

## **Benin: Selected Issues and Statistical Appendix**

This Selected Issues paper and Statistical Appendix for Benin was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on November 10, 2006. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Benin or the Executive Board of the IMF.

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

**To assist the IMF in evaluating the publication policy, reader comments are invited and may be sent by e-mail to [publicationpolicy@imf.org](mailto:publicationpolicy@imf.org).**

Copies of this report are available to the public from

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

Price: \$18.00 a copy

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



INTERNATIONAL MONETARY FUND

BENIN

**Selected Issues and Statistical Appendix**

Prepared by Mbuyamu Matungulu, Prosper Youm, Issouf Samake, and Jose Gijon  
(all AFR)

Approved by the African Department

November 10, 2006

	Contents	Page
	Basic Data .....	3
I.	Private Investment Dynamics and Growth in Benin.....	4
	Summary .....	4
	A. Introduction.....	5
	B. Background and Stylized Facts.....	6
	C. The Empirical Model .....	9
	D. Empirical Evidence.....	12
	E. Conclusion and Policy Issues.....	19
	Statistical Appendix	
1.	Gross Domestic Product by Sector of Origin at Current Prices, 1998-2005 ....	30
2.	Gross Domestic Product by Sector of Origin at Constant 1985 Prices, 1998-2005 .....	31
3.	Supply and Use of Resources at Current Prices, 1998-2005 (In billions of CFA francs).....	32
4.	Supply and Use of Resources at Current Prices, 1998-2005 (In percent of GDP) .....	33
5.	Production and Producer Prices of Cotton Products, 1997/98-2004/05 .....	34
6.	Production and Cultivated Area of Principal Food Crops, 1997/98-2004/05 .....	35
7.	SONAPRA's Cost Structure, 1997/98-2004/05 .....	36
8.	Retail Price of Major Petroleum Products, 1998-2005.....	37
9.	Transportation Activity, 1998-2005.....	38

10.	Consumer Price Index in Urban Areas, 1998-2005 .....	39
11.	Industrial Minimum Legal Wage, 1998-2005 .....	40
12.	Consolidated Government Operations 1998-2005.....	41
13.	Central Government Revenue, 1998-2005 .....	42
14.	Central Government Expenditure, 1998-2005 .....	43
15.	Operations of the Social Security Fund, 1998-2005 .....	44
16.	Monetary Survey, 1998-2005 .....	45
17.	Summary Account of the Central Bank of West African States (BCEAO), 1998-2005 .....	46
18.	Summary Account of Commercial Banks, 1998-2005 .....	47
19.	Net Claims on the Central Government, 1998-2005 .....	48
20.	Distribution of Credit to the Economy, 1998-2005 .....	49
21.	Central Bank Lending Rates, January 2000-December 2005 .....	50
22.	Balance of Payments, 1998-2005 .....	51
23.	Balance of Payments, 1998-2005 (Millions of U.S. dollars).....	52
24.	External Trade Indices, 1998-2005.....	53
25.	Services, Income, and Private Transfers, 1998-2005 .....	54
26.	Direction of Recorded Exports, 1998-2005 .....	55
27.	Direction of Recorded Imports, 1998-2005 .....	56
28.	Stock of Public and Guaranteed External Debt, 1998-2005 .....	57
29.	Debt-Service Obligations on Public and Publicly Guaranteed Debt, 1998-2005 .....	58
30.	Exchange Rate Developments, 1998-2005 .....	59
31.	Summary of the Tax System as of June 2006.....	60

Area				
Resident population				
Total (2005 est.)	7,395,040			
Growth rate (1998-2005)	3.1			
GDP per capita (2005)	596			
IMF Position (as of October 31, 2006)				
Quota	SDR 61.90 million			
Fund holding of currency	SDR 59.72 million			
	2002	2003	2004	2005
				Est.
	(Annual changes in percent, unless otherwise indicated)			
<b>National income, prices and cotton production</b>				
GDP at current prices	6.8	5.7	3.4	8.5
GDP at constant prices	4.5	3.9	3.1	2.9
GDP deflator	2.2	1.7	0.3	5.4
Consumer price index (average)	2.4	1.5	0.9	5.4
Consumer price index (end of period)	1.2	0.8	2.6	3.7
Production of cotton (in '000 of tons) 2/	337.5	333.1	427.7	190.8
<b>Central government finance</b>				
Revenue	13.2	10.2	0.2	9.1
Expenditure and net lending	8.2	11.6	0.7	13.9
<b>Money and credit</b>				
Net domestic assets 3/	4.6	11.6	3.4	12.9
Domestic credit 3/	7.5	12.8	4.8	13.4
Net claims on central government 3/	2.3	-0.2	1.5	3.2
Credit to the nongovernment sector	16.1	33.0	4.5	20.2
Broad money	-3.8	6.6	-6.7	21.8
Velocity (GDP relative to average M2)	3.4	3.6	3.6	3.7
<b>External sector (in terms of CFA francs)</b>				
Exports, f.o.b.	-3.9	14.1	7.7	-6.0
Imports, f.o.b.	13.8	3.6	3.9	-5.5
Export volume	10.4	11.6	-11.9	22.7
Import volume	5.5	4.7	3.0	3.3
Terms of trade (minus = deterioration)	-19.3	3.4	21.2	-15.9
Nominal effective exchange rate (minus = depreciation)	2.5	8.8	4.4	-0.5
Real effective exchange rate (minus = depreciation)	5.5	8.4	2.4	2.2
	(In percent of GDP, unless otherwise indicated)			
<b>Basic ratios</b>				
Gross investment	17.2	19.6	19.0	19.6
Gross domestic saving	3.3	6.7	6.7	9.6
Gross national saving	8.8	11.2	11.7	12.8
<b>Central government finance</b>				
Revenue	16.3	17.0	16.4	16.5
Expenditure and net lending	19.5	20.6	20.1	21.1
Primary balance 4/	-2.5	-3.1	-3.3	-4.3
Primary balance (narrow definition) 5/	1.0	0.2	0.0	-1.4
Overall fiscal deficit (payment order basis, excluding grants)	-3.3	-3.7	-3.7	-4.6
Overall fiscal deficit (cash basis, excluding grants)	-4.3	-3.7	-4.5	-3.6
Debt service (after debt relief) in percent of revenue 1/ & 6/	...	3.2	1.6	7.0
<b>External sector</b>				
Trade balance	-12.2	-11.3	-11.0	-9.6
Current account balance (excluding grants)	-8.6	-8.6	-7.9	-7.2
Current account balance (including grants)	-8.4	-8.3	-7.2	-6.8
Overall balance of payments	-3.6	-0.4	-3.2	2.8
Debt-service to exports ratio 1/	0.0	12.5	6.9	6.5
Net present value of debt-to-exports ratio 7/	244.2	147.1	132.1	78.6
Debt-to-GDP ratio (after HIPC and before MDRI)	50.3	38.6	32.4	36.9
Gross reserves in months of imports	8.8	11.1	8.7	11.4
<b>Memorandum items:</b>				
Nominal GDP (in billions of CFA francs)	1,956.7	2,067.9	2,138.2	2,319.7
CFA francs per U.S. dollar (period average)	694.6	580.1	527.6	526.6
Population (midyear, in millions)	6.8	7.0	7.2	7.4

Sources: Beninese authorities; and IMF staff estimates and projections.

1/ The 2006 projections incorporate the MDRI resources for the IMF, IDA and AfDF in stock operations.

2/ Cotton production for T-1/T season. Production of cotton seed in crop year T-1/T affects agricultural production in year T-1, industry, services, and exports of ginned cotton in year T.

3/ In percent of broad money at the beginning of the period.

4/ Total revenue minus all expenditure, excluding interest due.

5/ Total revenue minus all expenditure, excluding foreign-financed capital expenditure and interest due.

6/ Interest payment only.

7/ After HIPC relief and before MDRI.

## I. PRIVATE INVESTMENT DYNAMICS AND GROWTH IN BENIN<sup>1</sup>

### Summary

*Benin has been undergoing democratization since the early 1990s, a process that has been furthered by the recent 2006 presidential elections. With program engagement with the Fund virtually uninterrupted since the 1990s, the country reached the completion point under the enhanced HIPC Initiative in March 2003 and began receiving assistance under the Multilateral Debt Relief Initiative (MDRI) in 2006. The current three-year Poverty Reduction and Growth Facility arrangement was approved in August 2005. In this context, the government that took office in April 2006 has adopted a strategy to strengthen macroeconomic stability and promote private-investment-led growth.*

**The following study uses econometric techniques to investigate the short- and long-run behavior of private investment and its contribution to growth in Benin.** It finds that besides developments in the institutional and regulatory framework and in the terms-of-trade, public investment and private capital formation facilitated by credit to the private sector have a strong impact on growth performance. The analysis also confirms that slow improvement in Benin's economic freedom, reflecting weak institutions and limited progress in implementing structural reforms, impedes private investment. Speed-of-adjustment analysis indicates that a 1 percent increase in private investment leads to a 0.2 percent increase in long-run GDP growth. Conversely, a 1 percent shock to private investment would entail a 16-percent yearly correction, requiring about 4 years to close half of the deviation of real GDP from its long-run equilibrium.

**On the basis of these findings, the study underscores that:**

- By promoting private sector development and directing fiscal resources to public investment in infrastructure and institutional building, the authorities could help Benin realize higher long-run growth. The additional fiscal space created by MDRI-related aid should be allocated to high-return projects.
- Structural reforms and the gradual formalization of informal economic activities through appropriate market incentives could help improve Benin's economic competitiveness and strengthen its fiscal position.
- A segmented public-private sector partnership could deepen the private sector's involvement in Benin's infrastructure development.
- Finally, broadening access to credit would boost private investment and support growth.

---

<sup>1</sup> Prepared by Issouf Samake.

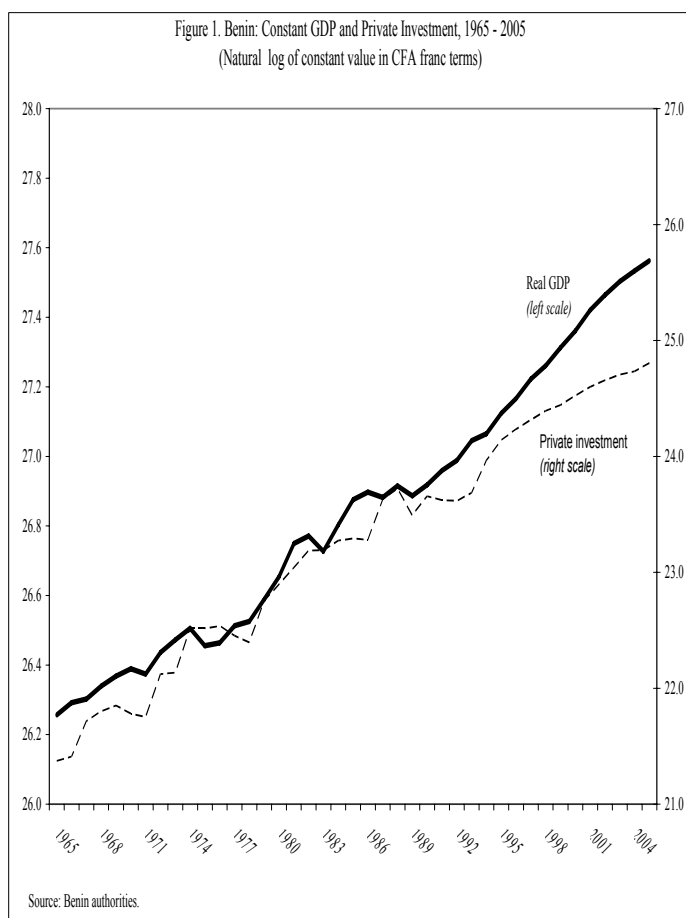
## A. Introduction

1. **This study analyzes the relationship between private investment and growth, and their key determinants.** To the extent that private investment is an important determinant of long-run growth, a comprehensive assessment of their relationship is essential to identify and appropriately address related policy issues. Such an assessment is of particular importance to Benin given that, despite its macroeconomic stability, the country has so far failed to attract significant private investment flows.
2. **The analysis uses econometric techniques to investigate the short- and long-run behavior of private investment and its links to growth.** Consistent with earlier growth accounting studies, it establishes that private investment is indeed a critical determinant of growth in Benin. Moreover, public investment appears to have an important role in supporting private investment and growth. This suggests that channeling part of the additional fiscal space in debt relief to public investment could benefit Benin's medium term growth rate. The analysis also shows that adverse shocks, e.g., the terms of trade, can have long-lasting effects, while credit to the private sector has a short-lived impact on private investment and growth. And there is significant potential for institutional reforms to improve the business environment, raise private investment and invigorate growth.
3. **The rest of the chapter is organized as follows:** Section B provides background and stylized facts on Benin's economic performance. Section C briefly describes the theoretical basis of the econometric model and discusses the estimation results. Section D provides insights on private investment behavior and its impact on growth through Variance Decomposition, Impulse Response Function, and Historical Decomposition Analysis. Section E offers concluding remarks and policy prescriptions for sustained growth through private investment.

## B. Background and Stylized Facts

4. **Benin has recorded modest private investment rates and per capita GDP growth despite its relatively good position within the WAEMU.** Between 1965 and 2005, real GDP grew by an annual average of 3.4 percent, with per GDP capita increasing by only 0.3 percent per annum. After the 1994 CFA franc devaluation, real GDP growth rebounded to a yearly average of 4.4 percent during 1994–2005, and real GDP per capita increased by 1.7 percent per year.

5. **Interestingly, since 1994, real private investment has tended to slow relative to historical rates** (See Figure 1). The pace of real private investment growth decelerated from an annual average of 14 percent during 1980-93 to 6.1 percent in 1994-2006. Similarly, in the key cotton sector (see Box 1), investment has been insufficient to cover capital depreciation. The stock of foreign direct investment (FDI) in the cotton sector<sup>2</sup> declined from US\$441 million in 1998 to US\$291 million in 2004, while total FDI inflows nearly doubled during the same period (US\$ 60 millions in 2004, from US\$33 millions in 1998).



<sup>2</sup> Source: The World Bank, 2006. “West and Central Africa: Strategies for Cotton Sector Development in West and Central Africa – Towards a Regional Textile and Garment Industry”



### Box 1. Cotton Production in Benin

- **The cotton sector and trade explain most of Benin's output fluctuations.** The cotton sector remains a dominant economic sector, though cotton seed production has a relatively small share of nominal GDP (about 3 percent on average during 2000-05) and is subject to large swings.
- **Production.** Of the approximately 550,000 Benin families who run small farms to generate their main income, about 310,000 grow cotton and sell cotton seed. About 14,000 new small farmers (in net terms) enter the agricultural sector each year. Average family size in rural areas is 10 people. Ginning industry processing capacity is estimated at 600,000 tons.
- **The sectoral implication of cotton production.** The production of cotton seed in crop year  $T-1/T$  affects agricultural production in year  $T-1$ , industry, services, and exports of cotton lint in year  $T$ .
- The growth of cotton seed production in crop year  $T/T+1$  affects agricultural production in year  $T$  and industry and services in year  $T+1$ . Noncotton-related sectors grow at the same rate as in the benchmark case. Authorities assumed a one-to-one impact. For instance a 1 percent increase in cotton seed production would imply a 1 percent increase in cotton-related activities in secondary and tertiary sectors. It was estimated in 2002 that the production of seed cotton represented about 15 percent of agricultural production, 10 percent of cotton-related industry, and 10 percent of cotton-related services.
- **Marketing.** Cotton marketing, including the allocation of seed cotton to all ginning companies, is partly controlled by the parastatal ginning company (SONAPRA). The cotton sector is overregulated. Prices for inputs, transport, and seed cotton are centrally determined by institutions representing stakeholders (farmers, suppliers of inputs, and ginning companies).
- **Risks.** Persistent sectoral risks pertain to (i) production (e.g., rainfall and high input costs); (ii) ginning quality; (iii) marketing and international price changes, (iv) transportation; and (v) credit allocation (e.g., liquidity constraints and incidence of nonperforming loans).

**6. Private investment matters for growth.**

Over the last five years, economic growth has been more robust in CEMAC than in WAEMU countries. Text table 1<sup>3</sup> indicates that this can partly be explained by differing private investment performance in the two regions. High returns in the oil sector that is associated with greater private investment, have helped the CEMAC countries enjoy relatively higher real GDP growth. Interestingly, the Central African Republic, the only non-oil country in the CEMAC, achieved a real GDP growth of -0.4 percent on average during 2000-05, together with the lowest private investment ratio in the region.

Text table 1. Comparative Private Investment, 2000-05			
Country	2000-05	2000-03	2004-05
	(percent of GDP)		
WAEMU 1/	11.1	11.2	11.1
Benin	12.5	12.2	13.1
Burkina Faso	10.6	10.5	10.8
Côte d'Ivoire	7.7	7.8	7.5
Mali	12.1	12.8	10.5
Niger	5.2	5.1	5.6
Senegal	17.0	17.5	16.2
Togo	16.1	15.5	17.3
CEMAC 1/	21.0	22.5	17.9
Cameroon	16.5	16.3	16.8
Central African Rep.	4.5	4.5	4.5
Chad	27.3	33.5	14.8
Congo, Republic of	16.0	15.7	16.6
Equatorial Guinea	41.1	48.9	25.5
Gabon	19.8	20.1	19.1
Memorandum items:	(real GDP growth in percent)		
WAEMU 1/	3.0	2.6	3.6
CEMAC 1/	5.7	5.2	6.6

Source: I.M.F. - *World Economic Outlook*, 2006.  
<sup>1</sup> PPP weighted.  
 WAEMU: West African Economic and Monetary Union.  
 CEMAC: Communauté Economic des Etats d'Afrique Centrale.

**7. Benin's institutions, regulatory system, and financial sector developments likely impede private investment** (Text Table 2). The World Bank's 2006 "Doing Business" report ranks Benin 137 out of 175 countries in terms of ease of doing business. This relatively lackluster performance partly reflects cumbersome licensing requirements, difficult labor market conditions, scarce credit, and high factor costs. Casero and Varoudakis (2004) found similar impediments to private investment in Tunisia.

**8. Progress in improving the business environment has been slow.** Among the WAEMU countries Benin has made the least progress in improving the business environment in the last couple of years. The country's "ease of doing business" indicators gained only 2 points from 2005 to 2006 while the WAEMU best performer during the period, Côte d'Ivoire, improved by 15 points. Excessive regulations and other institutional factors may have contributed to the laggard performance. The relatively subdued progress may also reflect delays in implementing reforms and in addressing various institutional weaknesses, especially in the cotton sector.

<sup>3</sup> Text table 1 also raises the issue of productivity of capital which is not discussed here.

Text table 2. Selected Countries: Comparative Rankings of Doing Business 1/

	Ease of doing Business		Starting a Business		Dealing with Licenses		Employing Workers		Registering Property		Getting Credit	
	2006 rank	change 2006/05	2006 rank	change 2006/05	2006 rank	change 2006/05	2006 rank	change 2006/05	2006 rank	change 2006/05	2006 rank	change 2006/05
Benin	137	2	126	-13	133	-2	121	2	85	-1	117	0
Other WAEMU 2/												
Burkina Faso	163	8	131	2	168	-2	153	-1	164	-1	117	0
Côte d'Ivoire	141	15	154	-10	158	-1	133	0	101	64	143	0
Mali	155	10	163	-3	122	20	131	-1	93	6	143	0
Niger	160	9	147	12	126	29	168	0	103	-2	143	0
Senegal	146	6	150	-2	66	1	152	1	151	0	143	0
Togo	151	3	169	-3	132	-7	145	1	155	-19	143	0

Sources: World Bank, 2006. [www.doinbusiness.org](http://www.doinbusiness.org)

1/ Countries are ranked from 1 to 175 with 1 being the best performer.

2 Except Guinea-Bissau.

### C. The Empirical Model

9. **The background discussion suggests that understanding the impact of private investment on Benin's long-run growth requires an understanding of institutional factors and the regulatory framework.** There is not much empirical research in this area, particularly on developing countries. Most studies have to some extent looked separately at financial development or trade liberalization and growth, or have emphasized the role of public or fiscal policy, or institutions. Also, less attention has been paid to the relationship between private sector dynamics and growth while controlling for public investment, financial sector development, external factors, and institutional changes.

10. **The analysis here uses the time-to-build approach to estimate the potential impact of private investment on growth.** According to this approach, capital stock becomes productive once the investment projects are completed in sequence. It acknowledges that lags in investment returns depend on production technology (see Altug 1989, 1993 and Kydland and Prescott 1982), as opposed to the cost-of-adjustment model<sup>4</sup> or irreversible investment under uncertainty models.<sup>5</sup> The empirical model used here is a structural vector

<sup>4</sup> The neoclassical prospective, cost-of-adjustment approach considers that decision-makers choose the capital stock rather than investment rate, therefore, as the cost of capital changes, they would instantaneously adjust the level of capital stock to the "desired" level. The "desired" capital could be considered the optimal level which is different from the actual capital stock.

<sup>5</sup> As removing investment is costly and in the presence of uncertainty, the decision-maker may delay investment decision in light of new information.

autoregression model (SVECM) that captures the time lag needed for initial investment to contribute to future growth,<sup>6</sup> as well as endogeneity problems among the system variables.

11. **The model includes** the following set of endogenous variables:

$$Y'_t = (LTRAD_t, LGINV_t, LCRED_t, LPINV_t, LGDP_t),^7$$

Where:

- *LTRAD*: the log of trade volume index is the external factor variable.
- *LGINV*: the log of public investment is the proxy for fiscal variable.
- *LCRED*: the log of credit to the private sector is the proxy for financial variable (as opposed to interest rate).
- *LPINV*: the log of private investment incorporates private sector behavior.
- *LGD*: the log of real *GDP* represents supply factors.

12. **The background discussion above and existing empirical literature motivate the choice of variables<sup>8</sup>.** Including public capital (*LGINV*) in the model helps to assess whether there is a crowding-in or a crowding-out effect of fiscal policy on private investment. The choice of *LCRED*, credit to the private sector, is justified as it is well known from the empirical literature that the interest rate channel is less effective in, and the credit channel better suited for, capturing the effectiveness of monetary policy.<sup>9</sup> However, *LCRED* can also be viewed as a structural variable given that Benin's financial sector has been growing in response to ongoing sector reforms. Furthermore, as shown in Figure A, the *LCRED* would give a sense of the extent to which financial deepening may be conducive to growth.

---

<sup>6</sup> For instance, among others, the empirical studies of Breitung et al. (2003) and Zhou (2000) attempted to use time-to-build approach and VAR methodologies to explain relations between investment and its determinants.

<sup>7</sup> The number of endogenous variables was limited to five to preserve degrees of freedom problems given the relatively limited number of annual observations (41).

<sup>8</sup> See Ghura and Hadjimichael (1996) and Calamitsis, Basu, and Ghura (1999) for the use of a similar set of variables in the modified version of the neoclassical growth model.

<sup>9</sup> See for instance “*Reflections on Credit Policy in Developing Countries: Its Effect on Private Investment*” by Mansoor Dailami and Marcelo Giugale in Country Economics Department (The World Bank, April 1991, WPS 654).

13. An institutions variable, denoted  $INST_t$ , is assumed to be exogenous in the system. It is measured using the Fraser Institute's Economic Freedom Index<sup>10</sup> results for 1996–2006, extrapolated back to 1965 using the average scores derived from individual correlation to (only) trade, fiscal burden, foreign investment, banking, and wages and prices. The ranking ranges from 5 to 1<sup>11</sup>; the better the institution is, the lower the ranking.

14. **The model set up.** The full representation of the model is as follows:

$$Y_t = \sum_{i=1}^p \pi_i Y_{t-i} + \phi INST_t + \varepsilon_t \quad (1)$$

where  $\pi_i$  ( $i = 1, \dots, p$ ),  $p$  is the number of lag, and  $\phi$  are unknown parameter vectors. As variables in (1) are in log terms, by subtracting and adding various lags of  $Y_t$  one gets the following dynamics of (1): basis for cointegration analysis. By subtracting and adding various lags of  $Y_t$ , (1) can be re-written as:

$$\Delta Y_t = \Pi Y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \sum_{i=0}^{p-1} \chi_i \Delta INST_{t-i} + \varepsilon_t \quad (2)^{12}$$

A variable preceded by the operator  $\Delta$  can be interpreted as the percentage change; (2) can also be rewritten as:

---

<sup>10</sup> The index's total scores the average of a set of variables that includes trade, fiscal burden, foreign investment, banking, wages and prices (excluding property rights, regulations, government intervention, monetary policy, and the informal market). There is some empirical evidence of a bidirectional relationship between institutions, growth, and investment. The rationale for the choice of  $INST$  as an exogenous variable is that its composition is mostly dominated by fiscal and monetary policy instruments—which are not used in our set of endogenous variables; however, the extrapolation back to 1965 may induce some noise. Conversely, using alternative measures such as those for institutions and democracy from the Polity project would not support the choice of  $INST$  as exogenous. (<http://www.cidcm.umd.edu/polity/data/variables.asp>)

<sup>11</sup> Although this is the original ranking, the order is reversed in the dataset in order to facilitate the economic interpretation. See Text table 4, a positive change in  $INST$  would be interpreted as improvement in institution.

<sup>12</sup> (2) is the basis for cointegration analysis.  $\Pi = -\left[ I - \sum_{i=1}^p \pi_i \right]$ ,  $\Gamma_i = -\left[ \sum_{j=i+1}^p \pi_j \right]$ ,  $i = (1, \dots, p-1)$ , and

from,  $\chi_i = \begin{cases} \phi, & i = 0 \\ -\Gamma_i \phi, & i = 1, \dots, p-1 \end{cases}$

$$\Delta Y_t = \alpha(\beta' Y_{t-1}) + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \sum_{i=0}^{p-1} \chi_i \Delta INST_{t-i} + \varepsilon_t \quad (3)$$

This equation, the “error correction” representation, has the merit of representing the dynamics for each individual (system) variable in terms of its deviation from its long-run equilibrium (the first term<sup>13</sup>) and in terms of its year-to-year or short-term change (the last two terms).

#### D. Empirical Evidence<sup>14 15</sup>

15. **The investment equation supports the conclusion that the trade index and public investment have a positive impact on private investment in the long-run.** It appears that credit to the private sector does not have a significant long-run impact on private investment or on GDP growth. However, public investment and the export index have a direct impact on GDP growth and an indirect output effect via private investment. This result is consistent with the empirical literature, which suggests that public investment stimulates private investment (Oshikoya 1994, Odedokun 1997, and Ramirez 2000).

**The long-run equilibrium equations for private investment and GDP are<sup>16</sup>:**

$$\begin{aligned} PINV &= 0.316 * TOT + 0.431 * GINV + ECT\_PINV \\ &\quad [2.003] \quad [3.987] \\ GDP &= 0.422 * TOT + 0.204 * GINV + 0.219 * PINV + ECT\_GDP \\ &\quad [4.191] \quad [3.693] \quad [2.288] \end{aligned}$$

---

<sup>13</sup> The relations  $\beta' Y_{t-1}$  are the cointegrating relations, and the coefficients  $\beta$  are the long-run parameters; The coefficients  $\alpha$  can be interpreted as the speed of adjustment to the long-run equilibrium.

<sup>14</sup> The model variables passed most diagnostic tests for the SVECM analysis: (i) unit root test; (ii) choice of optimal lag length; (iii) residual normality and heteroschedasticity tests; and (iv) system variables stability tests.

<sup>15</sup> There are two long-run relationships within the system (3) above. The analysis below focuses on the behavior of private investment and the relationship between GDP and private investment. We test whether there is a long-run relationship between the endogenous variables using the maximum eigenvalue test. As shown in Text table 3, the application of the likelihood ratio test shows that the null hypothesis of no cointegrating relationship can be rejected at the 5 percent confidence level (for the null hypothesis of at most 1 cointegrating equation, max-eigenvalue statistics = 31.86 > critical value = 24.16, [p-value: 0.00]), thereby strongly suggesting that there is two cointegrating equations among the endogenous variables.

<sup>16</sup> To identify the cointegrating vector, and because the long-run impact of  $LGDP$  on  $PINV$  is insignificant, we impose a zero restriction on  $LGDP$  coefficient in the  $PINV$  equation.  $ECT\_PINV$  is the error correction term for private investment and  $ECT\_GDP$  for GDP equations.

$ECT\_PINV$  and  $ECT\_GDP$  are the error correction terms for private investment and GDP equations respectively. They are the residual terms between actual value (left-hand side) and estimated values (right-hand side)

The short-run dynamic equations are:<sup>17</sup>

Text table 4. Error Correction Model, 1965 - 2005

		Short-run dynamic equation of			
		Public investment	Credit to the private sect.	Private investment	GDP
Loading parameters	ECT_PINV 1/	-0.19 [-1.41]*	0.22 [ 2.88]**	-0.11 [-2.83]**	0.00 n.a.
	ECT_GDP 1/	0.31 [ 3.33]**	-0.28 [-1.79]*	0.00 n.a.	-0.26 [ 2.84]**
Short-run parameters	Change in:				
	TOT(-1)	-0.38 [-2.00]**	0.26 [ 0.60]	0.14 [ 0.49]	0.23 [ 0.90]
	GINV(-1)	0.17 [ 4.03]**	-0.20 [-1.63]*	0.05 [ 0.38]	-0.26 [-1.33]*
	CRED(-1)	0.26 [ 1.03]	0.66 [ 3.64]**	0.84 [1.66]*	0.11 [ 1.43]*
	PINV(-1)	-0.25 [-3.17]**	0.09 [ 1.10]	0.17 [ 2.22]**	-1.65 [-2.17]**
	GDP(-1)	0.49 [ 2.99]**	0.67 [ 0.53]	0.52 [2.91]**	0.24 [ 1.02]
	INST	0.04 [ 0.06]	0.44 [1.82]*	0.15 [ 2.03]**	0.03 [ 1.07]
	INST(-1)	0.58 [ 0.51]	-0.01 [-0.29]	0.01 [ 0.44]	0.24 [ 2.01]**
	Adj. R-squared	0.75	0.64	0.85	0.75
	S.E. equation	0.02	0.02	0.02	0.05
F-statistic	1.79	1.33	1.29	-0.02	
Akaike AIC	-2.27	-3.65	-1.39	-3.48	
Schwarz SC	-2.77	-1.55	-1.87	-2.78	

t-statistics in [ ], 41 observations, optimal lag length = 2,

ECT\_PINV= Error correction model for private investment;

ECT\_GDP= Error correction model for GDP;

TOT= Terms of trade; GINV=Public investment; CRED=Credit to the private sector

PINV=Private investment; INST=Economic freedom index (institution variable).

1/ The joint test weak exogeneity test (WETS) of TOT for the two cointegrating vectors,

PINV for GDP equation and GDP for PINV failed to reject the null hypothesis at

$\chi^2(3) = 4.160$  [0.2447 ]

16. It follows from the long- and short-run equations above that:

- **Private investment is a significant long-run determinant of growth though its sluggish adjustment tends to dampen output growth.** A 1 percent increase in private investment will yield a 0.2 percent long-run increase in GDP. However, as the speed of adjustment to the long-run equilibrium depends crucially on the cause of the gap, a 1 percent shock to private investment would entail an estimated 16 percent

<sup>17</sup> The weak exogeneity test statistics (WETS) indicates that  $TOT$  is weakly exogenous to two cointegrating vectors, and that  $PINV$  and  $GDP$  are weakly exogenous to beta vector associated to  $GDP$  and to the beta vector associated to  $PINV$ . The retained system has then imposed zero these feedback coefficient..

correction each year;<sup>18</sup> requiring about 4 years to close 50 percent of the deviation of real GDP from its long-run equilibrium. Changes in institutions, past growth performance, public investment, and credit to the private sector positively and significantly affect private investment<sup>19</sup>.

- **The terms of trade and public investment have a negligible short-term impact on private investment.** However, these factors are long-run determinants of private investment. There is no evidence of private investment crowding out by public investment in the short run.
- **Credit to private sector, supply factors, and the institutional framework significantly affect private investment in the short run.** The positive impact of institutions on growth is confirmed by Ali (1997) and Ali and Crain (1999), who found that economic freedom is a more robust determinant of growth than are political freedom and civil liberties.

17. **The SVECM approach provides a clearer picture of the relationship between the selected economic variables and their dynamic behavior across time.** By contrast, descriptive statistics or ordinary least square regressions do not account for endogeneity problems or for contemporaneous and dynamic interactions between variables. For instance, simple descriptive statistics do not account for the silent dynamics of the direct and indirect contribution of private investment to the business cycle. Text table 3 below shows the linkages between the issues we are addressing and the econometric methodology we are applying.<sup>20</sup>

---

<sup>18</sup> A pure supply shock would imply that 26 percent of the deviation of real GDP from its long-run equilibrium is corrected each year; therefore necessitating about 3 years to close 50 percent of gap after the initial shock.

<sup>19</sup> The output impact of temporary shocks to private investment can be traced through several channels, such as: (i) an increase in private investment financed with FDI that increases imports of goods and fuels domestic inflation and exchange rate appreciation, thereby contributing to output contraction; and (ii) in a time-to-build perspective, an increase in private investment associated with negative cash-flows and lower value added during the initial year of the investment.

<sup>20</sup> Because the model variables follow unit root (I(1)) processes and show the existence of cointegration, we transform our model into a structural vector error correction model (SVECM); we then sequentially use variance decomposition, historical decomposition, and impulse response function techniques. That would imply the imposition of a minimal number of restrictions for identification purposes. See Appendix B for more detail.



Text table 3. Study Objective and Econometric Methodology

Questions to address	Econometric methodology
1 What are the long-run determinants of private investment and growth?	Cointegration relations
2 What would be the dynamic adjustment of GDP (or of private investment) toward its long-run equilibrium in response to various structural shocks?	Error correction model (representation)
3 What would have been the historical trend of GDP (private investment) if it had to be purged from private investment (Supply shock)? If policy does not change and looking forward,	Historical decomposition (HD)
4 how much would private investment (or GDP) likely contribute to GDP growth (or private investment)?	Variance decomposition (VD)
5 What would be dynamic behavior of private investment (or GDP) in response to various shocks?	Impulse response function (IRF)

## Notes:

1/ Depending on unit root results that may lead to SVAR analysis for I(0) series or SVECM for I(1), most recent studies employ simultaneously HD, VD and IRF because of their complementarity.

2/ HD, VD, and IDF provide complementary insights to the analysis.

*Variance decomposition*

18. **Our variance decomposition analysis estimates the relative significance of each random innovation to the system variable by subjecting all endogenous variables in the SVAR model to standard deviation shocks.** That is, for each period, the resulting simulated error, in a given endogenous variable, is decomposed into the error arising from its own innovation and the error stemming from the shock to the rest of endogenous variables.

Text Table 5. Forecast-Error Variance Decomposition 1/

Horizon	Standard error	Shock to				
		Terms of trade	Public investment	Credit to private sect.	Private investment	Supply factor
Variance decomposition of private investment						
Year 1	1.186	7.000	10.458	3.761	76.921	1.859
Year 2	1.297	7.134	10.997	3.715	65.605	12.549
Year 4	1.931	6.132	10.761	5.772	58.377	18.958
Year 6	2.275	3.918	11.702	7.949	51.637	24.795
Year 8	2.379	2.887	12.495	10.557	46.854	27.207
Year 10	2.532	1.530	12.506	12.594	45.900	27.471
Variance decomposition of GDP						
Year 1	2.594	1.488	10.005	0.182	13.741	74.585
Year 2	2.867	1.428	10.578	0.368	16.447	71.179
Year 4	3.210	6.417	10.647	0.338	27.660	54.937
Year 6	3.716	7.326	11.036	0.361	25.412	55.865
Year 8	3.938	8.099	12.458	0.785	24.848	53.811
Year 10	4.091	8.458	12.434	0.778	26.138	52.192

1/ Based on structural factorization.

- **As expected, both private investment and real GDP explain the predominance of their own shocks.** In the first period after a shock, private investment explains about 77 percent of its own shock. GDP explains 75 percent of its own shock. The fact that private investment and GDP movements are explained by their past value suggests that they have a significant lagged effect.
- **The effects of private investment and GDP appear to be mutually reinforcing, and the contribution of private investment to GDP appears high and long lasting.** The contribution of shock to the supply factor on the private investment forecast error suggests that the labor market and investment conditions have a greater impact than (i) terms of trade, (ii) credit to the private sector, and (iii) public investment on the private investment forecast error. In regard to the contribution of a private investment shock to GDP, the results show that, a shock to private investment has the strongest and longest-lasting effect on GDP.
- **The impact of credit to the private sector on the GDP forecast error variance is relatively limited, though it is more significant and greater for private investment.** Although the impact of GDP forecast error variance remains below 1 percent, the portion of private investment forecast error variance attributable to credit to the private sector increases from about 3.8 percent to 12.6 percent, indicating that a possible indirect output impact of credit is channeled through private investment. Finally, the short-lived effect of credit may reflect the fact that such credit is mostly short term.
- **The forecast error variance of private investment and GDP to terms of trade shocks display asymmetric responses.** While it is steadily decreasing on private investment forecast error variance, it is increasing at a relatively high pace on GDP forecast error variance, indicating that the country will continue to be vulnerable to external shocks and that external factors are weaker determinants to private investment than are domestic conditions such as macroeconomic stability, labor market conditions, investment environment, credit market conditions, and fiscal conditions through public investment. Finally, the public and private nexus appears to reinforce the solid linkage between private investment and GDP.

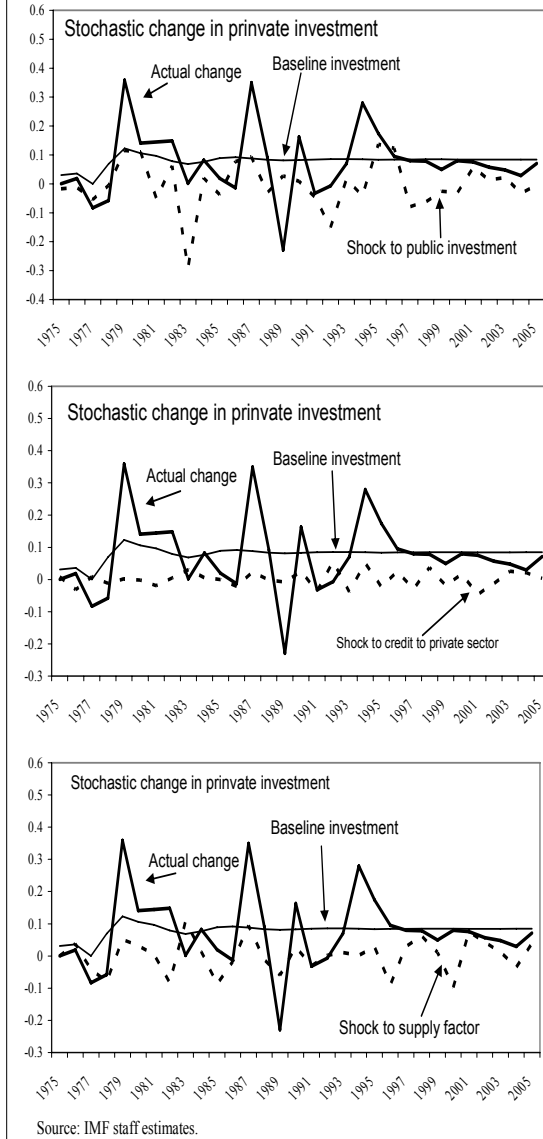
### *Historical decomposition*

19. **Historical decomposition analysis is another way to assess the importance of different shocks over time.** It evaluates the portion of the forecast error attributable to each of the structural shocks. The advantage of historical decomposition is its ability to reveal the relative importance of shocks in different periods.

20. **Interestingly, the results support the previous findings on variance decomposition analysis.** The results show that since the 1990s, public investment has become the most significant of the determinant of private investment.<sup>21</sup> Supply factors<sup>22</sup> shocks were more marked during 1975–1990, and the impact of credit was significant but relatively limited.

21. **Supply factors drive private investment.** Private investment would have been higher if it had been driven by supply factors.<sup>23</sup> Supply factors mostly influenced private investment until early in 1990, when the centrally planned economic regime gave way to a new market-oriented economy.

Figure 2. Benin: Historical Decomposition of Private Investment, 1975-2005 (Annual change)



<sup>21</sup> These include private investment, terms of trade, GDP, credit to private sector, and Public investment.

<sup>22</sup> Such as low labor cost, capital land, and existing physical capital stock.

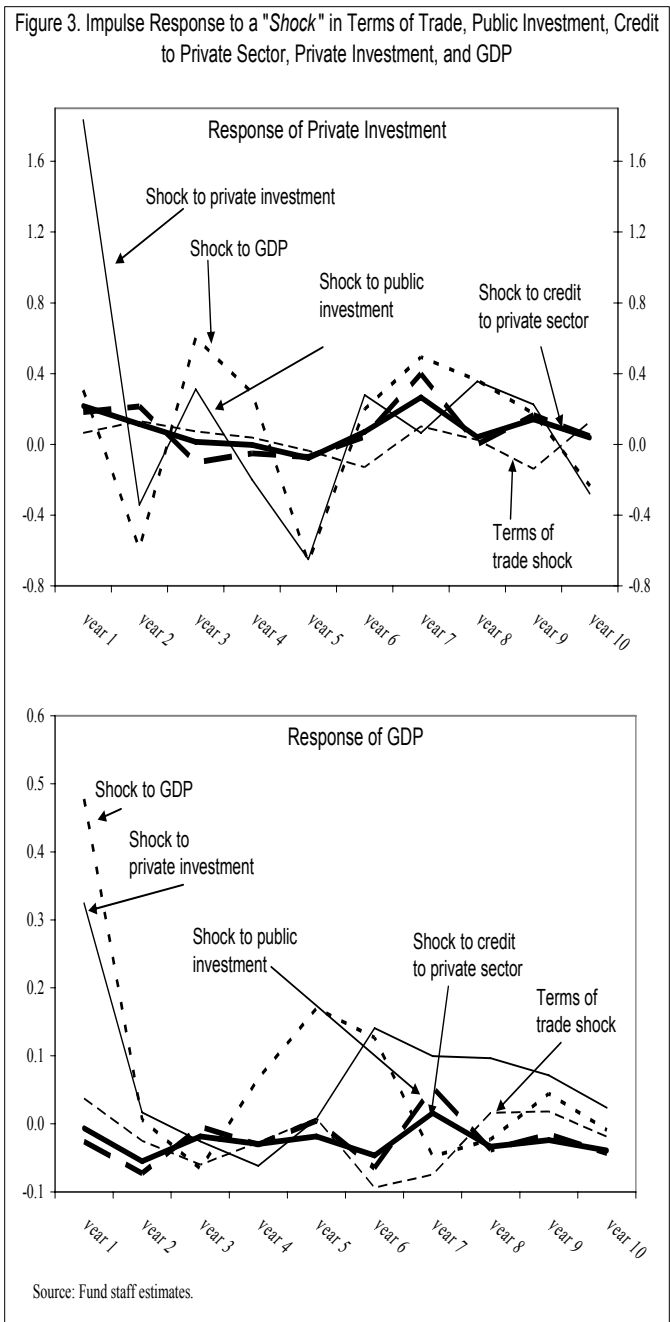
<sup>23</sup> Institutional variable is not controlled for.

### *Impulse Response Function*

22. We use impulse response function (IRF) analysis to further investigate private investment and GDP dynamics.<sup>24</sup> IRF provides the time path of change in private investment and real GDP in response to a one-unit shock to terms of trade, public investment, credit to private sector, private investment, and GDP.

23. The IRF analysis confirms most of the variance decomposition results. The GDP response to private investment shocks holds. The first year after the shock, GDP growth picks up; however, in the sixth year after a slowdown, the impact of private investment is positively correlated with some marginal comovement of output response to shock to public investment. This result confirms the public and private nexus to the output effect of private investment.

24. Private investment overreacts to its own shock. Except for shocks to private investment, the GDP and private investment response is less than one to one. Because investment is irreversible, any adverse shock to private investment could lead to a sudden halt in private investment followed by disinvestment. Responses of a change in private investment to a terms-of-trade shock is limited; however, there is a persistent response to a private sector credit shock. However, the GDP change in response to a terms-of-trade shock is more pervasive and persistent.



<sup>24</sup> See also the long-run matrix estimate.

## E. Conclusion and Policy Issues

25. **The econometric analysis finds that**—besides Benin’s institutional and regulatory framework and terms-of-trade developments—public investment and credit to the private sector positively affect growth through increased private investment. The analysis also confirms that an obstacle to private investment in Benin is the country’s slow improvement in economic freedom owing to weak institutions and a slow pace of structural reforms. Speed of adjustment analysis shows that while a 1 percent increase in private investment leads to a 0.2 percent increase in GDP in the long run, a 1-percent shock to private investment would entail a 16-percent correction each year, requiring about 4 years to close 50 percent of the deviation of real GDP from its long-run equilibrium.

26. **Promoting private sector development and directing fiscal resources to public investment would likely shift Benin to a higher long-run growth path.** Given fiscal constraints, it remains imperative that any additional space created in the post-MDRI era is allocated to high-return projects.

27. **Institutions also appear to be an important determinant of investment and growth;** however, slow institutional changes do little to improve private investment and growth trends. Since 1996, cumbersome trade and informal market property rights and regulations have significantly affected the economic freedom index, with Benin’s performance rating on the Fraser Institute’s Economic Freedom Index increasing only 0.3 percent per year, on average, in 1996–2006. Structural reforms and the gradual elimination of informal economic activities through market incentives would therefore likely help improve Benin’s economic competitiveness and fiscal stance.

28. **A segmented public-private partnership could deepen the private sector’s involvement in Benin’s infrastructure development.** The partnership could be achieved in large companies, small and medium enterprises, as well as in the informal sector.

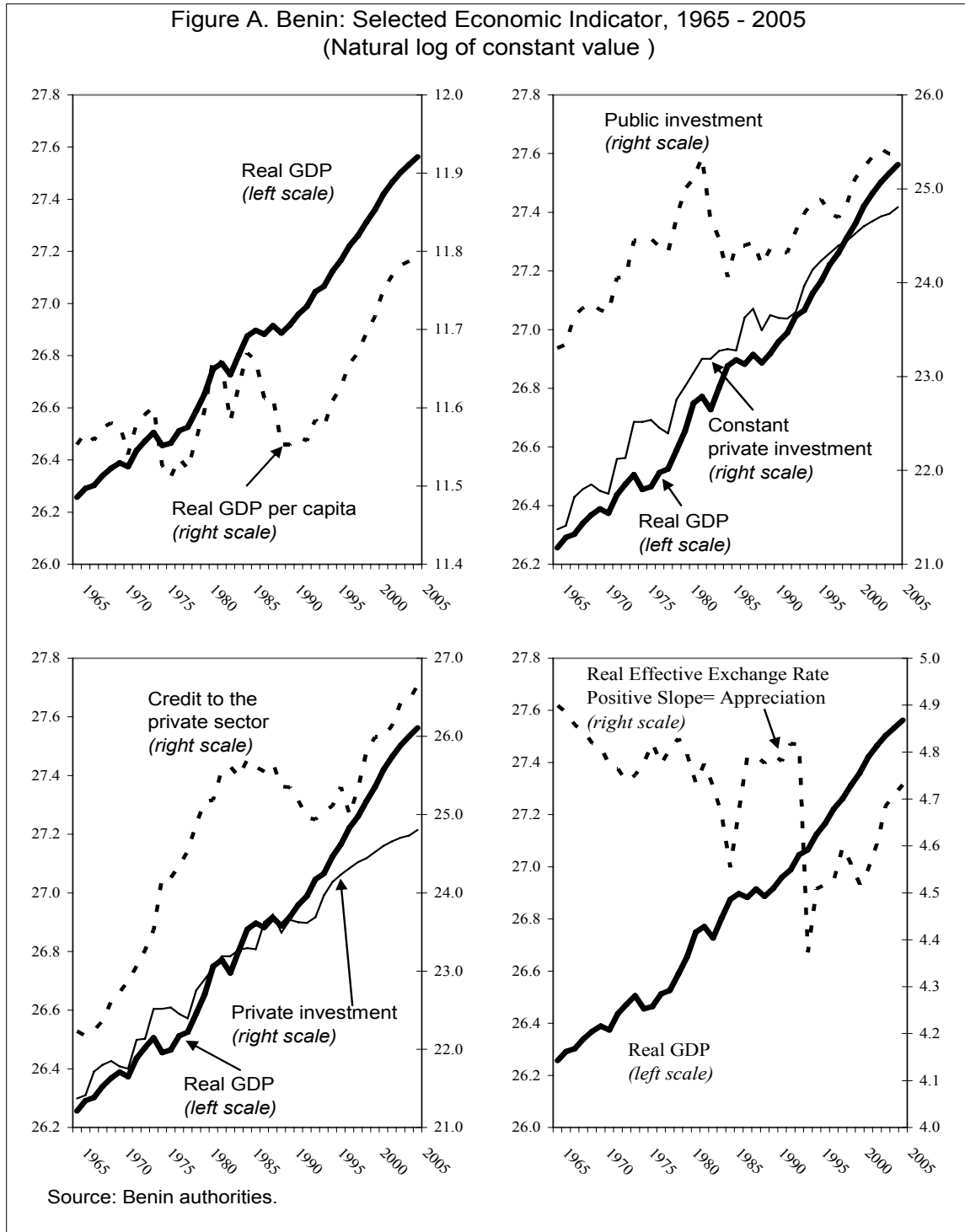
29. **Finally, greater access to credit would likely boost private investment and support growth.** As is evident from the historical decomposition analysis, supply shocks, for example through changing labor market and investment conditions, have a strong impact on private investment forecast error variance. Credit to the private sector indirectly affects growth via its impact on private sector investment; this effect, however, is short lived, apparently because in Benin such credit has tended to be short term in nature.

## *References*

- Ali, Abdiweli, 1997, "Economic Freedom, Democracy, and Growth," *Journal of Private Enterprise*, Vol. 13 (Fall), pp. 1–20.
- Ali, Abdiweli, and W. Mark Crain, 2001, "Political Regimes, Economic Freedom, Institutions, and Growth," *Journal of Public Finance and Public Choice*, Vol. 19 (1), pp. 3–22.
- , 2002, Institutional Distortions, Economic Freedom, and Growth. *Cato Journal*, Vol. 21 (3), pp. 415–26.
- Altug, S., 1993, "Time to Build, Delivery Lags, and the Equilibrium Pricing of Capital Goods," *Journal of Money, Credit, and Banking*, Vol. 25, pp. 301-19.
- Bar-Ilan, A., and W.A. Strange, 1996, "Investment Lags," *American Economic Review*, Vol. 86, pp. 610-22.
- Blejer, Mario, and Mohsin Khan, 1984, "Government Policy and Private Investment in Developing Countries," *IMF Staff Papers*, Vol. 31, pp. 379-403.
- Breitung, J., S. Chirinko, and U. von Kalckreuth (2003) "Vectorautoregressive Investment Model (VIM) and Monetary Policy Transmission: Panel Evidence from German Firms" Economic Research Centre of the Deutsche Bundesbank, Discussion paper 06/03 (Berlin: Deutsche Bundesbank).
- Calamitsis, A. Evangelos, Anupam Basu, and Dhaneshwar Ghura, 1999, "Adjustment and Growth in Sub-Saharan Africa," IMF Working Paper 99/51 (Washington: International Monetary Fund).
- Casero, A. Paloma, and A. Varoudakis, (2004), "*Growth, Private Investment, and the Cost of Doing Business in Tunisia: A Comparative Perspective*," (Washington: World Bank).
- Dawson, John W., 1998, "Institutions, Investment and Growth: New Cross-country and Panel Data Evidence," *Economic Inquiry*, Vol. 36 (4), pp.603-19.
- Greene, Joshua, and Delano Villanueva, 1991, "Private Investment in Developing Countries: An Empirical Analysis," *IMF Staff Papers*, Vol. 38 (1), pp. 33-58.
- Guncavdi, Oner, Michael Bleaney, and Andrew McKay, 1998, "Financial Liberalization and Private Investment: Evidence from Turkey," *Journal of Development Economics*, Vol. 57, pp. 443-55.

- Ghura, Dhaneshwar, and Michael T. Hadjimichael, 1996, "Growth in Sub-Saharan Africa," *Staff Papers*, International Monetary Fund, Vol. 43 (September), pp. 605–34.
- Gwartney, James D., Robert A. Lawson, and Randall G. Holcombe, 1999, "Economic Freedom and Environment for Economic Growth," *Journal of Institutional and Theoretical Economics*, Vol. 155, pp. 643-63.
- \_\_\_\_\_, Robert A. Lawson, and Dexter Samida, 2000, *Economic Freedom of the World: 2000 Report* (Vancouver, Canada: Fraser Institute).
- Johansen, S., 1991, "Estimation and Hypothesis Testing of Cointegrating Vectors in Gaussian Vector Autoregressive Models," *Econometrica*, Vol. 59, pp. 1551-80.
- \_\_\_\_\_, 1995, *Likelihood-based Inference in Cointegrated Vector Autoregressive Models* (London: Oxford University Press).
- \_\_\_\_\_, and K. Juselius, 1992, "Testing Structural Hypotheses in a Multivariate Cointegration Analysis of the PPP and the UIP for the UK," *Journal of Econometrics*, Vol. 53, pp. 211-44.
- Khan, Mohsin, and Manmohan S. Kumar, 1997, "Public and Private Investment and the Growth Process in Developing Countries," *Oxford Bulletin of Economics and Statistics*, Vol. 59, pp. 69-88.
- Kydland, Finn E., and Edward Prescott, 1982, "Time to Build and Aggregate Fluctuations," *Econometrica*, Vol. 50 (November), pp. 1345-70.
- Odedokun, Matthew O., 1997, "Relative Effects of Public Versus Private Investment Spending on Economic Efficiency and Growth in Developing Countries," *Applied Economics*, Vol. 29, pp. 1325-36.
- Oshikoya, Temitope W., 1994, "Macroeconomic Determinants of Domestic Private Investment in Africa: An Empirical Analysis," *Economic Development and Cultural Change*, Vol. 42, pp. 573-96.
- Ramirez, Miguel D., 2000, "The Impact of Public Investment on Private Investment Spending in Latin America: 1980-95," *Atlantic Economic Journal*, Vol. 28 (2), pp. 210-25.
- Serven, Luis, 1998, "Macroeconomic Uncertainty and Private Investment in LDCs: An Empirical Investigation," photocopy, (Washington: World Bank).
- Zhou, Chunsheng (May 2000) "Time-to-Build and Investment," *Review of Economics and Statistics*, Vol. 82 (2), pp. 273-82.

Appendix A: Time Series Analysis





## Appendix B: Econometric Model

### *Variables ordering*

Because the variance decomposition and impulse response function through the SVAR methodology are sensitive to the ordering of variables, following the SVAR literature our system variables are ordered according to assumed decreasing exogeneity.<sup>25</sup> In other words, the terms of trade variable is assumed to be the most exogenous variable, while GDP is considered the most endogenous. Public investment and credit to the private sector are considered two policy instruments; however, credit to the private sector is assumed to be endogenous to the fiscal instrument.<sup>26</sup>

### *Cointegration rank*

The model below

$$\Delta Y_t = \Pi Y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \sum_{i=0}^{p-1} \chi_i \Delta INST_{t-i} + \varepsilon_t \quad (\text{B1})$$

indicates that the rank of  $\Pi$  and  $\Pi$  determines how the process  $Y_{t-1}$  enters the system.

If we assume that  $\text{rank}(\Pi) \leq r$ ,  $\Pi$  can be written as  $\Pi = \alpha\beta'$ , where  $\alpha$  and  $\beta$  are  $n \times r$  vectors. The statistical hypothesis of cointegration is based on the rank of  $\Pi$ . It is known that:

If  $\text{rank}(\Pi) = n$ , all variables  $Y_{t-1}$  are stationary (I(0)).

If  $\text{rank}(\Pi) = 0$ ,  $\Delta Y_t$  is stationary.

If  $0 < \text{rank}(\Pi) = r < n$ , there are  $r$  cointegrating relations .

### *Data and modeling steps*

The analysis uses annual data for 1965–2005 from the World Bank Development Indicators 2006 and the IMF International Financial Statistics of June 2006. The data in these series

---

<sup>25</sup> The rationale for the ordering is to facilitate the structural factorization exercise, which will use data-oriented as well as theory-based restrictions. This technique, as opposed to the Cholesky ordering, is based on an orthogonalized set of innovations that does not depend on the vector autoregressive ordering to which impulse responses are sensitive (see Pesaran and Shin, 1998).

<sup>26</sup> Because private sector investment is a component of aggregate demand, it is assumed to have only a transitory impact on GDP.

(except for terms of trade and institutions) are at constant prices (2000=100). Before specifying and estimating the model, we apply a series of Augmented Dickey-Fuller (ADF) tests to analyze the generation process of each variable (see Appendix Table C1).

The second step of the analysis specifies the VAR model, including the model-checking procedure. This includes optimal lag choice, stability, normality, AR, and heteroschedascity tests (see Appendix Table C2 and C3; and Figure C1 and C2). Because the system variables are integrated of order 1, a crucial step is to draw its information content through the cointegration analysis. We apply the Johansen cointegration technique (Johansen 1988; Johansen and Juselius 1990).

### ***Structural Model and Identification Issues***

The empirical analysis, in estimating a structural vector autoregressive (SVAR), imposes a number of restrictions for identification purposes. The structural representation of Equation (1) is:<sup>27</sup>

$$A\Delta Y_t = \alpha(\beta' Y_{t-1}) + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \sum_{i=0}^{p-1} \chi_i \Delta INST_{t-i} + B\varepsilon_t \quad (2)$$

Assuming two cointegration vectors, the long-run effects of  $\varepsilon_t$  shocks can be written as  $\Phi$  and  $C = \Phi A^{-1} B$ <sup>28</sup> are of rank 3 that is =5-2, as we have 5 endogenous variables and 2 cointegration relationships. A and B are nonsingular. A meaningful impulse response function will require at least  $5(5-1)/2=10$  restrictions.

- Given that there are 2 cointegration relations, at most 2 have transitory effects or zero have long-run impacts.
- There are at least  $3=5-2$  shocks with permanent effects.
- These two transitory shocks will induce  $6=2*(5-2)$  independent restrictions.
- Following King et al. (1991),  $2*(2-1)/2=1$  contemporaneous restriction identities will be imposed.
- Using a data-oriented approach by degree of significance, we impose  $3*(3-1)/2$  additional restrictions.
- Together, the total number of restrictions for the identified system will be  $[2*(5-2)]+[2*(2-1)/2]+[3*(3-1)/2]=10$ .

---

<sup>27</sup> Variables in Equation 2 are stationary.

<sup>28</sup> The long-run matrix estimate is provided in Appendix Table C4.

### Appendix C: Diagnostic Tests and Structural Model Long-run Matrix

Data generation processes indicate that most of the economic variables are nonstationary. Although the F-test indicates one lag, we extend the number of lags to 2, as suggested by Park (1994), to account for more memory effect. At lag 2, the model passed the residual normality and heteroschedasticity tests while the null hypothesis of non-AR 1-2 is rejected at 10 percent. Further, the stability of the model variables at lag 2 passed the 1-up and N-down Chow tests, indicating that the system has perfect stability.

Table C1. Augmented Dickey-Fuller Test, 1965-2005

	D-lag	t-adf	beta Y_1	sigma	t-DY_lag	t-prob	AIC	F-prob
Terms of trade								
Level	2	-1.209	0.83313	0.1342	-1.801	0.0809	-3.915	
	1	-1.791	0.75705	0.1385	-1.637	0.1108	-3.876	0.0809
	0	-2.699	0.66157	0.1418			-3.854	0.0609
first diff	2	-3.853**	-0.58101	0.1351	-0.9954	0.3268	-3.902	
	1	-7.211**	-0.89466	0.1351	2.265	0.03	-3.926	0.3268
	0	-9.034**	-0.40097	0.1428			-3.84	0.0604
Public investment								
Level	2	-1.672	0.87243	0.2105	1.129	0.2669	-3.014	
	1	-1.478	0.88877	0.2114	0.6869	0.4968	-3.031	0.2669
	0	-1.375	0.89958	0.2098			-3.071	0.4261
first diff	2	-4.903**	-0.17739	0.1943	3.006	0.005	-3.175	
	1	-3.525*	0.18944	0.216	-0.8066	0.4255	-2.987	0.005
	0	-5.551**	0.064038	0.2149			-3.022	0.0135
Private investment								
Level	2	-0.6554	0.98409	0.1353	-0.6749	0.5045	-3.899	
	1	-0.6346	0.98473	0.1342	-0.7309	0.4699	-3.94	0.5045
	0	-0.6632	0.98415	0.1333			-3.978	0.6167
first diff	2	-4.492**	-0.46954	0.1339	1.05	0.3014	-3.919	
	1	-4.976**	-0.24867	0.1341	0.6552	0.5167	-3.94	0.3014
	0	-6.723**	-0.12717	0.133			-3.982	0.4727
Credit to private sector								
Level	2	-1.807	0.94341	0.2048	0.5428	0.5909	-3.069	
	1	-1.874	0.94209	0.2027	0.459	0.6492	-3.114	0.5909
	0	-1.983	0.94005	0.2004			-3.162	0.7799
first diff	2	-2.186	0.4418	0.2057	-1.719	0.095	-3.061	
	1	-3.452*	0.21899	0.2115	-0.6624	0.5122	-3.029	0.095
	0	-5.238**	0.11968	0.2098			-3.07	0.1966
Real GDP								
Level	2	1.229	1.0197	0.03216	-1.249	0.2206	-6.773	
	1	0.9036	1.014	0.03242	0.1765	0.861	-6.78	0.2206
	0	0.995	1.0147	0.03197			-6.834	0.4599
first diff	2	-3.761**	-0.12469	0.03285	0.2685	0.79	-6.73	
	1	-4.663**	-0.074588	0.0324	0.9299	0.359	-6.782	0.79
	0	-5.509**	0.071161	0.03233			-6.811	0.6374

T=37, constant term, 5%=-2.94; 1%=-3.62

Table C2. Optimal Lag Length

Significance of each lag 1/		Significance of all lags up to 5 2/	
Lag 5	1.3464 [0.2506]	Lag 5 - 5 2/	1.3464 [0.2506]
Lag 4	0.66561 [0.8336]	Lag 4 - 5 3/	1.0386 [0.4707]
Lag 3	0.81999 [0.6843]	Lag 3 - 5 4/	1.5540 [0.0963]
Lag 2	0.85296 [0.6508]	Lag 2 - 5 5/	1.5335 [0.0943]
Lag 1	2.6521 [0.0147]*	Lag 1 - 5 6/	9.3677 [0.0000]**

1/ F-Statistics, F(25,20)

2/ F-Statistics from descendant order F(25,20), F(50,26), F(75,28), F(100,29), and F(125,29).

Table C3. AR, Normality, and Heteroschedasticity Tests

Variable	Statistic	Empirical value
AR 1-2 test		
LTOT	F(2,22) =	2.4959 [0.1055]
LGINV	F(2,22) =	4.2061 [0.0284]*
LCRED	F(2,22) =	1.5290 [0.2389]
LPINV	F(2,22) =	0.33618 [0.7181]
LG DPR	F(2,22) =	0.84006 [0.4451]
Overall	F(50,48) =	1.7469 [0.0272]*
Normality test		
LTOT	Chi <sup>2</sup> (2) =	1.7135 [0.4245]
LGINV	Chi <sup>2</sup> (2) =	2.2329 [0.3274]
LCRED	Chi <sup>2</sup> (2) =	3.1381 [0.2082]
LPINV	Chi <sup>2</sup> (2) =	0.36529 [0.8331]
LG DPR	Chi <sup>2</sup> (2) =	3.3347 [0.1887]
Overall	Chi <sup>2</sup> (10)=	15.009 [0.1317]
Heteroschedasticity test		
LTOT	F(20,3) =	0.099211 [0.9997]
LGINV	F(20,3) =	0.27895 [0.9681]
LCRED	F(20,3) =	0.18058 [0.9938]
LPINV	F(20,3) =	0.22086 [0.9860]
LG DPR	F(20,3) =	0.23048 [0.9835]
Overall	Chi <sup>2</sup> (300)=	301.62 [0.4628]

Table C4. Unrestricted Cointegration Rank Test (Maximum Eigenvalue) 1/, 2/, 3/,

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	5 percent Critical Value	Prob.**
None *	0.758	53.870	30.440	0.000
At most 1 *	0.568	31.859	24.159	0.004
At most 2	0.345	16.092	17.797	0.089
At most 3	0.175	7.322	11.225	0.223
At most 4	0.089	3.542	4.130	0.071

1/ Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

2/ 41 observations from 1965 - 2005.

3/ Test assumes no intercepts and no trend.

4/ the test is carried with two lags in VAR.

Table C5. Structural Model / Long-Run Matrix.

	Coefficient	Std. Error	z-Statistic	Prob.
C(21)	-1.545	0.192	-8.029	0.000
C(31)	-4.362	0.273	-15.954	0.000
C(41)	-0.441	0.172	-2.566	0.010
C(51)	0.261	0.182	1.434	0.152
C(32)	1.300	0.035	37.604	0.000
C(42)	0.179	0.167	1.073	0.283
C(52)	0.001	0.182	0.004	0.997
C(23)	0.578	0.021	27.079	0.000
C(43)	0.179	0.153	1.171	0.242
C(54)	-0.441	0.167	-2.648	0.008

Included observations: 36 after adjustments

Model:  $Ae = Bu$  where  $E[uu'] = I$ , and  $B = I$

### *Long-run Matrix*

$$C = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ C_{21} & 1 & C_{23} & 0 & 0 \\ C_{31} & C_{32} & 1 & 0 & 0 \\ C_{41} & C_{42} & C_{43} & 1 & 0 \\ C_{51} & C_{52} & 0 & C_{54} & 1 \end{bmatrix}$$

Figure C1. Benin: Model Stability Test (with two lags)

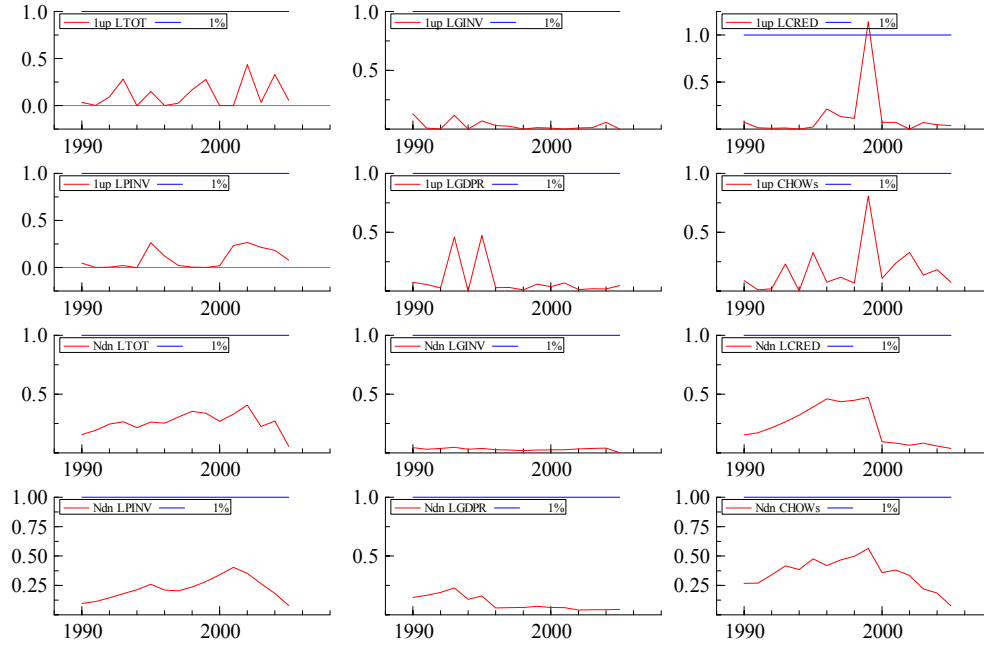


Figure C2. Benin: Residual Normality Tests

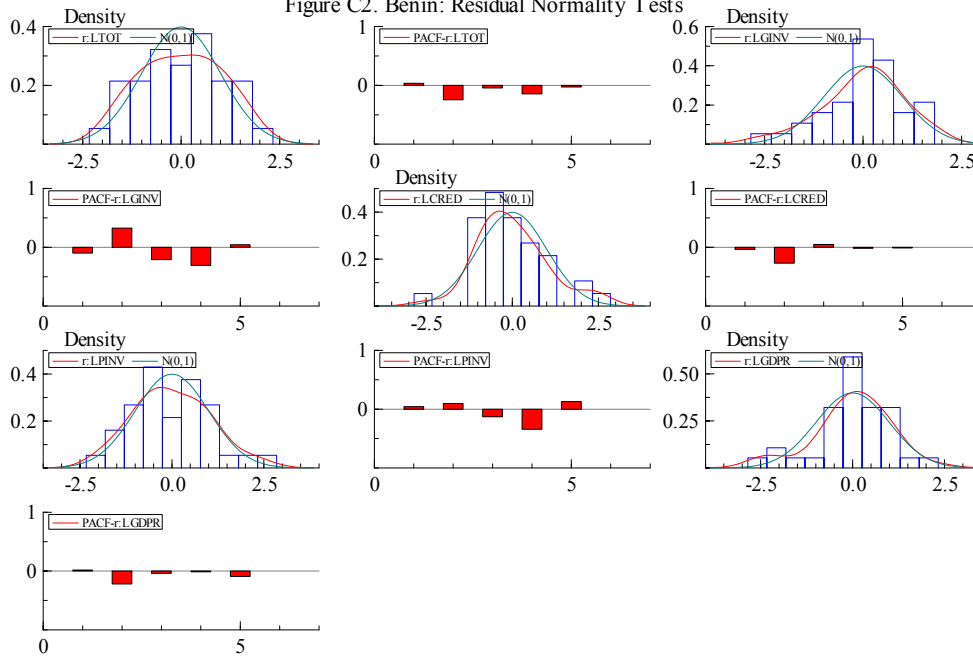
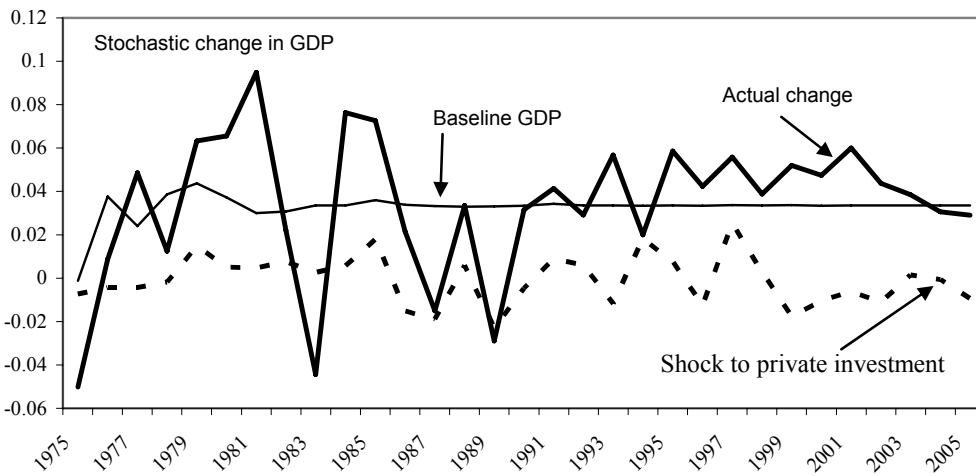
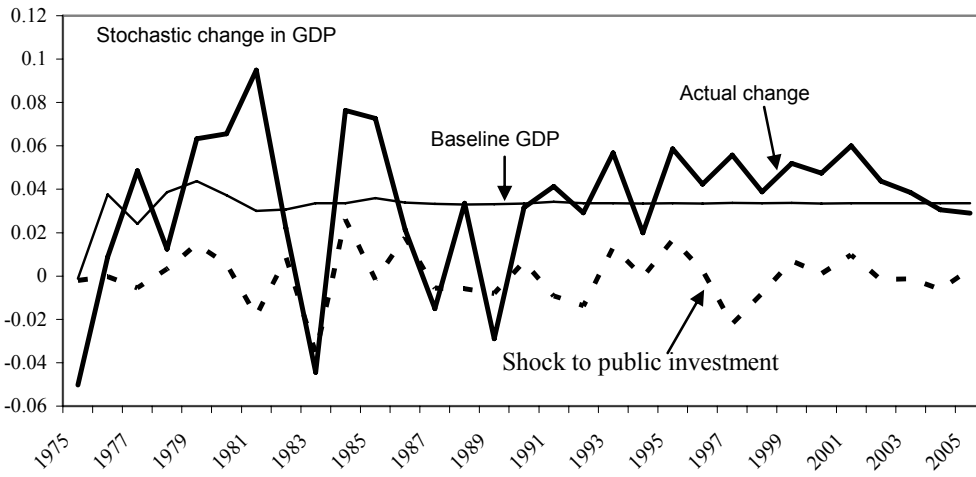
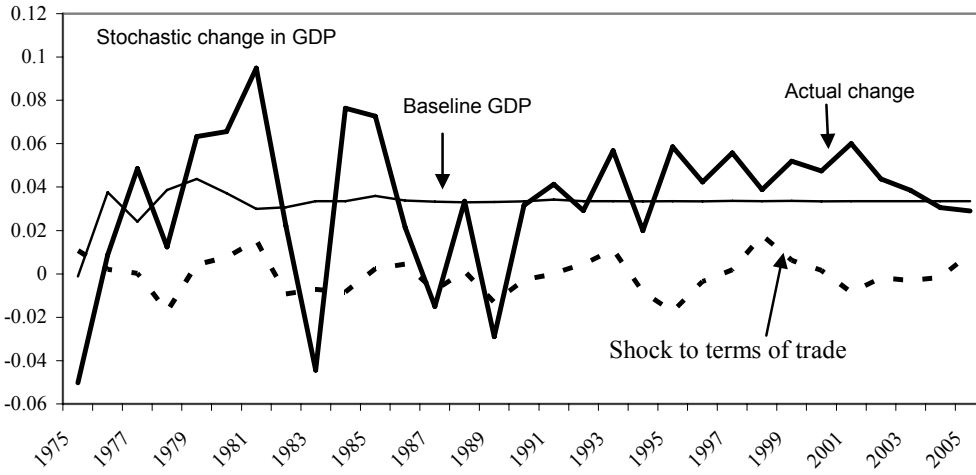


Figure C3. Benin: Historical Decomposition of GDP, 1975 - 2005  
(Annual change)



Source: Staff estimate.

## STATISTICAL APPENDIX

Table 1. Benin: Gross Domestic Product by Sector of Origin  
at Current Prices, 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
	(Billions of CFA francs)					
Primary sector	586.5	633.0	660.6	663.5	686.0	716.9
Agriculture and forestry	421.7	451.2	463.2	459.6	473.1	485.9
Livestock and fishing	93.8	105.8	113.9	121.4	127.8	136.1
	71.1	76.0	83.5	82.5	85.1	94.9
Secondary sector	217.1	244.6	267.1	283.6	285.3	313.4
Manufacturing and handicrafts	3.7	4.0	4.3	4.7	5.0	6.1
Construction and public works	137.8	156.3	167.0	171.2	167.6	183.1
Mining and petroleum	13.4	15.7	20.9	25.5	25.9	28.2
Water, gas, and electricity	62.2	68.6	74.9	82.2	86.8	96.0
Tertiary sector	749.1	816.9	880.9	953.9	984.0	1,090.1
Trade	574.7	631.7	682.1	741.8	760.9	844.7
Transport and other services	280.7	305.2	328.4	350.1	354.3	399.1
Public administration	113.8	130.9	140.3	161.0	163.9	179.4
Other services	29.3	32.3	35.1	38.6	39.6	44.4
	150.9	163.3	178.3	192.1	203.1	221.7
	174.4	185.2	198.8	212.1	223.1	245.4
GDP at factor cost	1,525.0	1,664.6	1,776.2	1,866.0	1,919.2	2,080.3
Indirect taxes (net)	154.7	167.6	180.5	201.9	219.0	239.4
GDP at market prices	1,679.7	1,832.2	1,956.7	2,067.9	2,138.2	2,319.7
	(Percent of GDP)					
Primary sector	34.9	34.5	33.8	32.1	32.1	30.9
Agriculture and forestry	25.1	24.6	23.7	22.2	22.1	20.9
Livestock and fishing	5.6	5.8	5.8	5.9	6.0	5.9
	4.2	4.1	4.3	4.0	4.0	4.1
Secondary sector	12.9	13.4	13.7	13.7	13.3	13.5
Manufacturing and handicrafts	0.2	0.2	0.2	0.2	0.2	0.3
Construction and public works	8.2	8.5	8.5	8.3	7.8	7.9
Mining and petroleum	0.8	0.9	1.1	1.2	1.2	1.2
Water, gas, and electricity	3.7	3.7	3.8	4.0	4.1	4.1
Tertiary sector	44.6	44.6	45.0	46.1	46.0	47.0
Trade	34.2	34.5	34.9	35.9	35.6	36.4
Transport and other services	16.7	16.7	16.8	16.9	16.6	17.2
Public administration	6.8	7.1	7.2	7.8	7.7	7.7
Other services	1.7	1.8	1.8	1.9	1.9	1.9
	9.0	8.9	9.1	9.3	9.5	9.6
	10.4	10.1	10.2	10.3	10.4	10.6
GDP at factor cost	90.8	90.9	90.8	90.2	89.8	89.7
Indirect taxes (net)	9.2	9.1	9.2	9.8	10.2	10.3
GDP at market prices	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Institut National de la Statistique et de l'Analyse Economique (INSAE); and staff estimates.



Table 2. Benin: Gross Domestic Product by Sector of Origin  
at Constant 1985 Prices, 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
	(Billions of CFA francs)					
Primary sector	314.7	334.9	343.0	350.7	370.7	369.4
Agriculture and forestry	227.9	245.1	249.0	254.6	271.1	264.6
Livestock and fishing	48.6	50.4	52.1	53.9	55.7	57.6
	38.2	39.4	41.9	42.2	43.9	47.1
Secondary sector	114.4	124.6	134.7	137.8	137.4	144.5
Manufacturing and handicrafts	0.9	0.9	1.0	1.0	1.1	1.2
Construction and public works	77.7	84.4	90.6	90.7	89.1	93.5
Mining and petroleum	9.7	11.3	13.4	14.3	14.5	15.4
Water, gas, and electricity	26.1	28.0	29.7	31.8	32.7	34.3
Tertiary sector	329.1	346.4	364.0	382.8	387.7	408.3
Trade	244.5	259.2	273.2	287.7	289.1	305.6
Transport and other services	110.7	116.9	122.7	128.5	127.5	136.4
Public administration	42.8	45.6	48.5	51.1	50.8	53.7
Other services	12.8	13.8	14.8	15.9	16.0	17.1
	78.2	82.9	87.2	92.2	94.8	98.4
	84.5	87.2	90.8	95.1	98.6	102.6
GDP at factor cost	746.0	793.0	828.0	856.8	881.2	906.5
Indirect taxes (net)	59.6	62.5	65.7	71.6	76.4	79.3
GDP at market prices	805.6	855.5	893.7	928.4	957.6	985.8
	(Annual changes in percent)					
Primary sector	4.5	6.4	2.4	2.2	5.7	-0.4
Agriculture and forestry	4.9	7.5	1.6	2.2	6.5	-2.4
Livestock and fishing	2.0	3.6	3.4	3.5	3.3	3.5
	5.5	3.2	6.3	0.7	4.0	7.3
Secondary sector	8.6	8.9	8.1	2.3	-0.3	5.1
Manufacturing and handicrafts	6.0	5.4	11.1	0.0	10.0	5.0
Construction and public works	8.8	8.7	7.3	0.1	-1.8	5.0
Mining and petroleum	12.7	16.2	18.6	6.7	1.4	6.3
Water, gas, and electricity	6.6	7.1	6.1	7.1	2.8	5.0
Tertiary sector	3.6	5.3	5.1	5.2	1.3	5.3
Trade	4.1	6.0	5.4	5.3	0.5	5.7
Transport and other services	4.0	5.6	5.0	4.7	-0.8	7.0
Public administration	3.8	6.5	6.4	5.4	-0.6	5.7
Other services	5.8	7.6	7.2	7.4	0.6	6.9
	4.0	6.0	5.2	5.7	2.8	3.8
	2.3	3.1	4.1	4.7	3.7	4.1
GDP at factor cost	4.7	6.3	4.4	3.5	2.9	2.9
Indirect taxes (net)	7.0	4.9	5.1	9.0	6.7	3.8
GDP at market prices	4.9	6.2	4.5	3.9	3.1	2.9

Sources: Institut National de la Statistique et de l'Analyse Economique (INSAE);  
and staff estimates.

Table 3. Benin: Supply and Use of Resources at Current Prices, 2000-2005

(Billions of CFA francs)

	2000	2001	2002	2003	2004	2005 Est.
Supply of resources	2,131.1	2,313.3	2,494.5	2,616.4	2,706.3	2,855.5
Gross domestic product	1,679.7	1,832.2	1,956.7	2,067.9	2,138.2	2,319.7
Imports of goods and nonfactor services	451.4	481.1	537.8	548.5	568.1	535.7
Goods	314.8	340.1	387.0	400.9	416.4	393.3
Services	136.6	141.0	150.8	147.6	151.7	142.4
Use of resources	2,131.1	2,313.3	2,494.5	2,616.4	2,706.3	2,855.5
Gross domestic expenditure	1,887.4	2,053.2	2,229.5	2,333.6	2,399.8	2,552.7
Consumption	1,559.5	1,681.2	1,892.8	1,928.5	1,994.6	2,097.2
Public	185.6	202.4	243.7	274.9	290.8	339.0
Private	1,373.9	1,478.9	1,649.1	1,653.6	1,703.8	1,758.3
Gross investment	327.9	371.9	336.7	405.1	405.3	455.4
Fixed and portfolio investment	317.1	345.2	345.8	389.3	390.2	425.3
Central government	122.5	135.3	119.6	141.1	131.0	144.2
Private sector	194.7	209.9	226.2	248.2	259.1	281.1
Change in stocks	10.7	26.7	-9.2	15.7	15.1	30.1
Exports of goods and nonfactor services	243.7	260.1	265.0	282.8	306.5	302.8
Goods	132.9	153.2	147.3	168.1	181.0	170.2
Services	110.9	106.9	117.7	114.7	125.4	132.6
Gross Domestic savings	120.2	151.0	63.9	139.4	143.7	222.5
Resource gap	207.7	221.0	272.8	265.7	261.6	232.9
Private transfers	59.5	59.1	55.3	50.8	60.0	61.4
Public transfers (current)	28.1	61.1	70.6	66.9	68.0	48.2
Income paid abroad (net)	-8.7	-15.6	-18.1	-24.7	-20.5	-23.3
Gross national savings	199.1	255.5	171.7	232.5	251.1	308.8
Current account deficit	-128.8	-116.4	-165.0	-172.6	-154.2	-158.6

Sources: Beninese authorities; and staff estimates.

Table 4. Benin: Supply and Use of Resources at Current Prices, 2000 -2005

(Percent of GDP)

	2000	2001	2002	2003	2004	2005 Est.
Supply of resources	126.9	126.3	127.5	126.5	126.6	123.1
Gross domestic product	100.0	100.0	100.0	100.0	100.0	100.0
Imports of goods and nonfactor services	26.9	26.3	27.5	26.5	26.6	23.1
Goods	18.7	18.6	19.8	19.4	19.5	17.0
Services	8.1	7.7	7.7	7.1	7.1	6.1
Use of resources	126.9	126.3	127.5	126.5	126.6	123.1
Gross domestic expenditure	112.4	112.1	113.9	112.8	112.2	110.0
Consumption	92.8	91.8	96.7	93.3	93.3	90.4
Public	11.1	11.0	12.5	13.3	13.6	14.6
Private	81.8	80.7	84.3	80.0	79.7	75.8
Gross investment	19.5	20.3	17.2	19.6	19.0	19.6
Fixed and portfolio investment	18.9	18.8	17.7	18.8	18.2	18.3
Central government	7.3	7.4	6.1	6.8	6.1	6.2
Private sector	11.6	11.5	11.6	12.0	12.1	12.1
Change in stocks	0.6	1.5	-0.5	0.8	0.7	1.3
Exports of goods and nonfactor services	14.5	14.2	13.5	13.7	14.3	13.1
Goods	7.9	8.4	7.5	8.1	8.5	7.5
Services	6.6	5.8	6.0	5.5	5.9	5.9
Gross Domestic savings	7.2	8.2	3.3	6.7	6.7	9.6
Resource gap	12.4	12.1	13.9	12.8	12.2	10.0
Private transfers	3.5	3.2	2.8	2.5	2.8	2.6
Public transfers (current)	1.7	3.3	3.6	3.2	3.2	2.1
Income paid abroad (net)	-0.5	-0.9	-0.9	-1.2	-1.0	-1.0
Gross national savings	11.9	13.9	8.8	11.2	11.7	13.3
Current account deficit	-7.7	-6.4	-8.4	-8.3	-7.2	-6.8

Sources: Beninese authorities; and staff estimates.

Table 5. Benin: Production and Producer Prices of Cotton Products, 1999/00-2004/05

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05 Est.
Production	(Thousands of tons)					
Seed cotton	363.6	336.6	400.7	337.5	333.1	427.7
Cotton Seed	154.6	143.3	167.9	148.0	146.0	187.5
Producer prices	(CFA francs per kilogram)					
Seed cotton	185	200	200	180	190	190
Cotton Seed	65	68	64	71	13	19

Sources: Ministry of Rural Development, Department of Planning and Research; and Société Nationale pour la Promotion Agricole (SONAPRA).

Table 6. Benin: Production and Cultivated Area of Principal Food Crops,  
1999/00-2004/2005

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05 Est.
(Thousands of metric tons)						
Production						
Maize	783	750	686	797	788	842
Sorghum	127	155	165	183	163	164
Millet	29	36	35	41	35	37
Rice (paddy)	34	49	55	63	54	65
Total cereals	973	990	941	1084	1041	1107
Cassava	2,109	2,350	2703	3155	3055	2955
Yams	1,647	1,745	1701	2151	2011	2257
Beans	74	85	78	95	82	94
(Thousands of hectares)						
Cultivated area						
Maize	625	782	623	685	663	714
Sorghum	155	126	183	193	174	181
Millet	38	44	46	51	45	45
Rice (paddy)	18	23	27	29	23	25
Total cereals	836	975	879	958	905	965
Cassava	202	219	240	262	238	226
Yams	145	156	156	174	167	173
Beans	113	119	116	135	119	123

Source: Ministry of Rural Development, Department of Planning and Research.

Table 7: SONAPRA's Cost Structure, 1999/00-2004/05 1/  
(CFA francs per kilogram, unless otherwise indicated)

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05 Est.
Purchase cost per unit of seed cotton	384.2	426.0	425.9	393.5	445.0	408.0
Producer price of seed cotton	185.0	200.0	200.0	180.0	190.0	190.0
Commission and local taxes	191.2	210.0	210.0	189.0	200.0	200.0
Transport costs	8.0	16.0	16.0	24.5	55.0	18.0
Total production costs of ginned cotton (f.o.b.)	774.2	859.0	666.4	600.3	885.0	682.0
Purchase costs per unit of ginned cotton	486.3	531.0	541.3	501.6	768.0	570.0
Ginning costs	43.6	58.6	59.9	36.0	58.0	67.0
Financial costs	36.0	33.1	24.4	29.9	28.0	22.0
Transport costs	15.7	23.1	23.0	15.0	20.0	13.0
Other	168.3	193.7	...	...	0.0	0.0
Insurance, freight, and other export costs	24.3	19.4	17.9	17.7	11.0	10.0
Total production costs of cotton seed (c.i.f.)	21.6	17.3	7.2	13.4	4.1	0.3
Transport costs	12.1	11.3	5.1	7.5	2.1	0.0
Other production costs	0.5	0.7	0.6	0.9	0.9	0.1
Insurance, freight, and other export costs	9.0	5.3	1.5	5.1	1.1	0.2
Total costs (f.o.b.)	762.6	851.6	637.0	768.8	787.0	248.0
Variable costs	645.6	735.8	563.8	691.0	704.0	219.0
Fixed costs	117.0	115.8	73.1	77.8	83.0	29.0
Total costs (c.i.f.)	795.9	876.3	673.7	613.7	889.1	682.3
Sales prices						
Seed cotton (producers' price)	185.0	200.0	200.0	180.0	190.0	190.0
Ginned cotton	668.4	804.0	592.0	795.4	238.0	370.0
Cotton seed	64.8	67.6	63.6	70.8	13.0	19.0
Profit per unit						
Seed cotton	-14.4	-26.0	-25.9	-15.7	13.4	-25.0
Ginned cotton	-105.9	-55.0	-57.1	95.0	61.0	62.0
Cotton seed	43.2	50.2	56.4	57.4	5.0	5.0
Memorandum items:						
Total profits (in billions of CFAF)	-10.4	-0.1	-9.5	-2.2	4.4	-2.1
Contribution to government revenue (in percent)	-10.4	-0.1	-9.5	-18.4	0.0	0.0
Total Production of seed cotton ('000 tons)	363.6	336.6	400.7	337.5	333.1	427.7

Sources: Société Nationale pour la Promotion Agricole (SONAPRA); and staff estimates.

1/ Crop year: October 1 - September 30.

Table 8. Benin: Retail Price of Major Petroleum Products, 2000-2005

(CFA francs per liter)

	2000	2001	2002	2003	2004	2005 Est.
Premium gasoline	320	350	323	348	348	383
Regular gasoline	305	325	298	328	330	375
Kerosene	180	210	188	195	217	321
Diesel	258	285	263	293	300	381

Source: Société Nationale de Commercialisation des Produits Pétroliers (SONACOP);  
and Ministry of Commerce (MCAT).

Table 9. Benin: Transportation Activity, 2000-2005  
(Thousands of metric tons, unless otherwise indicated)

	2000	2001	2002	2003	2004	2005 Est.
<b>Port traffic</b>						
Loading	398.7	380.5	462.2	469.4	488.2	596.0
<i>Of which:</i>						
Palm products	0.0	0.0	0.0	24.0	0.0	0.0
Cotton products	276.4	220.6	212.0	241.0	178.7	267.0
Transit	4.9	6.5	5.6	8.6	...	...
Unloading	2,674.8	2,929.3	3,007.7	3,808.9	3,520.6	4,556.0
<i>Of which :</i>						
Hydrocarbons	423.0	323.9	514.7	838.1	835.0	840.0
Transit	839.6	984.9	514.7	838.1	...	...
Total	3,073.5	3,309.9	3,469.9	4,278.3	3,968.8	5,152.0
<b>Transit</b>						
Niger	419.7	513.6	549.7	799.9	671.4	1,041.0
Nigeria	332.2	402.0	350.6	311.4	416.6	629.0
Burkina Faso	5.2	14.4	65.1	37.2	25.6	105.0
Togo	2.8	5.0	6.3	2.8	3.0	6.0
Mali	15.3	28.7	47.0	14.0	0.4	42.0
<b>Rail traffic</b>						
Passengers (in millions per kilometer)	156.6	66.7	68.2	65.6	45.4	17.0
Freight (in millions of tons per kilometer)	153.2	93.8	88.8	85.7	33.8	23.0
<b>Upfreight (in thousands of metric tons)</b>						
General merchandise	132.6	93.7	94.6	91.2	37.6	44.8
To Benin	6.4	11.4	8.9	11.3	6.0	7.1
To Niger	126.2	82.3	82.6	80.0	31.6	25.0
Hydrocarbons	22.2	11.4	8.9	11.3	6.0	5.3
To Benin	22.2	11.4	8.9	11.3	6.0	5.3
To Niger	0.0	0.0	0.0	0.0	0.0	0.0
<b>Downfreight (in thousands of metric tons)</b>						
From Benin	113.0	58.3	89.2	60.1	32.6	38.9
From Niger	4.4	3.4	3.7	1.7	1.7	2.0

Sources: Ministry of Transportation, Directorate of the Port of Cotonou; Bénin-Niger Railway (OCBN); and staff estimates.



Table 10. Benin: Consumer Price Index in Urban Areas, 2000-2005 1/  
(Index, December 1996=100, unless otherwise indicated)

	2000	2001	2002	2003	2004	2005 Est.
January	108.7	116.8	119.8	123.3	124.8	127.9
February	109.7	115.6	119.9	123.8	124.3	128.2
March	112.2	117.5	120.3	124.1	123.3	131.0
April	113.2	118.9	122.1	124.6	124.1	130.8
May	114.4	120.9	121.8	124.8	124.9	131.2
June	117.3	120.3	123.8	124.2	125.4	132.2
July	116.4	120.7	126.2	124.4	125.7	133.5
August	115.8	119.5	122.8	123.0	124.3	133.2
September	115.1	119.0	121.0	122.5	124.6	133.5
October	116.9	119.4	121.4	123.8	124.7	133.8
November	117.1	120.3	123.1	124.6	127.0	133.6
December	119.2	122.0	123.5	124.5	127.7	132.5
Average	114.7	119.2	122.1	124.0	125.1	131.8
Changes in percent	4.2	4.0	2.4	1.5	0.9	5.4

Source: Institut National de la Statistique et de l'Analyse Economique (INSAE).

1/ Index is based on data covering five major cities.

Table 11. Benin: Industrial Minimum Legal Wage, 2000-05

(CFA francs per hour)

---

March, 2000	144.2
December, 2000	144.2
December, 2001	144.2
December, 2002	144.2
April, 2003	173.3
December, 2003	173.3
December, 2004	173.3
December, 2005	173.3

---

Sources: Central Bank of West African States (BCEAO); and Ministry of Labor and Social Affairs.

Table 12. Benin: Consolidated Government Operations 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
	(Billions of CFA francs)					
Total revenue	266.2	281.0	318.2	350.7	351.4	383.4
Tax revenue	234.1	247.1	282.5	313.6	311.4	334.0
Tax on international trade	126.7	133.2	145.9	163.6	155.9	174.8
Direct and indirect taxes	107.4	113.9	136.6	150.0	155.5	159.2
Nontax revenue	32.1	33.9	35.7	37.1	40.0	49.4
Total expenditure	322.5	353.2	382.1	426.3	429.5	489.3
Wages	74.8	80.7	90.1	108.0	118.3	130.3
Pensions and scholarships	19.3	20.5	21.5	25.7	26.7	26.5
Current transfers	26.8	41.5	73.7	61.8	65.5	81.8
Other expenditure	64.7	59.6	58.4	79.5	80.3	100.4
Investment	122.5	135.3	119.6	141.1	131.0	144.2
Budgetary contribution	35.0	55.4	54.5	71.8	61.2	76.3
Financed from abroad	87.4	79.8	65.1	69.3	69.8	67.9
Net lending (minus = reimbursement)	0.3	0.4	3.2	-2.0	0.7	-0.8
Primary balance (narrow definition) 1/	32.3	23.2	19.9	4.0	-0.6	-31.9
Interest	14.1	15.2	15.5	12.3	7.0	6.9
Internal debt	1.6	1.8	1.2	1.0	1.2	1.3
External debt	12.4	13.5	14.3	11.3	5.8	5.6
Overall balance (payment order basis)	-55.2	-72.3	-63.9	-75.7	-78.1	-105.8
Change in arrears	-30.6	-6.7	-6.7	-2.1	-8.5	-42.2
External debt (princip & int pymts)	-14.8	0.0	0.0	0.0	0.0	0.0
Domestic debt	-15.8	-6.7	-6.7	-2.1	-8.5	-42.2
Payments during compl period/float	-0.6	8.3	-13.8	1.3	-10.7	63.4
Overall balance (cash basis)	-71.4	-70.7	-84.4	-76.4	-97.3	-84.7
Financing	87.5	70.7	84.4	76.5	97.2	84.7
Domestic financing	13.9	-49.0	11.4	-3.2	2.4	-6.4
Bank financing	1.2	-47.8	13.7	-1.2	8.9	18.2
Net use of Fund resources	-2.5	-3.0	-6.8	-3.5	-2.8	-3.4
Disbursements	6.3	7.5	3.6	5.4	1.1	0.7
Repayments	-8.9	-10.6	-10.4	-8.9	-3.9	-4.1
Other	3.8	-44.7	20.4	2.3	11.7	21.5
Nonbank financing	12.6	-1.3	-2.3	-2.0	-6.5	-24.6
External financing	73.7	119.7	73.1	79.6	94.8	91.1
Project financing	74.4	79.8	70.4	69.3	69.8	67.9
Grants	25.3	24.5	15.3	31.9	40.9	39.7
Loans	49.1	55.3	55.1	37.4	28.9	28.1
Amortization due	-22.9	-17.5	-18.8	-17.9	-9.3	-9.7
Program aid	1.7	41.7	3.7	11.2	34.3	33.0
Grants	1.7	21.5	3.7	4.9	14.8	8.2
Loans	0.0	20.3	0.0	6.3	19.5	24.8
Debt relief obtained	20.5	15.7	17.8	17.0	0.0	0.0
Financing gap	0.0	0.0	0.0	0.0	0.0	0.0
Possible HIPC Initiative assistance	0.0	0.0	0.0	0.0	0.0	0.0
Residual financing gap	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum items:	(Percent of GDP, unless otherwise stated)					
Total revenue	15.8	15.3	16.3	17.0	16.4	16.5
Total expenditure	19.2	19.3	19.5	20.6	20.1	21.1
Of which:						
Wages	4.5	4.4	4.6	5.2	5.5	5.6
Public investment	7.3	7.4	6.1	6.8	6.1	6.2
Overall bal (pymnt ord basis, excl. grts)	-3.4	-3.9	-3.3	-3.7	-3.7	-4.6
Primary balance (narrow definition)1/	2.7	1.3	1.0	0.2	0.0	-1.4
Primary balance (broad definition)	-2.5	-3.1	-2.5	-3.1	-3.3	-4.3
GDP (billions of CFA francs) 2/	1,679.7	1,832.2	1,956.7	2,067.9	2,138.2	2,319.7

Sources: Beninese authorities; and staff estimates.

1/ Total revenue minus total expenditure, excluding foreign-financed investment, interest payments, and net lending.

2/ In billions of CFA francs.

Table 13. Benin: Central Government Revenue, 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
(Millions of CFA francs)						
Total revenue	266,217	280,977	318,177	342,881	351,416	383,446
Direct taxes	55,230	63,131	61,643	76,394	82,289	83,779
Taxes on income and profits	33,329	40,167	46,815	47,809	47,350	53,232
Individual	4,487	4,255	5,802	6,820	8,555	7,826
Corporate	25,990	33,004	37,554	36,426	34,031	39,880
Other taxes	2,853	2,909	3,458	4,563	4,764	5,526
Taxes on payroll and workforce	21,900	22,964	14,828	28,585	34,938	30,548
Domestic taxes on goods and services	54,095	54,330	67,350	75,711	79,576	78,126
Value-added tax	27,845	31,600	41,454	40,775	49,738	53,660
Domestic production, sales, and excises	7,352	4,416	4,277	5,868	5,430	4,393
Taxes on specific services	3,341	4,307	4,528	7,124	5,781	5,672
Motor vehicle taxes (vignette)	1,400	0	0	0	0	0
Other	14,157	14,007	17,091	21,944	18,627	14,401
Taxes on international trade and transactions	126,699	133,248	145,881	159,215	155,903	174,815
Customs duties	32,712	34,387	40,124	44,673	27,867	45,925
Value-added tax	75,718	79,264	86,606	85,091	98,366	93,826
Export duties, including re-exportation tax	919	2,439	1,771	1,173	976	919
Other	17,351	17,158	17,381	28,279	28,694	34,146
Nontax revenue	30,193	30,268	43,303	31,561	33,648	46,726
From nonfinancial public enterprises	4,901	5,149	5,047	5,388	1,346	699
Contribution to government employees' pension fund	8,500	9,269	10,791	11,155	13,883	14,360
Repayment on on-lending						
Other nontax revenue	16,792	15,850	27,465	15,018	18,419	31,667
(Percent of GDP)						
Total revenue	15.8	15.3	16.3	16.6	16.4	16.5
Taxes on income and profits	3.3	3.4	3.2	3.7	3.8	3.6
Domestic taxes on goods and services	3.2	3.0	3.4	3.7	3.7	3.4
Taxes on international trade and transactions	7.5	7.3	7.5	7.7	7.3	7.5
Nontax revenue	1.8	1.7	2.2	1.5	1.6	2.0
(Percent of total tax revenue)						
Taxes on income and profits	23.4	25.2	22.4	24.5	25.9	24.9
Domestic taxes on goods and services	22.9	21.7	24.5	24.3	25.0	23.2
Taxes on international trade and transactions	53.7	53.1	53.1	51.1	49.1	51.9

Sources: Beninese authorities; and staff estimates.

Table 14. Benin: Central Government Expenditure, 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
(Billions of CFA francs)						
Total expenditure	322.2	356.9	384.5	428.3	437.4	490.1
Primary expenditure	220.7	268.2	303.8	346.7	352.0	415.3
Salaries, pensions, and scholarships	94.1	101.2	111.6	133.7	145.0	156.8
Wage bill	74.8	80.7	90.1	108.0	118.3	130.3
Pensions and scholarships	19.3	20.5	21.5	25.7	26.7	26.5
Other expenditure and current transfers	91.5	111.5	132.2	141.3	145.8	182.2
Budgetary contribution to investment	35.0	55.4	60.1	71.8	61.2	76.3
Interest	14.1	15.2	15.5	12.2	15.5	6.9
Internal debt	1.6	1.8	1.2	0.9	0.8	1.3
External debt	12.4	13.5	14.3	11.3	14.7	5.6
Investment expenditure financed from abroad	87.4	79.8	65.1	69.3	69.8	67.9
Net lending (- =reimbursement)	0.3	-2.0	3.2	-2.0	0.7	0.0
(Percent of GDP)						
Total expenditure	19.2	20.5	19.6	20.7	20.5	21.1
Primary expenditure	13.1	15.4	15.5	16.8	16.5	17.9
Salaries, pensions, and scholarships	5.6	5.8	5.7	6.5	6.8	6.8
Wage bill	4.5	4.6	4.6	5.2	5.5	5.6
Pensions and scholarships	1.1	1.2	1.1	1.2	1.2	1.1
Other expenditure and current transfers	5.4	6.4	6.8	6.8	6.8	7.9
Budgetary contribution to investment	2.1	3.2	3.1	3.5	2.9	3.3
Interest	0.8	0.9	0.8	0.6	0.7	0.3
Internal debt	0.1	0.1	0.1	0.0	0.0	0.1
External debt	0.7	0.8	0.7	0.5	0.7	0.2
Investment expenditure financed from abroad	5.2	4.6	3.3	3.4	3.3	2.9
Net lending (- =reimbursement)	0.0	-0.1	0.2	-0.1	0.0	0.0
(Percent of total expenditure)						
Total expenditure	100.0	100.0	100.0	100.0	100.0	100.0
Primary expenditure	68.5	75.2	79.0	81.0	80.5	84.7
Salaries, pensions, and scholarships	29.2	28.4	29.0	31.2	33.2	32.0
Wage bill	23.2	22.6	23.4	25.2	27.0	26.6
Pensions and scholarships	6.0	5.7	5.6	6.0	6.1	5.4
Other expenditure and current transfers	28.4	31.2	34.4	33.0	33.3	37.2
Budgetary contribution to investment	10.9	15.5	15.6	16.8	14.0	15.6
Interest	4.4	4.3	4.0	2.8	3.5	1.4
Internal debt	0.5	0.5	0.3	0.2	0.2	0.3
External debt	3.9	3.8	3.7	2.6	3.4	1.1
Investment expenditure financed from abroad	27.1	22.4	16.9	16.2	16.0	13.8
Net lending (- =reimbursement)	0.1	-0.6	0.8	-0.5	0.2	0.0

Source: Ministry of Finance.

Table 15. Benin: Operations of the Social Security Fund, 2000-2005

(Millions of CFA francs)

	2000	2001	2002	2003	2004	2005 Est.
Contributions	12,965	13,828	20,386	22,476	23,909	23,335
Family allowances	5,509	6,534	8,711	9,589	10,188	9,957
Workers' compensation	1,304	1,711	1,978	2,192	2,335	2,291
Retirement	6,152	7,312	9,697	10,695	11,386	11,088
Other revenue	10,100	2,235	3,576	4,446	5,851	5,825
Total receipts	23,065	17,792	23,962	26,922	29,760	29,160
Benefits	5,221	5,900	6,626	7,748	8,452	9,670
Family allowances	882	874	861	1,036	1,524	2,096
Workers' compensation	170	177	157	198	344	236
Retirement	4,169	4,849	5,608	6,514	6,584	7,368
Other expenses	8,819	2,226	3,694	4,654	6,459	6,792
Total expenditure	14,039	8,126	10,320	12,402	14,912	16,491
Surplus/deficit (-)	9,026	9,666	13,642	14,520	14,850	12,669

Source: Social Security Fund (OBSS).

Table 16. Benin: Monetary Survey, 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
	(Billions of CFA francs; end of period)					
Net foreign assets	352.7	476.8	426.7	398.1	336.7	387.3
Central Bank of West African States ( BCEAO)	261.5	371.2	318.1	326.9	257.6	328.5
Banks	91.2	105.6	108.6	71.2	79.1	58.7
Net domestic assets	172.9	115.7	143.1	209.5	230.3	303.6
Domestic credit	181.7	133.4	178.1	251.0	280.0	356.0
Net claims on government	-12.3	-60.1	-46.5	-47.7	-38.9	-20.8
Credit to the nongovernment sector	194.0	193.5	224.6	298.7	312.1	375.1
Other items (net)	-8.8	-17.7	-35.1	-41.3	-49.7	-52.5
Broad money (M2)	525.6	592.5	569.8	607.6	567.0	690.8
Currency	211.2	223.8	170.9	190.3	129.9	195.2
Bank deposits	308.3	360.1	391.9	409.9	429.0	487.0
Deposits with national post and savings agency	6.1	8.6	7.0	7.4	8.1	8.6
	(Percent of beginning-of-period broad money, unless otherwise specified)					
Memorandum items:						
Net foreign assets	10.7	23.6	-8.5	-5.0	-10.1	8.9
Net domestic assets	10.5	-10.9	4.6	11.6	3.4	12.9
Domestic credit	9.4	-9.2	7.5	12.8	4.8	13.4
Net claims on government	0.3	-9.1	2.3	-0.2	1.5	3.2
Credit to the nongovernment sector	9.1	-0.1	5.2	13.0	2.2	11.1
Broad money	21.2	12.7	-3.8	6.6	-6.7	21.8
Velocity of broad money (GDP relative to average M2)	3.5	3.3	3.4	3.5	3.6	3.7
Credit to the economy (annual change in percent)	25.5	-0.3	16.1	33.0	4.5	20.2
Nominal GDP (in billions of CFA francs)	1,679.7	1,832.2	1,956.7	2,067.9	2,138.2	2,319.7

Sources: Central Bank of West African States (BCEAO); and staff estimates.

Table 17. Benin: Summary Account of the Central Bank  
of West African States (BCEAO), 2000-2005

(Billions of CFA francs; end of period)

	2000	2001	2002	2003	2004	2005 Est.
Gross foreign assets	323.5	431.5	369.6	370.8	305.9	365.1
Gross claims on central government	52.8	51.1	45.6	41.9	36.2	32.1
Advances to the treasury	0.0	0.0	0.0	0.0	0.0	0.0
Treasury bonds	1.3	1.1	0.7	0.4	0.3	0.1
Trust Funds on-lent and Structural Adjustment Facility (SAF)/Enhanced Structural Adjustment Facility (ESAF) loans	51.5	50.0	44.9	41.5	36.0	32.0
Other assets	9.9	7.6	5.5	1.9	0.0	0.0
Total assets	386.1	490.2	420.7	414.6	342.1	397.2
Banknotes and coins outside banks	211.2	223.8	170.9	190.3	129.9	195.2
Government deposits and cash	63.6	111.3	88.6	87.5	63.6	56.5
Deposits	60.2	109.2	86.9	85.3	60.8	53.8
Central government	59.8	105.7	86.1	85.3	60.8	53.6
Other public agencies	0.4	3.5	0.8	0.0	0.0	0.2
Cash held by the treasury	3.4	2.1	1.7	2.2	2.9	2.7
Commercial banks' deposits and cash	37.1	77.1	86.3	81.7	91.0	99.0
Deposits	25.9	63.6	70.3	...	75.2	83.4
Cash	11.2	13.5	16.0	...	15.8	15.6
Public enterprises deposits	1.1	2.4	0.6	0.8	0.5	0.7
Short-term foreign liabilities	0.7	3.1	1.8	3.8	12.8	8.2
SDR allocations	9.0	8.8	8.7	7.7	7.5	7.2
Long-term foreign liabilities 1/	61.3	57.2	49.7	40.1	35.5	28.4
Other liabilities	2.2	6.5	14.0	2.7	1.3	2.0
Total liabilities	386.4	490.2	420.6	414.6	342.1	397.2

Source: Central Bank of West African States (BCEAO).

1/ Mainly Trust Fund and outstanding SAF/ESAF loans.



Table 18. Benin: Summary Account of Commercial Banks, 2000-2005

(Billions of CFA francs; end of period)

	2000	2001	2002	2003	2004	2005 Est.
Reserves of commercial banks	37.1	77.1	86.3	78.0	112.3	88.4
Cash in vault	11.2	13.5	16.0	18.6	15.8	15.6
Deposits at Central Bank of West African States (BCEAO)	25.9	63.6	70.3	59.4	96.5	72.8
Gross foreign assets	151.0	178.5	170.0	147.4	160.2	157.8
Gross claims on government	25.8	23.0	20.6	23.8	13.1	27.9
Central administration	25.8	22.3	18.2	19.0	13.1	27.9
Other public agencies	0.0	0.7	2.4	4.8	0.0	0.0
Credit to the nongovernment sector	194.0	192.8	222.2	293.9	312.1	375.1
Performing credit	183.6	184.5	208.2	280.2	289.8	336.3
Crop credit	0.5	2.4	19.8	20.4	6.3	15.4
Other	118.6	182.1	188.4	259.8	283.5	320.8
Nonperforming credit	10.5	8.3	14.0	13.7	22.3	38.9
Other assets	27.4	17.5	37.0	31.4	6.9	18.7
Total assets	435.4	488.9	536.1	574.5	604.6	667.9
Private sector deposits	261.6	304.1	325.0	355.9	364.1	411.1
Short-term foreign liabilities	59.8	72.9	61.4	76.2	81.1	99.1
Banks	9.4	18.4	19.2	23.6	29.2	35.6
Call accounts	18.9	17.9	8.9	5.9	3.0	3.8
Other	31.5	36.6	33.3	46.7	48.9	59.7
Government deposits	79.4	84.4	95.0	81.7	97.0	108.1
Central administration	33.8	34.3	29.5	28.5	32.6	33.0
Other public agencies	45.6	50.1	65.5	53.2	64.4	75.1
Central bank refinancing	0.0	0.0	0.0	0.0	0.0	0.0
Long-term foreign liabilities	2.3	0.9	1.4	2.5	2.0	3.5
Other liabilities	32.3	26.6	53.5	58.0	67.2	47.9
Total liabilities	435.3	488.9	536.3	574.3	611.4	669.6

Source: Central Bank of West African States (BCEAO).

Table 19. Benin: Net Claims on the Central Government, 2000-2005 1/

(Billions of CFA francs; end of period)

	2000	2001	2002	2003	2004	2005 Est.
Central Bank of West African States (BCEAO)	-10.4	-27.6	-42.2	-45.6	-27.4	-24.2
Gross claims on central government	52.8	43.6	45.6	41.9	36.2	32.1
Treasury	52.8	43.6	45.6	41.9	36.2	32.1
Autonomous Amortization Fund (CAA) and the Road Fund	0.0	0.0	0.0	0.0	0.0	0.0
Central government deposits	63.2	71.2	87.8	87.5	63.6	56.3
Treasury	32.7	40.7	53.9	63.8	34.7	19.7
Indemnification and Rehabilitation Fund (FIR)	0.2	0.2	0.2	0.2	0.2	0.2
CAA	16.9	16.9	12.6	7.1	7.8	9.6
Road Funds	0.0	0.0	0.0	0.0	0.1	3.0
Cash held by central administration	3.4	3.4	1.7	2.2	2.9	2.7
Project-related deposits with the BCEAO	10.0	10.0	19.4	14.2	18.1	21.1
Commercial banks	-3.7	0.0	-11.3	-9.5	-19.5	-5.1
Gross claims on central government	25.8	23.4	18.2	19.0	13.1	27.9
<i>Of which</i>						
Treasury bonds	20.4	20.4	13.8	10.5	7.1	22.1
Central government deposits	29.5	35.5	29.5	28.5	32.6	33.0
<i>Of which</i>						
Treasury	20.1	30.1	17.1	18.7	22.3	18.4
CAA and National Investment Fund (FNI)	6.5	3.3	4.2	3.8	4.7	4.3
Private deposits with national post and savings agency	6.1	6.3	7.0	7.4	8.1	8.6
Net credit to central government	-8.0	0.0	-46.5	-47.7	-38.9	-20.8

Source: Central Bank of West African States (BCEAO).

1/ The government includes the treasury, the Autonomous Amortization Fund (CAA), the National Investment Fund (FNI) and the Road Fund.

Table 20. Benin: Distribution of Credit to the Economy, 2000-2005 1/

(Millions of CFA francs; end of period)

	2000	2001	2002	2003	2004	2005 Est.
<b>Short term</b>						
Agriculture	3,631	4,111	6,182	7,613	7,937	8,623
Industry	13,639	16,468	14,331	29,630	28,237	60,300
Construction	4,130	5,477	5,151	4,207	7,822	11,906
Transportation	1,732	8,352	7,697	15,765	15,866	29,102
Commerce	61,693	51,573	73,669	76,404	98,685	144,622
Services	35,791	27,417	35,407	45,615	96,499	37,967
Other	465	581	1	1	3,382	6,361
<b>Total</b>	<b>121,081</b>	<b>113,979</b>	<b>142,438</b>	<b>179,235</b>	<b>258,428</b>	<b>298,881</b>
<i>Of which:</i>						
Public and semipublic enterprises	20,756	19,539	24,417	30,725	41,282	51,069
<b>Medium term</b>						
Agriculture	2,267	2,459	1,927	1,258	52	79
Industry	4,352	3,092	6,709	7,440	11,008	4,445
Construction	27	63	5,027	26	418	465
Transportation	914	5,167	2,774	2,718	5,696	12,629
Commerce	5,207	5,300	4,214	3,426	6,052	15,312
Services	35,181	26,743	21,564	28,054	45,148	21,688
Other	10	207	602	137	1,690	3,697
<b>Total</b>	<b>47,958</b>	<b>43,031</b>	<b>37,817</b>	<b>43,059</b>	<b>70,064</b>	<b>58,315</b>
<i>Of which:</i>						
Public and semipublic enterprises	8,221	7,377	6,483	7,381	5,539	4,849
<b>Long term</b>						
Agriculture	160	0	0	24	0	0
Industry	0	0	0	0	0	228
Construction	0	0	0	0	0	0
Transportation	0	0	0	0	0	5,974
Commerce	0	0	0	0	0	3,881
Services	237	0	0	0	0	131
Other	0	203	362	134	166	0
<b>Total</b>	<b>397</b>	<b>203</b>	<b>362</b>	<b>158</b>	<b>166</b>	<b>10,214</b>
<i>Of which:</i>						
Public and semipublic enterprises	0	0	0	0	0	6,209
<b>Grand total</b>	<b>169,436</b>	<b>157,213</b>	<b>180,617</b>	<b>222,452</b>	<b>328,658</b>	<b>367,410</b>
<i>Of which:</i>						
Public and semipublic enterprises	28,977	26,915	30,900	38,107	46,821	62,127

Source: Central Bank of West African States (BCEAO).

1/ As reported to the Credit Risk Registry (Centrale des Risques).

Table 21. Benin: Central Bank Lending Rates, January 2000-December 2005  
(Percent per annum; end of period, unless otherwise indicated)

	Rediscount Rate (TES)	Special Rate for Advances to Treasury <sup>1/</sup>	Repurchase Rate	Average Monthly Money Market Rate (TMM)	Reserve Requirement Rate
2000 January	5.75	4.95	5.25	4.95	3.00
February	5.75	4.95	5.25	4.95	3.00
March	5.75	4.95	5.25	4.95	3.00
April	5.75	4.95	5.25	4.95	3.00
May	5.75	4.95	6.00	4.95	3.00
June	6.50	4.95	6.00	4.95	3.00
July	6.50	4.95	6.00	4.95	3.00
August	6.50	4.95	6.00	4.95	3.00
September	6.50	4.95	6.00	4.95	9.00
October	6.50	4.95	6.00	4.95	9.00
November	6.50	4.95	6.00	4.95	9.00
December	6.50	4.95	6.00	4.95	9.00
2001 January	6.50	4.95	6.00	4.95	9.00
February	6.50	4.95	6.00	4.95	9.00
March	6.50	4.95	6.00	4.95	9.00
April	6.50	4.95	6.00	4.95	9.00
May	6.50	4.95	6.00	4.95	9.00
June	6.50	4.95	6.00	4.95	9.00
July	6.50	4.95	6.00	4.95	9.00
August	6.50	4.95	6.00	4.95	9.00
September	6.50	4.95	6.00	4.95	9.00
October	6.50	4.95	6.00	4.95	9.00
November	6.50	4.95	6.00	4.95	9.00
December	6.50	4.95	6.00	4.95	9.00
2002 January	6.50	4.95	6.00	4.95	9.00
February	6.50	4.95	6.00	4.95	9.00
March	6.50	4.95	6.00	4.95	9.00
April	6.50	4.95	6.00	4.95	9.00
May	6.50	4.95	6.00	4.95	9.00
June	6.50	4.95	6.00	4.95	9.00
July	6.50	4.95	6.00	4.95	9.00
August	6.50	4.95	6.00	4.95	9.00
September	6.50	4.95	6.00	4.95	9.00
October	6.50	4.95	6.00	4.95	9.00
November	6.50	4.95	6.00	4.95	9.00
December	6.50	4.95	6.00	4.95	9.00
2003 January	6.50	4.95	6.00	4.95	9.00
February	6.50	4.95	6.00	4.95	9.00
March	6.50	4.95	6.00	4.95	9.00
April	6.50	4.95	6.00	4.95	9.00
May	6.50	4.95	6.00	4.95	9.00
June	6.50	4.95	6.00	4.95	9.00
July	5.50	4.95	5.00	4.95	9.00
August	5.50	4.95	5.00	4.95	9.00
September	5.50	4.95	5.00	4.95	9.00
October	5.50	4.95	5.00	4.95	9.00
November	5.00	4.95	4.50	4.95	9.00
December	5.00	4.95	4.50	4.95	9.00
2004 January	4.50	4.95	4.00	4.95	9.00
February	4.50	4.95	4.00	4.95	9.00
March	4.50	4.95	4.00	4.95	9.00
April	4.50	4.95	4.00	4.95	13.00
May	4.50	4.95	4.00	4.95	13.00
June	4.50	4.95	4.00	4.95	13.00
July	4.50	4.95	4.00	4.95	13.00
August	4.50	4.95	4.00	4.95	13.00
September	4.50	4.95	4.00	4.95	13.00
October	4.50	4.95	4.00	4.95	13.00
November	4.50	4.95	4.00	4.95	13.00
December	4.50	4.95	4.00	4.95	13.00
2005 January	4.50	4.95	4.00	4.95	13.00
February	4.50	4.95	4.00	4.95	13.00
March	4.50	4.95	4.00	4.95	13.00
April	4.50	4.95	4.00	4.95	13.00
May	4.50	4.95	4.00	4.95	13.00
June	4.50	4.95	4.00	4.95	13.00
July	4.50	4.95	4.00	4.95	15.00
August	4.50	4.95	4.00	4.95	15.00
September	4.50	4.95	4.00	4.95	15.00
October	4.50	4.95	4.00	4.95	15.00
November	4.50	4.95	4.00	4.95	15.00
December	4.50	4.95	4.00	4.95	15.00

Source: Central Bank of West African States (BCEAO).

<sup>1/</sup> Reform of lending rate structure, involving the abolition of the preferential discount rate and the creation of a special rate for advances to the treasury.

Table 22. Benin: Balance of Payments, 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
	(Billions of CFA francs)					
Trade balance	-181.9	-186.9	-239.7	-232.8	-235.4	-223.1
Exports, f.o.b.	132.9	153.2	147.3	168.1	181.0	170.2
Cotton	107.3	115.9	99.3	116.1	114.6	93.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0
Other	25.6	37.3	48.0	52.0	66.4	77.2
Imports, f.o.b.	-314.8	-340.1	-387.0	-400.9	-416.4	-393.3
<i>Of which</i> : petroleum products	-46.8	-40.1	-53.0	-61.9	-80.6	-69.0
Services and income (net)	-34.5	-49.7	-51.2	-57.5	-46.8	-45.1
Services	-25.8	-34.1	-33.1	-32.9	-26.3	-21.8
Credit	110.9	106.9	117.7	114.7	125.4	132.6
Debit	-136.6	-141.0	-150.8	-147.6	-151.7	-154.4
Income	-8.7	-15.6	-18.1	-24.7	-20.5	-23.3
<i>Of which</i> : interest due on government debt	-12.4	-13.5	-14.3	-11.3	-5.8	-5.6
Current transfers (net)	87.6	120.2	125.9	117.7	128.0	109.6
Unrequited private transfers	59.5	59.1	55.3	50.8	60.0	61.4
Public current transfers	28.1	61.1	70.6	66.9	68.0	48.2
Current account	-128.8	-116.4	-165.0	-172.6	-154.2	-158.6
Capital account	32.3	31.8	22.7	103.2	40.9	39.7
Public project grants	32.3	31.8	22.7	35.6	40.9	39.7
Debt cancellation	0.0	0.0	0.0	67.6	0.0	0.0
Financial account (net)	148.4	178.7	71.4	61.2	43.9	184.5
Medium- and long-term public capital	29.5	61.4	39.9	27.3	42.8	47.0
Disbursements	52.4	78.9	58.6	47.4	52.1	56.8
Project loans	52.4	58.7	58.6	41.0	32.6	32.0
Program loans	0.0	20.3	0.0	6.3	19.5	24.8
Amortization due	-22.9	-17.5	-18.8	-20.1	-9.3	-9.7
Principal not yet due 1/	0.0	0.0	0.0	-67.6	...	...
Medium- and long-term private capital	53.2	26.0	8.8	18.8	26.4	46.7
Deposit money banks	11.3	-14.4	-3.0	37.4	0.0	-20.4
Short-term capital	-1.6	43.7	19.6	40.3	20.0	49.8
Errors and omissions	56.0	61.9	6.2	5.1	-45.3	61.4
Overall balance	52.0	94.0	-70.9	-8.2	-69.4	71.0
Financing	-52.0	-94.1	70.9	8.2	69.3	-70.9
Change in net foreign assets (- increase)	-57.7	-109.7	53.1	-8.8	69.3	-70.9
<i>Of which</i> : net use of Fund resources	-2.5	-3.0	-6.8	-3.4	-2.6	-2.6
Loans	6.3	7.5	3.6	5.5	1.1	0.7
Repayments	-8.9	-10.6	-10.4	-8.9	-3.7	-3.3
Change in external arrears (+ increase)	-14.8	0.0	0.0	0.0	0.0	0.0
Interest	-4.9	0.0	0.0	0.0	0.0	0.0
Principal	-9.9	0.0	0.0	0.0	0.0	0.0
Debt relief obtained	20.5	15.7	17.8	17.0	0.0	0.0
Financing gap	0.0	0.0	0.0	0.0	0.0	0.0
	(Percent of GDP)					
Current account	-7.7	-6.4	-8.4	-8.3	-7.2	-6.8
Overall balance	3.1	5.1	-3.6	-0.4	-3.2	3.1
Memorandum items:	(Billions of CFA francs)					
Reexports	139.5	147.9	164.9	146.2	120.5	129.8
Imports for reexports	-97.8	-97.8	-86.0	-74.8	-59.8	-66.2

Sources: Central Bank of West African States (BCEAO); and staff estimates.  
operation at the completion point.

Table 23. Benin: Balance of Payments, 2000-2005

(Millions of US dollars)

	2000	2001	2002	2003	2004	2005 Est.
Trade balance	-258.0	-255.1	-345.1	-401.4	-446.1	-423.7
Exports, f.o.b.	188.5	209.2	212.1	289.8	343.1	323.3
Cotton	152.2	158.3	142.9	200.2	217.3	176.6
Oil	0.0	0.0	0.0	0.0	0.0	0.0
Other	36.3	50.9	69.1	89.6	125.9	146.7
Imports, f.o.b.	-446.5	-464.3	-557.2	-691.1	-789.2	-747.0
<i>Of which</i> : petroleum products	-66.4	-54.7	-76.3	-106.7	-152.8	-131.0
Services and income (net)	-48.9	-67.9	-73.7	-99.2	-88.6	-85.6
Services	-36.5	-46.6	-47.7	-56.7	-49.8	-41.4
Credit	157.2	145.9	169.4	197.8	237.8	251.8
Debit	-193.8	-192.5	-217.1	-254.5	-287.5	-293.2
Income	-12.3	-21.3	-26.1	-42.5	-38.9	-44.2
<i>Of which</i> : interest due on government debt	-17.5	-18.4	-20.6	-19.4	-11.0	-10.6
Current transfers (net)	124.3	164.1	181.3	203.0	242.5	208.2
Unrequited private transfers	84.4	80.7	79.6	87.6	113.7	116.6
Public current transfers	39.9	83.4	101.6	115.4	128.8	91.6
Current account	-182.6	-158.9	-237.5	-297.6	-292.2	-301.2
Capital account	45.8	43.4	32.7	177.9	77.5	75.5
Public project grants	45.8	43.4	32.7	61.4	77.5	75.5
Debt cancellation	0.0	0.0	0.0	116.5	0.0	0.0
Financial account (net)	210.5	244.0	102.8	222.1	83.2	360.5
Medium- and long-term public capital	41.8	83.9	57.4	47.0	81.2	89.3
Disbursements	74.3	107.7	84.4	81.7	98.8	107.8
Project loans	74.3	80.1	84.4	70.7	61.9	60.7
Program loans	0.0	27.6	0.0	10.9	37.0	47.1
Amortization due	-32.4	-23.9	-27.0	-34.7	-17.6	-18.5
Principal not yet due 1/	0.0	...	...	-116.5	...	...
Medium- and long-term private capital	75.5	35.5	12.7	32.4	50.0	88.7
Deposit money banks						
Short-term capital	-2.3	59.7	28.2	69.5	37.9	94.5
Errors and omissions	79.5	84.6	8.9	8.7	-85.9	126.8
Overall balance	73.7	128.4	-102.0	-14.1	-131.5	134.8
Financing	-73.7	-128.5	102.0	14.1	131.4	-134.7
Change in net foreign assets (- increase)	-81.8	-149.8	76.5	-15.2	131.4	-134.7
<i>Of which</i> : net use of Fund resources	-3.6	-4.2	-9.7	-5.9	-4.9	-4.9
Loans	9.0	10.3	5.2	9.5	2.0	1.3
Repayments	-12.6	-14.5	-15.0	-15.3	-6.9	-6.2
Change in external arrears (+ increase)	-21.0	0.0	0.0	0.0	0.0	0.0
Interest	-7.0	0.0	0.0	0.0	0.0	0.0
Principal	-14.0	0.0	0.0	0.0	0.0	0.0
Debt relief obtained	29.0	21.4	25.6	29.3	0.0	0.0
Financing gap	0.0	0.1	0.0	0.0	0.1	-0.1

operation at the completion point.

Sources: Central Bank of West African States (BCEAO); and staff estimates.

Table 24. Benin: External Trade Indices, 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
	(1992=100)					
Merchandise exports, f.o.b.						
Value index	380.2	438.4	421.5	481.0	518.0	487.1
Volume index	273.8	266.0	293.6	327.6	288.7	354.3
Unit value index	225.9	268.2	233.6	238.8	291.9	224.5
Merchandise imports, f.o.b.						
Value index	310.1	335.1	381.3	395.0	410.2	387.5
Volume index	130.6	138.7	146.3	153.3	157.8	163.0
Unit value index	237.5	241.5	260.5	257.7	259.9	237.7
Terms of trade index	95.1	111.0	89.6	92.7	112.3	94.4
	(Annual percentage change)					
Merchandise exports, f.o.b. (excluding reexports)						
Value index	-3.0	15.3	-3.9	14.1	7.7	-6.0
Volume index	-8.0	-2.9	10.4	11.6	-11.9	22.7
Unit value index	9.0	18.7	-12.9	2.3	22.2	-23.1
Merchandise imports, f.o.b. (excluding imports for reexports)						
Value index	8.1	8.0	13.8	3.6	3.9	-5.5
Volume index	1.2	6.2	5.5	4.7	3.0	3.3
Unit value index	6.8	1.7	7.9	-1.1	0.9	-8.6
Terms of trade index	2.1	16.7	-19.3	3.4	21.2	-15.9

Sources: Beninese authorities; and staff estimates.

Table 25. Benin: Services, Income, and Private Transfers, 2000-2005

(Billions of CFA francs)

	2000	2001	2002	2003	2004	2005 Est.
Services (net)	-25.8	-34.1	-33.1	-32.9	-26.3	-9.8
Credit	110.9	106.9	117.7	114.7	125.4	132.6
Freight and insurance	18.8	24.4	20.5	18.1	15.7	17.0
Government operations	6.9	10.1	8.1	5.6	6.2	12.6
Tourism	54.7	46.0	60.4	61.8	62.6	63.1
Other services	18.8	21.6	24.3	24.4	27.4	25.9
Other transport	11.7	4.8	4.4	4.8	13.5	14.0
Debit	-136.6	-141.0	-150.8	-147.6	-151.7	-142.4
Freight and insurance	-66.8	-65.8	-77.0	-78.3	-71.8	-68.7
Government operations	-3.8	-4.6	-4.0	-5.9	-7.2	-7.0
Tourism	-8.7	-12.7	-13.7	-12.3	-15.4	-13.8
Other services	-50.5	-31.4	-34.2	-30.2	-37.5	-33.9
Other transport	-6.8	-26.5	-21.9	-20.9	-19.8	-19.0
Income	-8.7	-15.6	-18.1	-24.7	-20.5	-23.3
Credit	22.2	5.5	17.5	11.9	20.7	10.5
Debit	-30.9	-21.1	-35.6	-36.6	-41.2	-33.8
<i>Of which</i>						
Interest on government debt	-12.4	-13.5	-14.3	-11.3	-7.9	-5.6
Private transfers	59.5	59.1	55.3	50.8	60.0	61.4
Credit	65.0	65.0	65.1	56.3	62.6	63.6
Debit	-5.5	-5.9	-9.8	-5.5	-2.6	-2.2

Sources: Central Bank of West African States (BCEAO); and staff estimates.



Table 26. Benin: Direction of Recorded Exports, 2000-2005 1/

	2000	2001	2002	2003	2004	2005 Est.
	(Millions of U.S. dollars)					
World	195.6	591.0	241.5	271.4	290.1	300.4
Industrial countries	39.4	40.2	38.8	39.9	33.7	25.5
<i>Of which</i>						
United States	1.2	0.6	0.4	0.7	0.1	0.3
Belgium-Luxembourg	4.6	5.3	3.0	3.5	1.6	0.6
France	3.3	5.2	6.8	4.4	8.5	3.6
Italy	12.3	9.3	9.9	6.6	4.3	3.7
Portugal	2.3	1.9	2.8	2.0	3.2	3.8
Spain	6.1	5.3	4.5	4.3	4.3	2.1
Switzerland	2.6	1.5	2.4	3.3	4.9	2.0
United Kingdom	0.9	2.3	1.4	1.9	0.7	2.3
Developing countries	156.1	550.2	201.1	231.4	256.4	274.6
Africa	28.4	433.3	77.2	57.5	81.1	81.0
<i>Of which</i>						
Burkina Faso	0.4	1.1	1.1	2.2	2.2	4.4
Côte d'Ivoire	0.9	1.0	1.2	1.4	4.5	1.1
Morocco	7.3	4.8	8.9	3.2	2.1	3.2
Niger	7.6	5.0	5.1	7.7	15.2	17.9
Nigeria	2.9	13.4	35.8	12.8	16.7	13.7
South Africa	0.7	1.9	2.6	4.3	2.6	3.7
Togo	0.7	2.8	4.1	12.4	10.0	14.5
Asia	94.1	96.7	115.7	161.7	170.5	183.9
<i>Of which</i>						
Bangladesh	8.3	2.6	2.9	10.8	1.2	7.6
China,P.R.: Mainland	0.7	0.8	16.3	62.3	104.9	93.9
India	60.6	61.3	42.2	27.4	20.0	22.1
Indonesia	9.6	11.3	23.9	25.3	10.5	24.5
Korea	0.1	0.0	0.0	1.1	0.0	0.0
Malaysia	1.4	1.8	0.7	1.3	8.0	0.0
Thailand	7.4	8.6	12.5	15.7	10.6	14.3
Europe	10.2	6.3	5.5	0.8	2.2	1.3
<i>Of which</i>						
Turkey	8.9	3.6	3.7	0.1	1.4	0.0
Middle East	2.5	2.0	0.8	7.0	1.3	7.2
<i>Of which</i>						
Saudi Arabia	2.2	1.6	0.7	1.1	0.3	4.2
Western hemisphere	21.0	11.9	2.0	4.5	1.3	1.2
<i>Of which</i>						
Argentina	0.0	0.0	0.1	0.0	0.0	0.0
Brazil	17.5	9.0	0.9	0.9	0.0	0.6
Not specified countries	0.0	0.0	1.4	0.0	0.0	0.3
Memorandum items:						
European Union	35.5	37.8	35.8	35.1	29.2	24.2
Oil exporting countries	15.2	27.5	60.6	45.0	28.0	45.3
Non-oil developing countries	140.9	522.7	140.5	186.4	228.4	229.3
	(Percent)					
Percent distribution						
Industrial countries	20.2	6.8	16.1	14.7	11.6	8.5
Developing countries	79.8	93.1	83.3	85.3	88.4	91.4
Africa	14.5	73.3	31.9	21.2	27.9	27.0
Asia	48.1	16.4	47.9	59.6	58.8	61.2
Europe	5.2	1.1	2.3	0.3	0.8	0.4
Middle East	1.3	0.3	0.3	2.6	0.5	2.4
Western hemisphere	10.7	2.0	0.8	1.6	0.4	0.4
	(Annual percent change)					
World	-5.6	202.2	-59.1	12.4	6.9	3.6
Industrial countries	-9.5	2.1	-3.6	2.9	-15.7	-24.3
Developing countries	-4.2	252.4	-63.4	15.1	10.8	7.1
Africa	67.0	1,428.0	-82.2	-25.5	41.0	0.0
Asia	2.2	2.8	19.7	39.7	5.5	7.8
Europe	45.4	-38.2	-13.5	-85.3	172.9	-40.5
Middle East	-29.8	-19.1	-62.1	819.7	-81.1	445.6
Western hemisphere	-51.6	-43.2	-83.0	120.1	-71.7	-7.6

Source: IMF, Direction of Trade Statistics.

1/ Trade partners data.

Table 27. Benin: Direction of Recorded Imports, 2000-2005 1/

	2000	2001	2002	2003	2004	2005 Est.
	(Millions of U.S. dollars)					
World	562.7	622.2	720.9	886.0	897.2	892.9
Industrial countries	323.1	332.7	364.8	456.6	414.7	448.3
<i>Of which</i>						
United States	22.9	29.7	20.9	24.9	9.7	18.2
Japan	19.0	20.4	20.3	30.1	20.3	13.8
Austria	0.4	2.9	0.5	0.1	0.2	0.1
Belgium-Luxembourg	...	...	...	...	...	...
Denmark	4.6	5.2	5.1	5.5	4.2	7.9
France	150.9	144.4	172.9	214.7	165.2	194.5
Italy	20.7	23.3	23.3	19.2	10.8	14.4
Spain	16.2	13.2	13.2	18.4	15.5	23.5
Switzerland	1.2	2.6	1.1	2.3	23.4	20.5
United Kingdom	18.4	21.4	35.7	41.3	51.4	46.7
Developing countries	236.0	283.3	349.5	428.8	479.2	444.2
Africa	126.9	167.2	192.4	247.9	248.0	266.4
<i>Of which</i>						
Burkina Faso	0.0	0.1	0.0	0.4	0.3	0.1
Cameroon	2.8	0.8	0.8	4.6	10.0	9.6
Côte d'Ivoire	52.0	33.9	40.5	47.5	62.3	62.4
Morocco	1.1	0.7	1.0	2.0	2.6	2.8
Nigeria	10.2	29.9	27.5	37.7	26.7	35.9
South Africa	3.3	11.8	18.0	42.4	6.3	19.7
Togo	7.0	40.5	35.7	35.5	50.7	39.8
Asia	77.7	95.5	105.8	140.4	188.2	138.6
<i>Of which</i>						
Bangladesh	0.3	0.1	0.0	0.0	0.3	0.3
China,P.R.: Mainland	30.0	46.5	46.3	62.7	78.9	59.5
India	9.0	8.3	14.0	14.7	14.1	9.2
Indonesia	5.6	5.6	5.2	5.3	6.9	8.5
Korea	3.0	6.2	6.8	3.9	5.9	4.5
Malaysia	0.6	0.9	2.9	12.4	5.4	8.8
Pakistan	5.5	1.9	0.8	0.1	0.9	0.2
Thailand	15.4	18.9	20.3	31.1	59.7	37.4
Europe	8.3	8.1	13.0	10.5	3.9	3.8
<i>Of which</i>						
Turkey	1.5	3.6	5.1	4.5	1.9	1.9
Middle East	20.3	10.7	27.7	19.8	24.4	25.7
<i>Of which</i>						
Saudi Arabia	9.4	5.5	4.6	1.8	1.5	9.9
Western Hemisphere	2.7	1.8	10.5	10.3	14.7	9.7
<i>Of which</i>						
Argentina	0.1	0.1	1.8	0.2	0.5	0.0
Brazil	1.4	0.9	7.0	8.6	9.8	9.0
Not specified countries	1.0	1.3	0.7	0.5	3.3	0.5
Memorandum Items:						
European Union	278.7	278.1	319.8	395.5	345.3	384.8
Oil exporting countries	33.6	41.4	45.2	47.3	45.8	60.7
Non-oil developing countries	202.3	241.9	304.2	381.5	433.3	383.5
	(Percent of total imports)					
Industrial countries	57.4	53.5	50.6	51.5	46.2	50.2
Developing countries	41.9	45.5	48.5	48.4	53.4	49.7
Africa	22.6	26.9	26.7	28.0	27.6	29.8
Asia	13.8	15.4	14.7	15.8	21.0	15.5
Europe	1.5	1.3	1.8	1.2	0.4	0.4
Middle East	3.6	1.7	3.8	2.2	2.7	2.9
Western Hemisphere	0.5	0.3	1.5	1.2	1.6	1.1
	(Annual percent change)					
World	-33.3	10.6	15.8	22.9	1.3	-0.5
Industrial countries	-28.7	3.0	9.6	25.2	-9.2	8.1
Developing countries	-38.8	20.1	23.3	22.7	11.7	-7.3
Africa	-40.6	31.8	15.1	28.8	0.0	7.4
Asia	-33.6	22.9	10.7	32.8	34.0	-26.3
Europe	-77.4	-2.9	61.5	-19.6	-62.8	-2.1
Middle East	168.5	-47.2	158.0	-28.6	23.3	5.3
Western Hemisphere	-74.9	-34.8	498.8	-2.7	43.4	-34.2

Source: IMF, Direction of Trade Statistics.

1/ Trade partners data reported CIF. These imports include Benin's reexports.

Table 28. Benin: Stock of Public and Guaranteed External Debt, 2000-2005

(Billions of CFA francs, unless otherwise indicated)

	2000	2001	2002	2003	2004	2005 Est.
Multilateral institutions	748.7	829.0	782.7	705.9	677.1	813.9
IMF	59.2	57.1	53.9	38.6	37.0	31.3
IDA	409.1	449.4	424.3	382.2	366.6	410.6
African Development Bank/Fund	181.4	205.2	193.7	152.0	150.0	237.7
Other	99.0	117.3	110.7	133.1	123.5	134.4
Bilateral creditors	188.0	188.0	177.5	48.7	45.5	42.1
Paris Club 1/	131.3	136.0	128.4	7.7	7.2	4.1
France 2/	41.9	44.0	41.5	0.0	0.0	0.0
Germany	1.5	1.7	1.6	0.0	0.0	0.0
Italy	20.6	22.3	21.1	0.0	0.0	0.0
Norway	20.0	21.0	19.8	0.0	0.0	0.0
Russia	13.0	13.8	13.0	7.7	24.8	4.1
United Kingdom	2.8	2.9	2.7	0.0	0.0	0.0
Other	31.5	30.3	28.6	0.0	0.0	0.0
Other creditors 3/	56.7	23.9	22.6	22.1	38.3	38.0
Total debt outstanding (after HIPC Initiative relief)	936.7	988.9	933.6	754.6	722.6	856.0
Memorandum item:						
Debt outstanding (in percent of GDP)	58.3	56.9	47.7	36.5	33.8	36.9

Sources: Autonomous Amortization Fund (CAA); and staff estimates.

1/ In 1997, Russia became a member of the Paris Club.

2/ Including hospital and postal debt.

3/ Excludes debt to Nigeria of which the amount is contested.

4/ Post-HIPC.

Table 29. Benin: Debt-Service Obligations on Public  
and Publicly Guaranteed Debt, 2000-2005

(Billions of CFA francs)

	2000	2001	2002	2003	2004	2005 Est.
Interest	12.7	13.5	14.3	10.6	9.2	7.9
Multilaterals (excluding IMF)	6.6	7.3	7.8	6.2	5.3	7.5
IMF	0.7	0.3	0.2	0.2	0.1	0.1
Paris Club (medium-term debt)	4.7	5.3	4.8	3.9	3.5	0.1
Other bilateral creditors	0.4	0.6	0.6	0.4	0.3	0.3
Short-term debt	0.0	0.0	0.0	0.0	0	0.0
Postal and hospital debt	0.3	0.0	0.0	0.0	0	0.0
Other	0.0	0.0	0.0	0.0	0	0.0
Amortization	31.7	28.0	29.0	26.3	23.3	18.9
Multilaterals (excluding IMF)	14.4	15.7	16.5	13.9	13.2	14.5
IMF	8.9	10.5	10.2	8.4	5.7	4.1
Paris Club (medium-term debt)	2.0	0.9	1.4	2.0	2.2	0.0
Other bilateral creditors	2.6	0.9	0.9	2.0	2.2	0.3
Short-term debt	0.0	0.0	0.0	0.0	0	0.0
Postal and hospital debt	3.8	0.0	0.0	0.0	0	0.0
Other	0.0	0.0	0.0	0.0	0	0.0
Total debt service due	44.4	41.5	43.3	38.1	32.5	26.9
Interest	12.7	13.5	14.3	11.3	9.2	7.9
Amortization	31.7	28.0	29.0	26.8	23.3	18.9
Change in arrears (+ increase)	-14.8	0.0	0.0	0.0	0	0.0
Debt relief and cancellation	20.5	15.7	23.7	19.1	17.0	11.2
<i>Of which</i>						
Paris Club	2.2	4.3	3.6	4.5	4.0	1.6

Sources: Autonomous Amortization Fund (CAA); and Fund staff estimates.

Table 30. Benin: Exchange Rate Developments, 2000-2005

	2000	2001	2002	2003	2004	2005 Est.
Exchange rates						
Period averages						
CFA francs per U.S. dollar	705.00	732.40	694.56	580.07	527.59	526.55
CFA francs per SDR	929.70	932.44	899.68	812.62	781.45	778.11
End-of-period						
CFA francs per U.S. dollar	704.95	744.31	644.20	533.69	489.24	553.26
CFA francs per SDR	912.49	939.91	863.24	783.15	753.61	791.84
Exchange rate indices (1990=100)						
CFA franc per U.S. dollar	258.94	269.00	255.10	213.05	193.78	193.40
CFA franc per SDR	251.49	252.23	243.37	219.81	211.38	210.48
Nominal effective exchange rate 1/	49.82	50.10	51.34	55.87	58.30	58.01
Real effective exchange rate 1/ 2/	77.39	79.28	82.19	89.08	91.25	93.23

Source: IMF, Information Notice System.

1/ Trade weighted.

2/ Deflated by the relative consumer prices.

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
<b>1. Collected for the central government's general budget</b>			
1.1 Direct tax			
1.1.1 Tax on industrial, commercial, artisanal, and agricultural profits ( <i>impôts sur les bénéfices industriels, commerciaux, artisanaux et agricoles</i> —IBICAA) (Tax Code Art.1-31)	<p>Levied on the profits from activities carried out within the country. Losses may be carried over for three years. The BMF (minimum profit tax) was abolished in the 1994 Budget Law (BL).</p> <p>Quarterly prepayment for enterprises using the accounts-based system due by the 10<sup>th</sup> of March, June, September, and December.</p> <p>Quarterly prepayment for enterprises using the simplified accounts-based system due by the 10<sup>th</sup> of June and December.</p>	<p>Cooperatives, agricultural credit unions, and mutual associations are exempt. Realized capital gains are exempt if reinvested within three years. Overheads of all types, personnel expenditure, labor, rental of movable and immovable property leased by the enterprise, rent paid by credit takers for the portion representing interest costs, repayments actually made, and repayments deferred in previous and deficit fiscal years are deducted.</p>	<p>Companies: 38 percent. Petroleum companies: 55 percent (1999 BL) Sole proprietorships and mining companies: 35 percent (1999 BL) Artisans: 17.5 percent. For activities other than those of petroleum companies, the minimum annual tax payable is the higher of CFAF 100,000 or 0.5 percent of declared turnover.</p>
	<ul style="list-style-type: none"> <li>- Introduction in customs of a tax prepayment on profits (<i>acompte sur impôts sur les bénéfices</i> – <i>AIB</i>) from any imports for profit.</li> <li>- Introduction, for credit to the central government's general budget, of a prepayment (<i>AIB</i>) in the form of taxes withheld at source on service providers.</li> <li>- Introduction of a special lump-sum prepayment of CFAF 50,000 per imported vehicle, that can be charged against the BIC tax (2000 BL).</li> </ul>	<p>Mutual funds and investment trusts are exempt (2000 BL). Also exempt are capital gains realized upon sales of securities and received by individuals (2000 BL). Securities income is deducted from the tax base, without any special prerequisite. Non-commercial imports. Enterprises appearing in the list prepared annually by the DGID.</p>	<p>3 percent (2004 BL).          3 percent (2004 BL).</p>

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
	- Introduction of a deduction at source of full tax due for fabric and miscellaneous retailers. - Introduction of withholding at source for foreign [service] providers.		1 percent and 1.5 percent
1.1.2 Tax on companies' motor vehicles (Tax Code Art. 32 bis-32 <i>quintier</i> )	Annual tax paid quarterly on motor vehicles for private transport of persons, owned or used by companies or other public or private industrial or commercial establishments. Annual tax levied on vehicles used for public transport of people or goods.	Motor vehicles used solely in the context of company activities.	(2006 BL) After 60 percent reduction Individuals : 35 percent and companies 38 percent
1.1.3 Single tax on road transport ( <i>taxe unique sur les transports routiers-TUTR</i> ), Tax Code Art. 31.		Vehicles with less than four wheels for transport of people or goods.	- Motor vehicles with less than 7 horsepower: CFAF 150,000. - Other categories: CFAF 200,000.
1.1.4 Tax on noncommercial profits ( <i>impôt sur les bénéfices non commerciaux—BNC</i> ) (Tax Code Art. 33-47)	Levied annually on earnings from independent professional activity.	Reasonable expenses necessary for the production of income. No personal exemptions. Profits received by nonbusiness persons from the sale of company rights totaling no less than CFAF 100,000 are exempt.	1) Vehicles for public transport of people: 0-9 seats: CFA 38,000 10-20 seats: CFA 57,000 Over 20 seats: CFA 86,800 2) Vehicles for public transport of goods: 0-2.5 tons: CFA 49,500 2.6-5 tons: CFA 57,000 5.01-10 tons: CFA 86,800 Over 10 tons : CFA 136,400 35 percent. However, there is a minimum tax based on minimum profits determined by applying a coefficient ranging from 9 percent to 25 percent, depending on the type of business generating the turnover.
1.1.5 Progressive tax on salaries and wages ( <i>impôt progressif sur les traitements et salaires—IPTS</i> ) (Tax Code Art. 48-57)	Prepayment in the form of taxes withheld at source on service providers. Withheld monthly from gross salaries, emoluments, wages, earnings, bonuses, overtime compensation, professional benefits in cash and in kind, and allowances of all types, including for transportation. Payable on gross income without any deduction for pension fund	Family allowances and social security assistance and wage increases or allowances for social security reasons. For private sector wages, the portion of these allowances or increases exceeding the amount payable by the Social Security Fund (OBSS) to equally qualified civil	50 percent reduction for CGA members who meet the Tax Code requirements. 10 percent (2004 BL). Progressive and calculated as follows: CFAF Up to 50,000 0 percent 50,001-130,000 15 percent 130,001-280,000 20 percent 280,001-530,000 25 percent Over 530,000 40 percent

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
	constitution.	servants of the same grade and marital status is not exempt.	Deductions are allowed in proportion to the number of dependent children, as follows: 1 child 0 percent 2 children 5 percent 3 children 10 percent 4 children 15 percent 5 children 20 percent 6 children 23 percent
1.1.6 Payroll tax ( <i>versement patronal sur salaires—VPS</i> ) (Tax Code Art. 58-63, 1996 BL), payable by employers in place of the former payroll and apprenticeship taxes	Individuals and legal entities paying salaries, emoluments, wages, and incidental compensation are liable for this tax.	<ol style="list-style-type: none"> <li>Central and local governments.</li> <li>Public agencies and offices engaged in nonprofit activities.</li> <li>Diplomatic representations and international organizations.</li> <li>Taxpayers liable for the single professional tax (<i>TPU</i>).</li> </ol>	Single rate of 8 percent, reduced to 4 percent for private educational institutions. The tax base is the same as for the IPTS.
1.1.7 Tax on income from financial assets ( <i>impôt sur les revenus des capitaux mobiliers</i> ) (Tax Code Art. 72-151)	Withheld at source on dividends, interest, attendance fees, and other forms of distributions of corporate profits to individuals and legal entities, as well as on any sums or securities allocated at any time whatever to partners and shareholders for any reason other than repayment of their contributions and any hidden distributions whatever.	<ul style="list-style-type: none"> <li>Interest on sums entered on savings bank books;</li> <li>Interest and any other proceeds of accounts held at credit institutions in the name of the national savings bank;</li> <li>Interest on investment loans (excluding any commercial loans granted by the banks); and</li> <li>Income from obligations received by entities residing outside the West African Economic and Monetary Union (WAEMU) zone.</li> </ul>	<p>On income from claims: 15 percent of the interest on deposits and guarantees.</p> <p>On income from securities (<i>impôt sur le revenu des valeurs mobilières—IRVM</i>): 18 percent.</p> <p>The following reductions apply (2000 BL):</p> <ul style="list-style-type: none"> <li>For share proceeds: 10 percent;</li> <li>For bond income: 13 percent;</li> <li>For lots and redemption premiums paid to creditors and bondholders: 15 percent.</li> </ul>
1.1.8 Tax on rental income ( <i>taxe immobilière sur les loyers—TIL</i> ) (Tax Code Art. 198-204)	Levied on gross rental income received by individuals and companies.	None.	Monthly rental income brackets: Up to CFAF 50,000: 10 percent; and Over CFAF 50,000: 20 percent.
1.1.9 General income tax ( <i>impôt général sur les revenus—IGR</i> ) (Tax Code Art. 152-186)	Levied annually on total net personal income from all sources, excluding salaries and wages.	The following deductions are allowed on rental income: the schedular tax, maintenance costs, and interest. A 30 percent deduction is also allowed for	The general income tax consists of two levies: (a) a fixed levy ranging from CFAF 2,000 to CFAF 15,000 based on income level and



Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
		management, insurance, and depreciation costs. Personal deductions for dependents are allowed as a percentage of taxable income, ranging from 10 percent for a married taxpayer with no children to 40 percent for a married person with six or more children. The tax is increased by 30 percent for single, widowed, and divorced taxpayers without dependent children. Income of up to CFAF 100,000 per year is exempt. Income from bonds received by persons residing outside the WAEMU zone is exempt.	with no reference to family obligations; and (b) a progressive levy based on the following scale: CFAF Up to 100,000 Exempt 100,001-600,000 6 percent 600,001-800,000 15 percent 800,001-1,600,000 20 percent 1,600,001-2,500,000 25 percent 2,500,001-3,500,000 30 percent 3,500,001-4,500,000 40 percent 4,500,001-5,500,000 50 percent Over 5,500,000 60 percent
1.1.10 Land tax ( <i>taxe foncière unique</i> ) (Tax Code Art. 1084-8)	Levied on the real rental value of taxable property in areas with an Urban Land Register (RFU), where it replaces the FB and the FNB.	Properties belonging to the central and local governments, etc. are exempt. There is a temporary 5-year exemption for exclusively residential buildings.	- For developed rental property: 6 percent; [- For developed rental property: 12 percent, of which 6 percent for the national budget;] - For undeveloped property: 5 percent. However, by deliberation of the elected representatives, the rates can be reduced or raised by up to two points.
1.1.11 Professional tax ( <i>taxe professionnelle unique</i> —TPU) (Tax Code Art. 1084-9 to 1084-16)	Levied on professional rental values. Applicable to small enterprises with a turnover of less than: - CFAF 40 million for purchases and resales; - CFAF 15 million for services. Applicable in areas with an RFU.	- Central government activities; - Legal entities; - Taxpayers liable for the BNC tax; - Pharmacists; - Construction and public works enterprises; and - Individuals engaging in a profession for which the specifications require full accounting.	- 6 percent of the professional rental value. However, this rate may be reduced or raised by up to two points, by deliberation of the elected representatives; - 6 percent of the tax base in additional contributions by enterprises with a turnover below the limits set by order of the minister responsible for finance, in place of the BIC tax, the IGR, and the VPS.
<b>1.2 Indirect taxes</b>			
1.2.1 Value-added tax (VAT) (Tax Code Art. 219-272)	Levied on the proceeds of sales of goods and services, as well as production and	- Proceeds shown in Annex 1 of the 2004 Budget Law Ordinance;	Single rate of 18 percent.

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
1.2.2 Tax on financial activities ( <i>taxe sur les activités financières—TAF</i> ) (Tax Code Art. 293-1 to 293-5)	<p>importing.</p> <p>Applicable to entities with a turnover of more than:</p> <ul style="list-style-type: none"> <li>- CFAF 40 million for those engaged in trading and similar activities; and</li> <li>- CFAF 15 million for those in other activities.</li> </ul> <p>May be applicable, by taxpayer option, to:</p> <ul style="list-style-type: none"> <li>- sales and services effected by entities with an annual turnover below the limits set by order of the minister responsible for finance; and</li> <li>- public passenger transport operations.</li> </ul>	<ul style="list-style-type: none"> <li>- Medical consultations, health care, and any medical services, including the transportation of injured persons, as well as services provided during stays in hospitals, clinics, and other similar institutions, excluding care provided by veterinarians;</li> <li>- Composition, printing, and sales of newspapers and periodicals, excluding advertising income;</li> <li>- Sales made by nonprofit associations;</li> <li>- Public or private passenger transport;</li> <li>- Postage stamps, revenue stamps, and other similar assets;</li> <li>- Banking and financial operations subject to the tax on financial activities (TAF);</li> <li>- Operations subject to the formality of registration;</li> <li>- Sales of original works of art by their authors.</li> </ul> <p>-Tax-on-tax deductions.</p> <p>In production and processing operations, wholesale trade imports, deductions are allowed of taxes paid upstream on goods, materials, and equipment that are inputs to taxable activities.</p>	<p>-Zero for exports.</p> <p>10 percent on the value before tax of services, commissions, and interest income.</p>

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
1.2.3 Insurance tax ( <i>taxe unique sur les contrats d'assurance</i> ) (Tax Code Art. 913-934)	Levied annually on insurance premiums.	leasing, studies and consultations, transfers of fees, invoicing, and similar operations; - Operations of banks lending to enterprises engaged in the construction of low-cost housing.	Fire: 20.0 percent. Automobiles and miscellaneous risks: 10 percent. Export credit guarantees: 0.25 percent. Transportation insurance: 5 percent.
1.2.4 Single specific tax on petroleum products ( <i>Taxe Spécifique Unique sur les produits pétroliers-TSUPP</i> ) (Tax Code new Art. 249 bis-256 bis)	Levied on all sales of petroleum products in Benin (first transfer).	Insurance contracts concluded by agricultural mutual insurance companies or funds are exempt, as well as health and life insurance contracts, instruments concerning approved fraternal associations and unions, and craft unions. - Products already taxed; and - Exports.	- 65 francs/litre on premium gas; - 55 francs/litre on normal gas; - 20 francs/litre on gasoil - 17 francs/litre on lubricants; and - 23 francs/kilo on grease
1.2.5 Tax on tobacco and cigarettes (Tax Code, new Art. 257 bis-260 bis)	Levied on imported and locally manufactured tobacco and cigarettes.	- Tobacco and cigarettes already taxed; and - Exports.	10 percent applied to (2003 BL): - the customs value of imports, plus duties and taxes collected upon entry, excluding VAT; and - local production, on the producer price, excluding VAT.
1.2.6 Tax on beverages (Tax Code, new Art. 261 bis-268 bis)	Levied on: - sales of locally manufactured beverages; and - imports of beverages into Benin.	- Noncarbonated water; - Beverages already taxed; and - Exports.	- For nonalcoholic beverages: 3 percent; and - For alcoholic beverages: 10 percent (2003 BL). Applied to: - imports at customs value, plus duties and taxes collected upon entry, excluding VAT; and - local production, on the producer price, excluding VAT.
1.2.7 Tax on wheat flour ( <i>taxe unique sur la farine de blé</i> ) (Tax Code, new Art. 266 bis-270)	Levied on locally milled and imported wheat flour.	- Wheat flour already taxed; and - Exports.	1 percent applicable to: - imports at customs value, plus duties and

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
<i>bis</i> )			taxes collected upon entry, excluding VAT; and - local production, on the producer price, excluding VAT.
1.2.8 Tax on perfumes and cosmetics (Tax Code, new Art. 271 <i>bis</i> -275 <i>bis</i> )	Levied on perfumes and cosmetics, whether locally manufactured or imported.	- Products already taxed; and - Exports.	5 percent applicable to: - imports at customs value, plus duties and taxes collected upon entry, excluding VAT; and - local production, on the producer price, excluding VAT.
1.2.9 Tax on cooking oils and fats (Tax Code, new Art. 276-280)	Levied on locally manufactured and imported cooking oils and fats.	- Cooking oils and fats already taxed; and - Exports.	1 percent applicable to: - imports at customs value, plus duties and taxes collected upon entry, excluding VAT; and - local production, on the producer price, excluding VAT.
1.2.10 Tax on gambling (Tax Code Art. 293-6 to Art. 193-8)	Levied on all gambling, excluding those subject to VAT.	Gambling subject to VAT.	5 percent applicable to the selling price of tickets for the various games provided for the public by National Lottery of Benin (LNB).
1.2.11 Radio and TV tax ( <i>taxe radiophonique et télévisuelle</i> ) (Tax Code Art. 290-293)	Levied annually on the use of radio and television sets on behalf of the radio and television broadcasting office of Benin.	None.	Annual tax of CFAF 500 per radio set owned by the taxpayer. CFAF 700 for two radio sets. CFAF 900 for three radio sets. CFAF 1,200 for more than three radio sets. CFAF 3,000 per television set.
<b>1.3 Registration and stamp duty</b>			
1.3.1 Registration duty ( <i>droits d'enregistrement</i> ) (Tax Code Art. 541-586)	- Conciliation minutes ; - Unnamed instruments; - Instruments on corporate dissolution without transfer of movable or immovable goods; - Instruments mentioned in Art. 543-544;	None.	Fixed duty of CFAF 500. Fixed duty of CFAF 1,000.

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
1.3.2 Progressive inheritance and gift duty ( <i>droits sur les mutations à titre gratuit</i> ) (Tax Code Art. 593-612)	<ul style="list-style-type: none"> <li>- Instruments mentioned in Art. 545;</li> <li>- Instruments mentioned in Art. 547;</li> <li>- First instance and Appeals Court divorce judgments and decrees;</li> <li>- Overdrafts granted to business persons and cash facilities;</li> <li>- Consolidated overdrafts, term credits, and any signature commitments, including security deposits, endorsements, documentary credits, and any special assistance; and</li> <li>- Property transfers, leases, capital increases, company mergers, and other transactions, etc.</li> </ul>	<p>Claims tradable on the money market.</p> <p>Furniture leasing contracts.</p>	<p>Fixed duty of CFAF 2,000.</p> <p>Fixed duty of CFAF 4,000.</p> <p>Fixed duty of CFAF 4,000 and CFAF 7,000.</p> <p>Fixed duty of CFAF 6,000 (2000 BL).</p> <p>0.25 percent with a minimum of CFAF 5,000 (1999 BL).</p> <p>Fixed duty of CFAF 6,000.</p>
1.3.3 Mortgage duty ( <i>droit d'hypothèque</i> ) (Tax Code Art. 955-961)	<ul style="list-style-type: none"> <li>- Registration</li> <li>- Insertion of a deed transferring or extinguishing a real right.</li> </ul>	<p>Transfers to the heirs of military personnel and civilians killed on duty are exempt. A CFAF 6 million deduction is allowed for a spouse and for each child (up to six). There is a 25 percent deduction for transfers under a marriage contract.</p> <p>None.</p>	<p>Set by bracket (on the net value of the property) according to the degree of kinship of recipients, ranging between 3 percent and 45 percent.</p> <ul style="list-style-type: none"> <li>- For a parcel of land valued at less than CFAF 1 million: CFAF 7,700; and</li> <li>- For a parcel of land valued at more than CFAF 1 million: 7.5 per thousand plus a fee of CFAF 200.</li> <li>- On sums mentioned in the deed or, where applicable, on an estimate provided by the parties: 3 per thousand.</li> </ul>
1.3.4 Stamp duty ( <i>droits de timbre</i> ) (Tax Code Art. 613-777)	<ul style="list-style-type: none"> <li>Levied on:</li> <li>- stamped paper,</li> <li>- commercial instruments,</li> <li>- transportation contracts,</li> <li>- sea transport, and</li> <li>- bills of lading.</li> </ul>	<p>None.</p>	<ul style="list-style-type: none"> <li>- Stamp duty of CFAF 50 to CFAF 1,200;</li> <li>- Proportional duty of 1 per thousand (1999 BL); and</li> <li>- Fixed duty, depending on the amount, on receipts of:</li> <li>Up to CFAF 100: none;</li> </ul>

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
<b>1.4 Duty and taxes collected by customs</b>			
1.4.1 Customs duty	Levied on the value of all imports intended for the local market.	<ul style="list-style-type: none"> <li>- Grants to the central and local governments;</li> <li>- Diplomatic and consular offices;</li> <li>- Equipment and capital goods, arms and ammunition for customs, the police, water and forests, the army, and the gendarmerie;</li> <li>- Grants of objects and articles for the practice of religion;</li> <li>- Investment Code;</li> <li>- Imports of raw materials by local industries;</li> <li>- Personal objects and effects;</li> <li>- Mailings for the Red Cross, the Red Crescent, and aid agencies that have signed an agreement with the government;</li> <li>- Medical samples; and</li> <li>- Funeral objects.</li> </ul>	<p>CFAF 101-1,000: 10 percent;            CFAF 1,001-5,000: 25 percent;            CFAF 5,001-10,000: 50 percent;            CFAF 10,001-50,000: 100 percent;            Over CFAF 50,000 and per bracket of CFAF 50,000: 30 percent;            - Fixed duty of CFAF 2,500 (1998 BL).</p> <p>0, 5, 10, and 20 percent (see Art. 7 of Regulation 02/97/CM/UEMOA of 11/28/97).</p>
1.4.2 Community solidarity levy ( <i>prélèvement communautaire de solidarité-PCS</i> )	Levied ad valorem on merchandise imported from third countries by WAEMU member countries and marketed.	<ul style="list-style-type: none"> <li>- Merchandise in transit;</li> <li>- Merchandise in warehouses;</li> <li>- Goods acquired under external financing contracts subject to an exemption clause;</li> <li>- Assistance and grants to the central government and charities;</li> <li>- Merchandise on which the PCS was paid under previous arrangements;</li> <li>- Goods imported by enterprises operating under a stabilized tax system;</li> </ul>	1 percent (see supplementary Decree 04/96 of May 10, 1996).

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
1.4.3 Statistical tax (redevance <i>statistique</i> —RS)	Levied ad valorem on all merchandise imported: - for the local market; - in transit; - for reexport.	- Goods with duty-free diplomatic status; and - Petroleum products.  - Diplomatic and consular exemptions; - Goods acquired under external financing agreements subject to an explicit exemption clause; and - Merchandise in transit toward landlocked countries.	1 percent (see Regulation 02/2000/CM/UEMOA of June 29, 2000).
1.4.4 Customs stamp ( <i>timbre douanier</i> )	Levied on all customs operations.	Whenever entry duties or taxes are payable.	- 4 percent of the RS; and - 4 percent of the exit tax, where applicable. - Included in VAT.
1.4.5 Highway maintenance tax ( <i>taxe de voirie</i> )	Levied ad valorem on all imports and exports.	- Merchandise transported by rail; and - Postal packages.	- 0.15 percent for marketing operations; and - 0.85 percent for all other operations.
1.4.6 Value-added tax (VAT)	Levied ad valorem on imports for commercial purposes.	- Pharmaceuticals and condoms; - Books and teaching materials; - Milk; - Seed products; - Reproductive animals; - Cocoa beans; - Animal food products; and - Electric power.	18 percent.
1.4.7 Information technology tax ( <i>redevance informatique</i> )	Specially levied on each written declaration.	Marketing operations.	- CFAF 2,000 per declaration. - Included in VAT.
1.4.8 Radio tax ( <i>taxe radiophonique</i> )	Special license on imports of radio sets.	Articles not intended for the national market.	CFAF 500 each.
1.4.9 Television tax ( <i>taxe télévisuelle</i> )	Levied ad valorem on imports of television sets.	Articles not intended for the national market.	5 percent.
1.4.10 Transit tax on merchandise ( <i>taxe de circulation sur les marchandises</i> )	Special tax on the following merchandise when declared to be in transit:	Still valid but no longer applied.	Specific taxes ranging from CFAF 200 to CFAF 1,500 per item.

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
	<ul style="list-style-type: none"> <li>- Wool and fine hair fabric;</li> <li>- Synthetic and artificial fiber fabric;</li> <li>- Bed linen, table linen, and other articles;</li> <li>- Cotton fabric;</li> <li>- Tobacco and cigarettes; and</li> <li>- Alcoholic beverages.</li> </ul>		
1.4.11 Transit tax on trucks ( <i>taxe de circulation sur camions</i> )	Special tax on foreign trucks transporting more than 1,500 kilograms in merchandise.		CFAF 5,000 per truck.
1.4.12 Import tax on temporarily exempt goods ( <i>taxe d'importation en franchise temporaire</i> )	Special tax on foreign passenger vehicles.	Diplomatic and consular exemptions.	CFAF 5,000 per vehicle.
1.4.13 Exit tax ( <i>taxe fiscale de sortie</i> )	Levied ad valorem on exports.	All products, except cocoa beans, crude petroleum, and precious metals.	Variable.
1.4.14 Guarantee Funds ( <i>Fonds de Garantie</i> )	Levied ad valorem on merchandise as security deposit for interstate transit operations.	- Diplomatic and consular exemption; and - Vehicles in circulation.	0.25 percent collected for the Chamber of Commerce and Industry of Benin.
1.4.15 Special reexport tax ( <i>taxe spéciale de réexportation—TSR</i> )	Applied ad valorem on a restrictive list of merchandise in Decree 054/MFE/DC/SGM/DGDDI/DAR of March 1, 2001.	Products not listed in Decree 054/MFE/DC/SGM/DGDDI/DAR of March 1, 2001.	8 percent.
1.4.16 Community levy ( <i>prélèvement communautaire-PC</i> )	Collected ad valorem in the Economic Community of West Africa States (ECOWAS) context on all products from third countries.	<ul style="list-style-type: none"> <li>- Equipment for foreign aircraft and boats;</li> <li>- Merchandise in warehouses;</li> <li>- Decorations and trophies;</li> <li>- Assistance to the government and charities;</li> <li>- Merchandise on which the PC has already been paid under previous arrangements;</li> <li>- Externally financed public contracts;</li> <li>- Diplomatic and consular exemptions; and</li> <li>- Re-exports by local industries operating under special tax arrangements.</li> </ul>	0.5 percent.



Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
1.4.17 Presumptive installment payment ( <i>Acompte forfaitaire</i> )	Levied ad valorem on imports for commercial purposes.	Noncommercial imports. Enterprises appearing on the list prepared by the DGID.	3 percent.
<b>2 Collected for local government budgets</b>			
2.1 Tax on developed property ( <i>contribution foncière des propriétés bâties</i> —FB) (Tax Code Art. 976-987)	Levied on the rental value of developed property, and uncultivated land intended for industrial or commercial purposes, including fixed assets (buildings).	Exemptions: public buildings, sport buildings, schools, buildings for public worship, and medical and welfare facilities. A five-year exemption is allowed for new buildings. Deductions: 40 percent for houses and 50 percent for factories.	Variable, depending on the area. Example: 25 percent in Ouidah; 20 percent in Lokossa.
2.2 Tax on undeveloped property ( <i>contribution foncière des propriétés non bâties</i> —FNB) (Tax Code Art. 988-996)	Levied on the market value of undeveloped property, as calculated by the DGID.	Exemption: public properties and land (up to 5 hectares of land owned by individuals). A 30-year exemption applies to the recently cultivated, previously forested areas.	Variable, depending on the area; applicable to the market value of undeveloped property (e.g., 6 percent in Natitingou).
2.3 Land tax ( <i>taxe foncière unique</i> ) (Tax Code Art. 1084-1 to 1084-8)	Levied on the real rental value of taxable property in areas with an urban land register (RFU), where it replaces the FB and the FNB.	Property belonging to the central and local governments and to religious, school, and university establishments. A five-year temporary exemption applies to exclusively residential buildings.	- For developed rental property: 6 percent; [- For developed rental property: 12 percent; ] - For undeveloped property: 5 percent. However, by deliberation of the elected representatives, the rates can be reduced or raised by up to 2 points.
2.4 Professional tax ( <i>taxe professionnelle unique</i> —TPU) (Tax Code Art. 1084-9 to 1084-15)	Paid by the taxpayers mentioned in 1.1.11 above, this replaces the business license ( <i>patente</i> ) and the liquor license ( <i>licence</i> ) in areas with an RFU.	- Central government activities; - Legal entities; - Taxpayers liable for the BNC tax; - Pharmacists; and - Construction enterprises; etc.	- 6 percent of the professional rental value. However, this rate may be reduced or raised by up to 2 points, by deliberation of the elected representatives; - 6 percent of the tax base in additional contributions by enterprises with a turnover below the limits set by order of the Minister Responsible for Finance, in place of the BIC tax, the IGR, and the VPS.

Table 31. Benin: Summary of the Tax System as of June 2006  
(All amounts in CFA francs)

Nature of Tax or Liability	Tax Description, Scope, and Collection Procedure	Exemptions and Deductions	Rates
2.5 Business license tax ( <i>contribution des patentes</i> ) (Tax Code Art. 997-1032)	Levied on individuals and corporations engaged in commercial, industrial, and professional activities.	Enterprises liable for the TPU. Public bodies, civil servants, fishermen, farmers, home-based artisans, and mining concessionnaires, for their raw materials mining and sales. Newly established enterprises are granted a temporary five-year exemption.	Two levies are applicable: - Fixed duty based on the type of activity, the number of employees, and the equipment; and - Proportional duty based on the rental value of professional premises, ranging from 6 percent to 17 percent. Supplementary business license for procurement: 0.25 percent Additional centimes are added to these rates.
2.6 Liquor license tax ( <i>contribution des licenses</i> ) (Tax Code Art. 1033-1038)	Levied on the same terms as the business licence tax mentioned above in 2.5 on enterprises serving alcoholic beverages.	Enterprises liable for the TPU.	Duty calculated on the basis of the enterprise category, determined by the type of activity and the type of beverage marketed. Fixed duty ranges from CFAF 7,000 to CFAF 60,000. Additional centimes are added to these rates.