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GABON

Selected Issues

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Approved by the African Department

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I. INTRODUCTION

The sharp rise in energy prices since 2003 has presented oil-exporting countries like Gabon with both opportunities and risks. The large balance-of-payments and fiscal surpluses provide an opportunity to lower debt levels decisively, thereby reducing a major source of Gabon's past vulnerability to shocks, and build up savings to smooth consumption for future generations even after oil resources are exhausted. But, while additional resources provide fiscal space to address urgent infrastructural and social development needs, economic policies need to ensure that these gains are sustainable over the medium term and provide the foundation for a diversification of the economy away from its dependence on exports of natural resources.

Against this background, the following chapters examine key issues in the management of public resources and the scope for private-sector led growth.

Chapter II looks at long-run fiscal sustainability. The analysis is based on a model of intertemporal social-welfare optimization that takes into account (i) adjustment costs in the form of habit formation and (ii) differential interest rates on sovereign debt and financial assets. It concludes that a sustainable long-run non-oil primary deficit is about 5 percent of non-oil GDP, compared to the 2005 level of 12 percent, and that, under the optimal adjustment path, fiscal policy should aim at reaching the sustainable deficit in about three to five years.

Chapter III addresses the obstacles that have limited the access of the private sector to financial services, focusing on banks' reluctance to extend credit. In seeking to explain the principal reasons behind this phenomenon, the chapter proposes a simple model in which banks maximize profits over costly monitoring. The narrowing interest-rate spread between deposits and loans, together with the banks' inability to appraise effectively the quality of their loan portfolios, helps to explain the banks' caution.

Chapter IV estimates the fiscal cost and social impact of the freezing of domestic retail fuel prices since 2003. Rising oil prices have driven the total fiscal cost of the (implicit) subsidies to more than 3 percent of non-oil GDP in 2005. However, analysis of household data suggests that these subsidies mostly benefit higher-income households and that fuel price subsidies are an ineffective and costly way of protecting the real incomes of the poor.

Chapter V examines the quality of capital expenditure in Gabon. Despite high levels of public investment, averaging about 5 percent of GDP over the last 15 years, their return has been disappointing. The chapter concludes that public investment has generally failed to target poverty reduction and the quality of expenditure linked to the regional independence celebrations, the *fêtes tournantes* expenditures, has been particularly low.

II. Natural Resource Depletion, Habit Formation, and Sustainable Fiscal Policy: Lessons from Gabon[1]

A. Introduction

Oil revenue currently comprises 60 percent of tax receipts in Gabon, but reserves are expected to be exhausted within three decades. Ensuring that fiscal policy is on a sustainable path is therefore a high priority. Doing so will prevent a situation in which the authorities would be forced to adjust fiscal policy rapidly as oil production is declining—a policy reaction that typically occurs to the detriment of the most disadvantaged segments of society. In combining fiscal adjustment with structural reforms aimed at diversifying the economy and strengthening governance, Gabon's economy would be prepared for the post-oil era.

This paper seeks to estimate the sustainable long-run non-oil primary deficit and the optimal adjustment path towards that level. The analysis is based on a model of intertemporal social-welfare optimization that takes into account (i) adjustment costs in the form of habit formation and (ii) differential rates on sovereign debt and financial assets. Introducing habits—the notion that consumers become addicted to the level of consumption enjoyed in previous periods—is important in the context of fiscal policy design as it directly addresses the social, political, and institutional constraints on the speed of fiscal adjustment. Allowing for different interest rates on debt and assets introduces further realism into the analysis of optimal fiscal policy and debt management.

Three main conclusions emerge from the analysis. First, Gabon's current fiscal deficit cannot be maintained in the future. The permanently sustainable non-oil primary deficit, estimated at 5.0 percent of non-oil GDP, is well below the 2005 level of 12.1 percent.[2] Second, due to habit formation, the optimal policy spreads the bulk of the adjustment over three to five years, rather than making the single adjustment that standard permanent-income models prescribe. A phased adjustment is preferable to an abrupt fiscal contraction as it eases the pain on habit-forming households and thus increases the political acceptability of the needed adjustment. Third, the interest-rate differential between sovereign debt and financial assets creates an incentive to front-load adjustment and pay off net debt sooner than in the absence of the spread. In addition, given the uncertainty about future economic conditions, precautionary motives offer further incentive for front-loading the fiscal adjustment and targeting a smaller long-run deficit. For instance, a reversal of real oil prices to the 2000–05

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[1] Prepared by Daniel Leigh and Jan-Peter Olters. The authors gratefully acknowledge valuable comments from Steven Barnett, Mark De Broeck, Manmohan Kumar, Roger Nord, Anton op de Beke, Rolando Ossowski, Gonzalo Pastor, Mauricio Villafuerte, and participants in an AFR seminar on February 17, 2006 and a Ministry of Finance-organized seminar in Libreville, Gabon, on March 8, 2006. Any errors are our own.

[2] This figure excludes expenditure on fuel subsidies and restructuring costs; see Chapter IV. The non-oil primary deficit of 12 percent of non-oil GDP in 2005 happens to coincide with the average deficit during 2000–05.

US$30/bbl average would reduce the permanently sustainable primary deficit to 3¾ percent of non-oil GDP.

The remainder of the paper is structured as follows. Section B compares Gabon's economic performance to that of other oil-producing countries. Section C describes the analytical framework and calibrates the model to fit Gabon's economy. In Section D, the permanently sustainable primary deficit is estimated and the optimal adjustment path towards this level simulated, starting from the one in 2005. Section E discusses extensions to the analysis, while Section F summarizes the results and concludes.

B. Background

Oil-producing countries have tended to encounter considerable difficulty in formulating fiscal policies that would help them to transform natural-resource wealth into other forms of capital. Laying the economic foundation for high and sustainable rates of non-oil growth has been a continuing challenge, reflected in the generally disappointing economic performance of resource-based economies. Economists have designated these "empirical regularities" (Hausmann and Rigobon 2003) as the "natural resource curse" (Sachs and Warner 1995)—typically explained as the result of increased rent-seeking behavior, reduced incentives for economic reforms, and the real appreciation of the domestic currency, leading to a country's loss of international competitiveness and a gradual process of deindustrialization ("Dutch disease").

The growth performance of Gabon and other oil-producing countries has, in general, been inferior to that of non-resource-dependent countries with comparable per capita income. After three decades of oil production, Gabon's economy remains highly vulnerable to sudden changes in international markets. The volatility of oil prices has led to successive episodes of large, often wasteful public investments followed by deep economic crises. These, in turn, have been accompanied by large fiscal imbalances and the accumulation of domestic and external payment arrears. The variability in oil prices and the resultant stop-and-go approach to funding public investments have impeded a forward-looking, more long-term approach to economic policy management and, consequently, shortened the planning horizons of private companies in the country's non-oil sectors. As a result, non-oil growth, on a per capita basis, has been negative in every year during 1998–2003 and only marginally positive in 2004–05.

Gabon's relatively high per capita GDP belies its generally poor social indicators, which tend to be more in line with those of low-income countries in sub-Saharan Africa. Other oil-exporters with similar levels of per capita income—US$6,400 ± US$600 in purchase-power parity (PPP) terms—also have development indicators well below those of comparable countries without natural-resource endowments (as measured by the UNDP's Human Development Index). [3] In Table II.1, the average index for the four oil exporters,

[3] Gabon's GNI per capita, on a PPP basis, is substantially lower than its GDP per capita on a PPP basis, because a large share of private oil companies' profits are remitted abroad. For example, the World Bank WDI report a GDP per capita for Gabon of US$6,717 in 2004, on a PPP basis, as compared to a GNI per capita of US$5,600 in 2004, also on a PPP basis.

0.714, would rank them 108th out of 177 countries, considerably lower than the 0.762 average (79th rank) for countries not endowed with oil. With the former group, Gabon ranks last, with an index of 0.635 (123rd rank). Increasing rent-seeking behavior could be one explanation: the corruption perception indices compiled by Transparency International show that oil exporters average 2.8 (i.e., equivalent to the 97th rank out of 158 countries—twenty places below the other countries in the same income group). This corroborates findings that weak governance is an important explanatory variable for the slow growth in resource-rich economies (Leite and Weidmann 1999).

Table II.1. Oil Production and Socio-Economic Development

	Per Capita GDP US$ PPP[1] 2003	Country Indices		Non-Oil Revenue[4] 2004	Primary Non-Oil Deficit[4] 2004
		Human Development[1]	Corruption Perception[2]		
Countries with a per capita income of US$6,400 ± US$600					
Oil-producing countries[3]	**6,543**	**0.714**	**2.8**	**18.8**	**17.2**
Kazakhstan	6,671	0.761	2.6	17.9	4.8
Iran	6,995	0.736	2.9	15.9	25.7
Algeria	6,107	0.722	2.8	16.9	30.5
Gabon	6,397	0.635	2.9	24.3	7.7
Non-oil producing countries	**6,420**	**0.762**	**3.3**	**28.9**	**-0.5**
Tonga	6,992	0.810	…	…	…
Panama	6,854	0.804	3.5	16.9	-2.3
Macedonia	6,794	0.797	2.7	37.5	-1.6
Belarus	6,052	0.786	2.6	35.3	-0.1
Bosnia and Herzegovina	5,967	0.786	2.9	48.9	1.5
Colombia	6,702	0.785	4.0	15.6	1.6
Samoa (Western)	5,854	0.776	…	…	…
St. Vincent and the Grenadines	6,123	0.755	…	…	…
Belize	6,950	0.753	3.7	22.3	0.6
Fiji	5,880	0.752	4.0	…	…
Turkey	6,772	0.750	3.5	24.5	-5.1
Dominican Republic	6,823	0.749	3.0	…	…
Turkmenistan	5,938	0.738	1.8	…	…
Namibia	6,180	0.627	4.3	30.4	1.3

[1] Source: UNDP, 2005, *Human Development Report* 2005, pp. 219-22.

[2] Index between 10 (least corrupt) and 0 (most corrupt). Source: Transparency International, 2005, Corruption Perceptions Index 2005.

[3] Countries with fiscal petroleum revenue accounting for at least 20 percent of total fiscal revenue in 2004.

[4] In percent of non-oil GDP. Sources: Various IMF reports. Fiscal data for Panama are 2002.

C. Theoretical Framework

Intertemporal optimization with habit formation lies at the core of the paper's analysis. The section starts by describing the standard Friedman (1957) permanent-income hypothesis (PIH) model used to analyze fiscal sustainability in countries with finite oil reserves. Once the PIH model been explained and solved, it is shown how the optimal fiscal policy changes with the introduction of habits.

According to the PIH, agents are forward-looking and optimal policy is defined as a path of government spending that smoothes consumption over time and is consistent with the intertemporal budget constraint. The optimal spending level depends on a number of factors, among them the future path of oil and non-oil tax revenues and the real interest rate. In the model, the government chooses an expenditure policy that maximizes a social-welfare function subject to an intertemporal budget constraint and a transversality condition.[4]

The model

Allowing the government to choose both the tax rate and the spending level is equivalent to rewriting the problem in terms of the primary deficit; see Barnett and Ossowski (2003). The problem, then, can be solved in a two stage process: (i) an inter-temporal decision (determining the size of the primary deficit); and (ii) an intra-temporal decision (determining the optimal allocation of the given deficit between spending and taxes, where the marginal benefit of spending equals the marginal cost of taxation). Since this paper focuses on intertemporal sustainability, the problem is expressed solely in terms of spending, treating the tax rate as exogenous. The government's problem can thus be written as follows:[5]

$$\max_{\{G_s\}} \sum_{s=t}^{\infty} \beta^{s-t} \cdot U\left(G_s\right), \tag{1}$$

$$\text{s.t.} \quad B_t = R \cdot B_{t-1} + G_t - T_t - Z_t, \text{ and} \tag{2}$$

$$\lim_{s \to \infty} B_{t+s} = 0, \tag{3}$$

where B_t is government debt at the end of period t; $R = 1 + r$, with r being the long-run interest rate (assumed to be constant); and G_t the level of primary government expenditure. As the low quality of public investment in Gabon, thus far, gives capital expenditure the characteristic of recurrent expenditure,[6] this paper treats all primary government expenditure as consumption and develops a model in which households derive utility from all

[4] For details on the theoretical and empirical difficulties surrounding the concept of a social-welfare function, see Olters (2004) and the literature cited therein.

[5] The notation here follows Barnett and Ossowski (2003).

[6] For details, see Chapter V.

government spending, even when it does not increase productivity. Non-oil revenue is denoted by T_t, oil revenue by Z_t. The discount factor is $\beta = (1+\delta)^{-1} < 1$, where δ is the rate of time preference (the degree of impatience). It is assumed that there is no uncertainty about the future.

First, a solution is obtained based on the assumption of constant non-oil GDP. The government's problem yields a solution in the form of the following Euler equation:

$$U^G(G_t) = \beta \cdot R \cdot U^G(G_{t+1}), \tag{4}$$

where $U^G(G_t)$ denotes the marginal utility of spending in period *t*. Assuming that $\beta \cdot R = 1$ (or, equivalently, $\delta = r$),[7] it follows that $U^G(G_t) = U^G(G_{t+1})$. This implies that government spending is constant: $G_t = G_{t+1} = G$. Combining equation (4) with (2) and (3) yields the optimal level of government spending:

$$G^* = T + \frac{r}{R} \cdot \sum_{s=t}^{N} \left(\frac{1}{R}\right)^{s-t} \cdot Z_s - r \cdot B_{t-1}, \tag{5}$$

where *N* is the date at which oil revenue dries up. Equation (5) implies that the optimal policy is to set spending equal to permanent income, i.e., to the return on the present discounted value of all future oil and non-oil revenues.

Introducing non-oil growth complicates the algebra but does not change the form of the solution. Non-oil GDP is now assumed to grow at rate $\gamma > 0$, i.e., $Y_{t+1} = (1+\gamma) \cdot Y_t$. Following Barnett and Ossowski (2003) and Tersman (1991), the government's problem is expressed in terms of non-oil GDP. Therefore, $g = \frac{G}{Y}$ is the ratio of spending to non-oil GDP, and the budget constraint becomes

$$b_t = \frac{R}{1+\gamma} \cdot b_{t-1} + g_t - \tau_t - z_t, \tag{6}$$

where τ denotes the ratio of non-oil revenue to non-oil GDP, and *z* and *b* the ratios to non-oil GDP of oil revenue and debt, respectively. Utility is also expressed in terms of non-oil GDP terms so that $U = U(g)$. The standard assumption that the interest rate is higher than the non-

[7] Assuming either $\beta \cdot R > 1$ or $\beta \cdot R < 1$ implies that government spending either declines to zero or explodes. The conventional approach is to exclude these two possibilities and assume instead that $\beta \cdot R = 1$.

oil growth rate $(r > \gamma)$ is imposed to keep the sustainability question interesting.[8] Solving the model with non-oil growth implies a path for government spending that is analogous to the one in equation (5), i.e., a constant spending level in terms of non-oil GDP, as shown in equation (6):[9]

$$g^* = \tau + \frac{r-\gamma}{R} \cdot \sum_{s=t}^{N} \left(\frac{1+\gamma}{R} \right)^{-(s-t)} \cdot z_s - \frac{r-\gamma}{1+\gamma} \cdot b_{t-1}. \tag{7}$$

Introducing habit formation into the model has the advantage of greater realism with regard to the speed at which fiscal policy can adjust to macroeconomic shocks. Habit formation was developed in the consumption literature to capture the idea that consumption is addictive—i.e., the amount of utility derived from consumption today depends negatively on how much was consumed yesterday.[10]

Formally, introducing habits implies altering the utility function so that current-period utility depends not only on current spending, but also on past spending. Specifically, the utility function becomes $U(g_t, h_t)$ rather than $U(g_t)$, where h_t represent the current stock of habits. Solving the government's problem yields Euler equation

$$U^g(g_t, h_t) + U^h(g_{t+1}, h_{t+1}) = R \cdot \beta \cdot \left[U^g(g_{t+1}, h_{t+1}) + \beta \cdot U^h(g_{t+2}, h_{t+2}) \right], \tag{8}$$

where $U^g(g_t, h_t)$ denotes the marginal utility of an additional unit of spending in this period and $U^h(g_{t+1}, h_{t+1})$ the marginal utility of stronger habits in the next period (due to higher spending today). A popular formulation of habit formation in the literature is the "subtractive formulation" (Constantinides 1990, Campbell and Cochrane 1999, and Uribe 1999),

$$U(g_t, h_t) = V(g_t - \alpha \cdot h_t), \tag{9}$$

---

[8] If the net real interest rate is negative $(r - \gamma < 0)$, it is not necessary to run primary surpluses to reduce the debt-to-GDP ratio to zero.

[9] A rule that would keep the absolute spending level constant would imply that the size of government (spending as a share of GDP) shrinks to zero over time. More plausibly, the rule in equation (6) implies that government size converges to 29 percent of GDP.

[10] In the context of fiscal policy, habit formation can also be interpreted as reflecting institutional and political adjustment costs faced by policymakers (for instance, cutting the public-sector wage bill abruptly may not be politically feasible). Applying habit formation to fiscal policy, Velculescu (2004) shows that the optimal fiscal response to a permanent negative shock is to spread the necessary policy adjustment over a number of periods.

where $\alpha \in [0,1]$ denotes habit strength, and current-period spending, g_t, yields lower utility the stronger the habits, h_t. A simple specification of the habit stock is $h_t = g_{t-1}$, i.e., the current habit stock is simply equal to the level of spending in the previous period. Combining the Euler equation (7) with the intertemporal budget equation yields, after a number of algebraic manipulations, the following optimal path for government spending:

$$(10) \qquad g_t^* = \left(1 - \frac{\alpha}{R}\right) \cdot \left[\tau + \frac{r-\gamma}{R} \cdot \sum_{s=t}^{N} \left(\frac{1+\gamma}{R}\right)^{-(s-t)} \cdot z_s - \frac{r-\gamma}{1+\gamma} \cdot b_{t-1}\right] + \frac{\alpha}{R} \cdot g_{t-1} .$$

Equation (10) shows that, with habit formation, spending is a linear combination of the last period's level and the PIH spending level. With habits, if the previous period's spending is higher than current permanent income, then current spending adjusts gradually to the permanent-income level at a rate of $(1-\alpha)$ per period. Without habits $(\alpha = 0)$, the optimal policy is to adjust abruptly to the PIH level in a single period.

Model calibration

To simulate a baseline path for adjusting fiscal policy a over the medium term, this subsection calibrates the model to fit the relevant features of Gabon's economy. Once a baseline scenario is simulated, sensitivity tests are conducted on all the parameters of the model. To establish the baseline projection for future real oil revenue requires projections for the real oil price and the volume of oil production. The baseline projection for oil prices is based on the December 2005 *World Economic Outlook* (IMF 2005) projections for 2006–11, according to which most of the recent oil price increases are expected to be maintained.[11] For the period 2011–30, real oil prices are projected to follow the forecasts published in the *Annual Energy Outlook 2006* of the Energy Information Administration, which have the real price gradually increase to US$57 per barrel (bbl) in 2030.[12] An alternative price path, under which real oil prices decline to the average 2000–05 level of US$30/bbl by 2030 is also considered (Figure II.1).

As for future oil output, Gabon has proven oil reserves of 2.02 billion barrels.[13] In the absence of further discoveries, annual oil production is expected to decline from its current level by about one-half in twenty years and be exhausted in about thirty years (Figure II.1).[14] Multiplying the predicted production volumes by the real price path produces a forecast for

[11] An inflation rate of 2 percent per year is used to convert the oil prices into real terms.

[12] This long-run price level is about US$21 higher than the projected price in the *Annual Energy Outlook 2005* edition.

[13] This estimate is reported by a number of agencies, including the IEA and the U.S. Geological Survey.

[14] For an analysis of the uncertainty of future oil production in Gabon, see World Bank (2006).

real oil GDP (Figure II.2), along with the three alternative paths used in the sensitivity analysis (25 percent higher reserves, 25 percent lower reserves, and a lower long-run oil price). The discount for Gabonese crude oil relative to the Brent crude price is assumed to remain constant at 5 percent (equivalent to the average discount during 2000–04); the exchange rate is held constant at CFAF 500 per US$1; and fiscal oil revenues, as in recent years, remain at 35.9 percent of oil GDP. The non-oil tax rate is kept constant at 23.2 percent. It is also assumed that the long-run real interest rate equals 3 percent, which broadly reflects the current yields of 10-year treasury bonds in industrialized countries minus inflation. While a 3 percent real interest rate is a standard value in the literature, obtaining this yield would require institutional changes to Gabon's fiscal oil fund (*Fonds pour les générations futures*, FFG), which currently earns a mere 1.6 percent *nominal* rate.[15] The non-oil growth rate, γ, is set at 2 percent, the average of the last ten years. The habit-strength parameter, α, is set at 0.7, which is within the range of estimates in the literature.[16] Table II.2 summarizes the assumptions underpinning the baseline simulation.

Table II.2. Baseline Assumptions

Variable	Values	
Total proven oil reserves	2.02	billion barrels
Long-run oil price	57.0	2005 U.S. dollars per barrel
Tax take on oil activities[1]	35.9	percent of oil GDP
Effective non-oil tax rate[1] (τ)	23.2	percent of non-oil GDP
Total primary expenditure[1] (g)	35.4	percent of non-oil GDP
Total public debt[1] (b)	94.0	percent of non-oil GDP
Sum of all future oil revenue (Σz)	718.7	percent of non-oil GDP
Real interest rate (r)	3.0	percent
Real non-oil growth rates (γ)	2.0	percent
Habit strength (α)	0.7	

[1] These represent the actual values realized in 2005.

[15] Reforms that would help to raise the return on public savings could involve bringing the FFG closer in line with the Norway State Petroleum Fund, which secured an average annual real return, net of management costs, of 4.3 percent (Norges Bank 2005).

[16] For estimates of the habit formation parameter, see Fuhrer (2000) and Gruber (2001).

Figure II.1. Gabon: Oil Production Profile and World Oil Prices, 2005–45

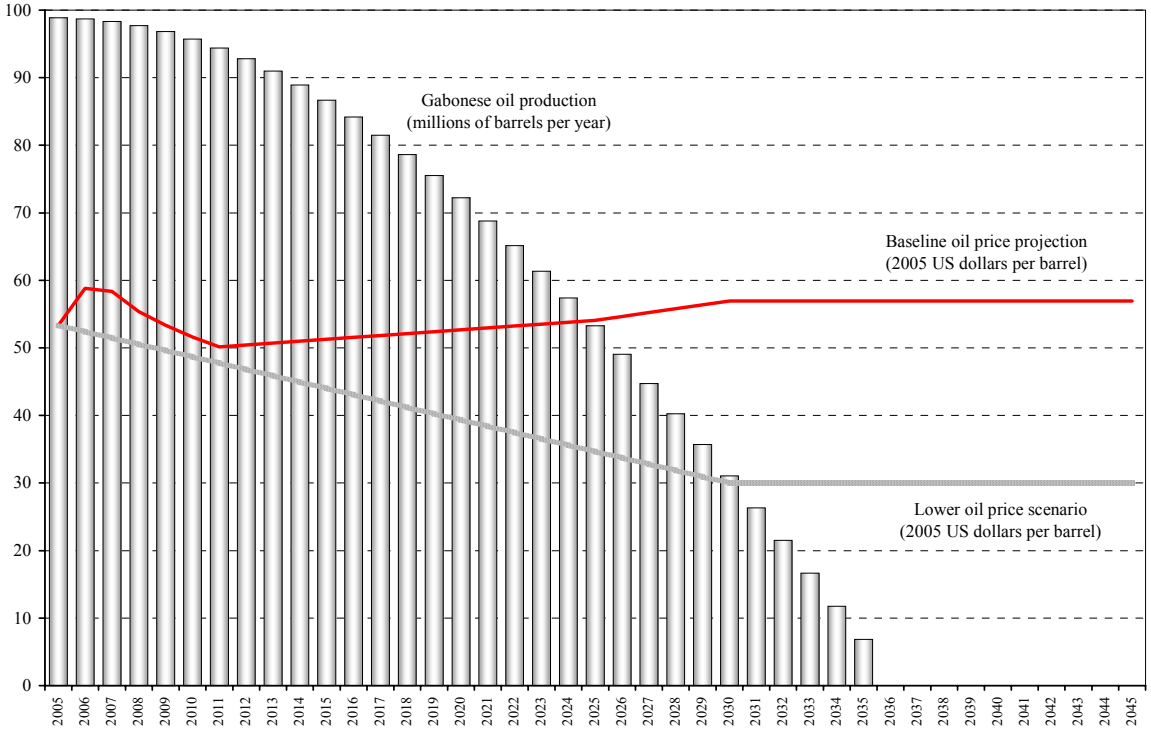


Figure II.2. Gabon: Real Oil GDP Profiles, 2005–45

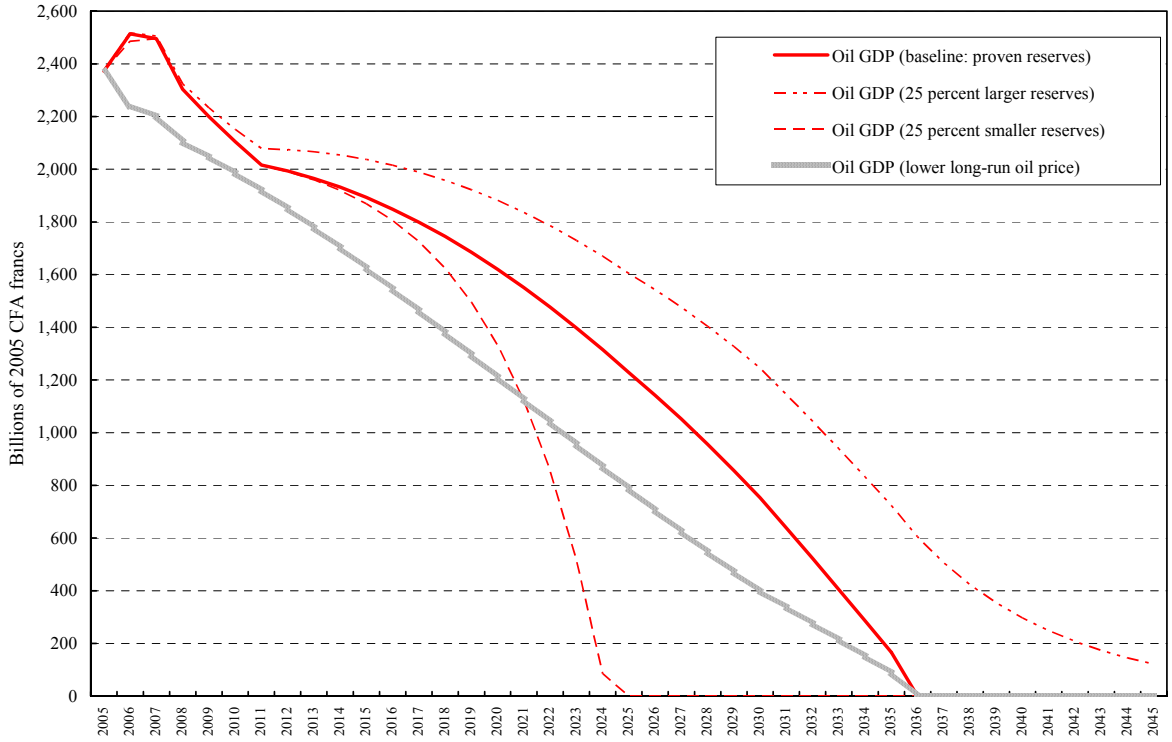


Table II.3. Sensitivity Analysis

			Definition of Variable	Permanently Sustainable Non-Oil Primary Deficit, Assuming a Long-Run Oil Price of	
				US$30/bbl	US$57/bbl
				(In percent of non-oil GDP)	
Baseline parameters				3.8	5.0
Sensitivity tests					
Oil reserves (baseline)		100	percent (2.02 billion barrels)		
Higher oil reserves		125	percent of baseline	…	6.5
Lower oil reserves		75	percent of baseline	…	3.5
Effective oil tax take (baseline)	z =	36	percent of oil GDP		
Higher oil tax take	z =	46	percent of oil GDP	5.2	6.7
Lower oil tax take	z =	26	percent of oil GDP	2.4	3.3
Non-oil tax rate (baseline)	τ =	23	percent of non-oil GDP		
Higher tax rate	τ =	33	percent of non-oil GDP	4.0	5.2
Lower tax rate	τ =	13	percent of non-oil GDP	3.6	4.8
Interest rate (baseline)	r =	3.0	percent		
Higher interest rate	r =	3.5	percent	5.4	7.1
Lower interest rate	r =	2.5	percent	2.0	2.6
Non-oil growth rate (baseline)	γ =	2.0	percent		
Higher growth rate	γ =	2.5	percent	2.0	2.6
Lower growth rate	γ =	1.5	percent	5.4	7.1
Habit strength (baseline)	α =	0.7			
No habits	α =	0.0		4.0	5.2
Stronger habits	α =	0.8		3.7	4.9
Weaker habits	α =	0.6		3.9	5.1

D. Results and Sensitivity Tests

In simulating the optimal adjustment path, starting from the 2005 non-oil primary deficit level of 12.1 percent of non-oil GDP, three main results emerge:[17]

- **First, the current level of the non-oil primary deficit is not sustainable.** If the non-oil primary deficit is maintained at the 2005 level of 12.1 percent of non-oil GDP, debt will eventually explode. With baseline assumptions, the permanently sustainable non-oil primary deficit is estimated to be 5.0 percent of non-oil GDP. That the 2005 deficit is unsustainable is a robust result from sensitivity tests on all the parameters in the model (Table II.3). For example, even if total reserves were to increase by 25 percent relative to the baseline, the sustainable deficit would rise to 6.5 percent of non-oil GDP, still well below the actual 2005 level. If the tax take on oil GDP rises by 10 percentage points to 46 percent, the sustainable non-oil primary deficit would increase to 6.7 percent of non-oil GDP, also well below the current level.

[17] An Excel file that replicates all the simulation results presented in the paper is available upon request and can readily be adapted and applied to other countries with exhaustible energy resources.

- **Second, the optimal path involves spreading the bulk of the adjustment over the initial 3–5 year period.** Under baseline parameters, the non-oil deficit would decline by 4.6 percentage points to 7.5 percent by 2008, which would be 65 percent of the total adjustment required. By 2010, with the non-oil deficit at 6.2 percent of non-oil GDP, 83 percent of the required adjustment would be completed. Figure II.3 shows that substantial overall primary surpluses occur during the oil period—needed by the government to pay off debt and accumulate sufficient financial assets. From a fraction of the returns on those assets, it then finances the non-oil deficit in the post-oil period. By contrast, a strategy of stabilizing net debt at a positive level would not be consistent with running a permanent deficit in the post-oil era. As oil reserves are exhausted, the primary surpluses decline and converge to the permanently sustainable level of 5.0 percent of GDP in 2036, the year when oil revenue is assumed to dry up. The adjustment path depends, however, on the strength of habits. Figure II.4 shows the optimal path for three alternative values of the habit strength parameter that are within the range of empirical estimates in the literature.

- **Third, a risk-averse policymaker would have a strong motive for a faster adjustment than is recommended under baseline assumptions, given their uncertainty.** Figure II.5 shows the upper and lower bounds of the simulations conducted for the sensitivity analysis (given a long-term price of US$57/bbl); they suggest that, should conditions change, the sustainable deficit could be below the baseline of 5.0 percent of non-oil GDP. For example, should the oil price revert to US$30/bbl over the medium term, the permanently sustainable level would be only 3.8 percent of non-oil GDP. If the government's effective oil tax take declines by 10 percentage points to 26 percent (e.g., because production in Gabon's maturing oil fields becomes less profitable, production-sharing agreements become more generous), the sustainable deficit would be only 3.3 percent of non-oil GDP. The most critical assumption, with the highest downside risks, is the real interest rate. Following the literature on precautionary savings, the appropriate response of a risk-averse policymaker to greater uncertainty about future revenue would be to increase savings.[18] To insure against a deterioration in conditions, front-loading fiscal adjustment would therefore be advisable. However, neither uncertainty nor different degrees of risk aversion are formally analyzed the model in this paper.

E. Extensions

The speed of adjustment to a permanently sustainable primary deficit is a function of a number of additional considerations. Either including an interest-rate spread between public debt and oil fund assets or adjusting the government's objective function to guarantee stability in real per capita expenditure would lead to an acceleration in adjustment. By contrast, relaxing the assumption of government spending being only consumption can have the opposite effect.

[18] See Deaton (1992) and Carroll (2000) for discussions of the precautionary savings motive.

Figure II.3. Gabon: Optimal Adjustment Path Under Baseline Parameters, 2000–45

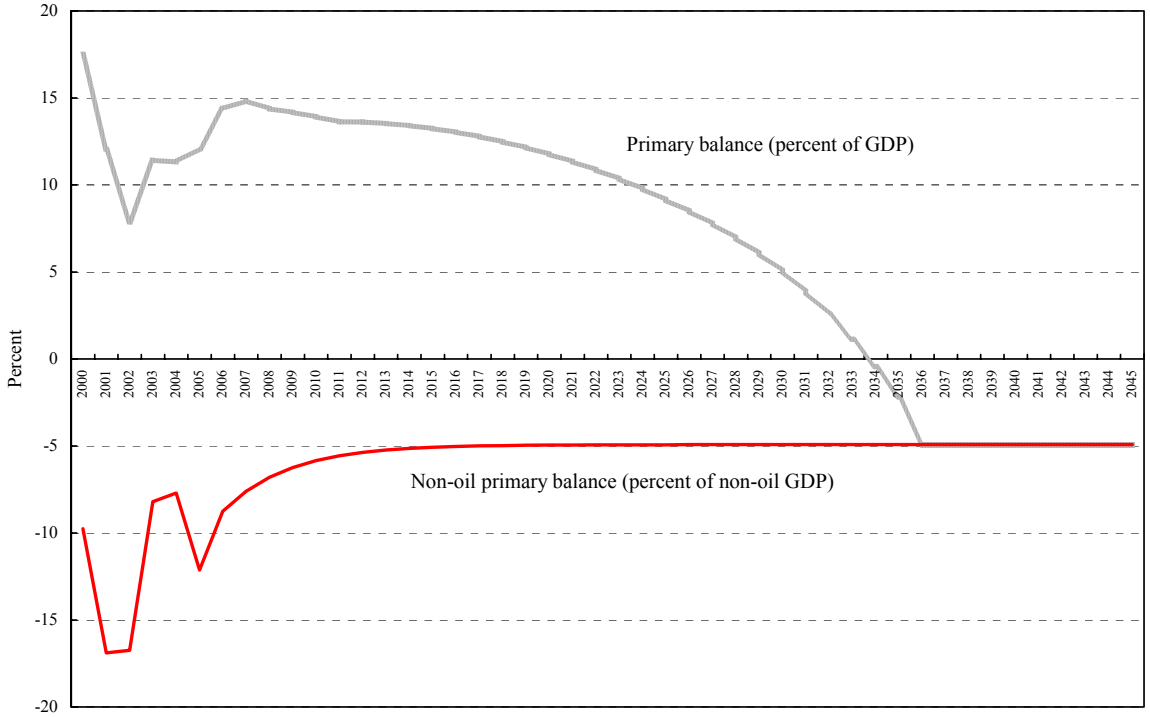


Figure II.4. Gabon: Sensitivity Analysis on Habit Strength and the Optimal Adjustment Path, 2000–45

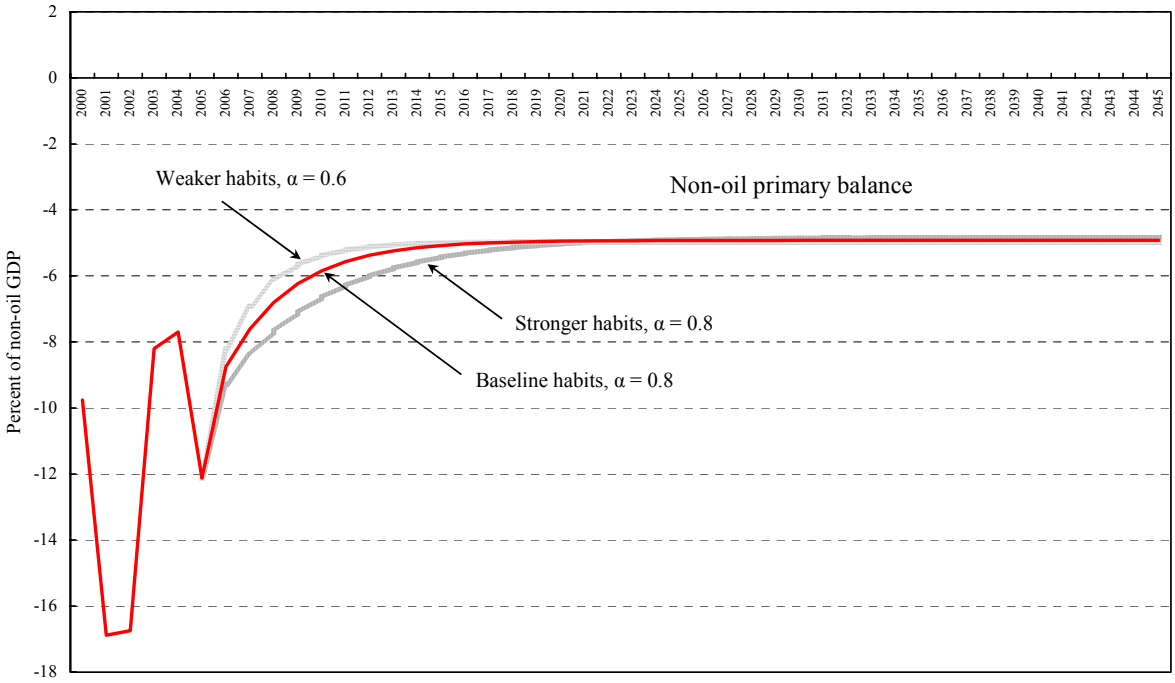
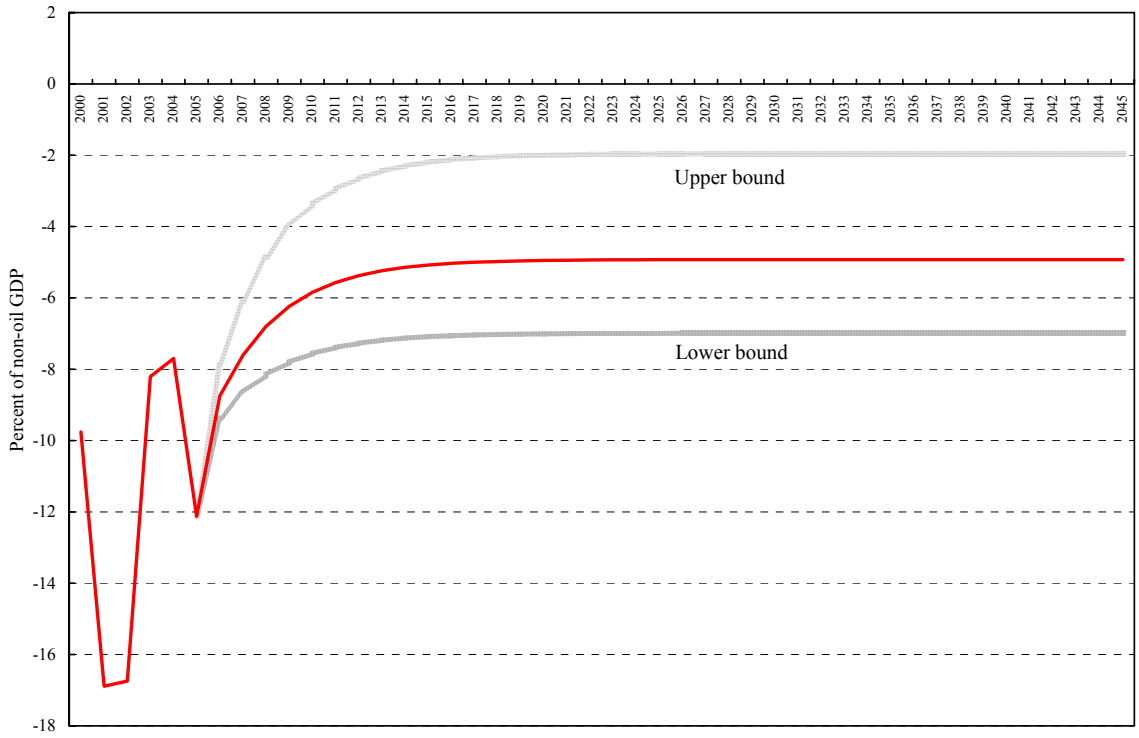


Figure II.5. Gabon: Sensitivity Analysis and Estimated Permanently Sustainable Non-Oil Primary Balance



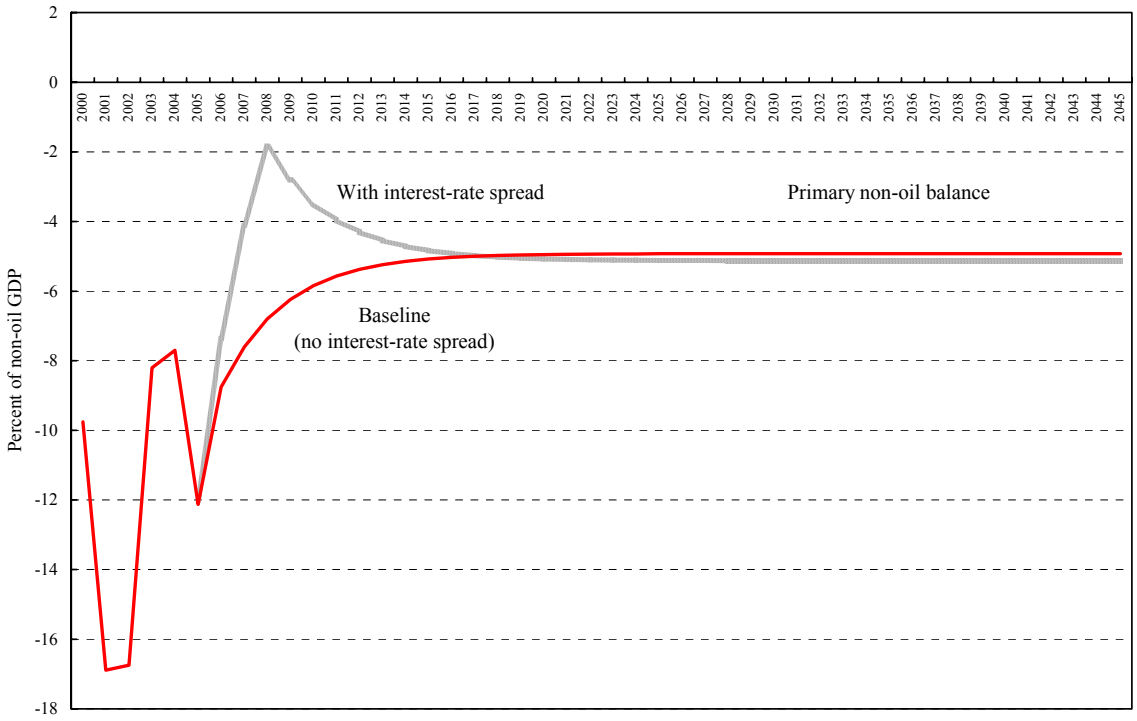
Introducing a spread between the interest rate on sovereign debt and the interest rate on financial assets creates a further incentive to run a smaller non-oil deficit in the short-run. The objective would be to pay off debt sooner. Formally, the solution to the government's portfolio problem now involves two first-order conditions (Barnett and Ossowski 2003). Returning, for expositional simplicity, to the simple PIH model without habits or non-oil growth, the first-order conditions become:

$$U^G(G_t) = \beta \cdot R^{debt} \cdot U^G(G_{t+1}), \text{ and} \tag{11}$$

$$U^G(G_t) = \beta \cdot R \cdot U^G(G_{t+1}). \tag{12}$$

where $R^{debt} > R$, and $R = 1 + r$ is the gross interest rate on assets as before. Equation (11) holds in the initial period if there is positive debt—if $B > 0$. Since $R^{debt} > R$, and $R \cdot \beta = 1$ as before, it holds that $R^{debt} \cdot \beta > 1$ and, by implication, $G_{t+1} > G_t$. This means that government spending is increasing. Since there is debt initially, for this increasing spending to be sustainable, the initial non-oil deficit must be smaller than in the model without the interest-rate spread. Once debt has been paid off, i.e., once $B \leq 0$ and net asset accumulation begins, equation (12) holds, implying—as before—a constant path for expenditure; see equation (5).

Figure II.6. Gabon: Introducing a Debt-Asset Interest Rate Spread, 2000–45



When the interest-rate spread is incorporated into the model with non-oil growth and habit formation, the optimal adjustment path shows deficits that are smaller in the short run but larger in the long run. A simulation based on a spread of 50 basis points (Figure II.6) suggests that the optimal path would include a more rapid repayment of debt—i.e., a higher degree of saving. The government would start to accumulate net assets earlier, thereby increasing the stock of financial wealth and the permanently sustainable fiscal deficit.

If the policy objective is redefined to include constant spending in real per capita terms, the adjustment must be faster. Adding population growth to the model and re-expressing the objective function in terms of spending per capita implies a lower net real interest rate (i.e., the interest rate, r, minus non-oil growth, γ, and population growth) and a lower optimal sustainable primary deficit. Intuitively, the higher the population growth rate, the more wealth will be needed to keep spending per capita constant.

By contrast, incorporating public investment into this model framework could imply higher fiscal deficits in the first years of fiscal adjustment. Two possible extensions of the basic Barnett-Ossowski framework have been discussed. First, if individuals derive utility from government consumption in one period and public investments over several periods, oil discoveries—increasing sustainable government consumption—would immediately increase the government's capital stock with which to provide households a steady consumption stream. Second, if government expenditure is modeled as productive investments, it would

affect the economy's production function in periods ahead, calling for a standard portfolio decision between financial and physical (social) assets. Barnett and Ossowski's (2003) basic condition

$$r = \tau \cdot Y'\left(K_{t+1}\right), \tag{13}$$

states that governments—modeled in their conduct analogously to the way firms operate—should invest in all projects that will pay for themselves (irrespective of whether the country is endowed with oil reserves). This would imply that, with a tax rate of 23.2 percent and an interest rate of 3 percent, as the simulations assume, the rate of return on public investment would have to exceed 12.9 percent.[19]

F. Concluding Remarks

Efficiency and equity reasons suggest placing a high priority on ensuring that fiscal policy is on a sustainable path. At this critical juncture of Gabon's history, the authorities have the choice between consciously deciding on a voluntary, gradual policy adjustment towards a sustainable fiscal-policy stance or continuing with current policies until the declining oil production or unexpectedly falling prices impose a large and rapid contraction in fiscal policies a few years later. As Gabon's history has shown, the effects of boom-and-bust cycles are mostly felt by the already disadvantaged segments in society, skewing Gabon's income distribution even further.

Against this background, this chapter has sought to estimate the sustainable long-run non-oil primary deficit and the optimal adjustment path towards that level. The analysis—based on a model of intertemporal social-welfare optimization with habit formation—has yielded three main conclusions.

- **The authorities need to tighten fiscal policy** to be able to smoothen government spending over time. The permanently sustainable non-oil primary deficit, estimated at 5.0 percent of non-oil GDP, is well below the level of 12.1 percent of non-oil GDP in 2005.

- **The bulk of the adjustment can be spread over three to five years.** In taking into consideration the "addictive" nature of consumption (habits), the analysis suggests a gradual adjustment of the primary non-oil balance to the permanently sustainable

[19] Note that public investment can potentially yield "fiscal dividends" through three channels: (i) direct financial returns, such as tolls; (ii) fiscal returns from growth (tax revenue, provided the growing sectors can be taxed and the marginal tax rate is sufficiently high); and (iii) lower debt ratios. However, if public investment is of low quality, these "fiscal dividends" may not accrue and net debt will increase. This latter characterizes the experience of Gabon thus far.

level rather than a single, abrupt adjustment that standard permanent-income models prescribe.

- **The government should consider paying off expensive debt as soon as possible.** The existence of an interest-rate spread between sovereign debt and financial assets yields an optimal policy path that front-loads fiscal adjustment, thereby increasing the permanently sustainable primary deficit in the long run. Moreover, uncertainty regarding future economic conditions provides a risk-averse policymaker with further precautionary motives for accelerating fiscal adjustment.

Having analyzed the narrow topic of a *level* of government spending that can be maintained even after oil reserves have been exhausted, reforms need to be complemented to ensure the increase in its *quality*. In order to be able to attain its GPRSP objectives, public expenditure need to "crowd in" private investments, implying that effectiveness of government spending needs to increase over time as well. Improvement in public financial management would provide assurances that government spending (including investment) will be able to generate adequate growth and social payoffs. An economic program in Gabon would therefore need to include elements that ensure (i) a phased adjustment of the primary non-oil balance to a permanently sustainable level; (ii) reforms to the management of FFG assets; (iii) a rapid repayment of foreign debt; and (iv) structural reforms aimed at improving the design and quality of public investments.

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III. Why Do Banks Not Want to Be Banks? Credit Growth and Socio-Economic Development in Gabon [20]

Capital is nothing but the lever by which the entrepreneur subjects to his control the concrete goods which he needs, nothing but a means of diverting the factors of production to new uses, or of dictating a new direction to production.

—Joseph A. Schumpeter (1912)[21]

A. Introduction

Gabon's financial sector is shallow even by regional standards, and banks appear to be withdrawing further from core activities. Notwithstanding an increased availability of funds, credit to the private sector declined from a peak of 13.2 percent of GDP in 2002 to 9.0 percent in 2005 (or, respectively, from 22.6 to 19.0 percent of non-oil GDP). Excess liquidity has been transferred, in part in violation of regional prudential regulations, to correspondent banks outside the *Communauté économique et monétaire de l'Afrique centrale* (CEMAC). Even though these assets earn a relatively low rate of return, the net foreign asset position of commercial banks has increased by 4.7 percentage points, from –0.3 percent of GDP in 2002 to 4.4 percent in 2005. On the liability side as well, banks continue to enforce restrictions on minimum deposits and/or depositors' minimum income as a means of limiting financial services to a few "trusted" enterprises, public-sector employees, and expatriates.

The realization of Gabon's (2006) socio-economic development objectives hinges on private-sector investments at the scale required to increase total factor productivity and, hence, the country's non-oil growth potential. This presupposes an economic environment in which banks have enough confidence to deepen financial intermediation and extend more credit to the private sector. The limited access to bank credit in sub-Saharan Africa—especially in the CEMAC zone—is one important factor explaining the generally disappointing growth performance. This is a particularly pertinent challenge for Gabon, where real per capita GDP has declined by 17 percent over the past decade, reflecting both the reduction in oil production and anemic growth in the non-oil sector.

This paper aims at identifying the principal obstacles that have precluded the deepening of financial intermediation and limited the access to credit by small and medium-sized enterprises. In seeking to explain the main reasons behind the resistance of Gabonese banks to expand credit to the economy, a simple model is proposed, in which banks maximize profits over monitoring, which is costly. The banks' caution is thus explained by the declining

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[20] Prepared by Jan-Peter Olters. Valuable comments by Jakob Christensen, Anne-Marie Gulde-Wolf, Roger Nord, Anton op de Beke, Jérôme Vacher, and participants at the Ministry of Finance-organized seminar in Libreville, including those from the *Banque des Etats de l'Afrique centrale* (BEAC), are gratefully acknowledged. The standard disclaimer applies.

[21] See Redvers Opie's 1934 translation, p. 116.

interest-rate spread between deposits and loans and the banks' inability to accurately appraise the quality of their loan portfolios.

The remainder of the chapter is organized as follows. Section B identifies critical issues and surveys the literature on the link between financial markets and growth. Section C summarizes financial-sector developments in Gabon. Section D presents the analytical framework and derives a relationship between credits and the credit/deposit interest-rate differential. On that basis, Section E discusses policy measures that promise to increase access to credit, a key ingredient to Gabon's economic reforms that seek to accelerate economic diversification and foster socio-economic development.

B. Financial Intermediation and Growth

Financial development is a robust leading indicator of long-term economic growth. An extensive literature has analyzed the link between financial depth and economic development—as well as empirical tests of the presumed causality between both variables.[22] In extending the results of Goldsmith (1969), McKinnon (1973), and Shaw (1973), who stress the importance of functioning financial markets for the real sector, King and Levine (1993a, 1993b) find strong empirical evidence of financial depth *inducing* long-term economic growth. They show that "better financial systems stimulate faster productivity growth and growth in per capita output by funneling society's resources to promising productivity-enhancing endeavors" (1993b). For developing countries, Jalilian and Kirkpatrick (2005) confirm these results, demonstrating that "poorer developing countries will gain most from the growth and development of the financial sector." Within countries, Beck et al. (2004) find that financial development is "pro-poor" as it raises the income of the more disadvantaged segments of society disproportionately.

Lack of access to credit can account for long-term stagnation. Rioja and Valev (2004) caution that growth effects from deepening financial intermediation are likely to occur only if banks reach a certain level of development, which they define as a ratio of private credit to GDP of at least 14 percent. Their result supports Saint-Paul's (1992) hypothesis of multiple equilibria in financial markets, "with the economy staying either at a 'low' equilibrium with underdeveloped financial markets and little division of labour, or a 'high' equilibrium with strong financial markets and an extensive division of labour," which "may account for the persistence of GNP level and growth rate differences between countries." Campos and Coricelli (2002) survey the "credit crunch" literature for transition economies, which has shown that an initial shortage in private-sector loans can lead to a "bad equilibrium" with persistently low output.

Heavy-handed regulation often hampers the development of the banking system in developing countries. In an environment of "financial repression" (Agénor and Montiel 1999), banks are typically required to maintain high reserve and liquidity ratios, while being

[22] For literature reviews, see, e.g., Levine (1997) and—with a particular focus on developing and transition economies—Holden and Prokopenko (2001).

bound by legal ceilings on interest rates. For some countries in sub-Saharan Africa, Gulde-Wolf et al. (2006) confirm that interest-rate controls adversely affect deposit-taking and lending. Together with legal and institutional weaknesses, these controls are seen as important reasons behind the underdevelopment of the financial sector in most countries of sub-Saharan Africa. Sacerdoti (2005) cites an unsupportive institutional framework as principal reason as to why banks in this region—even though they have the resources—remained hesitant in extending credit to the private sector. In particular, he identifies inadequacies in (i) information on borrowers; (ii) laws governing the enforceability of claims and property rights; and (iii) collateral and real-estate registration.

The situation in the CEMAC zone is even more critical (Table III.1 and Figure III.1): financial depth is not only being shallow but stagnant in periods of accelerating growth and improved macroeconomic balances. In analyzing financial developments within the CFA franc zone as a whole, Claveranne (2005) cites as principal reasons for the underdeveloped banking system the generally low incomes and the fact that more than 60 percent of households participate in the informal sector, which does not offer the minimal securities that banks require to open an account. Christensen and Fischer (2005) refer to (i) the oligopolistic market structure in the CEMAC zone; (ii) the volatility in bank liabilities (given the high ratio of demand deposits and the effects of fluctuating oil prices); and (iii) structural impediments[23] as a possible reasons for the shallowness of the financial sector.

Table III.1. Sub-Saharan Africa and Transition Economies: Degree of Financial Intermediation

	Per capita GNI, 2004[1]	Credit to the Economy[2]		Broad Money[2]	
		2001	2005	2001	2005
Sub-Saharan Africa[3]	608	16.9	19.3	25.8	28.7
CFA franc zone[3]	832	12.6	14.4	22.4	24.8
CEMAC zone[3]	738	7.8	7.6	14.3	14.9
Gabon	3,940	12.2	9.0	16.4	17.7
Central Europe and Baltic countries[3]	7,067	30.7	36.3	32.7	27.0
South-Eastern Europe[3]	3,103	19.6	32.2	23.9	29.8
Other countries of the former Soviet Union[3]	2,588	15.7	27.3	9.4	16.3

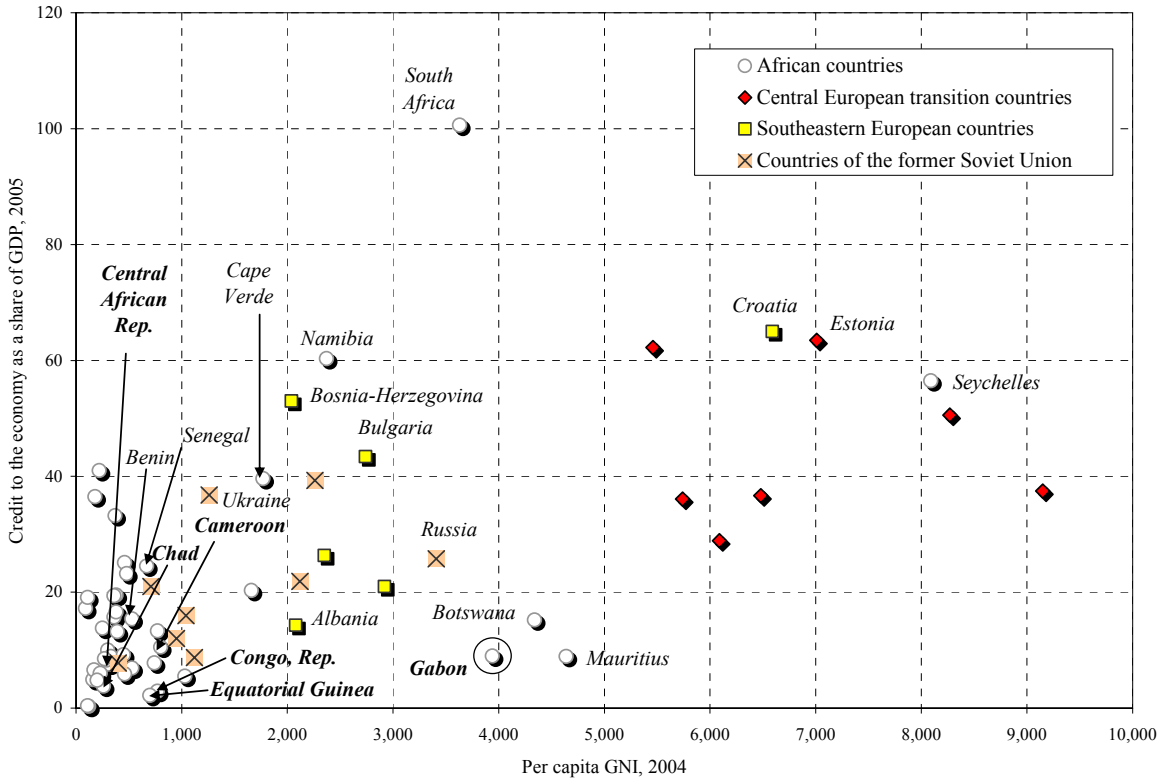
[1] In current U.S. dollars, Atlas method. Source: World Bank, *World Development Indicators 2005.*

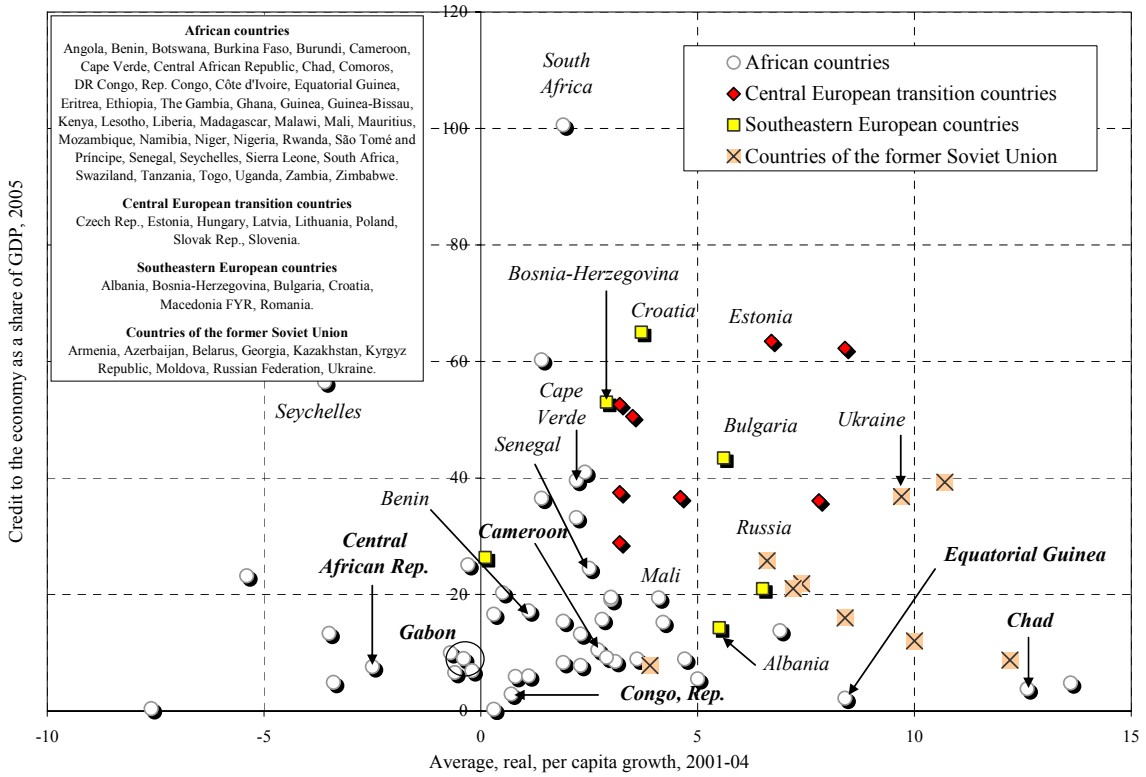
[2] Source: IMF, *World Economic Outlook* database.

[3] Weighted by population; definition of regional groups as in Figure III.1.

[23] They discuss the improper accounting and book-keeping practices in the corporate sector, weak legal systems, and expensive and cumbersome registration of collaterals.

Figure III.1. Sub-Saharan Africa and Transition Economies: Credit to the Economy, 2005





Sources: IMF WEO database and World Bank, *World Development Indicators 2005*.

C. Banks in Gabon

The reaction of Gabon's six commercial banks to the recent increase in liquidity reveals the existence of underlying structural problems. In the absence of a supporting infrastructure (e.g., money and debt markets) and unable to lend to the country's most important sector (oil companies mostly finance themselves outside the country), financial institutions in Gabon have traditionally focused on a narrow segment of business (IMF 2002). The increased availability of funds, largely a reflection of high international oil prices (Figure III.2), but also because of the government's clearance of domestic arrears, has accentuated the very cautious approach that banks have taken in Gabon. In response to the average CFAF 77.4 billion increase in deposits between 2002–03 (when oil prices were relatively stable) and 2004–05 (when oil prices increased significantly), banks bolstered their net foreign asset positions by CFAF 97 billion. The assets are mostly low-risk, low-interest correspondent accounts held at parent banks outside the CEMAC zone.[24] At the same time, financial institutions felt the need to reduce their loan portfolios, from an average CFAF 430.0 billion in 2002–03 (or 53.4 percent of total assets) to CFAF 390.7 billion in 2004–05 (44.7 percent). As a result, credit to the private sector in Gabon, as a share of GDP, has declined to less than half the average of countries in sub-Saharan Africa (Table III.2). After the relatively stable period of 2002–03, increased oil prices caused a noticeable changes in bank behavior during 2004–05 (Figure III.3).

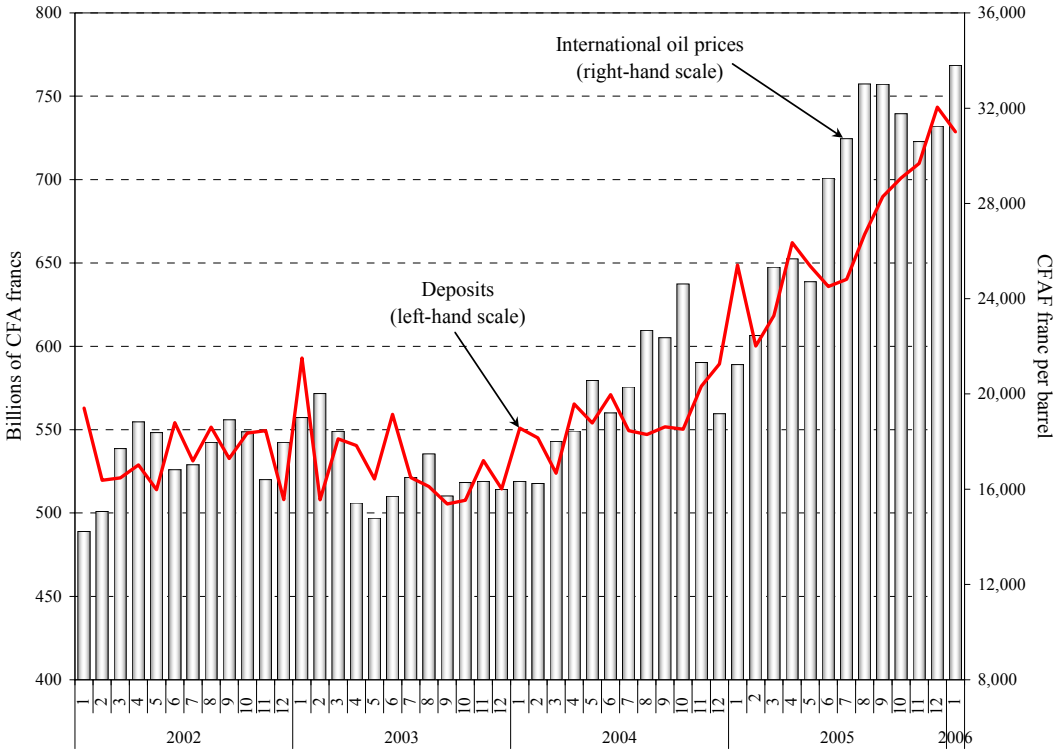
Table III.2. Gabon: Commercial Bank Behavior, 2002/03 – 2004/05

	Averages		Averages		Averages		Averages	
	2002-03	2004-05	2002-03	2004-05	2002-03	2004-05	2002-03	2004-05
	(Billions of CFA francs)		(Percent of total assets)		(Percent of GDP)		(Percent of non-oil GDP)	
Deposits	532.6	610.0	69.5	65.2	15.3	14.3	26.3	28.2
Net foreign assets	26.2	123.2	3.4	12.8	0.8	2.8	1.3	5.7
Credits to the economy	430.0	390.7	56.1	42.2	12.3	9.2	21.2	18.1

Source: BEAC; and staff estimates.

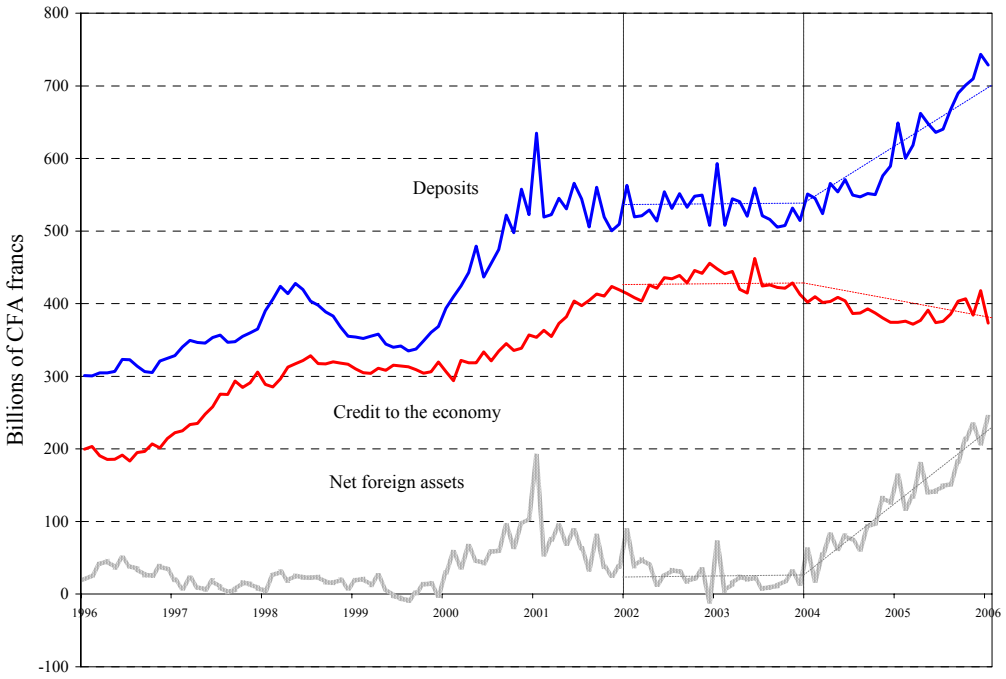
[24] The fact that the BEAC has not been enforcing prudential regulations on net foreign exchange positions in the CEMAC zone has facilitated the banks' transfer of liquidity to correspondent accounts abroad; see also IMF (2002). In fact, banks in Gabon have few options, given that (i) there is no domestic market for treasury bills; (ii) banks have no access to an operational interbank market; (iii) the BEAC remunerates deposits at very low rates and is not actively engaged in absorbing excess liquidity. Apart from the lack of alternatives, banks have increased their net foreign asset positions against the experience of occasional difficulties to obtain foreign currency within the region. In this environment, banks benefit from Presidential Order No. 3563 of January 24, 1963 that requires them to transfer 10 percent of all deposits to the government as investment credit (*bons d'équipement*), remunerated at a—by now—attractive rate of 7.5 percent per annum.

Figure III.2. Gabon: High Oil Prices and Bank Liquidity, Jan. 2002–Jan. 2006



Source: BEAC; and staff estimates.

Figure III.3. Gabon: Bank Assets and Liabilities, Jan. 1996–Jan. 2006



Source: BEAC; and staff estimates.

Similar to other CEMAC countries, banks in Gabon have trouble monitoring the quality of their loan portfolio. The regional supervisory agency, the *Commission bancaire de l'Afrique centrale* (COBAC 2006a), reports that 14.3 percent of credits outstanding at end-December 2005 are problem loans, as compared to 15.8 percent in 2004 and 13.8 percent in 2003 (Table III.3).[25] These difficulties—paired with the banks' preference to finance current-account operations of large enterprises, traders, and distribution companies rather than investment projects—result in the gradual trend increase of the relative share of short-term credits. In 2005, almost 61 percent of all outstanding credits were short term and only 6 percent long term.[26] The corresponding figures for 2002–03 are 57 and 4 percent, respectively. More than one-half of all loans support the activities of enterprises in the tertiary sector, with the largest increases being in trade in construction materials and services in transport and enterprise support showing the largest increases. True investment activities were financed mainly in certain sectors of mining, agriculture and, particularly, the processing of wood for non-furniture commodities. In essentially all other sectors of the economy, most notably in forestry, banks provided substantially fewer credits in 2004–05 than in 2002–03 (Table III.3). After difficulties with non-performing loans in the high-risk forestry sector, commercial banks have decreased their loan exposure to this sector from more than CFAF 69 billion (11.9 percent of all outstanding credits) in 2002 to around CFAF 17 billion (4.2 percent) in 2005. This reduction of almost CFAF 52 billion in credits to the forestry sector—most prominently by the largest bank—explains 31 percent of the entire reduction in credit to the economy.

[25] The corresponding figure for January 2006 was 15.1 percent (COBAC 2006b).

[26] Unless banks can raise sufficient amounts of longer-term deposits, providing long-term loans will result in maturity mismatches and—possibly excessive—liquidity risk, especially in light of Gabon's non-operational interbank market.

Table III.3. Commercial Banks' Credit Portfolios, 2002-05

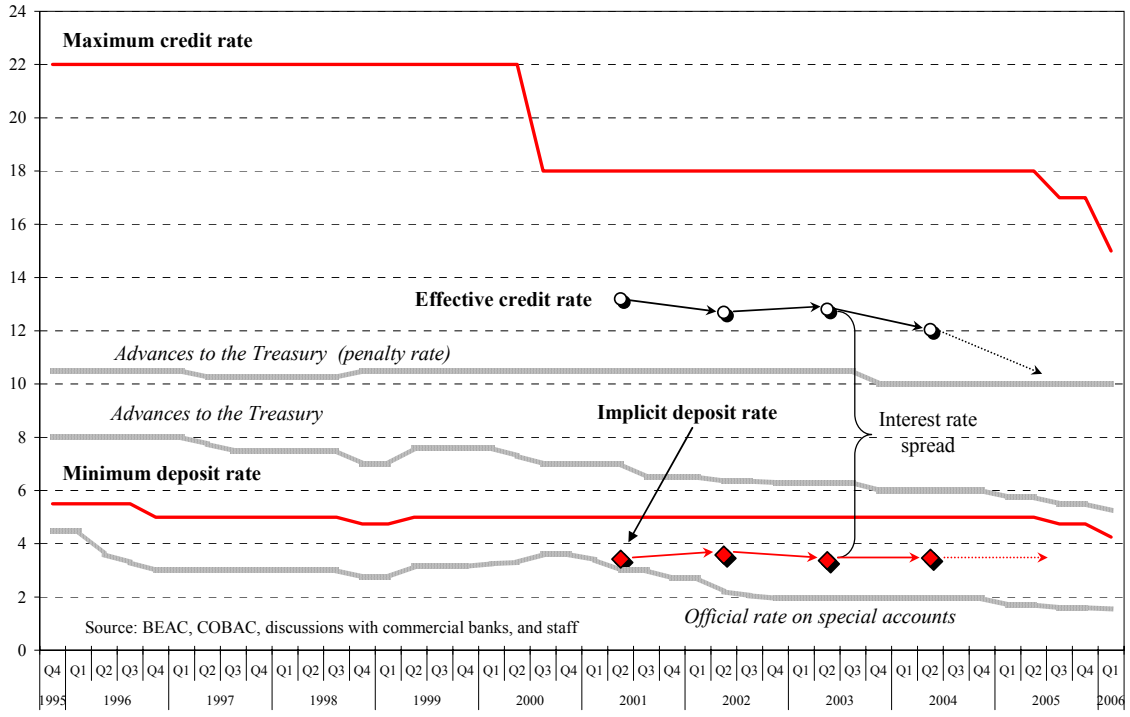
(Billions of CFA francs; unless otherwise indicated)

	2002	2003	2004	2005
Credits (gross) *	553.0	503.8	463.1	473.2
Problem loans	63.0	69.7	73.0	67.8
in percent of total credits	11.4	13.8	15.8	14.3
Provisions	41.9	54.9	57.2	54.4
Credits (net)	511.2	379.1	333.0	351.0
Credits (gross) *	553.0	503.8	463.1	473.2
Government	59.4	52.3	39.1	31.3
Public enterprises	14.2	9.5	16.6	7.7
Private sector	466.5	431.2	376.2	424.7
in percent of total credits	84.4	85.6	81.2	89.8
Non-residents	3.5	6.1	25.6	3.3
Other	9.4	4.7	5.6	6.1
Credit to the economy (in percent)	100.0	100.0	100.0	100.0
Short term	59.0	55.7	54.3	60.6
Medium term	39.4	38.3	39.4	33.3
Long term	1.5	6.0	6.3	6.1
Credit to the economy (in percent)	100.0	100.0	100.0	100.0
Primary sector	17.1	14.9	9.8	10.0
Of which: wheat, fruit, vegetables	0.3	0.4	0.7	1.1
Of which: forestry	11.9	11.5	6.7	4.2
Of which: mining	0.0	0.4	0.5	0.8
Secondary sector	13.6	10.5	12.1	15.7
Of which: non-furniture wood	2.0	0.8	5.9	6.9
Tertiary sector	69.3	74.6	78.1	74.4
Commerce	16.7	18.9	18.6	23.0
Of which: construction materials	0.4	0.3	0.3	3.2
Services	52.6	55.7	59.5	51.4
Of which: transport	1.3	1.4	2.2	3.1
Of which: telecommunications	1.4	1.9	3.6	2.5
Of which: enterprise support	8.2	9.2	13.1	14.1

Source: COBAC (*) and BEAC. Difference on total amounts of credits to the economy between COBAC and BEAC are due to classification differences.

Although prices are stable, interest rates remain high, especially for deposits. To prevent large-scale capital outflow, the BEAC fixes a minimum deposit rate on savings accounts.[27] At 4.25 percent (4.75 percent up until March 2006), this floor is binding (although fees and commissions lower the implicit deposit rates to about 3.5 percent). The regional central bank has also defined a maximum rate for lending, currently set at 15 percent (17 percent up until March 2006). This rate appears binding for most individuals and, to a lesser extent, small and medium-sized enterprises, but—due to the additional funds circulating within the financial system—effective credit rates have come down for the lowest-risk corporate clients (Figure III.4). As a result, there are large standard deviations around the average (effective) lending rates, excluding the effects of the value-added tax and other banking fees, which are applied on top of the mandated rates. Although the monetary authorities do not regularly monitor the development of effective interest rates, the COBAC has reported effective credit rates for the period 2001–04. With increased liquidity, these fell in 2004 and—according to information provided by commercial banks—have fallen further since, thereby reducing the interest-rate spread between deposits and credits.

Figure III.4. Gabon: Interest Rate Structure, 1995–2006



Source: BEAC, COBAC, and IMF staff estimates.

[27] In IMF (forthcoming), it is argued that the cost of resources for Gabonese banks are the highest in the region, with the minimum deposit rate not only applying to savings accounts (*comptes d'épargne sur livrets*) but to most term deposits as well. Specifically, the report hints at the existence of nationally negotiated deposit rates in excess of those being applied within the CEMAC region.

D. The Banks' Profit Maximization Problem

Banks maximize profits over (costly) monitoring.[28] The following representation—while abstracting from issues of asymmetric information—is modified to fit the specific Gabonese context. The model abstracts from inflation and country risk premia. It treats bank capital as exogenous. Financial intermediation is assumed to take place in a banking sector with J atomistic banks, with $j = \{1, \ldots, J\}$. Apart from officially regulated minimum reserves and required loans to the government, which are not considered in the model, banks must decide whether to invest their liabilities—i.e., the sum of insured[29] and uninsured deposits ($\bar{K}_j$ and $K_j - \bar{K}_j$, respectively)—in risky loans to the private sector, K_j^L, or in riskless deposits held at commercial banks abroad ("net foreign assets"), $K_j - K_j^L$. Consistent with Gabon's institutional setup, banks have no access to treasury bills, bonds, stocks, or other financial instruments. The length of each bank's balance sheet, net of the officially required investments, is K_j, with $K = \sum_{j=1}^{J} K_j$; see Table III.4.

Table III.4. A Commercial Bank's Balance Sheet

Assets	Liablilities
Net foreign assets, $K_j - K_j^L$ (on which the bank receives a risk-free rate r)	Insured deposits, $\bar{K}_j$ (on which the bank pays a risk-free rate r)
Loans to the private sector, K_j^L (on which the bank receives a risk-free rate r^L)	Subordinated debt, $K_j - \bar{K}_j$ (on which the bank pays a risk-free rate r^B)

Table III.5. Banks' Expected Loan Pay-Offs

Pay-Off	Probability
0	$\rho \cdot (1 - \mu)$
$r^L \cdot K_j$	$1 - \rho \cdot (1 - \mu) = 1 - \rho + \mu \cdot r$

[28] See, e.g., Holmstrom and Tirole (1997) and Gropp and Olters (forthcoming).

[29] To date, the CEMAC does not have an operational deposit insurance, notwithstanding years of discussion on the establishment of a *Fonds de garantie des dépôts en Afrique centrale.*

Loans to the private sector default with probability ρ, with $0 \leq \rho \leq \frac{1}{2}$,[30] adjusted for the banks' credit-risk monitoring, which is denoted μ. The bank will receive $r^L \cdot K_j$ on outstanding loans with certainty and never default, if it monitors the quality of the loan portfolio fully ($\mu = 1$); see Table III.5. Monitoring, however, is costly. For mathematical simplicity, and to be able to obtain a closed-form solution, a quadratic monitoring-cost schedule à la Cordella and Yeyati (2002) will be assumed:

$$V(\mu) = \xi \cdot \mu^2. \tag{1}$$

The bank operates for one period and fails if the pay-off to the loan portfolio is zero. If the bank succeeds, subordinated debt holders will receive r^B on their deposits. In case the bank fails, γ represents the probability that the government will compensate uninsured depositors with $\gamma \cdot r^B$. As subordinated debt holders are assumed to be risk averse, they require to be compensated for risk. For simplicity, the following relationship is assumed to hold:

$$r^B = r + (1-\gamma)\cdot(1-\mu)\cdot\left(r^L - r\right). \tag{2}$$

Equation (2) implies that $r \leq r^B \leq r^L$ and, more specifically, that

$$r^B = \begin{cases} r \quad \text{if} \begin{cases} \gamma = 1 \ \text{ or} \\ \mu = 1, \end{cases} \\ r^L \ \text{if} \begin{cases} \gamma = 0 \ \text{ and} \\ \mu = 0. \end{cases} \end{cases} \tag{3}$$

According to (3), households face no additional risk investing their assets in uninsured bank deposits if (i) the government guarantees, if necessary, to bail out 100 percent of subordinated debt ($\gamma = 1$); or (ii) banks fully monitor the quality of their loan portfolio ($\mu = 1$). In that case, banks do not have to compensate households for any additional risk, and subordinated debt holders accept to receive the risk-free rate *r*. By contrast, if the government can commit (credibly) to not bailing out subordinated debt holders ($\gamma = 0$), and if banks concomitantly refuse to monitor the quality of their loan portfolios ($\mu = 0$), the banks will have to compensate depositors for their additional risk by offering an interest rate equivalent to the loan rate.

Banks are run by risk-neutral managers who maximize bank profits. Given their relative size, all banks are price-takers. Assuming that all banks are identical, the banking system's profit-maximization problem over the choice variable μ looks as follows:

[30] It is thus implicitly assumed that repayment is more probable than default.

$$(4)\qquad \max_{\{\mu\}} \pi = \left(1-\rho+\mu\cdot\rho\right)\cdot\left(r^{L}\cdot K^{L}+r\cdot\left(K-K^{L}\right)-r\cdot\overline{K}-r^{B}\cdot\left(K-\overline{K}\right)\right)-\mathrm{V}(\mu)\cdot K$$
$$= \left(1-\rho+\mu\cdot\rho\right)\cdot\left(r^{L}-r\right)\cdot\left(K^{L}-\left(1-\gamma\right)\cdot\left(1-\mu\right)\cdot\left(K-\overline{K}\right)\right)-\xi\cdot\mu^{2}\cdot K\,.$$

Equation (4) yields the following first-order condition:

$$(5)\qquad \frac{\partial\pi}{\partial\mu}: -2\cdot\mu\cdot\xi\cdot K+\left(r^{L}-r\right)\cdot\left(\left(1-\gamma\right)\cdot\left(1-2\cdot\left(1-\mu\right)\cdot\rho\right)\cdot\left(K-\overline{K}\right)+\rho\cdot K^{L}\right)\equiv 0\,.$$

The optimal level of banking sector monitoring, μ^{*}, therefore equals

$$(6)\qquad \mu^{*}=\frac{1}{2}\cdot\frac{\left(r^{L}-r\right)\cdot\left(\left(1-\gamma\right)\cdot\left(1-2\cdot\rho\right)\cdot\dfrac{K-\overline{K}}{K}+\rho\cdot\dfrac{K^{L}}{K}\right)}{\xi-\left(1-\gamma\right)\cdot\rho\cdot\left(r^{L}-r\right)\cdot\dfrac{K-\overline{K}}{K}}\,.$$

Capacity and institutional constraints are assumed to limit the bank's ability to monitor the quality of its loan portfolio beyond a certain degree—i.e., $0<\mu\le\overline{\mu}$, with $\overline{\mu}<1$. Hence, if the profit-maximizing level of monitoring established in (6) exceeds the limit of the attainable degree of oversight—if $\mu^{*}>\overline{\mu}$—banks will respond by reducing their exposure to private-sector loans; see (6). Thus, for $\mu^{*}>\overline{\mu}$, optimal bank conduct is represented by

$$(7)\qquad \frac{K^{L*}}{K}=\frac{\left(1-\gamma\right)\cdot\left(1-2\cdot\rho+2\cdot\overline{\mu}\cdot\rho\right)}{\rho}\cdot\left(\frac{K-\overline{K}}{K}\right)-\frac{2\cdot\overline{\mu}\cdot\xi}{\rho}\cdot\left(\frac{1}{r^{L}-r}\right).$$

Assuming that (i) the constraints on bank capability to monitor the quality of loan portfolios; (ii) monitoring costs; (iii) loan default probabilities; and (iv) implicit bail-out probabilities are time-invariant, equation (7) sees lending decisions as a function of the bank holdings of subordinated debt relative to the balance sheet and the interest-rate differential between deposit and credit rates:

$$(8)\qquad \frac{K^{L}}{K}=\beta_{0}\cdot\left(\frac{K-\overline{K}}{K}\right)-\beta_{1}\cdot\left(\frac{1}{r^{L}-r}\right),$$

$$\text{with }\beta_{0}=\frac{\left(1-\gamma\right)\cdot\left(1-2\cdot\rho+2\cdot\overline{\mu}\cdot\rho\right)}{\rho},\ \text{and }\beta_{1}=\frac{2\cdot\overline{\mu}\cdot\xi}{\rho}\,.$$

In a situation without operational deposit insurance, as is currently the case in Gabon, $\overline{K}=0$ and $\left(K-\overline{K}\right)\big/K=1$. Subsequently, equation (8) becomes

(9) $$\frac{K^L}{K} = \beta_0 - \beta_1 \cdot \left(\frac{1}{r^L - r} \right).$$

Equation (9) shows that the banks' willingness to increase the share of credits relative to the exogenously given length of their balance sheets increases with a larger interest differential between lending and deposit rates (given the assumption of no inflation and an unchanged country risk premium). While the relation between credit to the economy as a share of total assets and the negative and inverse expression of the interest-rate spread (Figure III.5) appears to support this result, the lack of regular reporting on effective interest rates precludes a formal econometric assessment.

Any structural reforms that would lower the cost of monitoring increase ratio of credit to the economy and bank capital, as

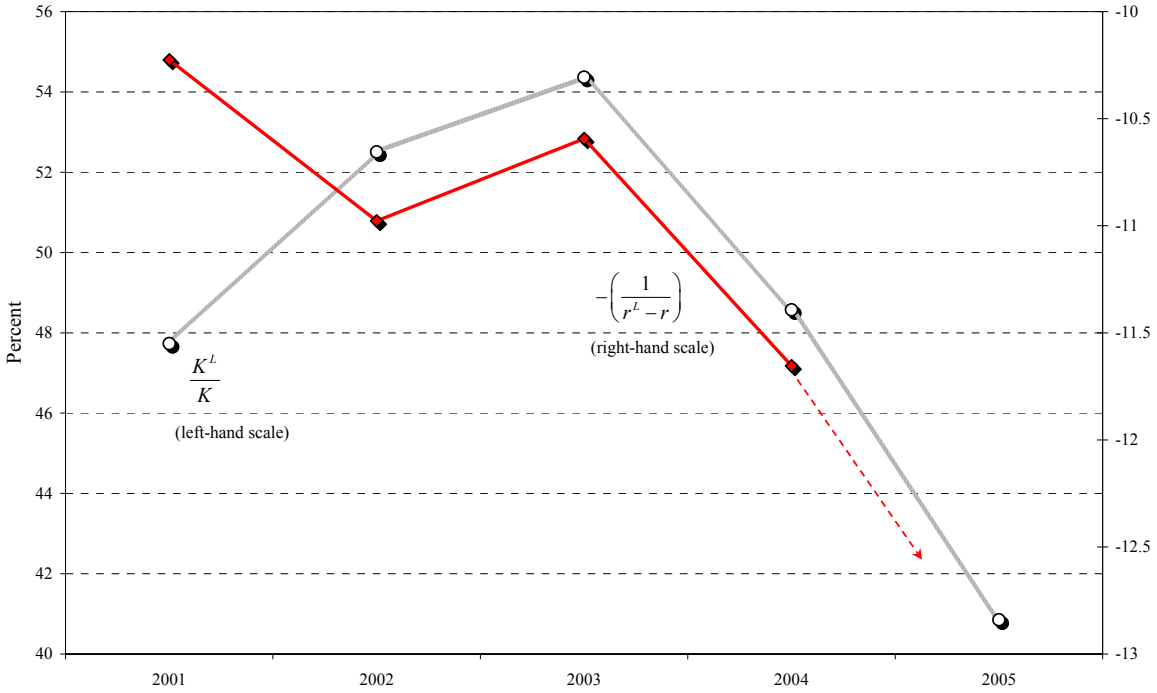
(10) $$\frac{\partial \mu^*}{\partial \xi} < 0$$ (without monitoring constraints); see equation (6), or

(11) $$\frac{\partial \left(K^{L^*} / K \right)}{\partial \xi} < 0$$ (with monitoring constraints); see equation (7).

Equation (10) shows that lowering monitoring costs would induce banks to increase monitoring. In the presence of structural constraints limiting the amount of monitoring, the lowering of monitoring costs would increase credit to the economy as a share of total bank capital; see equation (11). These results combined would suggest a two-pronged approach to modernizing the banking sector in Gabon, viz., to (i) increase the interest-rate spread[31] (i.e., to lower the administratively fixed deposit rate or eliminate such a floor entirely) and (ii) lower ξ by improving the institutional environment required to monitor more effectively the quality of credit applications, verify financial documentation, register collaterals and be able, if need be, to enforce corresponding contracts in a timely fashion.

[31] Given that only the minimum deposit rate is binding in Gabon, this would imply a reduction in that rate. Against this background, the BEAC's decision to lower this rate by half a percentage point on March 6, 2006 is very welcome.

Figure III.5. Gabon: Interest-Rate Spread vs. Credit to the Economy, 2001–05



Source: BEAC, COBAC; and staff estimates.

E. Policy Implications and Preliminary Conclusions

The banks' inability to monitor effectively the quality of their loan portfolios, paired with the high, central bank-determined interest-rate floor on deposits, are key factors behind the very low degree of financial intermediation. Recent financial developments in Gabon, particularly while oil prices are high, combined with the results of a simple, profit-maximizing bank model point to such a result. However, the fact that neither the BEAC nor the COBAC consistently collect information on effective interest rates precludes a more formal, econometric analysis, and conclusions can only be preliminary.

To successfully implement Gabon's development strategy, it is crucial that the financial sector feel comfortable increasing access to credit to the private sector, possibly at rates lower than those currently prevailing. Two reform steps should help in this endeavor, viz.,

(i) to reduce the minimum rate on deposits[32] (if not fully liberalize it); and

(ii) to overcome the structural obstacles that have kept banks from objectively assessing and accurately monitoring the credit risk of loan applicants' investment proposals.[33]

[32] At the current level, the CEMAC rate is more than twice the one prevailing in the euro area.

By increasing flexibility in the banking sector, lowering the interest-rate floor on deposits (or no longer applying it) should help to increase access to financial services. This would lower deposit rates, which would better align the costs of bank liabilities in Gabon with those of their international competitors. As minimum deposit or minimum income requirements for deposits would no longer be necessary, banks could broaden their customer base and increase the stability of their deposits. The resultant increase in the interest-rate spread between deposits and loans, which would—in all likelihood—permit a further decline in the effective lending rate, would create an incentive for banks to offer loans to new customers.

These reforms need to be complemented by structural changes that would allow banks to assume more risk and extend credit to customers with whom they have not yet developed a "personal relationship of trust". The reform agenda should therefore include measures to (i) strengthen the legal and regulatory environment for commercial matters; (ii) facilitate registration of collateral and accelerate foreclosure on collection; (iii) reinforce creditor rights; and (iv) improve corporate accounting practices.[34] While many of these changes need to be addressed on the regional level, it would thus become easier to realize promising private-sector investments, and to do so at greater numbers—which would help Gabon to increase total factor productivity and its non-oil growth potential.

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[33] These recommendations contrast to an often observed reaction by policy-makers—inside and outside the region—to create state-owned "development" banks that are (politically) charged to support lending to domestic enterprises. However, the past performance of these types of institutions, in Gabon as well as in other countries, has shown that such measures do not only not substitute for the implementation of structural reforms to increase the proper functioning of the market but typically add to the difficulties in this sector.

[34] These recommendations are in line with those presented in, e.g., IMF (2002), Christensen and Fischer (2005), Gulde-Wolf et al. (2006), and IMF (forthcoming).

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IV. Fuel Price Subsidies in Gabon: Fiscal Cost and Social Impact[35]

A. Introduction

This paper looks at the impact of recent developments in international petroleum prices on fuel price subsidies in Gabon. While international fuel prices have more than doubled from 2003 to 2005, the domestic prices of petroleum products in Gabon remained frozen. The magnitude of these developments on price subsidies is quantified by comparing ex-refinery prices with estimated import parity prices (IPP). In addition, the social incidence of the subsidies is quantified using household survey data and a menu of policy options for reform is suggested.

The first main finding is that fuel prices in Gabon benefit from substantial subsidies. The total fiscal cost of the implicit subsidies is likely to reach 3.2 percent and 4.5 percent of non-oil GDP in 2005 and 2006, respectively (1.6 percent and 2 percent of overall GDP). These subsidies are not reported explicitly in the fiscal accounts but are instead netted against oil revenue. The largest fiscal outlays are on the subsidization of diesel (used in large-scale industries and for ground and maritime transportation) and jet kerosene consumption.

Secondly, the level of fuel price subsidization in Gabon is in the range observed in other developing and emerging market countries with fuel-price subsidies. Gabon's estimated fuel price subsidy of 1.6 percent of overall GDP in 2005 is near the median of 2 percent of GDP observed in other countries for which data on subsidies were available. However, the almost four-fold increase in implicit subsidies in Gabon during 2003–05 is the largest out of the countries surveyed.

Thirdly, it is mostly higher-income households that benefit from the fuel subsidies. The top 10 percent of individuals received about one-third of the total subsidy. Meanwhile, the bottom 30 percent of individuals received only 13 percent of the subsidies, highlighting that fuel price subsidies are a very costly way to protect the real incomes of the poor.

The paper is structured as follows: Section B evaluates the magnitude of price subsidies at the ex-refinery level using estimated import parity prices, while Section C compares the degree of fuel price subsidization in Gabon with the size of subsidies in other developing and emerging market countries. Section D analyzes the social incidence of the subsidies, Section E discusses of policy options for mitigating the impact of reducing the subsidies, and Section F concludes.

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B. The Magnitude of Fuel Price Subsidies in Gabon

For the purposes of this paper, a subsidy is defined as the difference between the reduced price of a good with government support and the price of the good in the absence of such support. The implicit price subsidy for petroleum product i in time period t (S_{it}) can then be defined as the difference between the reference "free-market price" (M_{it}) and the actual price times the volume of consumption (C_{it}):

$$(1) \qquad S_{it} = (M_{it} - P_{it})C_{it}$$

At the core of the fuel price subsidies in Gabon are the ex-refinery prices of the seven petroleum products that have been frozen since 2002.[36] The sole supplier of these products to the domestic market is the majority-privately-owned refinery SOGARA,[37] which purchases the crude oil required for its operations on the Gabonese market at an international market price. Due to the freeze on domestic ex-refinery fuel prices, in effect since 2002, the refinery sustains a loss when it sells the refined products on the Gabonese market. To quantify the loss, i.e., the value of the fuel price subsidy, a reference price (M_{it}) is computed every month by SOGARA using an import parity price (IPP) formula. The difference between the IPP and the frozen ex-refinery price multiplied by the quantity sold equals the monthly loss to the refinery for which it is compensated fully by the government. Payment is made in the form of crude oil delivered free of charge to SOGARA.

SOGARA calculates the IPP using the items shown in Table IV.1. The IPP is equal to the f.o.b. Mediterranean price reported in Platt's (row 1), to which are added various import costs (transportation and financial costs, rows 3-6) and customs duties (rows 16-19). An equalization (cross-subsidization) fee is applied to super and JetA1, to cover discounts applicable on other petroleum products (row 33). Importantly, the IPP also includes a fee, called the "competitiveness differential," of CFAF 15,000 per metric ton (row 31) that is collected on account of SOGARA's production inefficiency.[38]

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[36] Super gasoline, diesel, lighting kerosene, butane gas, jet kerosene, fuel oil, and asphalt.

[37] SOGARA is owned by the Gabonese government (25 percent), Total (49,25 percent), Mobil, Shell, ChevronTexaco, Agip, (6.25 percent each), and others (7 percent). Because domestic demand exceeds SOGARA's output, the refinery satisfies the domestic shortage by importing the products.

[38] The "competitiveness differential" was originally intended to allow SOGARA to make a modest profit assuming it kept control of its costs. The authorities had intended for the competitiveness differential to gradually be reduced as SOGARA's throughput increased and as it reduced its administrative expenses. However, maintaining the competitiveness differential has been necessary due to the refinery's production inefficiency.

Table IV.1. Calculation of Import Parity Price, June 2005

	Super gasoline	Light. kerosene	Jet kerosene	Diesel	Butane	Fuel oil	Asphalt
FOB MED (USD/T)	472.6	507.0	507.0	439.8	329.8	217.8	247.6
Direct maritime freight costs (USD)	66.4	66.4	66.4	66.4	100.0	66.4	100.0
Merchant margin (USD)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Insurance 0.15% (FOB + freight + margin)	0.8	0.9	0.9	0.8	0.7	0.4	0.5
Losses 0.25% (FOB + freight + margin + insurance)	1.4	1.4	1.4	1.3	1.1	0.7	0.9
Total international freight costs	72.6	72.7	72.7	72.4	105.7	71.6	105.4
CIF price, Port Gentil (USD/T)	545.2	579.7	579.7	512.3	435.5	289.4	353.0
Finance charges (applied to CIF price)							
Libor + 2%	5.3	5.7	5.0	5.0	4.1	2.9	3.3
CREDIT letter (0.75% of CIF price)	4.1	4.3	4.3	3.8	3.3	2.2	2.6
Total finance charges	9.4	10.0	9.4	8.9	7.4	5.1	6.0
Direct import costs (USD/T)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Customs duties 11.4% of CIF price	62.1	66.1	66.1	58.4	49.7	33.0	40.2
Port royalties (USD/T)	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Passage charges at SOGARA terminal	4.5	4.5	4.5	4.5	4.5	4.5	4.5
IPP, Port Gentil (USD/T)	624.1	663.1	662.5	586.9	499.9	334.8	406.6
CFAF/USD exchange rate	539.7	539.7	539.7	539.7	539.7	539.7	539.7
IPP, Port Gentil in (CFAF/T)	336,814.2	357,865.8	357,525.8	316,728.1	269,777.9	180,701.4	219,431.6
Volume adjustment factor	0.7	0.8	0.8	0.9	1.0	1.0	1.0
IPP, Port Gentil in (CFAF per M3 or T) [1/]	245,874.4	286,292.6	286,020.7	269,218.8	269,777.9	180,701.4	219,431.6
"Competitiveness differential" (CFAF/M3 or T) [1/]	10,950.0	12,000.0	12,000.0	12,750.0	15,000.0	15,000.0	15,000.0
Equalization factor "péréquation entre produits"	31,600.0	-29,000.0	23,000.0	-4,600.0	-55,115.0	-14,000.0	-34,000.0
Implicit IPP - POG (in CFAF/M3)	288,424.4	269,292.6	321,020.7	277,368.8	229,662.9	181,701.4	200,431.6
Actual ex-refinery price (frozen since August 2002)	214,404.0	145,693.0	197,693.0	172,313.0	155,717.0	142,348.0	146,857.0
Required price increase (percent)	34.5	84.8	62.4	61.0	47.5	27.6	36.5
Ex-refinery subsidy (FCFA/M3 or T) [1/]	74,020.4	123,599.6	123,327.7	105,055.8	73,945.9	39,353.4	53,574.6
Quantity sold on domestic market (M3 or T) [1/]	4,735.0	3,707.0	5,959.0	31,609.0	2,098.0	8,897.0	122.0
Monthly loss incurred (CFAF)	350,486,381	458,183,875	734,909,489	3,320,710,225	155,138,543	350,127,130	6,536,102
Annualized loss (in percent of annual NOGDP) [2/]	0.2	0.2	0.4	1.8	0.1	0.2	0.0

[1/] Asphalt, butane, and fuel oil quantities are in metric tones (T). The rest are in cubic meters (M3).
[2/] Costs in this table are annualized by multiplying the June amount by 12.

Source: Gabonese authorities; and Fund staff calculations and estimations.

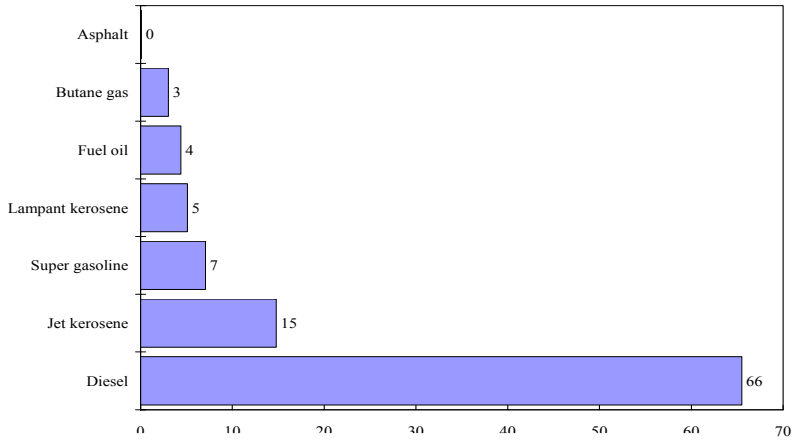
The fiscal cost of the subsidies due to the ex-refinery price freeze is estimated to have reached 3.2 percent of non-oil GDP in 2005, and is expected to rise to 4.5 percent in 2006 (Table IV.2),[39] as compared to total public spending on health and education of 2.2 and 3.1 percent of non-oil GDP in 2005, respectively. In contrast, in 2003, the estimated cost of the subsidies represented less than 1 percent of annual non-oil GDP. Two-thirds of the cost of the subsidies corresponds to diesel (Figure IV.1).[40] The second largest share of the total cost of subsidies (15 percent) corresponds to jet kerosene, used for air transport. The third largest share (more than 7 percent) corresponds to super gasoline, used in private motor vehicles.

[39] Data for 2005. Projections for 2006–08 are based on the assumption that ex-refinery prices remain unchanged, international fuel prices evolve following WEO projections, and domestic fuel consumption expands at the rate of real non-oil GDP growth. Upward revisions to WEO projections in May 2006 are not incorporated in these projections. With the revised WEO assumptions, the subsidies are projected to reach even higher levels during 2006–08.

[40] More than 80 percent of the total cost is due to subsidies on diesel, super, lighting kerosene, and butane, the prices of which are frozen at the retail level (as well as at the ex-refinery level).

The cost of the subsidies is not reported explicitly in the fiscal accounts but is instead netted against oil revenue, i.e., the subsidies are implicit. This practice differs from the approach of other countries that enter the subsidization of fuel consumption explicitly under expenditure in the budget. In Yemen, for example, the cost of fuel subsidies is included in the budget and in the non-oil primary deficit that is used as a policy target variable.[41] Fiscal transparency would be increased by making the subsidies—for which precise monthly data are available—explicit in the budget.

Figure IV.1. Gabon: Fiscal Cost of Fuel Price Subsidies, 2005
(Percent of total cost)



Source: Gabonese authorities; and Fund staff calculations and estimations.

Table IV.2. Annual Cost of Implicit Fuel Price Subsidies, 2005-2008

	2005	2006	2007	2008
		Projections [1/]		
Total cost (billions of CFAF)	71.9	107.4	115.0	111.0
(percent of GDP)	1.6	2.0	2.2	2.2
(percent of non-oil GDP)	3.2	4.5	4.6	4.2
Memo items				
Total public education expenditure (billions of CFAF) [2/]	70.0			
Total public health expenditure (billions of CFAF) [2/]	50.3			

Source: Gabonese authorities and IMF staff calculations and projections.

[1/] Projections for 2006-8 are based on the assumption that ex-refinery prices remain unchanged, international fuel prices evolve following WEO projections, and domestic fuel consumption expands at the rate of real non-oil GDP growth.

[2/] Total appropriations in the 2005 supplementary budget on wages and salaries, goods and services, transfers, and domestically-financed investment spending, in the education and health sectors, respectively.

The finding of large subsidies in Gabon raises the question as to how much retail fuel prices would have to increase if ex-refinery prices increased to IPP levels. Data from the authorities on the taxes, fees, and margins included in the structure of retail fuel prices facilitate the analysis. Table IV.3 reports the increase in ex-refinery prices of super gasoline,

[41] See the IMF Yemen Country Report No. 05/111. The rationale for including subsidies in the non-oil primary balance is that they represent a controllable expenditure item that affects aggregate demand. If the world price of fuel changes, the government can choose how much of the price change to pass through to domestic prices.

lighting kerosene, diesel, and butane gas from their current to the IPP levels (as of end-March 2006) and how this would affect after-tax retail fuel prices, assuming no change in the size of tax rates and margins. For super, the retail prices would have to increase by 25 percent, from the current CFAF 475 per liter to CFAF 593 per liter, for diesel by 51 percent (from CFAF 370 to CFAF 560), and for lighting kerosene by 80 percent (from CFAF 249 to CFAF 447). This would bring retail prices close to those currently prevailing in Cameroon—at end- March 2006, the prices were CFAF 563, 524, and 356 per liter for super, diesel, and lighting kerosene, respectively.[42]

Table IV.3. Required Retail Price Increases[1/]

Product	Super gasoline		Gas oil		Lampant kerosene			Butane	
	Actual	Target	Actual	Target	Actual	Target		Actual	Target
Ex-refinery price (CFAF/litre)	214.78	315.17	172.66	333.51	143.48	311.90	Ex-refinery price (CFAF/MT)	155,717.00	358,866.00
VAT on ex-refinery price	38.66	56.73	31.08	60.03	25.83	56.14	VAT sur on ex-refinery price	28,029.06	64,595.88
After-VAT ex-refinery price (FCFA/litre)	253.44	371.90	203.74	393.54	169.31	368.05	After-VAT ex-refinery price (FCFA/MT	183,746.06	423,461.88
Equalization fee	51.18	51.18	43.52	43.52	28.60	28.60	Equalization fee	0.00	0.00
Consumption price	304.62	423.08	247.26	437.06	197.91	396.65	Consumption price	183,746.06	423,461.88
Stabilization fee (cross subsidy)	44.80	44.80	6.65	6.65	-40.61	-40.61	SS	1,000.00	1,000.00
Interior consumption tax (TCI)	53.20	53.20	47.08	47.08	24.51	24.51	Casting	1,997.54	1,997.54
Special tax (TS)	0.00	0.00	0.00	0.00	0.00	0.00	Passage to depot	0.00	0.00
Security stock (SS)	2.00	2.00	2.00	2.00	2.00	2.00	TCI	21,468.78	21,468.78
Municipal tax (TM)	5.50	5.50	2.13	2.13	0.00	0.00	Storage and ammortissement	100,000.00	100,000.00
Distributor's margin	33.14	33.14	33.14	33.14	33.02	33.02	Fees and gross profit	60,231.60	60,231.60
VAT on distributor's margin	5.97	5.97	5.97	5.97	5.94	5.94	VAT on fees and gross profit	10,841.69	10,841.69
Transport delivery city	6.24	6.24	6.24	6.24	6.24	6.24	Transport delivery city	19,887.63	19,887.63
VAT on transport delivery city	1.12	1.12	1.12	1.12	1.12	1.12	VAT on transport delivery city	3,579.77	3,579.77
Wholesale price (FCFA/litre)	456.59	575.05	351.59	541.39	230.13	428.87	Price gross (FCFA/MT)	402,753.07	642,468.89
									0.00
Margin of retailer	15.60	15.60	15.60	15.60	15.60	15.60	Margin of reseller	37,440.00	37,440.00
VAT on retailer margin	2.81	2.81	2.81	2.81	2.81	2.81	VAT on reseller margin	6,739.20	6,739.20
									0.00
Retail price (all taxes included)	475	593	370	560	249	447	Retail price (all taxes included)	446,932	686,648
Of which taxes and fees:	205	223	142	171	50	81		173,656	210,223
Required price increase (in percent)		25		51		80			54
Memo items									
Prices in Yaoundé, Cameroon (CFAF/liter)	563		524		356				

Source: March 2006 data, Gabonese authorities, and IMF staff calculations.

[1/] Retail price increases consistent closing the gap between actual ex-refinery prices and the IPP based on the automatic adjustment mechanism.

C. Comparison with Selected Developing and Emerging Market Countries

The level of fuel price subsidization in Gabon is not unusual from a cross-country perspective. As reported in Table IV.4, several countries have responded to the increase in world oil prices by increasing *explicit* and *implicit* price subsidies on domestic fuels. In most of the surveyed countries, explicit subsidies tend to reflect the compensation of the national energy company for the increased difference between the ex-refinery domestic price and the

[42] On March 15, 2006, the retail prices of these three fuel products in Gabon were increased by 7 percent in response to a negotiated increase in retailer margins (ex-refinery prices remained unchanged).

world price of fuels, reported in the fiscal accounts. Mati and Thornton (2005) report that the size of subsidies (at different levels of government) in 11 countries in 2005 ranges from 0.2 percent (Argentina) to 9.2 percent (Yemen) of GDP, with a median of 0.8 percent of GDP. Regarding implicit subsidies, data were available for eight countries and are projected to range from 0.3 percent of GDP (Cameroon) to 9.9 percent (Azerbaijan), with a median of 2.0 percent of GDP. Gabon's current projected implicit subsidy for 2005 of 1.5 percent of overall GDP is thus well within the range of shares observed in the countries surveyed. However, the almost fourfold increase in implicit subsidies in Gabon during 2003–05 is the largest out of the countries in the sample.

Table IV.4. Fuel Price Subsidies in Selected Countries
(In percent of GDP)

	2003	2005 (prel.)
(a) Explicit		
Argentina		0.2
Azerbaijan	5.5	2.8
Bolivia	0.6	0.8
Congo, Rep	0.8	1.0
Ghana	0.2	0.4
Indonesia	1.5	3.2
Jordan		6.6
Pakistan	0.1	0.2
Senegal		0.7
Sri Lanka		0.8
Yemen	5.0	9.2
average	2.0	2.4
median	0.8	0.8
(b) Implicit		
Azerbaijan	8.2	9.9
Bolivia		2.3
Cameroon		0.3
Colombia	1.2	1.3
Ecuador	1.4	3.6
Egypt	3.9	4.1
Gabon	0.4	1.6
Nigeria	1.6	1.6
average	2.8	3.1
median	1.5	2.0

Source: Mati and Thornton (2005).

D. Poverty and Social Impact Analysis (PSIA) of the Fuel Price Subsidies

Who benefits from the fuel-price subsidies? The social incidence of the subsidies is calculated by simulating the impact of removing the subsidies on household real incomes across the income distribution using the 2005 Gabon EGEP household survey. The simulation involves raising ex-refinery prices to IPP levels, while keeping tax rates and margin levels

unchanged. Table IV.5 shows the required fuel price increases, which averaged 54 percent at end-March 2006.

Table IV. 5. Gabon: Required Fuel Price Increases, end-March 2006
(percent) [1/]

Product	Price Increase
Super gasoline	24.9
Lighting kerosene	80.0
Diesel	51.3
Butane gas	53.6
Jet kerosene	68.7
Asphalt	50.3
Fuel oil	51.4
Average	52.3
Transport fuel[2/]	40.0

[1/] Increases in retail prices (all taxes included) for super, lighting kerosene, diesel, and butane. Increases in ex-refinery prices for jet kerosene, asphalt, and fuel oil.
[2/] The price of transport fuel is a weighted average of diesel (57 percent) and super gasoline (43 percent), based on SOGARA data on fuel use in Gabon.

Higher domestic prices for petroleum products would affect household real incomes through two channels: a direct effect from an increase in the prices paid by households for their direct consumption of petroleum products and an indirect effect from increases in prices of other goods and services (e.g., higher prices for food and transportation) consumed by households as producers pass on the higher costs of fuel inputs.

Calculating the *direct effect* requires information on the level of consumption of fuel by individual households in different parts of the national income distribution. The Gabon 2005 EGEP household survey contains reported expenditure by households on individual fuel products. A "first-order" estimate of the direct real income effect of fuel price increases can be calculated as follows. For each household one calculates the budget share of fuel expenditure items, i.e., fuel expenditures divided by total household consumption. Intuitively, poor households report smaller budget shares for transport fuel than do higher income groups. Also, poor consumers have larger lighting kerosene budget shares than do rich households. Multiplying budget shares by the required percentage increase in retail fuel prices (Table IV.5) gives a first-order estimate of the real income effect of the price rise, which assumes that fuel consumption stays fixed (Table IV.6).[43]

[43] This overestimates the real income effect, since, in practice, households can reduce this impact by substituting away from fuel. For a discussion of the theoretical foundations of this approach in the context of price and tax reforms, see Ahmad and Stern (1984, 1991), Newbery and Stern (1987) and Deaton (1997).

Table IV.6. Direct Subsidies Per Capita by Welfare Level

Product	Welfare Decile: Poorest	2	3	4	5	6	7	8	9	Richest	Summary
Expenditure on fuel as a share of total expenditure (percent)											Average
Transport fuel [1/]	0.008	0.062	0.081	0.308	0.190	0.292	0.469	1.072	1.357	2.453	0.63
Lighting kerosene	1.311	0.814	0.606	0.437	0.374	0.357	0.306	0.228	0.176	0.123	0.47
Butane cooking gas	1.231	1.610	1.585	1.764	1.576	1.751	1.683	1.560	1.471	1.118	1.54
Total	2.55	2.49	2.27	2.51	2.14	2.40	2.46	2.86	3.00	3.69	2.64
Direct subsidies as a share of total expenditure (percent)											Average
Transport fuel	0.00	0.02	0.03	0.12	0.08	0.12	0.19	0.43	0.54	0.98	0.25
Lighting kerosene	1.05	0.65	0.48	0.35	0.30	0.29	0.24	0.18	0.14	0.10	0.38
Butane cooking gas	0.66	0.86	0.85	0.95	0.85	0.94	0.90	0.84	0.79	0.60	0.82
Total	1.71	1.54	1.37	1.42	1.22	1.34	1.34	1.45	1.47	1.68	1.45
Direct subsidies per capita (CFAF per month)											Average
Transport fuel	9	99	163	750	543	984	1,916	5,424	8,900	33,259	5,205
Lighting kerosene	2,799	2,617	2,445	2,129	2,140	2,406	2,499	2,308	2,313	3,331	2,499
Butane cooking gas	1,763	3,471	4,289	5,760	6,043	7,927	9,220	10,592	12,955	20,347	8,237
Total	4,570	6,188	6,898	8,639	8,727	11,318	13,635	18,324	24,168	56,937	15,940
Distribution of aggregate direct subsidies across welfare groups (percent)											Total
Transport fuel	0.0	0.2	0.3	1.4	1.0	1.9	3.7	10.4	17.1	63.9	100.0
Lighting kerosene	11.2	10.5	9.8	8.5	8.6	9.6	10.0	9.2	9.3	13.3	100.0
Butane cooking gas	2.1	4.2	5.2	7.0	7.3	9.6	11.2	12.9	15.7	24.7	100.0
Average	4.5	5.0	5.1	5.7	5.6	7.0	8.3	10.8	14.0	34.0	100.0

Source: Gabonese authorities (2004 EGEP household survey), and IMF staff calculations.

[2/] Transport fuel is a weighted average of diesel (57 percent) and super gasoline (43 percent), based on SOGARA data on fuel use in Gabon.

Identifying the magnitude of the *indirect effect* requires an estimate of the effect of higher fuel costs on the prices of other goods and services consumed by households. These price effects can be estimated using an input-output table of the economy showing the energy intensity of each sector and a price-shifting model of the effect of higher fuel costs on prices.[44] The indirect real-income effect is then calculated by multiplying the household budget shares (from the EGEP survey) for the various goods by their estimated final price increases. Table IV. 7 reports the incidence of the both the indirect and direct effect for households at different points of the welfare distribution.[45]

[44] For a detailed presentation of the price-shifting model used for the case of Gabon see Coady and Newhouse (2005). An multiplier approach yields the cumulative effect of an increase in fuel prices on the prices of goods and services in the other sectors of the economy. The procedure takes into account both first-round effects (e.g. the impact of higher fuel prices on transport prices), and higher-order effects (e.g. the impact of an increase in transport costs on food prices). The input-output (IO) coefficient matrix used was obtained from the Gabon office of statistics based on 2001 data.

[45] There can also be other indirect effects, for example, through lower employment in sectors that use petroleum products as inputs.

Table IV.7. Direct and Indirect Subsidies Per Capita by Welfare Level

Type of subsidy	Welfare Decile: Poorest	2	3	4	5	6	7	8	9	Richest	Summary
Direct and indirect subsidies as a share of total expenditure (in percent)											
											Average
Direct subsidies	1.7	1.6	1.4	1.4	1.2	1.4	1.4	1.5	1.5	1.7	1.5
Indirect subsidies	4.7	4.8	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.8	4.8
Total	6.5	6.3	6.2	6.3	6.1	6.2	6.2	6.3	6.4	6.4	6.3
Direct and indirect subsidies per capita in CFAF per year											
											Average
Direct subsidies	4,651	6,275	6,971	8,747	8,847	11,556	13,827	18,528	24,449	57,296	16,115
Indirect subsidies	12,569	19,196	24,297	29,810	34,927	41,141	49,648	61,536	80,123	161,258	51,450
Total	17,220	25,472	31,268	38,557	43,774	52,697	63,475	80,064	104,572	218,554	67,565
Distribution of aggregate direct and indirect subsidies across welfare groups											
											Total
Direct subsidies	4.3	4.8	5.0	5.6	5.6	7.1	8.3	10.9	14.2	34.1	100.00
Indirect subsidies	2.4	3.7	4.7	5.8	6.8	8.0	9.6	12.0	15.6	31.3	100.00
Average	3.4	4.3	4.9	5.7	6.2	7.6	9.0	11.4	14.9	32.7	100.00

Source: Gabonese authorities (2004 EGEP household survey), and IMF staff calculations.

Four main conclusions emerge from the social incidence analysis:

1. **Most of the subsidy goes to higher-income households.** The top 10 percent of individuals received about one-third of the total subsidy. Meanwhile, the bottom 30 percent of individuals receive only 13 percent of all the subsidies, highlighting that fuel subsidies are a costly approach to protecting the real incomes of the poor.[46] To the contrary, fuel subsidies are pro-rich in Gabon—a finding i.e. consistent with the analysis of the distributional effects of fuel subsidies in other countries.[47]

2. **Even an equal transfer to all households would be better targeted** than most of the existing subsidies, since 30 percent of benefits would then accrue to the poorest 30 percent of households. The very poor targeting of fuel subsidies is not surprising; almost any universal consumption subsidy disproportionately benefits the rich since they, by definition, account for a relatively high proportion of total income and consumption. In Gabon, the top 10 percent of households consume more than 30 percent of all consumption in Gabon, while the bottom 10 percent of households consume only 2.5 percent of the total.

3. **The total (direct plus indirect) impact of increasing fuel prices to levels consistent with IPP would be an average of 6.3 percent of real per capita income** (Table IV.7).

[46] The official poverty rate is 33 percent according to the 2005 World Bank Gabon Poverty Assessment (also based on the 2005 EGEP household survey).

[47] See Coady et al. (2006) for an overview of the distributional impact of fuel-price subsidies in Bolivia, Jordan, Mali and Sri Lanka.

This impact corresponds to an average retail price increase of 54 percent, and is consistent with the range observed in other countries (3–9 percent real income decline for average price increases ranging from 34–68 percent), as reported in Coady et al. (2006).

4. **The indirect effect, at 4.8 percent of real income, is larger than the direct effect.** This finding reflects the fact that a substantial proportion of diesel and other fuel is used in the production and distribution of other goods and services.

E. Mitigating the Effect of Price Increases on the Poor

The escalating fiscal cost of the subsidies, and their pro-rich bias, suggests the need to reduce them. There is also a consensus in the literature that fuel subsidies are inappropriate on efficiency grounds, as they discourage producers from acquiring more energy-efficient technologies, so as to remain competitive in worlds markets.[48] However, governments are often reluctant to allow fuel prices to increase due to the adverse effect that such price increases would have on the real incomes of poor households. Fortunately, as most fuel subsidies accrue to higher income households, it is often possible to eliminate the subsidies while using some of the budgetary savings to finance better targeted-programs to compensate the poor. This section suggests a number of short- and medium-term mitigating measures that could accompany an increase in fuel prices in Gabon, drawing on discussions with the Gabonese authorities, and on the experience of other countries, as discussed in Coady *et al.* (2006).

Short-term measures

- **Electricity "social" tariff reductions.** Given that electricity is an important source of energy for poor households and its cost is closely correlated with fuel prices, reforming the level of electricity prices can mitigate the effect of higher average tariffs on poorer households with access to electricity.[49] In Gabon, the privately-owned electricity provider, *Société d'énergie et d'eau du Gabon* (SEEG), already offers lower "social tariff" for electricity consumption below a certain "social limit." The lifeline tariffs could be reduced, with the government compensating the SEEG for the resulting losses, or with higher tariffs for larger-scale users. [50]

- **Water "social" tariff reductions.** Similarly, existing lifeline tariffs for water provision by the SEEG could be reduced. A rural electrification campaign could further

[48] See Gupta et al. (2003), for example.

[49] The SEEG 2004 Annual Report suggests that SEEG power plants use diesel fuel, gas (butane), and fuel oil (*fuel lourd*).

[50]The WB PA reports SEEG electricity coverage as follows: 60 percent of all households directly connected; 20 percent use neighbor's line; 3 percent use their own electricity generator. In urban areas, 93 percent of households use electricity for lighting, but only 35 percent of households in rural areas.

enhance the effectiveness of such targeted lifeline tariffs. Providing utilities free of charge to selected households for a limited period of time was implemented recently in Gabon—during the electoral campaign of late 2005, the government paid for the free provision of water and electricity for one month only to all households with a September electricity bill of less than CFAF 50,000.[51]

- **Geographic targeting.** Concentrating extra social expenditures on households living in the poorest rural areas can result in a much higher proportion of the expenditures reaching poor households. For example, savings from reducing the fuel price subsidies could be used to provide more funding for health centers and dispensaries in rural areas.[52] User charges for education and health services can be reduced or eliminated in the poorest rural and urban areas. Public works programs—such as rural road network maintenance—can be temporarily expanded. Such programs not only protect household real incomes but can contribute to expanding the social human capital of poor households. Developing the economy's stock of human capital can, in turn, contribute to stimulating growth in the non-oil economy.

Medium-term measures

- **The budgetary savings can also be used to expand investment in public infrastructure, based on the priorities in the recently completed PRSP.** The PRSP carefully assesses the incidence of poverty in Gabon using the 2005 EGEP survey and identifies pro-poor health and education development projects. In line with the PRSP priorities, savings from reducing the subsidies could be used to fund rural electrification campaigns and the greater provision of public transport. Expenditure informed by the PRSP can be expected to benefit the middle classes as well as poor households, which can help generate political support for the energy pricing reforms. In addition, investments in the transport and energy sectors could contribute to improving energy efficiency and thus reducing the vulnerability to oil price shocks.

- **To allow businesses to adjust to higher energy costs, and to allow time to implement better targeted programs consistent with the PRSP, eliminating the subsidies gradually would be appropriate.** In export-oriented industries, firms may be unable to pass-through the higher energy cost. Phasing the subsidies out over three to four years could allow such firms, e.g., those in the forestry sector, to catch up with the fuel-efficiency levels of competitive firms in countries without fuel price

[51] Note that this temporary measure during the electoral campaign appears to have had a strong pro-rich bias. Analysis using the EGEP survey indicates that, of the total amount spent by the government on free utilities, 22 percent reached households in the top 10 percent of the population. Half of the total amount reached the top 30 percent of households. Meanwhile, households at the bottom 30 percent of the income distribution received only 15 percent of the free utilities subsidies.

[52] For a detailed review of experiences with different targeting mechanisms, see Coady et al. (2005).

subsidies.[53]. However, there is an obvious trade-off in terms of lower budgetary savings. In addition, one might maintain kerosene (used for lighting) and butane (cooking gas) subsidies for a year or two while reducing subsidies on diesel and super gasoline. This could give time to develop better targeted programs. However, price differentials between kerosene and diesel should not be maintained over the medium term as the products are substitutes.

F. Conclusion

This paper evaluates the fiscal cost and social impact of fuel price subsidies in Gabon. The results suggest that the total fiscal cost of the implicit subsidies is likely to reach 3.2 percent and 4.5 percent of non-oil GDP in 2005 and 2006, respectively. These subsidies are not reported explicitly in the fiscal accounts but are instead netted against oil revenue. In addition, the fuel subsidies are strongly biased towards higher-income households. The top ten percent of the income distribution benefit from one-third of the total subsidy, while the bottom 30 percent of the distribution benefits from only 13 percent of the subsidy**.**

The reform of fuel price subsidies in Gabon may therefore be necessary to release resources for critical social services for the poor, and to facilitate pro-poor economic growth. At the same time, increases in prices of basic commodities such as lighting kerosene and butane cooking gas may be associated with real income losses for the poor. Therefore, these effects need to be mitigated or eliminated by phasing out the subsidies gradually, and reorienting expenditure towards targeted programs and growth-enhancing infrastructure spending. The current period of strong economic growth could offer a useful window to mobilize support for a reduction in the fuel-price subsidy. Increasing transparency by reporting the subsidies in the 2006 supplementary budget, educating the public about the size and impact of the subsidies, and depoliticizing petroleum prices by using a pre-announced formula-based adjustment path, would further help to muster support for reform.

[53] See Coady et al. (2006) for a discussion of formulae that can be used to smooth the price adjustment.

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V. GABON: ASSESSING THE QUALITY OF PUBLIC INVESTMENT[54]

A. Introduction

Despite an abundance of fiscal resources through the years, Gabon has to date had little success in raising growth and reducing poverty. Real per capita non-oil growth has been negative in every year from 1998 through 2003 and has been close to zero since then. This poor performance is particularly surprising given large budgetary appropriations for the public investment program (PIP). Over the last 15 years, Gabon's public investment program has averaged 5 percent of GDP. Capital spending exceeded 10 percent of GDP in the late 1990s during presidential elections.

The paper examines why despite the large quantity of resources allocated to the PIP, the quality of expenditure has been disappointing. The paper uses international comparisons to assess the efficiency of resources devoted to public investments in terms of results in key social variables. Secondly, it analyzes the degree to which the PIP has been directed towards the types of poverty-reducing projects described in the recently completed GPRSP. Thirdly, it presents the findings of a private-sector audit on the quality of so-called *fêtes tournantes* investment — which accounts for about one-third of the total investment budget.[55]

The remainder of the paper is structured as follows. Section B explains the methodology used in other countries to measure public investment efficiency and the approach followed in this note; Section C discusses Gabon's capital expenditure trends; Section D analyzes the efficiency of public investment in Gabon; Section E compares PIP projects with the priorities in the recently completed PRSP; Section F focuses on the largest part of the PIP, the so-called *fêtes tournantes* investment; and Section G concludes.

B. Measuring The Efficiency of Public Investment

Several techniques can be used to measure the efficiency of public spending. For instance, Gupta and Verhoeven (2001) use an approach that establishes a production possibility frontier that represents best practices within a sample of observations. Measuring the relative inefficiency of producers inside that frontier in terms of distance to the frontier, they show that, on average, countries in Africa are less efficient than countries in Asia and the Western Hemisphere. They also suggests that improvements in educational attainment and health output in African countries require more than simply higher budgetary allocations.

Herrera and Pang (2005) used also a production possibility frontier approach to score a sample of 140 countries on several health and education output indicators using data from

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[54] Prepared by Oscar Melhado.

[55] The *fêtes tournantes* refer to the spending associated with the rotating independence day celebrations.

1996 to 2002. Gabon scored high in primary school enrollment, but low in other education and health variables. The table below reports part of their results grouped by countries with similar GDP per capita in dollar terms and other countries with lower GDP per capita.

Table V.1. Efficiency Score for Investment (Output Efficiency)

	Primary School Enrollment	Secondary School Enrollment	Life expectancy	Immunization DPT
Similar per capita				
Botswana	0.747	0.551	0.535	0.975
Mauritius	0.776	0.611	0.955	0.932
Gabon	1.000	0.419	0.691	0.452
Lower per capita				
Ghana	0.564	0.292	0.746	0.765
Cameroon	0.689	0.238	0.659	0.482
Namibia	0.832	0.469	0.623	0.723

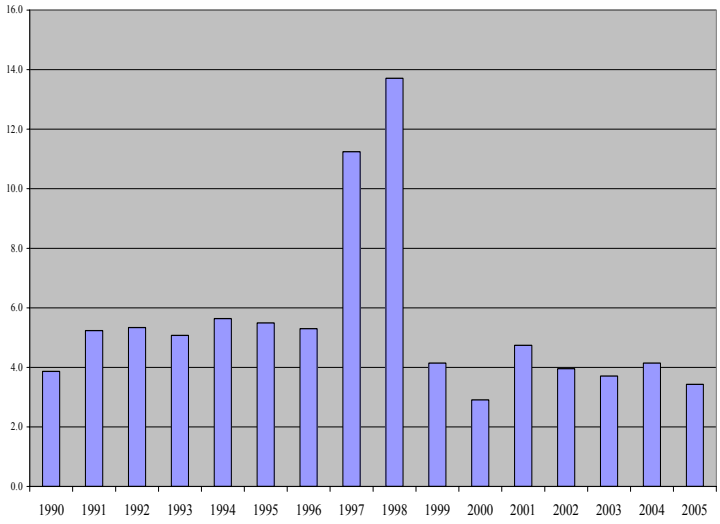
Source: Herrera and Pang (2005).

The approach used in this note is to compare budgetary allocations and variables on the three main social sectors across countries, drawing on Public Expenditure Management and Financial Accountability in Gabon (PEMFAR) from the World Bank.[56]

C. Capital Expenditure Trends

PIP performance over the years has been disappointing. Through the 1970s and the 1980s capital outlays increased steeply, as a strategy was implemented to modernize and diversify the economy. The government embarked on an ambitious program of large infrastructure projects. At the center of the strategy stood the construction of the Transgabonese railroad and large agro-industrial parastatals. Public investment surged from less than 4 percent of GDP in the early 1970s to

Figure V.1. Gabon. Capital Expenditure (Percent of GDP)



Source: Gabonese authorities.

[56] The PEMFAR was presented to the authorities in January 2006. It integrates procurement and financial management with the standard public expenditure review. The aim is to enhance the country's understanding of public financial management arrangements and reform challenges.

about 30 percent of GDP in the mid-1980s. However, this first wave of ambitious public investment was accompanied by substantial weaknesses in the design and execution of the strategy. For instance, soon after the Transgabonese was completed it needed government operating subsidies, and the agro-industries yielded negative returns on investment because they were in remote locations, where transportation costs were high and labor in short supply.

The PIP has mimicked the booms and boosts associated with international oil prices. In the context of the decline in oil prices during the early 1990s the PIP was severely curtailed to less than 5 percent of GDP. This reflected the government's strategy of internal adjustment, which was supported by Fund arrangements. However, as oil prices rose in 1997 and 1998, also years when elections were held, the PIP rose again to more than 10 percent of GDP.

In the recent years, about one-third of the PIP has been devoted to so-called *fêtes tournantes* expenditure. The *fêtes tournantes* were re-established in 2001 after a long period of inactivity.[57] President Bongo announced that beginning in 2002, two provinces a year would be favored by a budgetary allocation of CFAF 25 billion each for projects to improve local welfare. The allocations amount to about one-third of the capital investment budget. The allocation within the provinces would depend on their particular needs. The projects would be inaugurated on August 17 to celebrate Gabon's independence (August 17, 1960).[58]

D. The Efficiency of Public Investment in Gabon.

In the health sector, Gabon's expenditures would appear to have been comparatively ineffective, mainly because of poor allocative efficiency and regional inequity. Gabon has a relative high spending per capita on health yet by international comparisons health indexes are worse than in peer countries. The infant mortality rate in Gabon at 60 per 1000 infants is high compared with other countries with similar levels of health and spending per capita, for instance Morocco has a rate of only 39 per 1000; or Ghana spending only one third of what Gabon spends has a lower rate. Life expectancy at 54.5 years is low compared with Ghana, Morocco, Libya, Peru, and Jamaica, with lower spending per capita. Also in terms of physicians the country lags behind its peers.

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[57] Budgetary allocations for the *fêtes tournantes* existed during the 1970s, but were suspended during the 1980s.

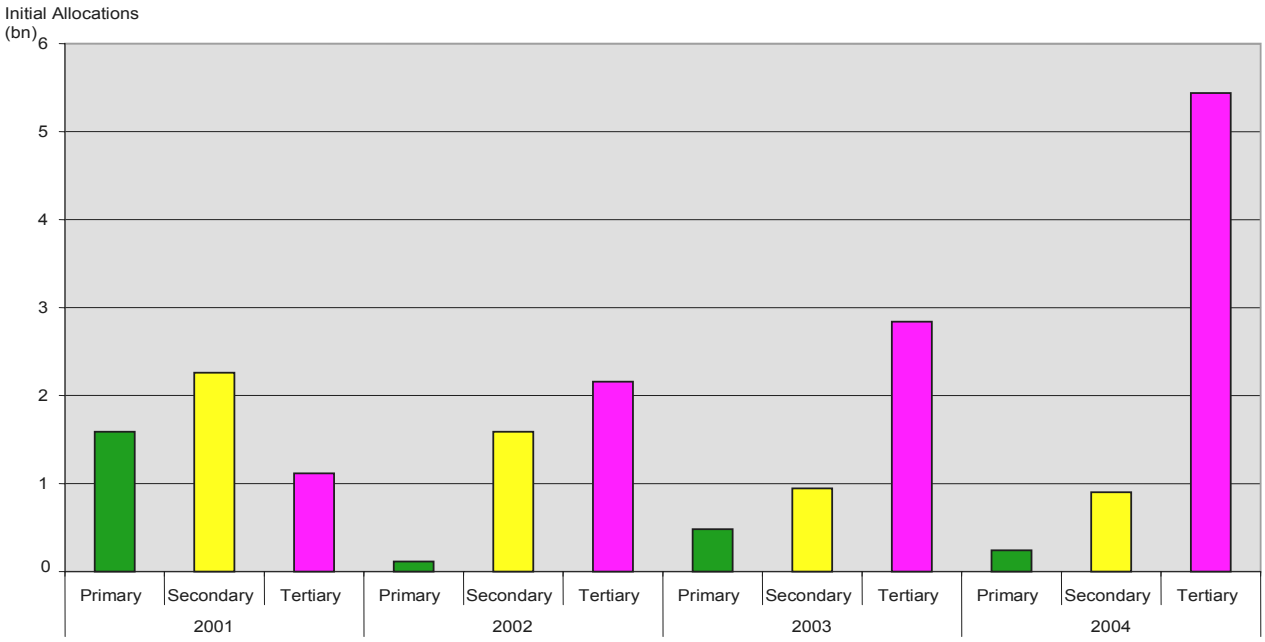
[58] The calendar of provinces is the following: 2002- Nyanga & Ogooué, 2003- Ngounié & Moyen Ogooué, 2004- Haut Ogooué & Ogooué Lolo, 2005- Woleu Ntem & Ogooué Maritime, and 2006- Estuaire (currently in process).

Table V.2. Health Indexes

	Public health spending per capita (PPP US$) 2002	Life expectancy at birth (years) 2003	Infant mortality rate (per 1,000 live births) 2003	Physicians (per 100,000 people) 1990-2004
Gabon	248	54.5	60	29
Ghana	73	56.8	52.9	9
Morocco	186	69.7	39	48
Equatorial Guinea	139	43.3	97	25
Libya	222	73.6	13	129
Dominica	310	75.6	12	49
Venezuela	272	72.9	18	194
Peru	210	87.7	26	117
Jamaica	234	70.8	17	85
Lesotho	119	36.3	63	5
Cameroon	68	45.8	95	7

Source: United Nations Development Program. Human Development Report 2005.

Figure V.2. Gabon. Health Expenditures



Source: Gabonese authorities.

Capital investment in the health sector in Gabon does not respond to the country's priorities, which may explain the poor outcomes (Figure V.2). According to the World Bank, investment in health should be directed to improving the primary care and secondary delivery system of 413 dispensaries, 41 health centers, and 9 regional hospitals spread across Gabon. Instead, the trend has been to invest in tertiary care—centrally managed facilities and programs. The construction of the military hospital in Libreville in 2005 and the decision to

build more hospitals in 2006 confirms this trends.[59] Not only does this ignores priorities, it also entails unplanned high recurrent costs, which are making a permanent dent in the budget.

Primary health programs have been neglected. Primary health programs account for less than 6 percent of the total health budget. This is inefficient in terms of both outcomes and costs, because the unit cost of providing primary care is low and is closely associated with delivering health services to the poor. At this stage any health budget should entail a re-orientation of investment within the health sector to allocate more to primary care.

International comparisons with countries with similar levels of per capita income show that Gabon's educational expenditures are not efficient, either. Though Gabon allocates a substantial share of public spending to education, adult literacy in 2002 was lower than in most countries with similar per capita public spending on education.[60] Because Gabon's repetition rates are relatively high,[61] many students are spending more time than necessary at school. Moreover, a large proportion of the recurrent budget is devoted to scholarships for higher education, an allocation that often does not respond to job market requirements.

Table V.3. Education Indexes.

	Public expenditure on education (As % of GDP) 2000-02	Adult literacy rate (% ages 15 and above) 2003	Education index
Gabon	3.9	71.0	0.72
Togo	2.6	53.0	0.57
Morocco	6.5	50.7	0.53
Equatorial Guinea	0.6	84.2	0.78
South Africa	5.3	82.4	0.81
Colombia	5.2	94.2	0.86
Ecuador	1.0	91.0	0.86
Peru	3.0	87.7	0.88
Jamaica	6.1	87.6	0.83
Lesotho	10.4	81.4	0.76
Cameroon	3.8	67.9	0.64

Source: United Nations Development Program. Human Development Report 2005.

[59] At the moment of drafting this paper, the government was looking at choices to finance a hospital in the university. The preliminary estimate of the investment was about US$83 million.

[60] It has to be acknowledged that the literacy rate has sharply increased from 71 percent in 2002 to 85 percent in 2005.

[61] During 2002–03 the repetition rate was about 37 percent in primary schools, 30 percent in secondary, and 26 percent in secondary technical schools. The proportion of promotions to a higher class was on average only 36 percent of students.

As with health, the problems of educational performance in Gabon reflect the bias of education expenditures towards the secondary and tertiary levels. In 2002–04 about 70 percent of the investment budget went to secondary and tertiary education. While investment in tertiary education increased by 233 percent for the period, investment in primary education only increased by 29 percent. This is inefficient; it is cheaper to educate a child in primary school than in secondary or tertiary establishments. Moreover, much of the current spending in education is allocated to scholarships for secondary and higher education, and in particular foreign scholarships.

For infrastructure, the budgeted allocations have not achieved the desired results. Investment in infrastructure is affected by at least three key problems: (i) poor project evaluation, which usually means unrealistic budgetary allocations; (ii) high construction costs—roads have cost more than twice as much as originally planned; and (iii) poor maintenance, which means that the road network continuously deteriorates. The road fund intended for maintenance has been used to finance large-scale construction and rehabilitation projects. The road sector has incurred large debts and some projects were discontinued after substantial spending.

E. Public Investment Versus PRSP Priorities

How efficient has the PIP been in achieving GPRSP objectives in health, education, and infrastructure?

The primary objectives established in the GPRSP are as follows: (i) reduce unemployment, (ii) stop the decline of the rural economy, (iii) improve access to basic social services, (iv) revitalize social protection nets, (v) improve the livelihoods of the poor, (vi) promote gender integration, and (vii) improve governance.

Assessing past spending in light of current GPRSP priorities is complicated by the lack of a functional classification of public expenditure. Currently, the budget is presented in administrative form, allocating by spending ministries rather than by function. The PEMFAR, however, offers a proxy for functional classification by categorizing administrative spending according to the major government functions. [62]

Public spending in Gabon is not being effectively directed towards the government's objectives emerging from the GPRSP process. Based on the PEMFAR, it could be concluded that there are no clear shift towards GPRSP priorities. Expenditures in education and the health sectors have remained relatively static. Notably, education declined from 23 percent to 21 percent of public expenditure, between 1999 and 2003.

[62] This estimation includes current and capital spending and excludes debt payments and the *fêtes tournantes*, which could not be easily associated with particular functions.

F. The Quality of *Fêtes Tournantes* Public Investment

The quality of the *fêtes tournantes* investment is low. Maintenance is often poor, as recurrent costs have not been budgeted for and the social return of many of these projects appears to be zero or even negative. In addition, it distorts the PIP by using one-third of the resources on projects with no clear priorities and appropriate appraisal.

The *fêtes tournantes'* mechanism involves a national commission approving the project proposals of regional committees. These committees select projects in consultation with the communities; no separate project appraisal is done. Once the regional committee makes a proposal, a technical committee is in charge of allocating and monitoring the spending.

A recent private-sector audit of the 2002–03 *fêtes tournantes* revealed the following problems:[63]

Poor project documentation. More than 50 percent of the projects have no documentation supporting financial transactions. For those that do, the auditor ranked the quality of documentation, setting 15 as the maximum grade. The mean over 202 operations evaluated was only 2.3. Only seven operations received a grade higher than 7.

Weak programming. There are many unfinished projects or projects that have failed, leaving empty buildings. This reflects serious weaknesses in project planning. No appraisal evaluation is done.

Variable project quality. While the sewage work appears to be done properly, the quality of buildings and houses is poor and many residential and commercial systems malfunction. Some buildings are unusable.

Costs have been high. The audit found ample evidence of overcharging. Often prices charged are twice as much as current prices. The cost of a project in Gabon was higher than that of a comparable project in neighboring countries.

Weak quality control. Lack of ex-ante and ex-post evaluation is compounded by absence of technicians in the technical commissions in charge of control.

G. Conclusions

The PIP needs a severe makeover. The current system is undermining Gabon's goals of alleviating poverty and stimulating growth. An overhaul of the public investment system is needed to support the GPRSP strategy recently presented.

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[63] The audit, conducted by the firm *2AC*, was presented in November 2005; however, it has not been published.

The quality of public investment has been low. It has been inefficient and it is inconsistent with the priorities emerging from the GPRSP. The poor results of the *fêtes tournantes* and the fact that it is managed outside the circuit of the investment budget further weaken PIP performance.

In the context of the PRSP and the current oil windfalls, improving public expenditure management is critical to raising the quality of public spending. The authorities need to take a number of steps highlighted in the recently completed fiscal ROSC and the PEMFAR. These measures include: (i) introduce a full functional classification of expenditure to allow better tracking of expenditure, including against the priorities established in the PRSP; (ii) strengthen the investment budget preparation and execution process by heightening the role of the three-year public investment program; (iii) improve the coordination between the current and investment budgets and, over time, integrate them in a single consistent medium-term expenditure framework; (iv) strengthen further the role of the public tender office to reinforce ex-ante quality control; and (v) eliminate the Fêtes Tournantes. It is essential that for the 2007 budget the *fêtes tournantes* are folded into the PIP. All the resources should be available for the PIP and consistent with the PRSP priorities.

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Appendix . **Gabon: Summary of the Tax System, as of End-March 2006**

(All amounts are in CFA francs; unless otherwise indicated)

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
1. Tax on income and profits			
1.1 Corporate income taxes (IS)	Levied on the taxable income of corporations under Gabonese and foreign law from their activities carried out in Gabon, subject to the provisions of international conventions.		
1.11 Tax on non-oil companies	Levied on all the profits or earnings of companies and other legal entities operating outside the oil sector. Payment modalities: Corporate income tax payable in three installments: • 1st installment paid voluntarily by November 30 of the tax year and equal to one-fourth of the tax paid the year before; • 2nd installment paid voluntarily by January 30 of the following fiscal year and equal to one-third of the tax paid the year before; • balance also paid voluntarily, simultaneously with the filing of the statistical and tax declaration, which must be filed by April 30.	The tax is calculated on net income from an activity carried out in Gabon, less all necessary operating costs: production costs, taxes paid (except corporate income tax), and interest. Note: Under the 2005 Budget Law, tax on developed and undeveloped property may be deducted from taxable income. Depreciation: rates range from 8 to 33⅓ percent. Generally, straight-line depreciation is applied—except for enterprises that exploit and process natural resources eligible for depreciation under special codes provided for in the Investment Charter, whereby capital goods may be depreciated using the sum-of-the-year's-digits method. New material and equipment acquired for use in industrial operations in manufacturing, handling, transportation, agriculture and forestry, prescribed operations for site development for building or construction, which have a usable life of no less than three years and a minimum value of CFAF 10 million, may be subject to accelerated depreciation. Excluded from taxable income are:	(a) 35 percent: regular rate. (b) 20 percent: public institutions, associations, non-profit community-based organizations, and property development companies licensed for that purpose (c) 18 percent: *Banque Gabonaise de Développement* The following are deducted from the tax, as applicable: • investment income tax withheld at source during the fiscal year; • tax credits for hiring new staff who are Gabonese nationals.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
		• capital gains reinvested in new fixed assets within three years of their transfer; • capital gains resulting from mergers, under certain terms and conditions, one of which is that the company taking over or the new company formed by the merger must have its headquarters in Gabon. Exemptions: (a) agricultural cooperatives, except for: • their sales in a retail outlet other than their main outlet; • processing of products other than foodstuffs for human consumption and animal feed; • operations with entities other than stockholders/partners; (b) agricultural trade unions; (c) agricultural credit unions; (d) mutual aid societies and unions; (e) nonprofit associations; (f) municipal and public utility authorities; (g) companies and agencies of recognized interest to the public, in charge of rural development; (h) school cooperatives, called “school mutuals”; (i) private clubs and circles, except for bar and restaurant operations; (j) economic interest groups (corporate or personal income tax payable by members); (k) agricultural enterprises during their first three years of operation; (l) enterprises in the tourism sector during their	

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
		first three years of operation, provided that investment is no less than CFAF 1.8 billion; (m) Under certain specific conditions, variable capital investment companies are exempted from corporate income tax on the following proceeds and income: • Capital gains from the transfer of portfolio securities; • Capital gains from the transfer of shares; • liquidation dividends; (n) new enterprises operating in industry, mining, agriculture, or forestry are exempt from corporate income during the first two years of operation; in the third, they benefit from a 30 percent tax rebate on their profits. During the following three years, they will also benefit from rebates on their profits, and the rate will depend on the level of stable, permanent fixed assets among their assets.	
1.111 Corp. income tax withheld at source (forestry sector)	Levied on payments made by purchasers to timber suppliers. This withholding tax is considered to be a share of the corporate income tax payable by the timber supplier.	Companies meeting the following requirements are exempted from the withholding: • authorized capital of over CFAF 400 million; • shareholders must include at least one business corporation; • current on tax liabilities.	• 5 percent for zone A (incl. 1.5 percent to the permit holder's account); • 2.5 percent for other zones (incl. 0.6 percent for the permit holder).
1.112 Corp. income tax withholding	Levied on the amounts paid to service providers subject to corporate income tax.	Companies subject to VAT	9.5 percent

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
1.113 Taxation of head offices	Head offices established as joint-stock companies or branches providing executive, management, or supervisory services exclusively to companies in the group to which they belong are subject to corporate income tax under special terms: the corporate income tax base is calculated at a flat rate of 5-12 percent determined by the finance ministry and applied to operating costs.	Non-nationals working at head offices under certain conditions benefit from a 50-percent rebate on their pre-tax income, in accordance with the terms of ordinary law governing personal income tax	35 percent
1.114 Minimum flat tax on corporations	Levied on all companies subject to corporate income tax when the tax chargeable to them is lower than the minimum levy. In loss years, the minimum levy is deductible in thirds from the corporate income tax of subsequent profit years, over a period of three years.	The following are exempt from the minimum flat tax: (a) companies benefiting from a preferential tax regime under a headquarters agreement or a tax regime stabilized by the Investment Charter; (b) insurance companies operating in a co-insurance pool in the sea transport and fire hazard sectors, with a maximum authorized turnover of CFAF 3 million; (c) new companies in their first two years of operation; (d) private and public works companies with only one construction or assembly project in Gabon, if they are present in the country for no more than three consecutive years; (e) companies operating in the agricultural sector, excluding forestry; (f) companies subject to the mining code; (g) enterprises in the tourism sector during their first 10 years of operation.	1.10 percent (with a minimum of CFAF 600,000) applied to the overall turnover for the previous year less: • 25 percent for purchase and resale operations; • 10 percent for production operations; • trucking costs for loggers

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
1.12 Tax on oil companies	The tax is levied on the income of oil companies as follows: (a) By the 28th of each month, the equivalent of 6.25 percent of the estimated amount of the tax due for the current year *t* is assessed on the basis of the financial plans approved at the end of the previous fiscal year; (b) By January 28 of year *t+1,* all installments must be equivalent to 90 percent of the estimated tax assessed on the accounts closed for fiscal year *t;* (c) By April 28 of year *t+1*, the balance of the tax on year *t* profits must be paid. If the amount of the installments paid in year *t* exceeds the amount of the tax actually due for that fiscal year, the excess is deducted from the next tax liability payable by the company. If one month after the end of the first quarter of year *t*, the profits expected for the year in full are 25 percent higher than the initial projections, the oil company and the tax administration must agree upon the necessary adjustments to be made to the remaining scheduled installments for the current fiscal year *t*.	The tax is assessed in accordance with the provisions agreed upon with each oil company. This tax is not applicable to production sharing contracts. The special regime for oil companies provides that these companies may maintain tax exempt provisions for reactivating used oil fields. These provisions must be kept below two limits: • 27.50 percent of the amount of sales of marketable derivatives of hydrocarbon liquids or gases mined in oil fields; • 50 percent of the net taxable profits from the sale of crude or processed derivatives of liquids or gases mined in oil fields; These provisions must be strictly used, otherwise they must be reinvested: • in the projects or fixed assets needed for exploration of new oil fields; • in acquiring shares in companies to conduct oil exploration or mining activities in Gabon.	

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
1.13 Taxation of oil sector subcontractors	The simplified tax regime reserved for oil company subcontractors, which is not applicable to companies based in Gabon for more than nine years, calculates a flat assessment of the corporate income tax and payroll taxes and charges based on actual turnover. Provided that they meet certain conditions, the earnings and payroll (for expatriate personnel) of companies that qualify for this regime are taxed at a rate of 15 and 14 percent, respectively, of their pre-tax turnover in Gabon.		Corporate income tax rate: 35 percent (15 percent of turnover). Flat rate for taxes due from employees: 22 percent of payroll (14 percent of turnover). These rates are applicable to FY 2006, 2007, and 2008 (Order No. 27 of 12/20/2005).
1.14 Corporate income tax on foreign companies, withheld at source	Withholding at source of corporate income tax on all amounts paid by a debtor based in Gabon to legal entities with no permanent facilities there, levied on: - compensation for independent professional activities conducted in Gabon; - earnings of inventors or from copyright and equivalent income; - consideration for services of any kind provided or used in Gabon; - interest, arrears, and other proceeds from investments. These amounts are withheld by the debtor based in Gabon and remitted to the Treasury.		10 percent

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
1.2 Taxes on individuals			
1.21 Personal income tax (IRPP)	This tax is levied on the overall net income of the taxable household, which comprises the sum of net income in the following categories: (a) property income; (b) earnings from industrial, commercial, and artisan activities; (c) earnings from farming; (d) earnings from noncommercial professions and equivalent income; (e) salaries, wages, benefits, emoluments, pensions, and annuities; (f) investment income. Barring the provisions of international conventions, which take precedence over domestic law, the following are subject to the IRPP in Gabon: 1 – persons who own, use, or rent residential property in Gabon; 2 – persons whose principal residence is in Gabon; 3 – persons whose principal residence is abroad but who earn income from Gabon. Partners in general and limited partnerships, members of economic interest groups, non-trading companies, joint ventures, and *de facto* companies are subject to the IRPP on the share of profits corresponding to their interest in the company.	Deductions: • interest on loans up to CFAF 6 million contracted for construction, acquisition or major repairs on a principal residence; • arrears and required annuities paid by the taxpayer and life insurance premiums up to 5 percent of taxable income; • food allowances paid under a judgment; • pension contributions up to 10 percent of taxable income; • employer social security contributions; • deficits in a category of income other than property income of BIC, BNC, and BA taxpayers. Exemptions: • diplomatic corps, • foreign consuls and consular officers, provided that there is reciprocity; • new enterprises that meet certain conditions and operate in industry, mining, agriculture, or forestry, are exempt from the IRPP taxable on their industrial and commercial income during their first two years of operation; in the third, they have a rebate of 30 percent on their earnings. During the following three years, they will also benefit from rebates on their income, depending on the amount of stable and definitive fixed assets among their assets.	In taxing the taxable household, a ratio system similar to the French IRPP (the number of children is limited to 6) is applied to determine the amount of the tax, assessed using the following progressive scale: Q = Net overall income/number of family members 11 tax brackets ranging from 0 to 50 percent. IRPP exemption for households for which Q is less than CFAF 1.2 million, and taxation at a rate of 50 percent for the bracket where Q is greater than CFAF 22 million. The gross income so determined is reduced by: • the withholding tax on investment income; • taxes withheld at source by employers during the fiscal year.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
	Modalities for collecting the IRPP: The IRPP is collected using the tax rolls after filing tax returns for all income other than tax on industrial and commercial income (BIC) and the tax on agricultural income (BA), based on actual earnings, and the tax on noncommercial income (BNC), based on verified tax returns [*déclarations contrôlées*] by March 1 of the following fiscal year. In the latter case, the declaration of all income must be filed together with the declaration of net income by April 30 of the following fiscal year. BIC and BA taxpayers taxed on actual income and BNC taxpayers under the verified tax returns regime must pay installments on February 15 and April 15 equal to one fourth of the IRPP or of the minimum levy of the previous year. The balance is collected through the tax rolls after settlement of the tax return. Taxpayers of BIC and BA by standard assessment and BNC taxpayers by administrative assessment (évaluation administrative), must pay by April 15, July 15, and October 15 three installments equal to one third of the IRPP or minimum prior-year levy. The balance is collected through the tax rolls after settlement of the tax return.		
	Taxes on real estate earnings: All income derived from the rental of real estate in Gabon, provided that rental income is not included in the profits of an individual, industrial or commercial companies.	The following are exempt: income from real estate intended for the proprietor's own personal use. Deductible expenses (or property expenses) include:	

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
	Net real estate income = Gross earnings - expenses	- debt interest; - proprietor assessments (taxes on developed or undeveloped property, in particular); - 30 percent lump-sum deduction for handling fees and (taxpayer may elect to itemize).	
	Profits from farming comprise earnings from the operation of rural properties by farmers, tenant farmers, or the owners themselves in connection with stockbreeding, poultry farming, fish farming, and oyster farming. Two taxation regimes: - presumptive assessment; - itemized assessment (taxation based on actual earnings).	Proceeds from the farming of land exclusively used for food crops, where the cultivated surface area is less than 5 hectares, is exempt. The law makes it possible to opt for the higher-rate regime. In the event that the taxpayer elects to use the itemized basis, account shall be taken of: * spouse's earnings must not exceed CFAF 1.8 million; * travel expenses for leave actually taken up to one full-fare ticket per year; * one 15 percent rebate of earnings.	
	Earnings from noncommercial professions include income equivalent to noncommercial earnings principally from the liberal professions, but also from positions and offices held, and any other income not classified elsewhere. Two tax regimes: • the administrative assessment regime is applicable to taxpayers whose income does not exceed CFAF 30 million; • the verified tax returns regime is applicable to taxpayers whose income exceeds CFAF 30 million, and to all public and ministry officials on the income derived from their positions or offices.	The law makes it possible to opt for the higher-rate regime. Taxation under the verified tax returns regime is on the following basis: • spouse's earnings must not exceed CFAF 1.8 million; • travel expenses for leave actually taken up to one full-fare ticket per year .	

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
	Salaries, pensions, and annuities include salaries, benefits, emoluments, wages, pensions, and annuities earned from engaging in an activity in Gabon. In-kind benefits provided to employees are taxable on the basis of the following standard assessment: • housing: 6 percent, limited to 40 percent of gross monthly wages, up to a ceiling of CFAF 250,000 per month; • domestic staff: 5 percent; • water, power: 5 percent; • food: 25 percent, with a maximum of CFAF 120,000 per person per month. All employers in Gabon must withhold income tax at source on the monthly wages they pay, assessed on the basis of a pre-established scale and deposited with the Treasury. This withholding at source is adjusted when the income tax return is filed by the wage-earner.	The following are exempt from the tax: • special allowances to cover costs specific to the job or position, wages not exceeding CFAF 600,000 per month; • family allowances; • lump sum supplements paid to public servants; • student scholarships; • veteran's pensions; • pensions, benefits, annuities allocated to victims of labor- or war-related accidents, etc. • incentive bonuses and other benefits distributed at the end of the year up to CFAF 4 million. Gross earned income is subject to a 20-percent rebate limited to CFAF 10 million, for professional fees.	
	Investment income includes: • returns on shares, equity, and equivalent income; • directors' fees and attendance fees, lump sum refunds of costs and all other compensation paid to the sole director or other members of corporate boards; • income from securities; • income from claims, deposits, security, and current accounts; • interest on short-term borrowing (*bons de caisse*).	- Income and gains from enterprises established as mutual funds and capital gains from the transfer of portfolio securities by the same enterprises; - income from securities belonging to France, Gabon, and communes;	5 percent: income from securities with an original maturity of less than five years is subject to withholding at source by the payer. This withholding at source fully discharges all other taxes. 15 percent: Levied at source on interest on bank short-term borrowing. Subject to the provisions of international conventions, income from claims, deposits, and security, whose beneficiaries are nonresident individuals or corporations is subject to a withholding at source of 20 percent by the payer, remitted to the Revenue Authority. This withholding at source fully discharges all IRPP payments.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
			20 percent: for dividends, interest, arrears, other returns of all types of shares, and interests of the founders or beneficiaries of companies. 22 percent for directors' fees and attendance fees, lump sum refunds of costs, and all other compensation paid to the sole director, or board members of companies and enterprises of any type. 30 percent: payouts divided among creditors and claim holders.
1.212 Personal income tax (IRPP) withheld at source (forestry)	Levied on payments made by purchasers to timber suppliers. This withholding tax is considered to be a share of the corporate income tax payable by the timber supplier.		• 5 percent for the first zone (incl. 1.5 percent to the permit holder's account); • 2.5 percent for other zones (incl. 0.6 percent for the permit holder).
1.213 Personal income tax (IRPP) withheld at source (government payments)	The withholding is applicable to all government payments to suppliers subject to the IRPP.	The special real estate tax on rentals is deductible from property income. In addition to the other charges deductible from income, the flat deduction for management, insurance, maintenance, and depreciation fees is set at 30 percent.	• Property income: 10 percent; • Other income: 18.5 percent
1.214 Business income tax (IRPP/BIC/BNC) withheld at source	Levied on amounts paid to service providers subject to IRPP/BIC/BNC.		9.5 percent
1.215 Installment payments of personal income tax (IRPP)on imports	Payment of a standard installment of the IRPP on merchandise imports for commercial purposes. The installment is assessed on the declared customs value. It is collected by the carrier and remitted to the Treasury.	Entities subject to VAT are exempt.	2.5 percent

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
1.22 Levy at source of the personal income tax (IRPP) on capital gains	The levy at source of the IRPP applies to capital gains by individuals or corporations when they transfer goods or rights of any kind for consideration. The capital gains derived by individuals from the management of their private assets may be generated at the time of sale, exchange, division, expropriation, input of capital into a company, or liquidation of a company from personal or real property or rights of any kind. Gains on real property are equivalent to capital gains from the transfer for consideration of equity in companies whose assets comprise mainly property or rights thereto. Entities subject to this tax are: • Individuals, in the context of management of their private assets; • partnerships that have not opted for the corporate income tax, engaged in business other than industrial, commercial, agricultural, or noncommercial activities; • taxpayers subject to the flat tax regime, who go out of business. The tax base consists of the capital gains realized, which are determined as the difference between the transfer price or market value of the property in question and the purchase price paid by the transferee. Any costs of construction, reconstruction, renovation, and improvement since the purchase are added to the purchase price, if they have not been previously deducted from the taxable income.	Exempted from the levy at source of the IRPP are capital gains resulting from: (a) transfer of the taxpayer's principal residence; (b) transfer of property by taxpayers subject to the flat tax regime, provided that the transfer or closure occurs more than five years after the creation or purchase of the business, office, or customer base, and that the property was used as the owner's principal residence; (c) net gains from the sale or transfer: (d) furniture and fixtures; (e) household appliances; (f) automobiles; (g) agricultural land; (h) insurance compensation received as a result of the total destruction or partial damage of personal property; (i) declaration of public utility with a view to expropriation if the owner makes a commitment to reuse the compensation to purchase one or more properties of the same kind within one year of receiving the compensation. A rebate of 15 percent on the taxable capital gains realized during the course of the same year, after deduction of any losses incurred in that year.	

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
1.23 Minimum flat tax on personal income	The amount of the tax due by taxpayers on industrial, commercial, and artisan earnings, earnings from farming, from noncommercial professions, and equivalent income may be no lower than the minimum levy. This minimum levy is announced and collected in the same manner as the IRPP, which it replaces if it is higher.	Same exemptions as for the corporate income tax (IS)	1.10 percent on overall turnover in the previous fiscal year plus miscellaneous proceeds and profits or CFAF 350,000.
1.24 Flat income tax (IFR)	Levied on the income of individuals subject to the business fees, namely: (a) taxi, minibus, bus, minivan, and truck drivers; (b) vendors, itinerant merchants, persons subject to business fees (BIC), who do not exercise their professions in a fixed place; (c) small taxpayers engaged in commercial activity and classified in business fee categories 7, 8, and 9; (d) merchants not subject to the flat-rate BIC.		IFR rates, which correspond to a fixed tax, are established for each taxable activity based on the vehicle used by the transporter or the establishment, in the case of other taxpayers.
1.25 Personal income tax (IRPP) on foreign companies, withheld at source	Withholding at source of the IRPP levied on all amounts paid by a debtor based in Gabon to individual enterprises that are not based in the country on: - payment for an activity carried out in Gabon through an independent profession; - earnings of inventors or from copyright and equivalent income; - amounts paid in consideration for services of any kind provided or used in Gabon; - interest, arrears, and other returns on fixed-income investments. This tax is withheld by the debtor based in Gabon and remitted to the Treasury.		10 percent

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
2. Taxes on goods and services			
2.1 Value-added tax	This tax is assessed on value added. The tax is levied on all production, delivery, import, and service provision activities conducted on a regular or occasional basis, independently, for consideration. Subject to this tax are all corporate or individual taxpayers with a turnover of: (a) CFAF 60 million for service provision; (b) CFAF 80 million for general operations; (c) Taxpayers engaged in forestry activities are subject to VAT if their turnover exceeds CFAF 500 million. (d) Also subject to VAT when their turnover exceeds CFAF 40 million are the following taxpayers: • forwarding agents; • land carrier operators; • suppliers of automobile spare parts and accessories; • driving schools; • legal and accounting professions exercised independently: attorneys, court clerks, notaries, legal receivers, and accounting firms; • property managers; • printers and reproduction agencies; • job placement firms; • photographers; • dry cleaners; • hardware leasing firms; • restaurant owners.	The following are not eligible for deductions: (a) expenditure on housing, board and lodging, receptions, entertainment, and passenger transport, except for professionals in the hotel, restaurant, entertainment, and passenger transport industries; (b) imports of goods and merchandise re-shipped as-is; (c) petroleum products, with the exception of those used by fixed machinery, such as fuels, or manufacturing agents in industrial enterprises; (d) goods transferred without consideration or for consideration far below the normal price; (e) expenditure on vehicles and engines designed or outfitted for passenger transport or for multiple uses, constituting fixed assets, or on their rental or spare parts and accessories, except: (f) vehicles with more than 8 seats used by companies exclusively for transporting their personnel; (g) the fixed assets of car rental companies; (h) the fixed assets of public passenger transport companies. The rules on ineligibility for deduction are applied on a prorated basis in the case of mixed activities. Exemptions: (a) local products obtained by crop and livestock farmers, fishermen, and hunters; (b) the following operations if subject to special taxation: (c) sales of products from mining activities;	(a) General rate: 18 percent, applicable to all operations other than those subject by law to other rates; (b) Reduced rate: 10 percent applicable to the following items: • mineral water, chicken, sugar, beef and poultry meat, table oil, tomato paste, fruit or vegetable preserves, peanuts; • detergents; • cement, concrete reinforcing bars, building tile, tile pegs; • fishing equipment, outboard motors, raincoats; • axles and spare automobile parts (c) Zero rate: applicable to exports and international transport.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
	To be subject to the tax, a business transaction must be carried out in Gabon. For a sale, the merchandise must be delivered to Gabon and, for other operations, the service provided, right transferred, or thing leased must be used in Gabon. Apart from the general rule of imputing VAT deductions to gross VAT, the law provides for a system of possible credits of the tax limited to the following cases: • for export operations; • for VAT taxpayers engaged in operations covered by the mining code (a MINEFI order establishes the modalities for these refunds); • for all taxpayers for VAT in excess of CFAF 20 million charged on acquisitions of new depreciable goods. VAT is collected by the Directorate General of Taxes. Special case: The VAT regime applicable to petroleum exploration, exploitation, and production is established within the framework of the underlying contracts. VAT withholding: VAT on payments on contracts by the national government, local governments, and administrations with financial autonomy is withheld at source (60 percent of the full amount), as provided in the contract or related invoice.	(d) operations related to insurance and reinsurance contracts; (e) leasing by non-trading real estate companies of unimproved property and unfurnished premises; (f) operations intended to convey tangible real and personal property; (g) shipping and handling operations for exports; (h) printing, imports, and sales of magazines and periodicals, excluding income from advertising; (i) operations related to postage stamps, tax stamps, and stamp paper issued by the state; (j) deposits with the Central Bank, the issuing agency; (k) services or operations of a social, educational, cultural, philanthropic, or religious nature provided by nonprofit organizations to their members; (l) services related to the exercise of the medical or paramedical professions, excluding boarding and lodging expenses; (m) the following goods: milk, margarine, butter, yoghurt, newspapers, newsprint, exercise books and textbooks, bread, flour, gluten, rice, medicines, canned sardines and pilchards, pasta, capital goods for agricultural and livestock rearing activities—excluding forestry and fishing, agricultural fertilizers and plant health products designated by the Ministry of Agriculture, capital goods of hotel and tourism enterprises; (n) imports of goods exempted under Article 241 of the CAEMC Customs Code; (o) imports of fishing boats and aircraft;	

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
		(p) sales of second-hand goods by persons who used them for business purposes; (q) imports by enterprises covered by the Mining Code of depreciable, non-disposable goods on the local market; (r) services provided be economic interest groups (GIE) to their members under certain conditions; (s) Home equity loans of less than CFAF 70 million granted to individuals wishing to acquire or build a residence in Gabon; (t) Imports of new materials and tools intended for use by licensed socioeconomic real estate companies. Special case: Provided that there is reciprocity, diplomatic or consular personnel benefit from an exemption for the purchase of vehicles for professional or personal use on the domestic market. VAT refunds are granted to diplomatic or consular missions based in Gabon for: • wine, alcohol, and tobacco, within the limits of the quotas assigned to the missions; • fuels, within the limits of the quotas; • large purchases of certain furnishings and related services, exhaustively listed in the law, used for the operation of the missions and pertaining to diplomatic offices; • property expenditure by diplomatic or consular missions. Under no circumstances shall VAT refunds be permitted for goods to satisfy the personal needs of the staff of diplomatic and consular missions, including heads of mission.	

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
2.2 Excise taxes	Levied on imports or on domestic sales of nonalcoholic or alcoholic beverages, cigarettes, cigars, and tobacco. The tax base for imports is the c.i.f. value plus customs duties. The tax base for domestic production is the producer's sales price, excluding taxes.	For domestic products, the base is reduced by a rebate of 30 percent on the sales price.	(a) Alcoholic beverages: • beer: 20 percent; • wine: 25 percent; • other alcoholic beverages with an alcohol content by volume of more than 12 percent: 32 percent; (b) cigarettes, cigars, tobacco: 30 percent; (c) perfumes or cosmetics: 25 percent; (d) *foie gras*, caviar, salmon: 25 percent
2.3 Special taxes on fuels			
2.31 Domestic consumption tax	Levied on deliveries of liquid or gaseous petroleum products refined by distribution companies on the domestic market		Within the framework of the petroleum pricing structure, the Directorate General of Taxes, in agreement with the Petroleum Price Commission, sets the tax rates per distribution unit (liter or metric ton) for each product marketed.
2.32 Municipal tax on fuels	Domestic tax levied only on the use of petroleum products in Libreville and Port Gentil. Levied on deliveries of hydrocarbon liquids or gases refined by distribution companies on the domestic market.		Within the framework of the petroleum pricing structure, the Directorate General of Taxes, in agreement with the Petroleum Price Commission, sets the tax rates per distribution unit (liter or metric ton) for each product marketed.
3. Business and license fees			
3.1 Business fees (*contribution des patentes*)	Any Gabonese national or foreigner engaging in a commercial or industrial activity or an activity that is not expressly exempted by law is subject to business fees.	Exemptions: • the government, communes, rural communities, provident societies, agricultural mutual aid or loan associations, public institutions providing general services in the public interest;	Business fees consist of fixed fees at variable rates defined in accordance with the activity and the conditions under which it is exercised.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
	Business fees are personal. Each establishment of the business must pay business fees. However, if several activities are carried out within the same establishment, the taxpayer is subject only to the highest fixed tax. Business fees for the full year from each taxpayer exercising a taxable activity are due in the first quarter of the year. For new activities, business fees are due only from the first day of the quarter in which the activity started. For seasonal activities, business fees are not pro rated. An installment of the business fees equal to 100 percent of the previous year's fees must be paid by March 31. The balance is assessed through the tax rolls after the tax return for the year is filed. Business fees are levied on behalf of local governments, communes, and departments.	• the officials and employees of these services and establishments in the context of their functions; • master contractors of trade associations, with the same proviso; • painters, sculptors, designers, engravers, considered artists who sell only the products of their artistry; • licensed teachers of literature, science, and art, major industrialists, heads of institutions, boarding school principals; • midwives, nurses; • lyricists and dramatists; • crop and livestock farmers only within the framework of their agricultural activity related to the land and livestock they use or rear themselves, excluding any marketing of products from a third party; • owners or farmers of salt pans; • owners or tenants occasionally subletting a furnished part of their personal residence; • fishermen or pirogue-men; • partners of general and limited partnerships or public limited companies; • duly authorized savings banks, provident funds, managed free of charge, and mutual insurance companies; • captains of commercial vessels operating on behalf of third parties, ships' captains; • canteen operators attached to the army, when they do not sell alcohol; • public or private establishments that take in poor children for vocational training;	

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
		• hired workers or any employee who works using the customer's materials or on a day-to-day basis in houses, workshops, or small shops; • travelers, traveling trade and industry representatives, provided that they are not acting on their own behalf, exercising an independent professional activity; • icemakers working for ice factories and merchants; • planters of firewood derived solely from deforestation, to further planting; • explorers; • agricultural trade unions and cooperatives limited to collecting and distributing orders on behalf of their members; • mine operators. Persons traveling to Gabon to take orders on behalf of foreign companies are subject to the same business fees as local trade representatives; New establishments created by an enterprise and "using a workshop operating machinery" are exempt from business fees during the year in which they are established and for the next two years. Some duly authorized enterprises under the Investment Charter may benefit from temporary exemption from business fees.	
3.2 License fees (*contribution des licences*)	Levied on all individuals or legal entities engaged in the sale of spirituous or fermented alcoholic beverages in any form. Business fees are levied on behalf of local governments, communes, and departments.		The licenses are defined by category based on the terms and conditions of the activity, The law defines three categories of licenses. License fees consist of a fixed fee, set by law on the basis of each category of license.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
4. Property taxes			
4.1 Land taxes			
4.11 Land tax on improved property	The tax on improved property is levied on construction (registered or not) set on masonry foundations, such as houses, factories, hangars, and factories located in Gabon. It is also levied on the equipment of industrial plants incorporated in goodwill in perpetuity or attached to special foundations that are an integral part of the building, as well as any commercial or industrial installations. The land tax is established on the basis of a taxable income equal to the rental value at January 1 of the property concerned, less 25 percent for wear and tear and maintenance and repairs. Persons or businesses holding a property deed, a temporary or permanent occupancy title, and who are actually residing at a property on which a taxable construction has been built, are considered the proprietor of said property A rebate or reduction may be granted in the event that the house is vacated or the commercial or industrial establishment becomes non-operational for reasons beyond the control of the taxpayers and if the premises remain idle for at least six consecutive months. By March 31, an installment of the tax on improved property equal to 100 percent of the business fees paid the previous year must be paid by taxpayers subject to corporate income tax. The balance is assessed through the tax rolls after the tax return for the current year is filed.	Exemptions: - buildings belonging to the state, to international organizations, to communes, to chambers of commerce and, provided that there is reciprocity, to embassies and consulates; - facilities in sea ports and internal navigation routes, which are subject to public tooling concessions managed by the chambers of commerce or municipalities; - drinking water or electrical power supply systems belonging to the communes; - buildings used for worship; - buildings used for educational, sporting, humanitarian, or social purposes belonging to missions or to duly authorized groups; - buildings serving rural farms or for agricultural use by farming cooperatives; - residential housing and outbuildings, built by taxpayers on land assigned to them by means of a permit for occupation at no cost, under state land concessions, when they are not used wholly or in part for rental to third parties or are not used to operate businesses subject to business or license fees. New construction, remodeling, and additions are exempt from the tax on improved property for three years starting on January 1 after completion. The length of this exemption is five years for plants and buildings used for housing, except if the buildings in question are leased out, or used as country or holiday homes.	25 percent of 75 percent of the rental value.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
4.12 Land tax unimproved property	The land tax on unimproved property is assessed on all types of unimproved property, except property under provisional concessions. Persons or businesses holding a property deed, a temporary or permanent occupancy title, and who are occupying the property in their own right are considered the proprietor of said property. The tax is assessed on a base equivalent to 4/5 of the rental value, which itself is equal to 10 percent of the market value of the unimproved property. The land tax on unimproved property is levied on taxpayers of the corporate income tax and subject to payment of an installment by March 31 equal to 100 percent of the business fees paid the year before. The balance is assessed through the tax rolls after the tax return for the current year is filed.	Exemptions: (a) streets, public places, roads, and rivers; (b) property belonging to the state, to international organizations, to communes, to chambers of commerce and, provided that there is reciprocity, to embassies and consulates; (c) the land on which any buildings sit and the land surrounding these edifices; (d) land used for educational, sporting, humanitarian, or social purposes belonging to missions or duly authorized groups; (e) land with a surface area of less than 5 hectares, within a radius of 25 kilometers of urban developments, used exclusively for market gardening; (f) the surface area of quarries and mines; (g) land granted under permits for no-cost occupation in the context of state land concessions. Land located outside urban centers and recently used for rearing cattle or cleared and sowed, is temporarily exempt from the land tax on unimproved property. Depending on the use of this land, the duration of the exemption ranges from three to five years.	25 percent of 80 percent of the rental value, which is estimated at 10 percent of the market value.
4.2 Land tax	Levied on building land, playgrounds, and unused land. Building land is considered to be any land located within the perimeter of urban centers on which there is no construction, even if the land is enclosed and maintained.	Exempt from land tax are: • land subject to provisional grants; • land exempt from the land tax on unimproved property (CFPNB); • land for commercial and industrial use, such	• CFAF 200 per m² for first class urban land; • CFAF 40 per m² for second class urban land; • CFAF 1000 per hectare for rural land.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
	Playgrounds are considered to be any land within the perimeter of urban centers around buildings subject to the land tax on improved property (CFPB) or temporarily exempt from that tax. Unused land is considered to be any land outside urban centers that has not been used for the five years preceding January 1 of the tax year.	as project sites, warehouses, and other facilities of that kind; • land with a surface area of less than 4000 m². Temporary exemptions: • land temporarily exempt from the CFPNB; • urban land on which construction is prohibited for the duration of that prohibition; • - urban land during the two years following its acquisition and on condition that the acquirer has expressly communicated the intent to built to the DGI.	
4.3 Tax on property in mortmain	Annual tax representing the right of conveyance *inter vivos* or upon death, levied on real property belonging to companies subject to corporate income tax (IS). The tax base is the declared gross value of the property at January 1 of the tax year.	Exemptions: (a) general or limited partnerships; (b) public limited companies with the exclusive purpose of buying and selling real property, excluding their registered fixed assets; (c) property belonging to public service companies providing social or medical assistance; (d) property permanently exempt from the CFPB.	0.25 percent
4.4 Special real estate tax on rents (TSIL)	Subject to the special tax on property rentals are the individual or corporate owners who rent bare land, improved property for housing or for industrial or commercial development. The tax base is gross income from the rentals. The TSIL is due every quarter based on the amount of rent earned in the preceding quarter.	Exemptions: - owners of buildings permanently exempt from the CFPB; - owners of the equipment of industrial plants incorporated into goodwill in perpetuity or attached to special foundations that are an integral part of the building, as well as any commercial or industrial installations;	15 percent

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
	For rentals to the state, the TSIL is withheld by the Treasury when rents are deposited to the owners.	- VAT taxpayers who rent bare land, improved property for housing or for industrial or commercial enterprises, if said property is included in their assets. The TSIL is deducted from income subject to corporate or personal income tax.	
5. Recording taxes	Taxes are fixed, progressive, or proportional, depending on the nature of the acts and their amendments. Fixed taxes apply to "acts recording no transfer of ownership, usufruct or enjoyment of personal or real property, no obligation, no pecuniary or other judgment for value, no acquisitions by marriage, no acquisitions of equity, no sharing of personal or real property, and, generally, any other acts, even those exempt from recording, which are voluntarily submitted to this formality." Progressive or proportional taxes are levied "on transfers of the enjoyment of personal or real property, *inter vivos* or upon death, obligations, pecuniary or other judgments for value, as well acts representing acquisitions through marriage, acquisitions of equity, division of personal and real property. The taxes are levied on the value."	Some acts are recorded free of charge: • lease contracts and transfers profiting the Republic of Gabon, its communes or public establishments; • the acts of certain international organizations (EDF, BEAC, etc.); • BGD and S.NI; • any judgments handed down in labor accident or family allowance cases; • leases and transfers to private individuals at low prices or rents; • capital invested in mutual funds; • transfers of shares in mutual funds when these are held by individuals resident in Gabon.	The amounts of the fixed taxes range from CFAF 5000 to CFAF 50000, depending on the nature of the acts involved. Progressive taxes increase by tax bracket and are applied in accordance with a scale established by the finance ministry. Proportional taxes fall within a range of 1-6 percent.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
6. Forestry taxes			
6.1 Stumpage fee (*taxe d'abattage*)	Persons or businesses, regardless of whether or not they hold a logging permit, who engage in forestry and cut logs that are intended for local processing or for export, are subject to the logging tax. The tax base for the logging tax is assessed using the value of the logs, as determined by their standard value, on the cutting date and the volume felled. Lumber operators must file a logging tax return and submit a payment instrument (a certified check made out to the tax administration or in cash) by the 20th day of the month following the month in which the logs were felled. Permit holders, timber operators, and lumber buyers must jointly and severally pay the logging tax. This provision has facilitated the application of a logging tax withholding (*précompte*) by obliging lumber buyers to withhold and pay 9 percent of the purchase value to the tax administration. Private contract holders (community forestry) are subject to the payment of a flat logging tax.	• A lump-sum rebate of 15 percent is applied to the standard value of logs intended for export (in order to deduct FOB costs from the taxable base). • A lump sum rebate of 60 percent is applied to the standard value of logs intended for local processing in factories.	The logging tax rate varies by forestry zone. The different rates are: The annual reference scale is applied to logging in accordance with each classified zone of forestry units: • Zone A: 9 percent; • Zone B: 7 percent; • Zone C : 5 percent; • Zone D : 3 percent. Note: If the logging zone cannot be determined, the rate assessed is 9 percent. • Tax withholding of 9 percent: for taxpayers who fail to regularly file their logging tax return, the lumber buyer (industry or exporter) must carry out the withholding. • Rate for holders of private contracts: CFAF 6000 per foot felled.
6.2 Area tax (*taxe de superficie*)	Persons or businesses holding a logging permit who are regularly taxed by the competent authorities of the Water and Forest Administration are subject to the area tax. The area tax is payable in advance by March 31 of every year for the whole year. If the amount payable exceeds CFAF 20 million, the permit holder may, at their request, be authorized to pay the tax according to the payment schedule established by the Directorate		Area tax rates are as follows: • CFAF 600 per hectare for unimproved concessions; • CFAF 300 per hectare for improved concessions; • CFAF 200 per hectare for areas closed to forestry for a period of 15 years.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
	General of Taxes. The permit holder and timber operator must jointly and severally pay the area tax .		
7. Miscellaneous taxes			
7. 1 Tax on games of chance	The tax on games of change is levied on *pari-mutuel* bets at racetracks and any other games of chance. The tax base is the total amount played by gamblers and players. The tax on games of chance is payable voluntarily by the 25th of each month.		4.5 percent
7. 2 Highway tax (*taxe vicinale*)	All male individuals between the ages of 18 and under 50 residing in Gabon at January 1 of the tax year are subject to the highway tax. The highway tax is withheld by employers three times a year from the wages of employees earning a monthly wage of no more than CFAF 65 000, and once a year for others.	The following are exempt from the highway tax: • soldiers for the duration of their military service and for one year afterwards; • those wounded at war or war veterans, as well as victims of labor accidents who are 40-percent disabled; • foreign diplomatic and consular staff who no longer exercise their official functions or any business or industrial occupation; • persons whose disability does not allow them to engage in any professional activity; • sleeping sickness sufferers and lepers who have ceased all activity; • students in school, up to age 28.	May be revised each year. Fixed annual tax: - CFAF 4000 for the communes; - CFAF 2500 for the departments.
7.3 Flat national solidarity tax	The flat national solidarity tax is levied on all individuals, male or female, residing in Gabon, between the ages of 18 and 50 on January 1 of the tax year.	The following are exempt from the flat national solidarity tax: • soldiers for the duration of their military service and for one year afterwards; • those wounded at war or war veterans, as well as victims of labor accidents who are 40-percent disabled; • foreign diplomatic and consular staff who no longer exercise their official functions or any	CFAF 2000 per year.

Tax	Type of Tax	Exemptions, Rebates, and Deductions	Tax Rates
		business or industrial occupation; • persons whose disability does not allow them to engage in any professional activity; • sleeping sickness sufferers and lepers who have ceased all activity; • students in school, up to age 28; • wage earners with a monthly wage of less than CFAF 150 000.	
7.4 Suppl. tax on public and private salaries, benefits and emoluments, and wages	The tax base is taxable income subject to the IRPP on salaries and wages. The tax is withheld by employers on a monthly basis.		- 1 percent on income of up to CFAF 100 000; - 5.5 percent on other income.
7.5 Flat residential user fee	The flat residential user fee is levied on: • residential premises; • residential premises occupied exclusively by companies, associations, and any private agencies. Persons who use or enjoy the taxable premises in any capacity are subject to the flat residential user fee.	The flat residential user fee is not levied on the following: • public establishments; • offices; • rural farm buildings; • premises used for housing students in schools and boarding schools; • offices of civil servants; • premises used for religious worship. • The following are not liable for the flat residential user fee: • inhabitants recognized as being poor by the tax administration; • foreign ambassadors and other diplomatic officers on their official residence, provided that there is reciprocity; • taxpayers aged over 55 as well as their widows or widowers not subject to IRPP the year before.	Tax introduced in 2000 and not yet applied. Rate to be set by MINEFI instruction.

Source: Directorate-General of Taxation.