	13	14	16	17	18	<b>20</b>	18
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	13	14	15	16	17	17	<b>18</b>	14
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	13	17	23	24	24	25	<b>24</b>	15
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	13	13	14	14	15	16	<b>16</b>	12
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	13	14	17	17	18	18	<b>18</b>	13
B5. Combination of B1-B4 using one-half standard deviation shocks	13	14	16	17	17	18	<b>18</b>	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	13	18	19	20	21	22	<b>22</b>	17
<b>PV of debt-to-exports ratio</b>								
<b>Baseline</b>	50	52	56	61	63	68	<b>86</b>	77
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2013-2033 1/	50	38	29	24	21	20	<b>-4</b>	14
A2. New public sector loans on less favorable terms in 2013-2033 2	50	51	57	66	70	77	<b>108</b>	113
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	50	49	53	59	61	66	<b>83</b>	74
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	50	78	132	142	144	152	<b>180</b>	131
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	50	49	53	59	61	66	<b>83</b>	74
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	50	55	67	73	75	79	<b>98</b>	80
B5. Combination of B1-B4 using one-half standard deviation shocks	50	57	72	79	81	87	<b>107</b>	89
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	50	49	53	59	61	66	<b>83</b>	74
<b>PV of debt-to-revenue ratio</b>								
<b>Baseline</b>	50	53	57	63	66	72	<b>79</b>	64
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2013-2033 1/	50	39	30	25	22	22	<b>-4</b>	12
A2. New public sector loans on less favorable terms in 2013-2033 2	50	52	58	67	73	83	<b>99</b>	95
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	50	54	62	69	73	80	<b>88</b>	71
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	50	65	94	102	105	114	<b>116</b>	77
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	50	52	56	62	66	72	<b>79</b>	64
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	50	56	68	74	78	85	<b>90</b>	67
B5. Combination of B1-B4 using one-half standard deviation shocks	50	54	66	72	75	82	<b>88</b>	66
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	50	71	77	85	90	100	<b>108</b>	88

**Table 3b. Yemen, Republic of: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2013-2033 (continued)**  
(In percent)

<b>Debt service-to-exports ratio</b>									
<b>Baseline</b>	3	3	3	4	4	4	4	5	
<b>A. Alternative Scenarios</b>									
A1. Key variables at their historical averages in 2013-2033 1/	3	3	3	3	2	2	1	0	
A2. New public sector loans on less favorable terms in 2013-2033 2	3	3	3	4	4	4	5	7	
<b>B. Bound Tests</b>									
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	3	3	3	4	4	4	4	5	
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	3	4	5	7	6	6	7	10	
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	3	3	3	4	4	4	4	5	
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	3	3	4	4	4	4	4	5	
B5. Combination of B1-B4 using one-half standard deviation shocks	3	4	4	5	4	4	5	6	
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	3	3	3	4	4	4	4	5	
<b>Debt service-to-revenue ratio</b>									
<b>Baseline</b>	3	3	4	4	4	4	4	4	
<b>A. Alternative Scenarios</b>									
A1. Key variables at their historical averages in 2013-2033 1/	3	3	3	3	2	2	1	0	
A2. New public sector loans on less favorable terms in 2013-2033 2	3	3	3	4	4	4	5	6	
<b>B. Bound Tests</b>									
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	3	4	4	5	4	4	4	4	
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	3	3	4	5	4	5	4	6	
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	3	3	4	4	4	4	4	4	
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	3	3	4	4	4	4	4	4	
B5. Combination of B1-B4 using one-half standard deviation shocks	3	3	4	4	4	4	4	4	
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	3	5	5	6	5	5	5	5	
<i>Memorandum item:</i>									
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	19	19	19	19	19	19	19	19	

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same as in the baseline.

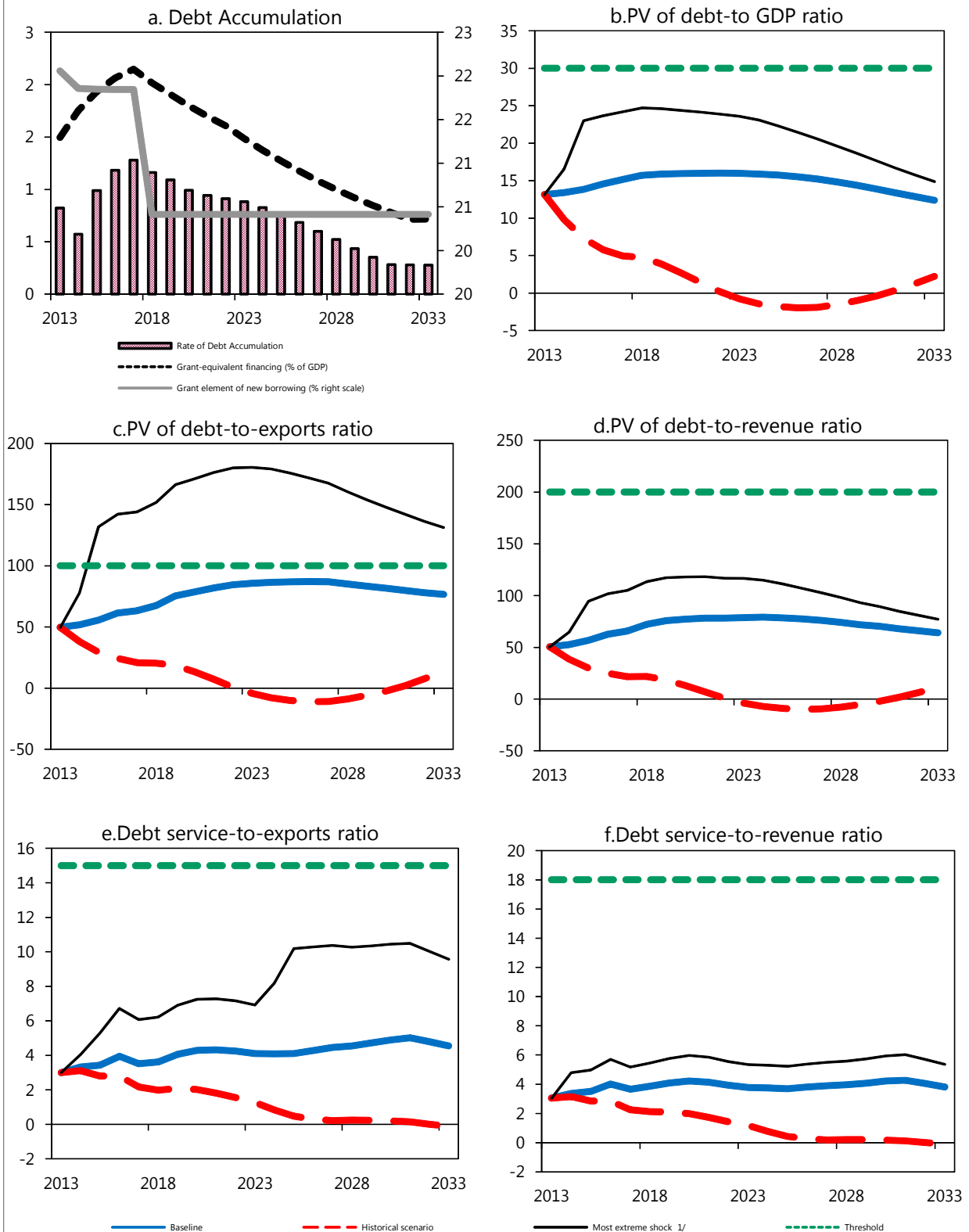
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

**Figure 1. Yemen, Republic of: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios. 2013-2033 1/**

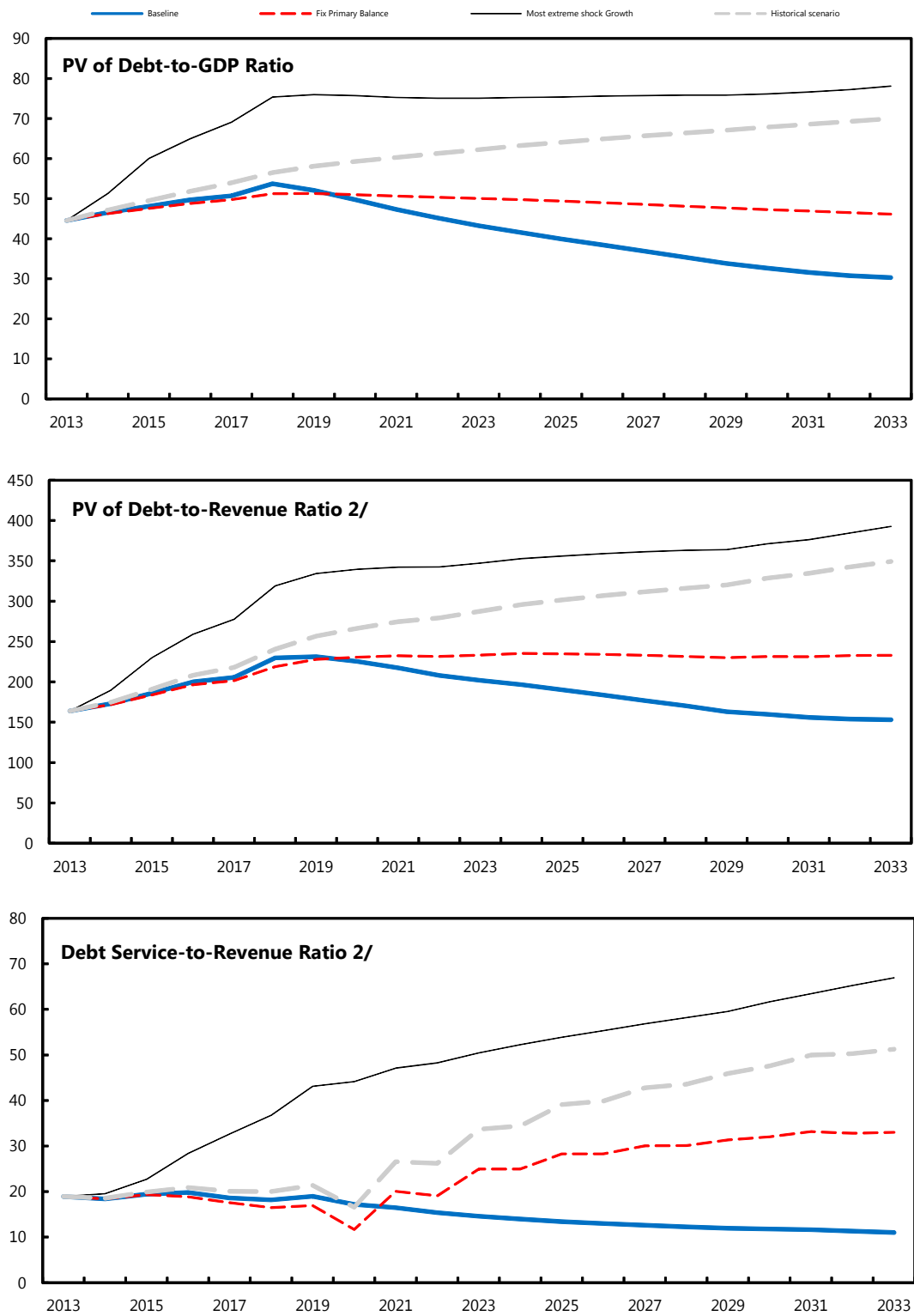


Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2033. In figure b. it corresponds to a Exports shock; in c. to a Exports shock; in d. to a Exports shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock



**Figure 2. Yemen, Republic of: Indicators of Public Debt Under Alternative Scenarios, 2013-2033 1/**



Sources: Country authorities; and staff estimates and projections.  
 1/ The most extreme stress test is the test that yields the highest ratio in 2033.  
 2/ Revenues are defined inclusive of grants.



Press Release No. 13/291  
FOR IMMEDIATE RELEASE  
July 31, 2013

International Monetary Fund  
Washington, D.C. 20431 USA

### **The IMF Concluded 2013 Article IV Consultation with the Republic of Yemen**

On July 19, 2013, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with [Yemen](#).<sup>1</sup>

**The macroeconomic situation stabilized in 2012 but the recovery remains fragile.** After contracting by more than 12 percent in 2011, real GDP is estimated to have grown by 2.4 percent in 2012, reflecting an easing of supply bottlenecks and utilization of part of idle capacity. On the other hand, oil production declined further, due to continued sabotage of the pipelines. Average inflation declined to 9.9 percent from 19.5 percent in 2011, reflecting the appreciation of the rial to its pre-crisis level, the moderation of international food prices, and the easing of supply shortages. Money supply grew faster than nominal GDP, particularly in the second semester, partly driven by government borrowing, while private sector credit contracted marginally.

**The external position has strengthened substantially in 2012, due largely to exceptional Saudi support.** The current account deficit narrowed in 2012 to about 1 percent of GDP compared to 4.1 percent in the preceding year. Imports and non-hydrocarbon exports showed a strong recovery from their sharp decline in the previous year, while oil exports suffered from frequent sabotage of the key pipeline. Transfers increased, reflecting a Saudi oil grant of around \$2 billion and strong growth in workers' remittances. The capital account also benefited from a \$1 billion Saudi deposit at CBY. Consequently, gross reserves increased to \$5.6 billion, equivalent to about 5.5 months of imports

**The budget deficit widened to 6.3 percent of GDP due to higher spending, including on wages and subsidies.** Notwithstanding some increases in domestic fuel prices, subsidies

---

<sup>1</sup> Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.

increased to about 9 percent of GDP. Furthermore, the hiring of additional government employees and the payment of retroactive wage settlements led to an increase in the wage bill to about 11 percent of GDP. Capital spending increased but remained below its pre-crisis level. On the revenue side, the decline in oil receipts was more than compensated for by an increase in tax collection and the exceptional level of Saudi grants. The non-hydrocarbon primary deficit excluding grants deteriorated to 21.1 percent of GDP, compared to 17.6 percent a year earlier. Public debt remained moderate at about 48 percent of GDP, with the external part constituting about 18 percent.

**Money supply in 2012 increased by 21 percent, reflecting higher net foreign assets and net credit to the government.** Most of this increase took place in the second semester, which was beyond the indicative benchmarks set under the RCF. With the deceleration in inflation, the CBY reduced the policy interest rate in October 2012 from 20 to 18 percent, and again to 15 percent in February 2013. However, and despite the substantial excess reserves in the banking system, private sector credit contracted slightly, reflecting the still high real interest rate, the fledgling recovery, and the high credit risk. On the other hand, net claims on government increased by almost 30 percent.

**The banking system is stable, notwithstanding some vulnerabilities.** Banks are on aggregate profitable and liquid with the capital adequacy ratio estimated at 29.6 percent at end December 2012, partly due to the large share of zero risk-weighted government securities in the banks' portfolios and the high interest rates earned on these securities. However, non-performing loans stood at 25.5 percent, reflecting the level of credit risk and some deficiencies in commercial banks' risk management capacities.<sup>2</sup> Islamic banks are also challenged by limited eligible domestic investment opportunities. Financial markets and the payment system are underdeveloped.

### **Executive Board Assessment**

Executive Directors welcomed the authorities' progress toward macroeconomic stability. At the same time, they noted that the economic recovery is fragile and considerable challenges remain. Directors stressed the importance of sustained implementation of reforms to strengthen macroeconomic stability and promote strong growth, employment, and poverty reduction.

Directors urged the authorities to contain the widening fiscal deficit and continue fiscal restructuring. They supported the plans to reorient the budget toward pro-growth and pro-poor expenditures. They noted that a gradual reduction in the share in the budget of wages—including by eliminating ghost workers—and generalized subsidies would provide room for infrastructure investment and priority social spending. They also noted that the

---

<sup>2</sup> The large share of NPLs does not currently pose stability risks because private sector credit accounts for a small share of total assets.

untargeted fuel subsidies disproportionately benefit the rich and encourage smuggling. In this regard, they welcomed the recent decision to unify the price of diesel. They urged the authorities to build public support for a comprehensive, albeit gradual, reform of fuel prices. Increased targeted transfers will be important to mitigate the impact of fuel price increases on the most vulnerable. To that end, further concessional donor assistance will be needed, and Directors urged the authorities to secure timely donor disbursement through enhanced transparency and capacity in public finance management and program implementation.

Directors welcomed recent efforts to improve non-hydrocarbon revenue. They highlighted the need to strengthen tax and customs administration and to refrain from extending tax exemptions. They also cautioned that limiting nonconcessional borrowing will be important to safeguard debt sustainability.

Directors emphasized the need to achieve price stability while ensuring monetary policy support for growth. They underscored the importance of fiscal restraint to help reduce inflation and interest rates and avoid further crowding out credit to the private sector. Directors saw a need to improve the monetary policy framework and enhance central bank independence. Directors noted that the exchange rate is broadly in line with fundamentals. They noted that greater exchange rate flexibility would help preserve international reserves and provide a cushion against external shocks.

Directors highlighted the importance of safeguarding the health of the financial system and further developing financial intermediation. They encouraged the authorities to expedite efforts to strengthen the framework for bank supervision and resolution. They also called for measures to address the remaining shortcomings in the AML/CFT framework.

Directors emphasized the importance of structural reforms to support high and inclusive economic growth and diversification. Priorities include improving infrastructure, enhancing the business climate, expanding access to financial services, and strengthening public institutions and governance.

Directors called for further efforts to improve economic and financial statistics to facilitate economic analysis and policy formulation.

Table 1. Republic of Yemen: Selected Economic Indicators, 2009–13

	2009	2010	2011	2012	2013
				Est.	Proj.
(Change in percent, unless otherwise indicated)					
Production and prices					
Real GDP at market prices	3.9	7.7	-12.7	2.4	6.0
Real nonhydrocarbon GDP	4.1	4.4	-12.5	4.0	4.0
Real hydrocarbon GDP	1.6	46.9	-14.5	-11.5	26.2
Consumer price index (annual average)	3.7	11.2	19.5	9.9	12.0
Consumer price index (eop)	8.8	12.5	23.2	5.8	...
Hydrocarbon production (1,000 barrels/day)	290	426	364	321	406
Crude oil 1/	274	264	197	154	226
LNG (oil equivalent)	16	162	167	167	180
(In percent of GDP)					
Government finance					
Total revenue and grants	25.0	26.0	25.0	29.9	27.2
Total expenditure	35.4	30.1	29.4	36.2	33.0
Overall balance (cash basis)	-10.2	-4.0	-4.4	-6.3	-5.8
Nonhydrocarbon primary balance (cash)	-22.3	-18.1	-16.5	-15.0	-16.4
Excluding grants		-19.3	-17.6	-21.1	-17.6
Gross Public Sector Debt	49.9	42.2	45.2	47.8	48.1
External debt	24.6	19.3	18.3	17.9	16.7
Domestic debt	25.3	22.9	26.8	29.9	31.5
(Twelve-month change in percent)					
Monetary data					
Broad money	10.6	9.2	0.0	21.5	16.0
Reserve money	11.2	7.7	15.8	12.9	10.0
Credit to private sector	-4.8	8.2	-16.9	-0.6	15.0
Benchmark deposit interest rate (percent)	10.0	20.0	20.0	18.0	15.0
Velocity (non-oil GDP/M2)	2.0	2.1	2.1	2.2	2.1
(In millions of U.S. dollars, unless otherwise indicated)					
External sector					
Exports, f.o.b.	5,855	7,650	8,662	7,908	9,149
Hydrocarbon	4,432	6,281	7,850	6,891	8,061
Nonhydrocarbon	1,423	1,369	812	1,017	1,088
Imports, f.o.b.	-7,868	-8,473	-8,543	-9,805	-9,797
Hydrocarbon	1,966	2,073	2,578	3,405	3,140
Nonhydrocarbon	5,902	6,400	5,964	6,400	6,656
Current account (percent of GDP)	-10.2	-3.7	-4.1	-0.9	-2.7
Memorandum items					
Gross foreign reserves	6,213	5,081	3,974	5,590	4,743
In months of imports	7.2	5.8	3.9	5.6	4.6
Exchange rate (eop) (YRIs per U.S. dollar)	207.4	213.8	227.5	214.9	...
Real effective exchange rate (2008 = 100)	96.7	99.6	108.4	121.8	...
Nominal GDP at market prices					
In billions of Yemeni rials	5,098	6,817	7,083	7,588	8,870
In millions of U.S. dollars	25,131	31,046	33,129	35,381	...
Per capita GDP (in U.S. dollars)	1,061	1,272	1,318	1,367	...
Population (in thousands)	23,687	24,398	25,130	25,884	...

Sources: Yemeni authorities; and Fund staff estimates and projections.

1/ The sharp decline in crude oil production reflects the impact of oil pipeline sabotage in 2011 and 2012.

**Statement by A. Shakour Shaalan, Executive Director for Yemen**  
**July 19, 2013**

The Yemeni authorities would like to convey their appreciation to staff for the continued collaborative engagement and the 2013 Article IV Consultation discussions. They look forward to continued work with the Fund and valuable technical assistance in support of their reform efforts.

***Background***

1. Despite the difficulties inherent in the process of democratic transition, the Yemeni economy began to recover in 2012 after contracting by 12 percent in 2011. Inflation fell substantially and the exchange rate stabilized at pre-crisis levels, while foreign exchange reserves increased significantly.
2. However, the recovery is still nascent, and the authorities are facing the challenges of restoring economic stability and supporting growth in a fragile political and security environment. Attacks on oil pipelines and electricity transmission lines continue to interrupt oil production and electricity delivery. Moreover, the country faces significant development needs, chronic water shortages, and pressing social demands. With one of the highest malnutrition rates in the world, Yemen's poverty reduction needs are enormous. More than 55 percent of the population lives below the poverty line, a situation which has been significantly exacerbated by the 2011 crisis. Unemployment is high, particularly among the youth.
3. The authorities' *Transitional Program for Stabilization and Development for 2012-2014* addresses these challenges. The program is focused on maintaining macroeconomic stability, while implementing an ambitious reform agenda, to promote inclusive growth and address basic social needs. The authorities' program also aims at enhancing governance and civil sector reforms, financial sector regulation, and the business climate, while reducing the country's dependence on oil revenues. Timely donor disbursement is crucial to help Yemen tackle these challenges. So far, only a fraction of the pledged resources to support Yemen's political transition and economic reforms have been disbursed. The authorities are hopeful that the Mutual Accountability Framework, which has been set-up in coordination with the World Bank to oversee aid disbursements, will help improve the timeliness of donor disbursement.

***Fiscal Policy and Reforms***

4. The authorities are committed to improving fiscal sustainability and to create the fiscal space for poverty reduction and pro-growth spending. To boost non-hydrocarbon revenues, they intend to strengthen tax collection, and revenue administration. Several measures are planned in this regard, including introducing pre-shipment inspections, upgrading the IT systems in the customs and tax areas, and enhancing cooperation between the tax and customs authorities. The government is committed to avoid grandfathering previous tax or customs exemptions under the 2010 investment law.
5. On budgetary expenditures, the authorities have announced a set of measures to improve the efficiency of public spending and reorient spending to social and developmental needs. In particular, they are taking initiatives to control the wage bill by eliminating fraudulent wage payments through the introduction of a biometric identification system for the civil service as well as the military and police. They will also strengthen public financial management and improve the planning and execution of public spending. Measures have been taken to unify the price of diesel domestically, in particular, in the electricity sector. The timing for further subsidy reforms will depend on political and social developments.
6. The fiscal deficit will be financed mainly from domestic borrowing and grants. The authorities also plan to reissue Islamic bonds (Sukuks) to diversify the sources of budget financing. As mentioned above, additional and increasingly concessional donor support will therefore be crucial in meeting development and poverty reduction needs. In the event of a revenue shortfall, the authorities stand ready to cut expenditures, although they are aware that this could adversely affect investment and social spending.

### ***Monetary and Financial Sectors Policies***

7. Monetary policy has been successful in stabilizing prices and the exchange rate. Going forward, monetary policy will continue to support the post-crisis economic recovery while ensuring price stability. The Central Bank of Yemen (CBY) has lowered the benchmark interest rate from 20 percent to 15 percent in order to encourage credit to the private sector. They stand ready to adjust policies as needed, and to consider further cuts in interest rates as inflation declines further. The authorities share staff's assessment regarding the exchange rate. They intend to maintain an exchange rate system that reflects market fundamentals and limit intervention to smoothing short-term fluctuations of the Yemeni rial. They stressed that fiscal policy could be more supportive of their exchange rate and inflation objectives.

8. The CBY is committed to strengthening banking supervision and to improving the legal and operational framework for bank resolution. They will increase oversight of internal controls and risk management practices in commercial banks, and will enhance cross-border and macroprudential surveillance. The authorities intend to develop a special regulatory and supervisory framework for Islamic banking. The CBY is currently developing guidelines for Prompt Corrective Action and is reviewing the Banking Act to address legal gaps in CBY's tools and operational capacity. In addition, and based on the Financial Action Task Force's recommendations, measures will be taken to strengthen the AML/CFT framework.

***Other Structural Reforms***

9. The authorities will continue to implement structural reforms to diversify the economy in the non-hydrocarbon sectors. Improving the business climate will be a key priority to generate inclusive growth and address unemployment. Other structural reforms include governance and judicial reforms to enhance transparency.