June 2009
IMF Country Report No. 09/192

Kenya: Selected Issues and Statistical Appendix

This Selected Issues paper and Statistical Appendix for Kenya 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 December 9, 2004. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Kenya 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.

International Monetary Fund
Washington, D.C.

INTERNATIONAL MONETARY FUND

KENYA

Selected Issues and Statistical Appendix

Prepared by Mr. Kalinga (head), Mr. McIntyre, Mr. Cheng (all AFR),
Ms. Aylward (PDR), Robert Tchaidze and Ms. Lusinya (FAD)

Approved by African Department

December 9, 2004

<div align="center">Contents   Page</div>

Text Figures

Text Tables

Statistical Appendix Tables

I. GROWTH PERFORMANCE IN KENYA DURING 1980–2004[1]

A. Introduction

1.   **This chapter examines Kenya's growth performance during 1980–2004.**
Specifically, it considers the following issues: first, the stylized facts about Kenya's growth
performance in the past two decades, in comparison with other Sub-Saharan African
countries; second, the main sources of economic growth in Kenya, in the context of a
conventional growth accounting exercise; third, the main determinants of the results
indicated in the growth accounting exercise; and finally, the key policy implications.

2.   **The following stylized facts emerged from recent studies on the growth
performance in Sub-Saharan Africa:**[2]

- The growth performance of the region has been weak in the past few decades;

- The main source of economic growth in the region has been factor accumulation, with
  growth in TFP playing little role; and

- TFP growth tends to be positively correlated with high quality institutions, good
  governance, and sound macroeconomic policies.

3.   **The main findings of this chapter are the following:**

- Since the early 1990s, Kenya's economic performance has been weaker than the
  average for Sub-Saharan African countries and the weakest among the three members
  of the East African Community (EAC);[3]

- As in other Sub-Saharan African countries, Kenya's growth has been driven mostly
  by factor accumulation, with total factor productivity (TFP) declining markedly in the
  past two decades; and

- The low TFP growth over the past two decades has been significantly associated with
  poor governance and high inflation.

B. Stylized Facts about Kenya's Growth Performance

4.   **Kenya's economic performance has been lackluster.** During 1980–2003, real GDP
growth averaged around one percent per annum. Growth was robust during the 1980s, when
real GDP growth averaged 4.5 percent per annum, but declined notably in the 1990s,
averaging 1.9 percent. The main source of growth during the 1980s and 1990s was the
tertiary sector. (Table I.1).

5.   **Kenya's growth performance has slipped behind its neighbors since the 1990s.**
As indicated in Figure I.1 and Table I.2, Kenya's economic performance was well above its

---

[1] This chapter was prepared by Kevin C. Cheng (AFR).
[2] For details, see Tahari, Ghura, Akitoby, and Aka (2004).
[3] The three members of the EAC are Kenya, Tanzania, and Uganda.

East African neighbors and the average for all developing countries in the 1980s. However, since the 1990s, Kenya's growth performance has been weaker than most other developing countries, and underperformed both Tanzania and Uganda. During 2000–03, the gap between Kenya's growth performance and its East African neighbors has widened further.

Table I.1. Kenya: Sectorial Contributions to Real GDP Growth, 1980-2003 1/

	1980s	1999s	2001	2002	2003
(In percent of total GDP growth)					
Primary sector	21.9	13.8	28.5	19.5	22.6
Secondary sector	19.4	16.1	11.2	18.3	17.0
Tertiary sector	58.6	70.1	60.3	62.2	60.3

1/ Contribution is calculated by the share of the sector in total ouput multiplied by the grwoth rate of the sector.

Source: Kenyan Authorities

Figure I.1. Kenya: Comparative Growth Performance, 1980-2004
(1980=100)
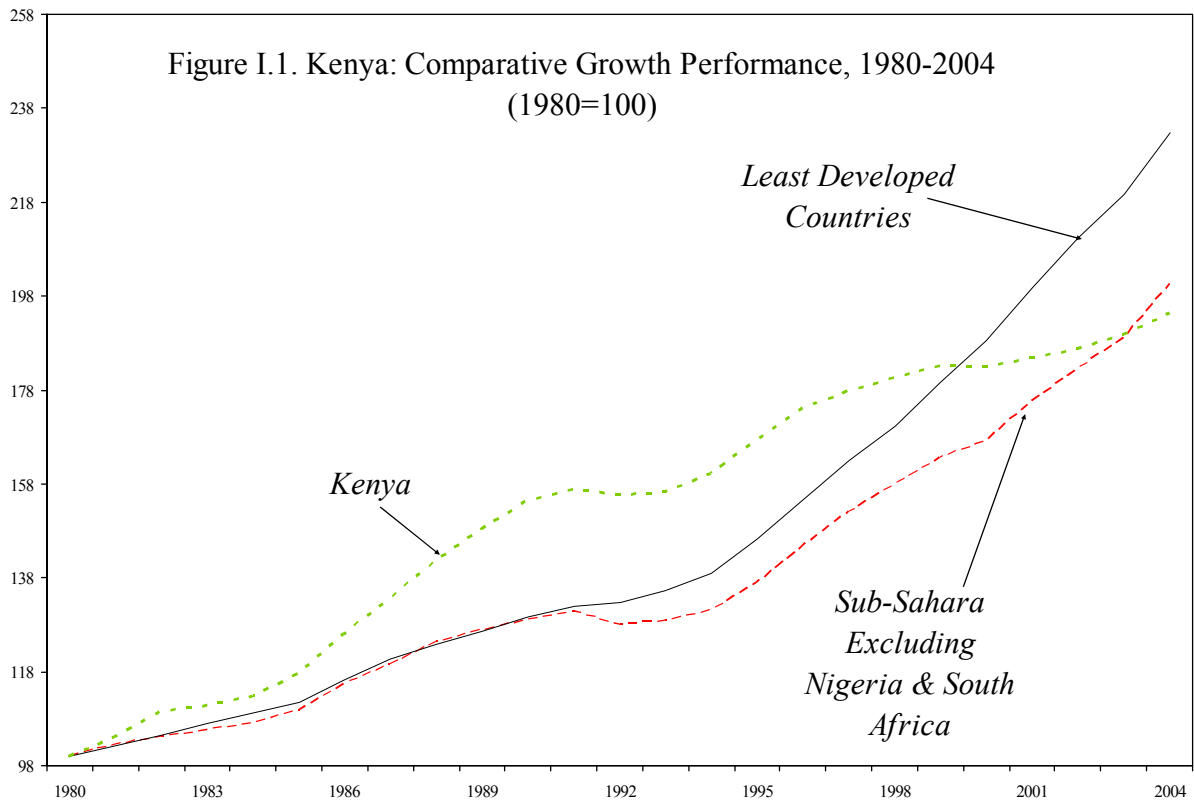
Table I.2 Kenya: Comparative Growth Performance, 1980-2003 1/

	Average Annual Growth (In Percent)			Number of Years of Decline		Number of Years of Growth Higher than 4 percent	
	1980s	1990s	2000-2003	1980-2003	Past Ten Years	1980-2003	Past Ten Years
Kenya	**4.5**	**1.9**	**1.3**	**2**	**1**	**11**	**2**
Tanzania	2.9	2.7	6.9	1	0	9	5
Uganda	3.3	6.3	5.5	3	0	16	9
Developing Countries	3.8	3.9	5.0	0	0	15	9
Sub-Sahara Africa 2/	2.7	2.7	4.2	1	0	5	4
Least Developed Countries	2.7	3.7	5.2	0	0	10	9
World	3.4	3.2	3.1	0	0	6	3

1/ Kenyan Data were provided by the Kenyan Authorities. Data for other countries were provided by the World Economic Outlook (WEO) database. Aggregate groups were defined by WEO database.
2/ Excluding Nigeria & South Africa

C. A Growth Accounting Exercise for Kenya[4]

Methodology and Data

6. **The growth accounting exercise decomposes the real GDP growth into the growth of total factor productivity (TFP) and factor accumulation, including growth in physical capital, human capital, as well as total employment.[5]** Following most studies, a Cobb-Douglas production function is assumed for the Kenyan economy**.** Specifically,

$$Y_t = A_t K_t^{\alpha} (L_t H_t)^{1-\alpha} \tag{1}$$

where Y is gross domestic product in real terms, A is the total factor productivity (TFP), K is the physical capital stock, L is total employment, and H is an index of human capital stock.

---

[4] The source of economic growth matters because if the main source of growth is factor accumulation, then according to the law of diminishing returns in factor inputs, long-term growth is not sustainable. For details, see Krugman (1994) and Young (1995).

[5] A growth accounting exercise was implemented for Kenya during 1960–2002 in the cross-country study of Tahari, Ghura, Akitoby, and Aka (2004). This chapter adds the following to the existing literature: first, it examines more closely the movements of TFP growth in Kenya during 1980–2004; second, it separates the growth of human capital from the TFP and treats it as a factor input; finally, it examines key factors significantly associated with TFP growth in Kenya during the past two decades.

The parameter α is the income share of capital, which is assumed to be 0.4.[6] Taking logarithms and differentiating, we obtain the following growth accounting equation:

$$\frac{\Delta Y}{Y} = \frac{\Delta A}{A} + \alpha \frac{\Delta K}{K} + (1-\alpha)\frac{\Delta L}{L}(1-\alpha)\frac{\Delta H}{H} \qquad (2)$$

Equation (2) decomposes the growth rate of output into the growth rates of TFP, physical capital, total employment, and human capital.

7.   **Data for output, physical capital, labor, total employment, and human capital are displayed in Table I.3.** Physical capital K is calculated by the conventional perpetual inventory method, as discussed in Barro and Sala-i-Martin (2000):

$$K_{t+1} = I_t + (1-\delta)K_t \qquad (3)$$

where I is the level of real investment, and δ is the rate of depreciation of the existing capital stock. Given estimates of the depreciation rate and the initial capital stock, as well as a time series for real investment, the capital stock series is calculated recursively using (3). In this study, the depreciation rate is assumed to be 6 percent, which is well within the range of 4–10 percent used in similar studies. The ratio of capital to GDP is assumed to be 2 in 1963.[7] The human capital index is calculated as follows:

$$H_t = \sum_j w_{jt} s_{jt} \qquad (4)$$

where s_{jt} is the proportion of workers with education level j, where j varies from 0 (corresponding to no schooling) to 6 (corresponding to completion of tertiary education). w_{jt} is the relative wage corresponding to workers with education level j. Data on education attainments were obtained from Barro and Lee (2001), and relative wage corresponding to different education levels were calculated based on data on the return to schooling found in Appleton, Bigsten, and Manda (1999).

---

[6] Senhadji (2000) found that the income share of physical capital in the Sub-Saharan Africa region was around 0.43. The sensitivity analysis in the Appendix shows that relaxing this assumption does not significantly alter the main results.

[7] These assumptions will be relaxed in the sensitivity analysis, which indicates that the growth accounting exercise is robust to these assumptions.

Table I.3. Kenya: Estimates of Real GDP and Factor Inputs, 1980-2004

Year		GDP	Investment	Capital	Employment 1/	Human Capital
					In thousands of	
		In billions of Kenya shilling, constant 1982 prices			persons	Index
1980		64.3	14.6	93.3	1005.8	155.9
1981		66.9	16.1	102.4	1024.3	154.1
1982		70.3	15.4	112.3	1046.0	152.4
1983		71.3	13.3	120.9	1093.1	150.6
1984		72.5	13.9	127.0	1119.5	148.9
1985		75.6	17.5	133.3	1174.4	147.2
1986		81.0	14.9	142.8	1226.7	148.7
1987		85.8	17.4	149.2	1285.4	150.3
1988		91.2	19.0	157.6	1345.9	151.9
1989		95.4	19.9	167.2	1368.3	153.4
1990		99.4	19.1	177.0	1409.3	155.0
1991		100.9	17.0	185.5	1441.8	156.5
1992		100.1	14.8	191.4	1452.9	158.0
1993		100.4	15.2	194.7	1475.0	159.5
1994		103.1	17.1	198.3	1505.5	161.0
1995		107.6	19.7	203.5	1557.0	162.5
1996		112.1	20.6	211.0	1606.8	163.8
1997		114.4	21.9	219.0	1643.9	165.0
1998		116.2	22.1	227.7	1678.2	166.2
1999		117.7	21.5	236.2	1688.7	167.5
2000		117.5	20.6	243.5	1695.0	168.8
2001		118.9	20.8	249.5	1677.1	170.0
2002		120.1	19.9	255.3	1699.7	171.3
2003		122.1	20.5	259.9	1727.6	172.6
2004	*Proj.*	125.0	20.0	264.7	1756.0	173.9

Source: Central Bureau of Statistics of Kenya
1/ Includes only the formal sector.

Results

8.   **Kenya's factor productivity during 1980–2004 has been disappointing.** As
indicated in Figure I.2, capital productivity, defined as GDP/K, declined during 1980–2004,
reflecting investment inefficiency. While labor productivity, defined as GDP/L, exhibited an
upward trend in the 1980s, it was sluggish during the 1990s.

9.   **Like most Sub-Saharan African countries, Kenya's economic growth appears to
have been primarily driven by factor accumulation.** As indicated in Table I.4, which
summarizes the estimates derived from equation (2), the decline in total factor productivity
appears to have accounted for the sluggish growth of the Kenyan economy, reflecting
efficiency losses typical of economies plagued by structural weaknesses. An important issue
is therefore the identification of the key factors that have contributed to the decline in
Kenya's total factor productivity.

Figure I.2. Kenya: Productivity, 1980-2000
(1990=100)
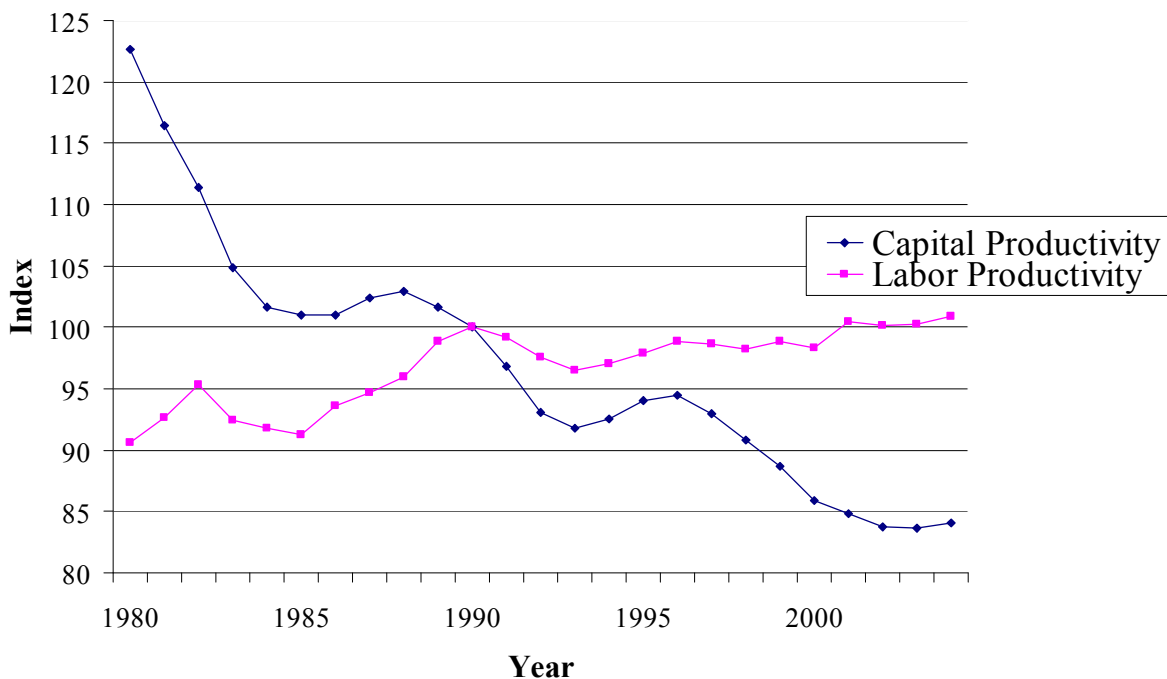
Table I.4. Kenya: Results of Growth Accounting Exercise, 1980-2004

Period	Annual Average Growth Rate of Output	Annual Average Contributions to Output Growth			
		Phsysical Capital	Total Employment	Human Capital	TFP
1980-84	3.05	3.20	1.63	-0.68	-1.10
1985-89	5.99	2.33	2.34	0.63	0.70
1990-94	0.90	1.15	1.00	0.57	-1.82
1995-99	2.28	1.52	1.23	0.45	-0.92
2000-04	1.56	0.84	0.53	0.45	-0.27
of which:					
2002	1.07	0.94	0.81	0.45	-1.13
2003	1.66	0.71	0.98	0.45	-0.49
Proj. 2004	2.37	0.75	0.98	0.45	0.18

Source: Staff estimates

D.   Determinants of Year-on-Year TFP Growth during 1984–2004[8]

10.   **Potential factors affecting the year-on-year TFP growth in Kenya during the past two decades include:[9]**

- **Governance**—During the last two decades, Kenya has been plagued by pervasive problems of internal conflicts, constitutional crises, and corruption scandals. All of these are likely to have undermined the growth of TFP.[10]

- **Macroeconomic environment**—The positive link between a favorable macroeconomic policy environment and high economic growth is well documented in the growth literature.[11]

11.   **Observations of Figure I.3 suggest that movements of TFP growth have been significantly correlated with governance and inflation.** [12] Specifically, TFP growth has been positively associated with good governance but negatively with inflation.[13] For example, TFP growth was largely negative in the early 1990s amidst immense political instability and high inflation.[14] On the other hand, the robust TFP growth in 1995 was associated with good governance and low inflation. In addition, following the election in late 2002 of President Kibaki who promised "zero tolerance" on corruption, TFP growth began to rise in 2003. Other macroeconomic variables, however, do not bear such obvious and striking relations with TFP growth during 1984–2004. (Figure I.4).[15]

---

[8] The sample period was truncated in 1984 because some key variables, such as governance, were not available prior to 1984.

[9] While HIV/AIDS is a key factor affecting Kenya's long-term growth performance, it is unlikely to affect the year-on-year movements of TFP growth.

[10] The positive link between TFP and sound institutions as well as good governance is well documented in the growth literature. See, for example, Bosworth and Collins (2003) and Rodrik, Subramanian, and Trebbi (2002).

[11] See, for example, Senhadji (2000).

[12] Governance is calculated as the average of three political risk indicators compiled by *The International Country Risk Guide* (ICRG): corruption, law and order, as well as internal conflict. The higher the index, the better the performance.

[13] While inflation is an important variable on its own, it can also be interpreted as a proxy of the overall soundness of macroeconomic policy stance, because hyperinflation, as occurred in the early 1990s, also tends to reflect a poor macroeconomic environment at large.

[14] The early 1990s was a period of deep political fissures. For example, in 1990, the foreign minister was murdered and riots broke out in the summer. Also, the 1992 elections ended up in great social turmoil.

[15] Given the small sample size, the result should not be interpreted as suggesting that other factors are not important to the TFP growth in Kenya. In fact, other factors may well be the dominant factors determining TFP growth during another sample period.

Figure I.3. Kenya: TFP, Governance, and Inflation, 1984-2004

TFP
(Annual percent change)

Governance
(Index, a higher index corresponds to better governance)

Inflation
(In percent)
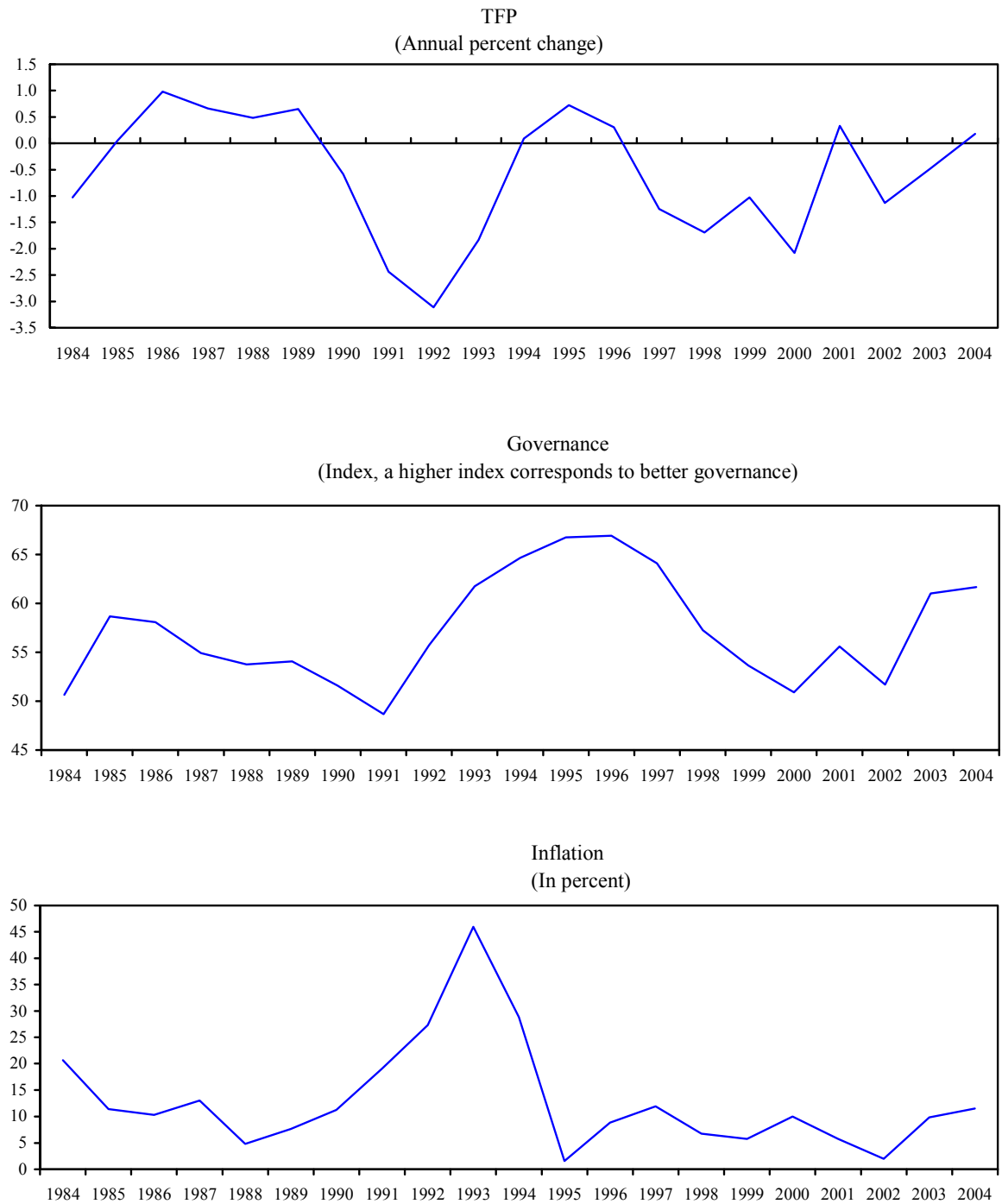
Source: Staff estimates.

Figure I.4. Kenya: TFP Growth, and Marcoeconomic Indicators, 1984-2004
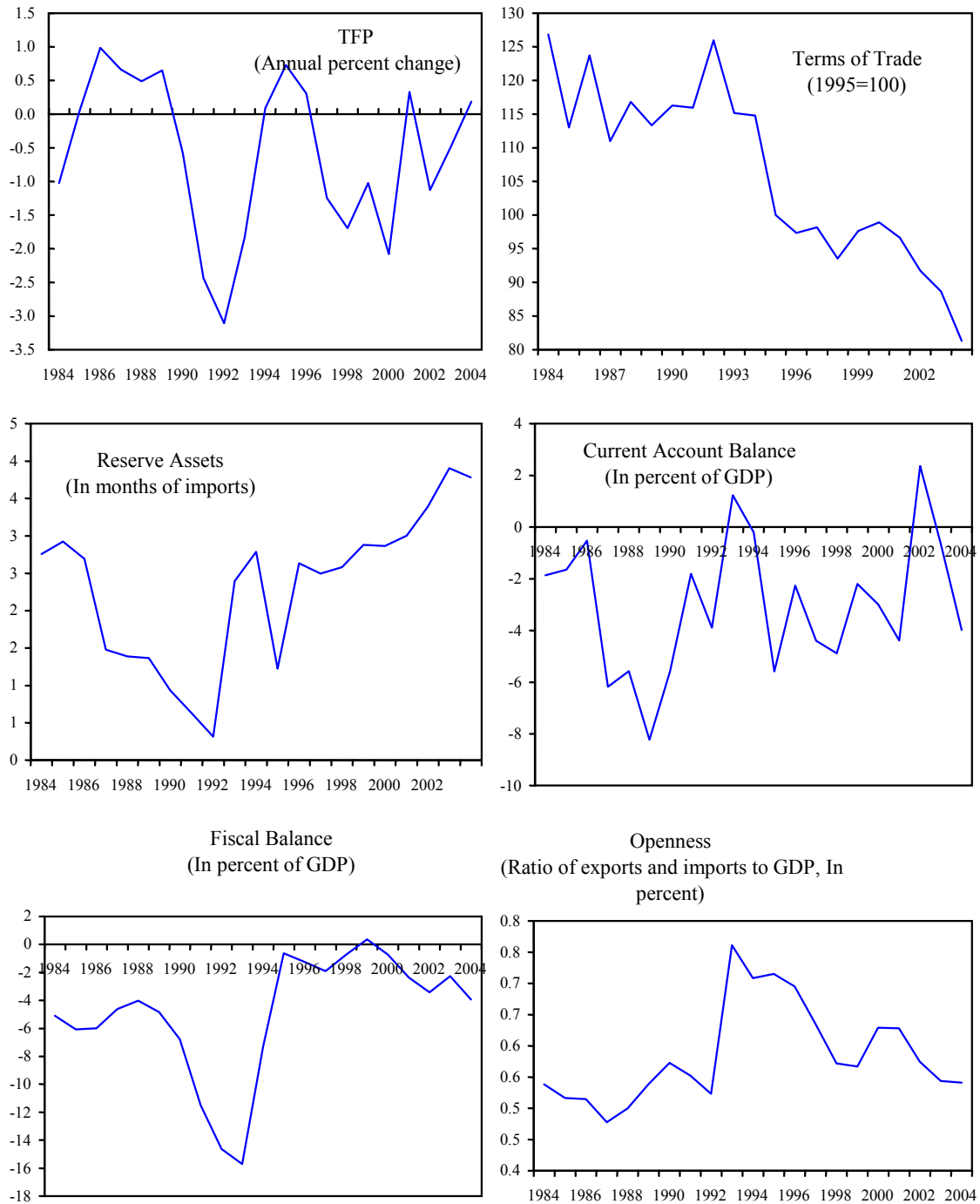
Source: Staff estimates

12. **A simple econometric model supports the above observations on the relations between TFP and governance, as well as other macroeconomic variables.** [16] The model is estimated by ordinary least squares, using annual data for 1984–2004. A general-to-specific principle is utilized in the regression analysis: initially, a general model encompassing all variables that may potentially affect TFP—governance, inflation, openness to trade, fiscal indicators, as well as external indicators—was estimated. Thereafter, variables found to be statistically insignificant were eliminated sequentially.

13. **The regression results suggests that governance and inflation appear to have been significantly correlated with TFP (Table I.5) .**

Table I.5. Kenya: OLS Estimates of a Reduced-Form Regression, 1984-2004

TFP Growth Regression Explanatory Variables	Constant	Governance	Inflation
Coefficient Estimates	3.68	0.07	-0.06
Absolute t-statistics	(3.70)	(3.44)	(3.38)
Number of Observations:	21		
R^2:	0.49		
Prob(F-Statistics)	0.00		

Source: IMF staff calculations.

Note: Sample period is 1984-2004. The dependent variable is the annual growth rate of TFP. The explanatory variables are *Governance and* Inflation. *Governance* is measured by the average of three indicators, consisting of corruption, law and order, and internal conflict, compiled by *The International Country Risk Guide . Inflation* is the 12-month percent change of the CPI. The figures in parentheses are absolute t-statistics, based on standard errors calculated using Newey-West heteroscedasticity and autocorrelation consistent covariances.

E. Policy Implications

14. **The above results lend support to the government's ongoing efforts to strengthen governance.** The governance agenda focuses on several reforms, including upgrading the public budget and financial management systems, strengthening the anti-corruption institutions, and improving the judicial framework. Moreover, the government's ongoing efforts to reform the political system is integral to the overall governance agenda.

15. **Maintaining price stability should be the overriding objective of the monetary policy.** Considerable caution, therefore, needs to be exercised when using monetary policy for counter-cyclical purposes.

---

[16] Results should be interpreted with caution in light of the small sample size of the regression analysis. Also, owing to the small sample size, a simple ordinary least squares estimation was used here instead of a fuller VAR model typically used in studies on cross-country differences in TFP.

Appendix—Sensitivity Analysis

16.   **Although the above growth accounting exercise is based on arbitrary assumptions about the initial capital stock and its rate of depreciation, sensitivity analysis suggests that the results are robust to different assumptions**. Table I.6.A shows the results for the growth accounting exercise under a different assumption about the initial capital stock, with a capital/GDP ratio in 1963 of one, as opposed to a ratio of two assumed in the benchmark scenario. Likewise, changes in the depreciation rate (Table I.6.B) or income share of capital (Table I.6.C) do not alter the main results.

Table I.6. Kenya: Growth Accounting Exercise: Sensitivity Analysis, 1984-2004

(In Percent)

Period	Annual Average Growth Rate of Output	Annual Average Contributions to Output Growth			
		Phsysical Capital	Total Employment	Human Capital	TFP
A. Assuming real capital to GDP ratio equals one in 1963					
1980-84	3.05	3.64	1.63	-0.68	-1.53
1985-89	5.99	2.52	2.34	0.63	0.51
1990-94	0.90	1.23	1.00	0.57	-1.90
1995-99	2.28	1.57	1.23	0.45	-0.97
2000-04	1.56	0.87	0.53	0.45	-0.30
B. Assuming a depreciation rate of 4 percent					
1980-84	3.05	3.22	1.63	-0.68	-1.11
1985-89	5.99	2.42	2.34	0.63	0.60
1990-94	0.90	1.38	1.00	0.57	-2.05
1995-99	2.28	1.61	1.23	0.45	-1.01
2000-04	1.56	1.02	0.53	0.45	-0.45
C. Assuming capital share of income equals 60 percent					
1980-84	3.05	4.80	1.09	-0.46	-2.38
1985-89	5.99	3.49	1.56	0.42	0.52
1990-94	0.90	1.73	0.67	0.38	-1.88
1995-99	2.28	2.27	0.82	0.30	-1.12
2000-04	1.56	1.27	0.35	0.30	-0.37

Source: Staff estimates

II. PRICE DYNAMICS IN KENYA DURING 1995–2004[1]

A. Introduction

1.   **Kenya's inflation has recently risen sharply.** Annual overall inflation, as measured by the twelve-month percent change in the consumer price index (CPI), rose from 8 percent in September 2003 to 19 percent in September 2004. Underlying inflation (overall inflation excluding food and energy prices) reached 7 percent from 3 percent a year earlier, exceeding the Central Bank of Kenya (CBK)'s target of 5 percent.

2.   **This chapter examines key determinants of Kenya's price dynamics during the past decade.** A simple econometric model suggests that key determinants of inflation during 1995–2004 have included broad money growth, food crop output, movements of the nominal effective exchange rate (NEER), and the international commodity prices of fuel and energy. Against this background, the recent episode of high inflation appears to have been triggered by the excessively loose monetary conditions, a poor harvest, high energy prices, and a weakening Kenyan shilling.

B. Background

3.   **The recent episode of high inflation is the most severe since 1995.** After peaking at 61 percent in early 1994, inflation declined substantially in 1995 to around 1.6 percent (Figure II.1). Between 1995–2003, Kenya's inflation averaged around 7 percent per annum, and has been lower than the averages for Sub-Saharan Africa as well as other developing countries (Table II.1). However, inflation has recently accelerated substantially, reaching a historic high since 1995 in September.

4.   **During the past decade, fluctuations in food prices accounted for the bulk of the movements in the CPI (Table II.2).** With food and nonalcoholic beverages carrying more than 50 percent of the weight in the CPI basket, food supply conditions play a significant role in Kenya's price developments. In this connection, more than 60–70 percent of the increases in the CPI during recent months have been attributed to rises in food prices. Underlying inflation, which excludes food, has also risen substantially in recent months.[2]

---

[1] This chapter was prepared by Kevin C. Cheng (AFR).

[2] Three concepts of underlying inflation are currently used for Kenya. The Central Bureau of Statistics of Kenya compiles a measure that excludes only food and nonalcoholic beverages (FNB). In addition to excluding FNB, the underlying inflation used by the Central Bank of Kenya to guide monetary policy, excludes fuel and power (FP) as well as transport and communication (TC). The underlying inflation presented in the Fund's Staff Reports excludes FNB as well as FP while including TC.

Figure II.1.Kenya: Inflation, 1995-2004
(12-month percent change)
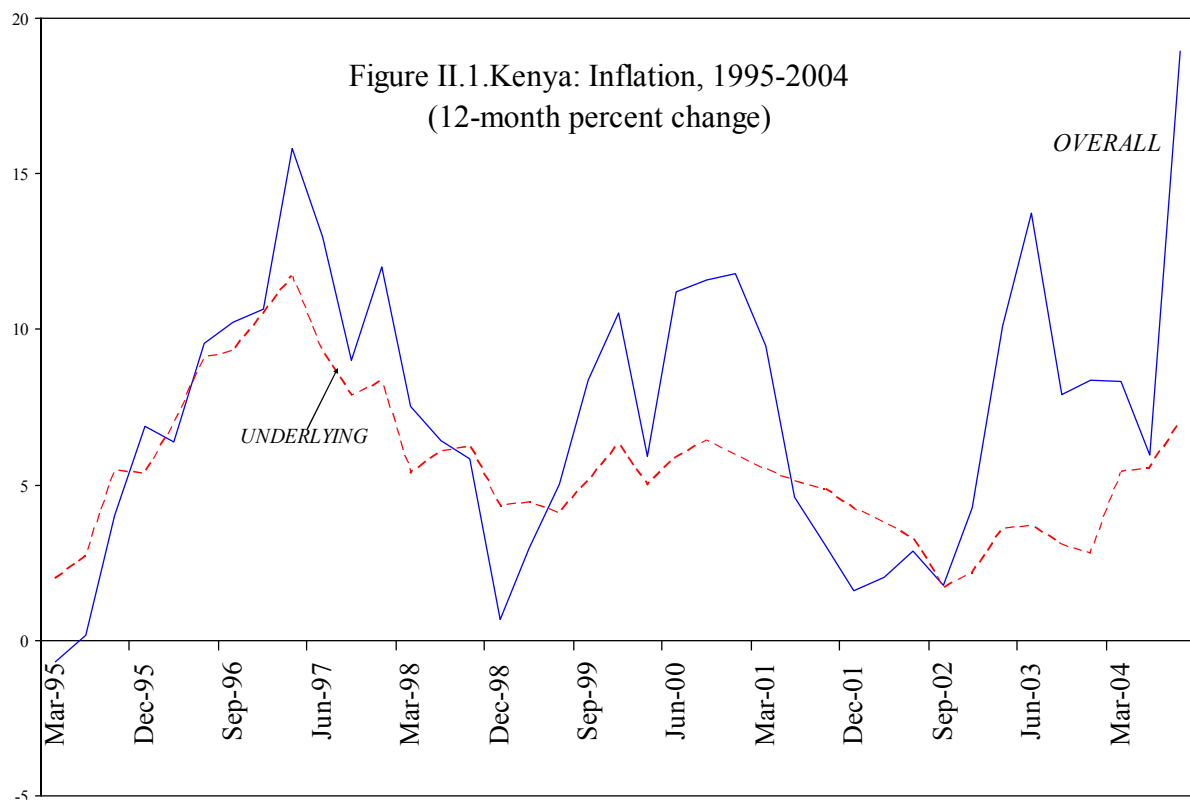
Table II.1. Kenya: A Comparison on Inflation with Other Countries, 1995-2003

	1995-1999, average	2000	2001	2002	2003	1995-2003, average
Kenya	**7.0**	**10.0**	**5.8**	**2.0**	**9.8**	**6.9**
Tanzania	**16.4**	6.2	5.2	4.6	4.5	11.9
Uganda	**5.4**	4.5	-2.0	5.7	5.1	4.6
Sub-Sahara Africa	**22.7**	16.9	15.0	12.1	12.9	19.3
Least Developed Countries	**30.0**	18.2	15.3	11.9	11.8	23.7
Developing Countries	**17.3**	7.3	6.8	6.0	6.1	13.0
World	**8.0**	4.3	4.1	3.5	3.7	6.3

Table II.2. Kenya: Contributions to Overall Inflation by Components, 1995-2003

	95-03	2004								
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Food & Nonalcoholic Beverages	3.9	7.9	7.8	6.1	5.5	2.7	3.4	5.7	12.0	14.6
Alcohol & Tobacco	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Clothing & Footwear	0.3	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.4
Housing	0.7	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.5
Fuel & Power	0.5	0.0	0.1	0.0	0.1	0.2	0.4	0.5	1.2	1.5
Household Goods & Services	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Medical Goods & Services	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Transport & Communication	0.4	0.2	1.1	1.3	1.3	1.1	1.1	1.2	1.3	1.3
Recreation & Education	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Personal Goods & Services	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total	6.9	9.1	9.9	8.3	7.6	4.7	5.9	8.5	15.8	19.0

C. Key Determinants of Inflation

Intuitive Reasoning

5.   **Both demand and supply factors appear to have contributed to the recent spike in inflation (Figure II.2).** These factors include:

- **Low food crop output**—The drought experienced in parts of the country during May-September is estimated to have taken a heavy toll on food crop output. The production of maize production, the most important commodity in the diet of the Kenyans, is estimated to have decreased by 14 percent in 2004.[3]

- **High energy prices**—While fuel and energy directly accounts for less than 5 percent in the CPI basket, the effects of the surge in world energy prices could have been considerable as the indirect effects, such as the increased cost of transporting food, have been significant.

- **Weakening Kenyan Shilling**—The Kenya shilling has depreciated in nominal effective terms by around 10 percent in the year to September 2004, thereby putting upward pressure on import prices and inflation.

- **Excessively loose monetary conditions**—The loosening of monetary policy since July 2003 has resulted in sharply negative real interest rates and a 15 percent expansion in broad money (M3X) in the twelve months preceding September 2004.[4]

D. Econometric Analysis

6.   **A simple econometric model has been devised to capture the potential impact of these factors on price dynamics in Kenya.** Specifically, the following single reduced-form equation was estimated using quarterly data for the period 1995–2004:[5]

inf=f(lagged inf ,lagged maize, lagged energy, lagged neer, lagged money)

---

[3] Apart from its significance in the Kenyan diet, maize production is also a good proxy for crop production generally, because adverse weather with a significant impact on maize production usually also affects the output of other food crops, such as wheat and beans.

[4] In this paper, the growth rate of M3X in terms of the current exchange rate is used. The Staff Report presents money growth rates in terms of a constant program exchange rate.

[5] The sample is truncated in 1995 because prior data cover a period of extremely high inflation peaking at over 60 percent in early 1994. Extending the data to an earlier period could potentially distort the estimates for the later period, which is the focus of this paper.

Figure II.2. Kenya: Potential Factors Underpinning Inflation, 1995-2004
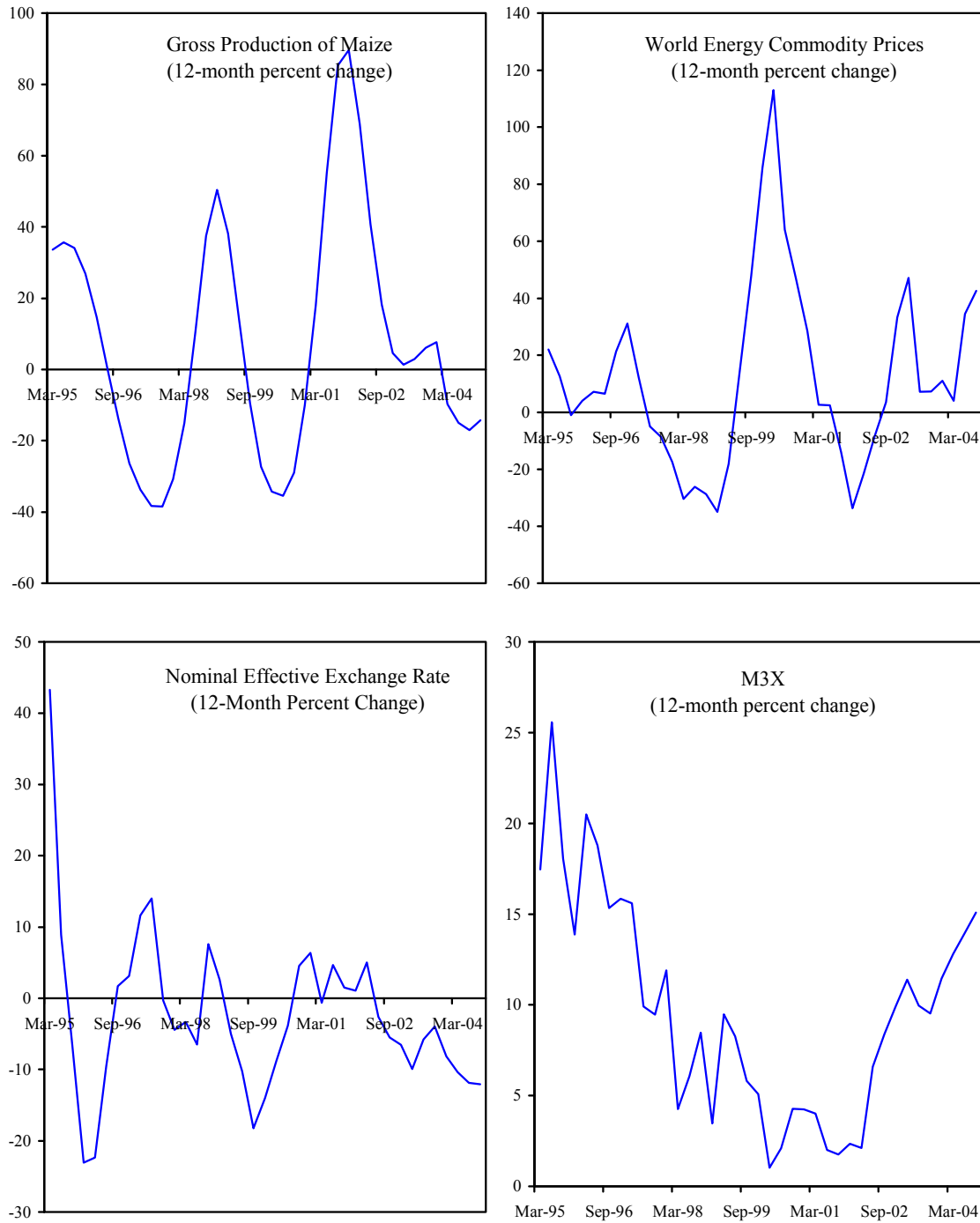
Source: Central Bureau of Statistics, Central Bank of Kenya, and staff estimates

where *inf* is CPI inflation; *maize* is the annual percent change of the gross production of maize;[6] *energy* is the annual percent change of the world energy commodity price index; *neer* is the annual percent change of Kenya's nominal effective exchange rate; *money is the* annual percent change of broad money (M3X).[7]

7.   **The model is estimated using ordinary least squares.** First, a general model encompassing all potential factors that may have affected inflation and their lags was estimated. Second, variables and lags that were not statistically significant were eliminated sequentially.[8]

8.   **The results for the final specification are presented in Table II.3.** The results suggest that the growth rate of broad money, the world commodity price index of fuel and energy, the nominal effective exchange rate, and the gross production of maize are important determinants of inflation. Specifically, the results suggest that:

- A one percentage point increase in the growth of broad money has been associated with an increase in inflation by 0.34 percentage points with a half-year lag;

- A one percentage point decrease in the growth of gross production of maize has been associated with an increase in inflation by 0.03 percentage points with a half-year lag;

- A one percentage point increase in the world commodity price index of fuel and energy has been associated with an increase in inflation by 0.05 percentage point with a quarter lag; and

- A one percentage point depreciation of Kenya's nominal effective exchange rate has been associated with an increase in inflation by 0.06 percentage with a one-year lag.

---

[6] Maize is included in the regression owing to its significance in the Kenyan diets. This variable is preferred to a more aggregate measure, such as the total agricultural production, which includes a sizable amount of commodities meant for exports, such as tea, coffee, and horticulture that do not carry significant weights in the CPI basket.

[7] For each variable included in the regression, an Augmented Dickey-Fuller test rejects the hypothesis of a unit root.

[8] Fiscal variables have also been used initially, but were later dropped because of their statistical insignificance.

	constant	money	energy	maize	NEER
Overall Inflation	4.52*	0.34*	0.05*	-0.03*	-0.06*
	(7.01)	(5.55)	(2.46)	(3.61)	(2.47)
Number of quarters lagged	…	2	1	2	4

Table II.3. Kenya: OLS Estimates of a Reduced-Form Inflation Equation, 1995-2004

Number of observations: 39
R-squared: 0.66
Prob(F-statistic): 0.00

Source: IMF staff calculations
Note: Sampe period is Q1:1995-Q3: 2004.
An asterisk (*) indicates the variable is significant at five percent significance level.

The figures in the parentheses are absolute t-statistics, based on standard errors calculated using Newey-West heteroscedasticity and autocorrelation consistent covariances

9.   **Movements of explanatory variables, coupled with coefficient estimates presented in Figure II.3 suggests that broad money growth is a key factor underpinning inflation.** The 18 percent growth in broad money in 1996 appears to have been the main cause of the 15 percent inflation in early 1997. Furthermore, disciplined management of monetary aggregates was partly responsible for the low inflation during 2001–02. Likewise, the excessively loose monetary policy since the second half of 2003 has contributed to the recent inflation.

10.   **Factors other than money have also played an important role in determining inflation during the past decade.** In particular, the double-digit inflation experienced in 2000 occurred during a period of relatively moderate growth in money; low crop production, a weakening currency, and a high growth rate of energy prices appears to have been the main contributing factors to high inflation during the period. As regards recent inflation, a poor harvest, high energy prices, and a weakening Kenya shilling were also main contributing factors.

E. Policy Implications

11.   **Looking ahead, the overriding objective of monetary policy should be to maintain price stability.** While some of the factors contributing to high inflation, such as the high energy prices and the poor harvest of food crops, were beyond the control of the CBK, the CBK could have mitigated inflation by adopting less expansionary monetary policy. Against this background, with a view to curbing inflation, the monetary program under the Fund's Poverty Reduction and Growth Facility envisages a cut in broad money growth to 7.5 percent during 2004/05 from 13 percent in the previous fiscal year.[9]

---

[9] Growth rate is in terms of a constant program exchange rate.

Figure II.3. Kenya: Impact of the Regression Variables on Inflation, 1996-2004
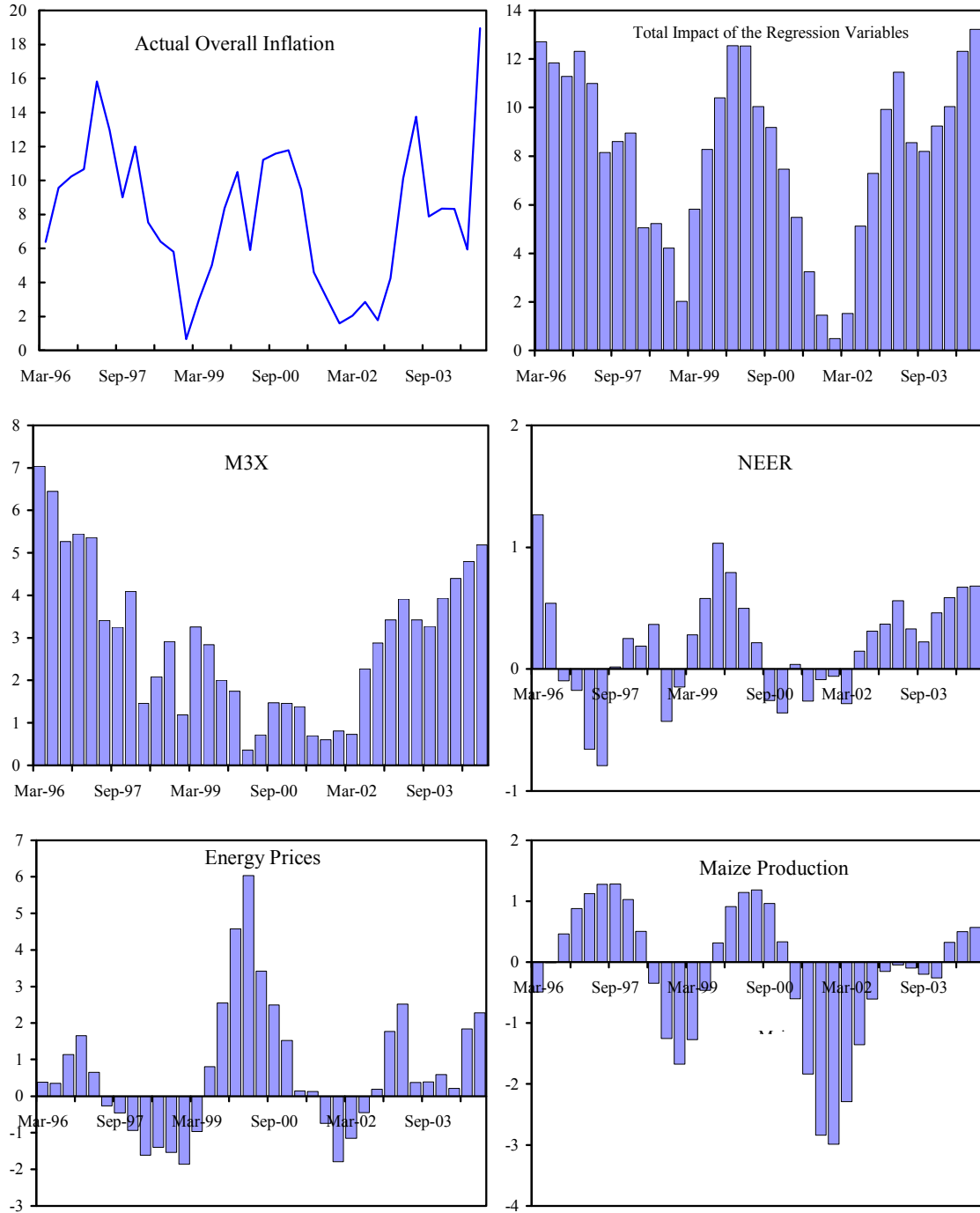
Source: Staff estimates.
Note: The figures show the impact of the variables on inflation. The impact is measured by the product of the coefficient estimates of the factors and their magnitude.

III. ESTIMATION OF THE EQUILIBRIUM REAL EXCHANGE RATE FOR KENYA[1]

A. Introduction

1.   **One important indicator of a country's external competitiveness is the real exchange rate.**[2] Given the strong evidence of a positive link between export performance and economic growth, notably in East Asia, fostering a competitive real exchange rate is integral to Kenya's development objectives.

2.   **Since the early 1990s, Kenya has made considerable progress in liberalizing its trade and exchange rate regime.** In the early 1990s, Kenya removed capital controls and moved from a fixed exchange rate regime to a managed floating system, with the U.S. dollar as the principal intervention currency. During the same period, Kenya also embarked on trade liberalization, which involved a reduction in the number of tariff bands from 15 in 1990 to 4 in 1999 and a lowering of the top tariff rate from 100 percent to 25 percent. However, its current trade regime, which is rated 6 on the IMF's 10-point trade restrictiveness index (with 10 being the most restrictive), is the most restrictive regime among the three members of the East African Community.[3]

3.   **Developments in nominal and real exchange rates since 1980 are presented in Figure III.1.** Generally speaking, the nominal effective exchange rate (NEER) has shown a depreciating trend during the past two decades, while Kenya's domestic prices have outpaced those of its trading partners and swamped the nominal depreciation of its currency, resulting in an appreciated real exchange rate. The figure demonstrates that the real effective exchange rate (REER) volatility has diminished since the shift to a managed float.

4.   **This chapter examines Kenya's CPI-based equilibrium REER.**[4] It identifies a long-run cointegrating relationship between the real exchange rate and a number of explanatory economic variables during 1980–2004.[5] Using the estimated cointegrating equation, an equilibrium real exchange rate path is calculated and compared to the actual

---

[1] This chapter was prepared by Kevin C. Cheng (AFR).

[2] External competitiveness has many other aspects that are not directly captured by the real exchange rate. For instance, unit labor costs, labor quality, physical infrastructure, judiciary soundness, political stability, and governance affect a country's competitiveness.

[3] For details on Kenya's current trade regime, see Chapter V.

[4] The concept and measurement of an equilibrium exchange rate are a contentious issue in the economics literature. In addition, there are always drawbacks to the various approaches that have been employed by different analysts. Therefore, the results of the econometric analysis presented in this chapter should be interpreted with this caveat in mind.

[5] The sample is truncated at 1980 because REER data were only compiled beginning in 1980.

Figure III.1. Kenya: Exchange Rates and Relative CPI, 1980-2004
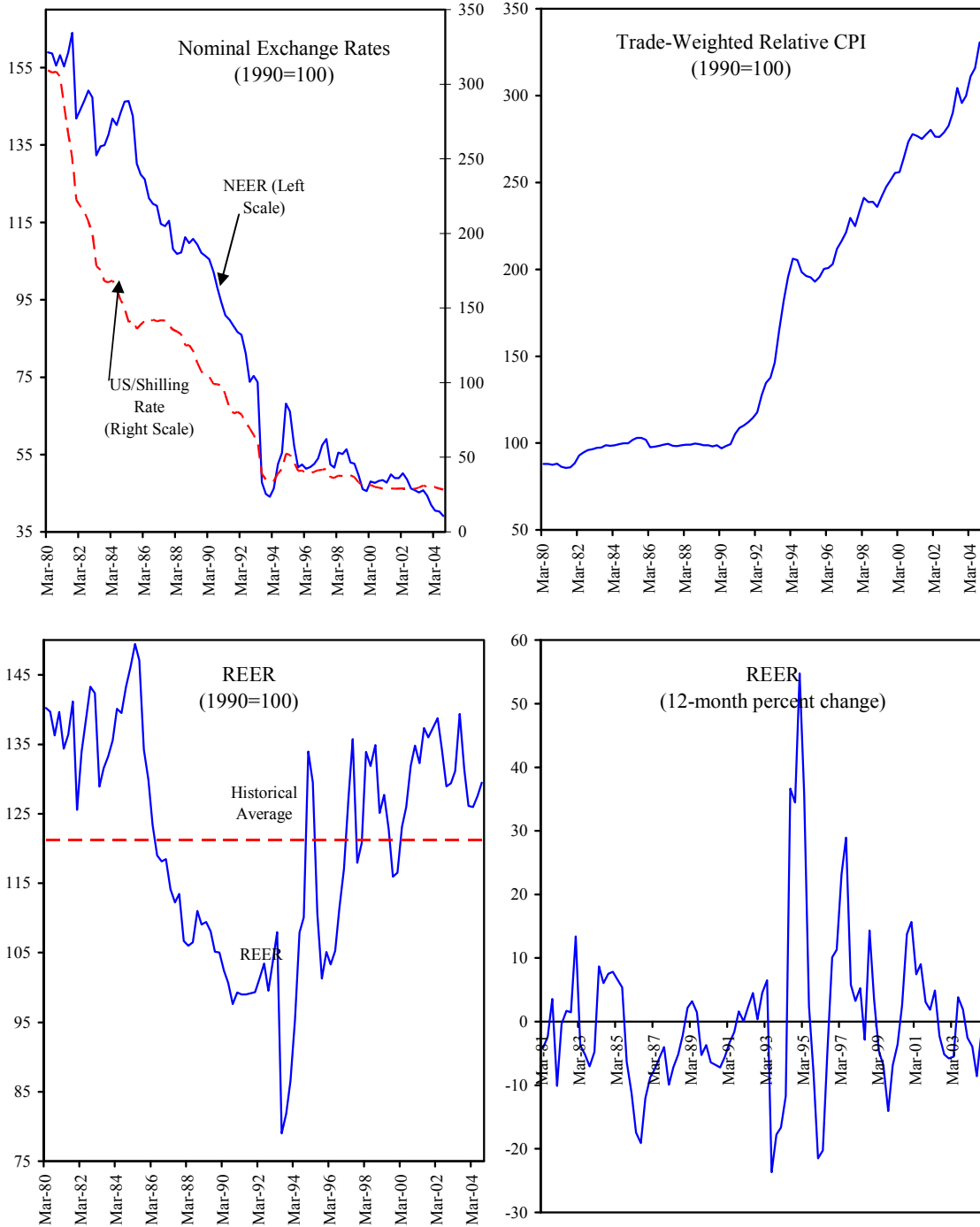
Source: Information Notice System.
Note: An increase in an exchange rate index means an appreciation. An increase in the trade-weighted relative CPI means Kenya's CPI increases faster than its trading partners.

data. The econometric results suggest that the current REER level is above the equilibrium level implied by economic fundamentals.

5.   **The chapter is organized as follows**: section B presents a theoretical and econometric framework used in estimating the equilibrium REER. The results are presented in section C, and the chapter concludes with policy implications in section D.

B. Model

Theoretical Background

6.   **A single reduced-form approach is used to estimate the equilibrium REER.**[6] Specifically, the equilibrium REER is assumed to be a function of several "fundamentals," which include:[7]

- **Relative productivity of the tradable sector**—This classic Balassa-Samuelson effect assumes that while prices of tradable goods are equalized across countries, increased productivity growth in a country's tradable sector relative to its trading partners will bid up wages in the domestic economy. Assuming that productivity growth in the nontradable sector is slower than the tradable sector, prices of nontradable goods will have to increase to compensate for the higher wages, thereby resulting in a rise in the overall CPI and hence a real appreciation of the local currency.

- **Export prices of tea and coffee**—Given the prominence of tea and coffee in Kenya's exports, an increase in the price of these commodities will tend to improve Kenya's terms of trade and appreciate the real exchange rate.[8]

---

[6] This approach is one of the most standard approaches used to identify the equilibrium REER for a variety of countries today. For a detailed survey on various estimation method for equilibrium REER, see MacDonald (1995), Montiel (1999), and Rogoff (1996).

[7] These are the variables that are typically used to estimate the equilibrium exchange rate for developing countries. Some papers have also used fiscal and external indicators, which were also initially incorporated in the analysis, but were later dropped owing to either statistical insignificance or non-robustness.

[8] Commodity prices instead of the terms of trade are used because most empirical studies in this area have found that commodity prices are strongly cointegrated with the real exchange rate while finding little link between the real exchange rate and the terms of trade. See, for example, Chen and Rogoff (2002), McDonald (2002).

- **Openness to trade**—A more restricted trade regime is likely to appreciate the real exchange rate as trade barriers, such as tariffs, tend to raise prices in the tradable sector, thereby increasing overall prices, and hence the real exchange rate.

- **Net foreign assets (NFAs)**—Higher NFAs are likely to be associated with a more appreciated real exchange rate. As discussed in Lane and Milesi-Ferretti (2000), a decline in the NFA position implies a rise in the home country's net indebtedness to the rest of the world. Therefore, over the medium term, the home country needs a more depreciated real exchange rate to achieve a larger trade surplus required to service the higher debts. Conversely, a strong NFA position implies that the country can sustain a higher trade deficit that is associated with an appreciated real exchange rate. In addition, the NFA position can also be used as a proxy for net capital inflows, which tend to appreciate the real exchange rate.

Data

7. **The following data were used to estimate the equilibrium REER:**

- **Agricultural productivity relative to the rest of the world**—since Kenya's main exports are agricultural products, changes in agricultural productivity vis-à-vis comparator countries were used to examine the Balassa-Samuelson effect. For this purpose, Colombia, Sri Lanka, Tanzania, and Uganda were selected as comparator countries because of the prominence of tea or coffee in their exports.[9]

- **International commodity prices of tea and coffee**—calculated as the average of the commodity indices of tea and coffee.

- **Openness to trade** —measured by the ratio of the sum of exports and imports to GDP;[10] and

- **The net foreign assets of the banking system** —measured by the ratio of NFA of the banking system to GDP.

8. **The following observations can be drawn from the data on the explanatory variables used to estimate the equilibrium exchange rates:** (Figure III.2)

- Kenya's productivity in the agricultural sector has declined relative to comparator countries, suggesting a more depreciated real exchange rate;

---

[9] Productivity refers to labor productivity, calculated as the agricultural output per worker in the agricultural sector. Data were obtained from the World Bank's *World Development Indicators*.

[10] While the IMF's trade restrictiveness index may be a better indicator for openness, the data are only available after the mid-1990s.

Figure III.2. Kenya: Economic Fundamentals Underpinning the Equilibrium REER, 1980-2004
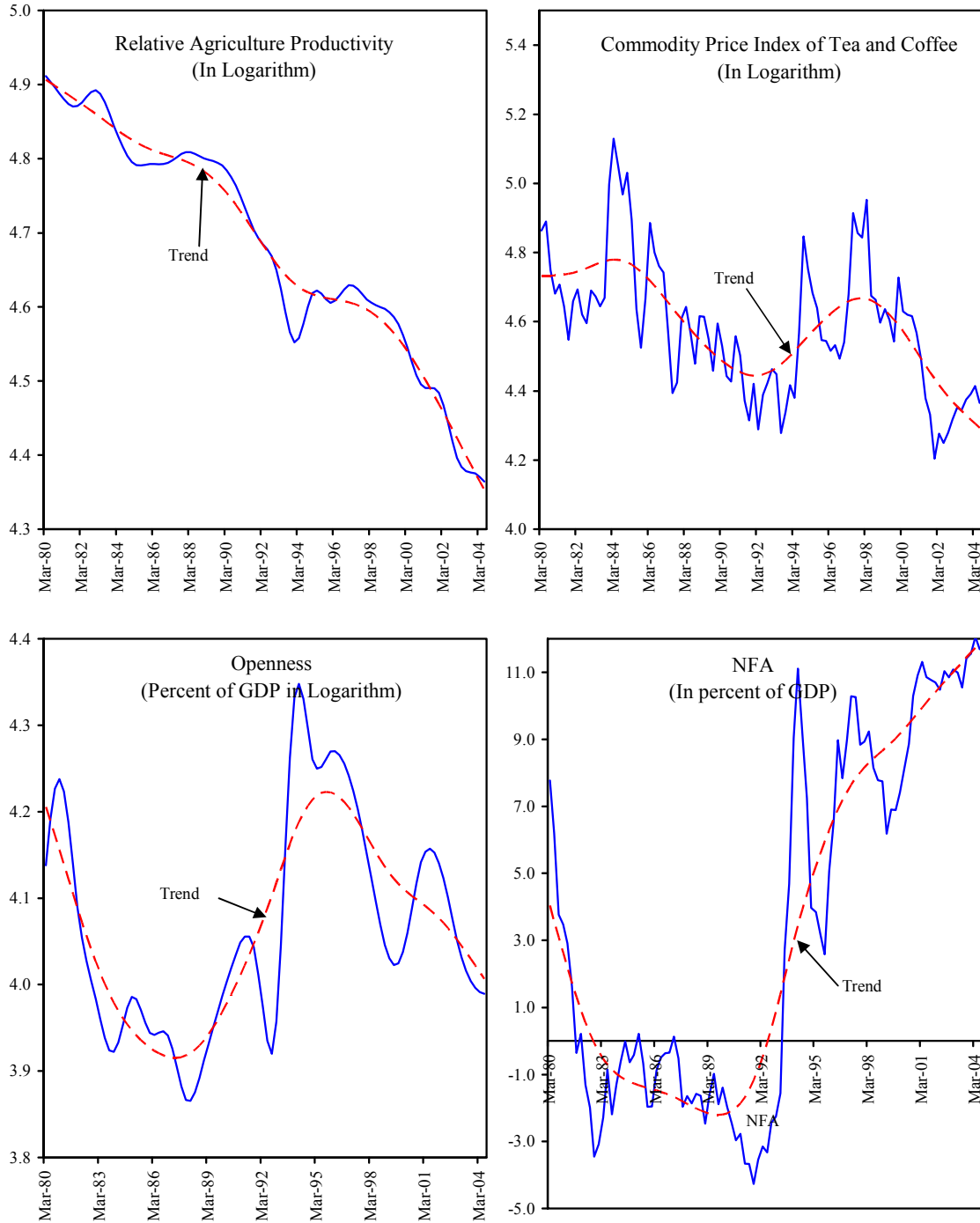
Source: Kenyan Authorities, World Development Indicators, and Staff Estimates.
Note: The trend is obtained from the Hodrick-Prescott filter.

- The average export prices of tea and coffee have trended downward, suggesting a more depreciated real exchange rate;

- The economy has become less open, suggesting a more appreciated real exchange rate; and

- The NFA position has increased, suggesting a more appreciated real exchange rate.

Methodology

9. **The Dynamic Ordinary Least Squares (DOLS) estimator developed by Stock and Watson (1993) is used to identify the cointegrating (equilibrium) relationship between the REER and the explanatory variables.** Specifically, the DOLS estimates the cointegrating relation by an ordinary least squares regression augmented by the first difference of the explanatory variables, together with their lags and leads.[11]

10. **The equilibrium real exchange rate path is calculated based on the estimated cointegrating relation.** Given that the explanatory variables have exhibited a high degree of volatility, to derive a proxy for the equilibrium values for these explanatory variables, following MacDonald and Ricci (2003), the Hodrick-Prescott filter is used to smooth out the short-term noise in the explanatory variables. The equilibrium path is then derived by substituting these smoothed variables in the regression equation.

C. Results

11. **The econometric findings presented in Table III.1 are as follows:**

- A one percent increase in agricultural productivity vis-à-vis comparator countries is associated with a 0.8 percent appreciation of the REER;

- A one percent increase in the average export prices of coffee and tea is associated with a 0.3 percent appreciation of the REER;

- A one percent increase in openness is associated with a 0.5 percent depreciation of the REER;

- A one percentage point increase in the ratio of NFA of the banking system to GDP is associated with a 3 percent appreciation of the REER.

---

[11] Formally, suppose X_t and Y_t are two non-stationary and cointegrated stochastic processes, then there exists a θ such that $Y_t - \theta X_t$ is stationary. The DOLS of Stock and Watson (1993) estimates θ by running the following regression using the ordinary least squares:

$$Y_t = \beta_0 + \theta X_t + \sum_{j=-p}^{p} \delta_j \Delta X_{t-j} + u_t.$$

Table III.1. Kenya: Equilibrium (Cointegrating) Relation between the REER and the Economic Fundamentals, 1980-2004

Variable	(1) Coefficient (absolute t-statistics)	(2) Coefficient (absolute t-statistics)
Constant	1.70	1.65
	(1.32)	(2.01)
NFA	0.03	0.03
	(4.12)	(5.20)
LN(AGRICULTURAL PRODUCTIVITY)	0.80	0.80
	(2.45)	(4.00)
LN(TEA_AND_COFFEE)	0.30	0.20
	(2.02)	(2.44)
LN(OPENESS)	-0.54	-0.42
	(3.48)	(3.48)
R^2	0.82	0.78
Number of Observations	91	91
Prob(F-statistic)	0.00	0.00

Source: Staff estimates.

Note: In regression equation (1), the Dynamic Ordinary Least Squares of Stock and Watson (1993) is used to estimate the equilibrium (cointegrating) relation between Kenya's real effective exchange rate (REER) and the economic fundamentals (explanatory variables) using quarterly data during 1980-2004. Equation (2) is a modified version of equation (1), with insignificant lags and leads omitted. The dependent variable is the logarithm of REER. The explanatory variables include: *NFA* (the net foreign assets of the banking system in Kenya as a percentage of the GDP); *AGRICULTURAL PRODUCTIVITY* (the logarithm of the relative agricultural productivity index of Kenya relative to Sri Lanka, Colombia, Tanzania, and Uganda); *TEA AND COFFEE* (the logarithm of the average of the international commodity price indices of tea and coffee); and *OPENNESS* (the logarithm of the sum of exports and imports as a percentage of GDP). The numbers in the parenthesis underneath the explanatory variables are the corresponding absolute t-statistics, based on standard errors calculated using Newey-West heteroscedasticity and autocorrelation consistent covariances.

12.   **Figure III.3 shows the actual REER and the estimated equilibrium path.** The econometric results suggest that Kenya's actual REER appears to be more appreciated than suggested by economic fundamentals.

D. Policy Implications

13. **Fostering a competitive REER is key to Kenya's objective of promoting strong growth and poverty reduction.** Policies should therefore be directed to:

- **Enhancing labor productivity**—Macroeconomic and structural reforms including policies aimed at increasing labor market flexibility are key to improving productivity and ensuring that wage adjustments are guided by productivity changes and cost of living, and not by other criteria. Recently, the authorities have established a wage-setting mechanism for public sector employees and will issue guidelines for the private sector to help align wage increases to productivity gains.

- **Liberalizing trade**—Greater openness is essential to promoting competitive economic conditions and to reducing supply costs. Given that Kenya's trade regime is the most restrictive among EAC members, further trade liberalization is warranted.

- **Allowing a more flexible nominal exchange rate**—The authorities should allow the nominal exchange rate to adjust freely to fully reflect economic fundamentals. In this regard, foreign exchange intervention should be restricted to smoothing short-run fluctuations.

- **Maintaining price stability**—Given that the rise in Kenya's domestic prices relative to its trading partners has played an important role in the real appreciation of the REER during the past decade, lowering Kenya's domestic cost structure by maintaining disinflation would help to enhance Kenya's external competitiveness. In this regard, monetary policy should be guided by the overriding objective of price stability.

Figure III.3. Kenya: Actual And Equilibrium REER, 1980-2004
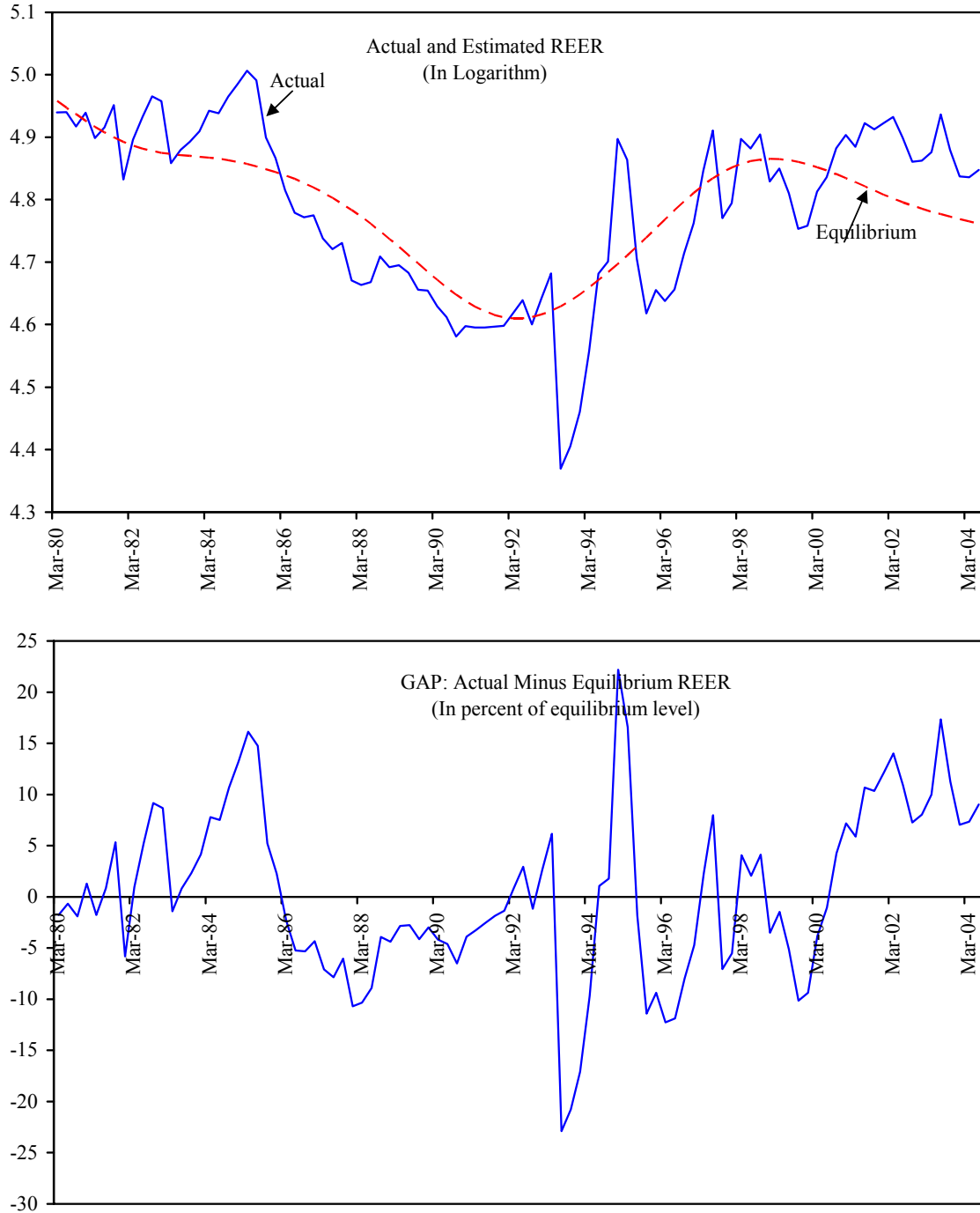
Source: Staff Estimates

IV. THE WAGE BILL AND CIVIL SERVICE IN KENYA[1]

A. Introduction

1.   **In Kenya, as in many developing countries, issues of the size and structure of the wage bill and the civil service have been subject to much debate**. It is widely accepted that careful management of the public wage bill is essential to restoring fiscal sustainability and directing more resources toward pro-poor and pro-growth expenditures[2], both of which are pillars of Kenya's poverty reduction and growth strategy. Moreover, an inappropriate wage structure contributes to inefficient delivery of public services, the move of efficient civil servants to the private sector, and rent-seeking and corruption.

2.   **Kenya's modest fiscal deficit has obscured the burden that the wage bill has imposed on the economy.** The constraints that public sector wages have placed on capital investment are indicated by the fact that as the wage bill increased from 29 to 38 percent of government spending in the 1990s, capital investment fell from 20 percent to 11 percent of government spending over the same period. The burden of adjustment on capital investment was particularly onerous, as the public sector has dominated the delivery of energy, telecommunications, transportation, and water services in Kenya. This has contributed to the deterioration in the quality of public services, with adverse consequences on growth, poverty reduction, and competitiveness.

3.   **This chapter explores aspects of the wage bill and civil service employment in Kenya, in order to gain a clearer picture of their impact on the macroeconomy and the Economic Recovery Strategy (ERS).** Section B presents various measures of the wage bill, discussing their uses and pitfalls, and provides cross-country comparisons. Section C assesses the sustainability of the current wage bill. Section D turns to the structure of public wage and employment. Section E offers some concluding remarks.

B. Size of the Wage Bill

4.   **Is the wage bill in Kenya high or low?** This seemingly simple question does not have a clear answer, as (a) a unique and well-defined measure does not exist; (b) relevant data are not readily available; (c) cross-country comparisons are qualified by data and other issues; and (d) various measures may not properly reflect the current needs of the economy.

---

[1] This chapter was prepared by Robert Tchaidze and Lusine Lusinyan (FAD) and Lynn Aylward (PDR).

[2] These include operations and maintenance, health, education, roads and infrastructure, and other outlays.

5.   **A straightforward and commonly-used measure relates the wage bill to gross domestic product (GDP)**. By this measure, Kenya's public wage bill of about 8.0 percent of GDP in FY 2004/05, is close to the average for African countries, but lower than that for non-francophone African countries for the period 1990–2001 (Table IV.1). Kenya's wage bill as a share of GDP is also higher than that of the other members of the East African Community (Tanzania and Uganda), where in 2004/05 the wage bill is projected to be 5.3 and 4.4 percent of GDP, respectively. Table IV.1 also indicates that Kenya's wage bill compares unfavorably with the Asian emerging economies, which are in some respects a more appropriate comparator group for Kenya, given the country's relatively advanced manufacturing sector and the authorities' objective of becoming the next African emerging economy.

Table IV.1. Cross-Regional Comparisons of Central Government Wages and Salaries, 1990–2001

Country Group	Sample Size	Central government wages and salaries in percent of GDP	Central government wages and salaries in percent of central government expenditure
Africa	11	8.4	28.3
Francophone Africa	6	6.3	27.7
Non-Francophone Africa	5	10.9	29.0
Asia	10	5.3	20.0
South Asia	3	4.6	15.1
Europe and Central Asia	21	3.9	12.6
Central and Eastern Europe	12	5.1	14.4
Latin America & the Caribbean	16	5.6	25.0
Caribbean countries	3	8.6	31.1
Middle East and North Africa	6	9.1	30.4
European Union	15	5.4	13.3
Low-Income Countries	19	5.7	22.6
Middle-Income Countries	42	6.0	22.1
High-Income Countries	30	5.9	15.6

Sources: *Government Financial Statistics* database (IMF); *International Financial Statistics* database (IMF); *World Economic Outlook* database (IMF); and Fund Staff calculations.

6.   **The wage bill relative to GDP has some shortfalls as an indicator**. GDP is likely to be underestimated because of Kenya's significant "shadow" economy. At the same time, the Kenya wage bill itself, as reported in the fiscal accounts, is also likely to be underestimated, as wage payments show up under several other budget headings, particularly defense, transfers to parastatals and universities, and development expenditures. While wages classified under development expenditure may be of a temporary and somewhat *ad hoc* nature, wage transfers to universities, parastatals, and the military are significant, with wage transfers to the first two sectors accounting for about 1.2 and 1.5 percent of GDP, respectively. Other factors that may result in an underestimation of the wage bill are the substantial non-monetary benefits (described below) and the fact that the reported wage bill is for central government personnel and does not include local government staff; local

authorities' wage rates are in some cases higher than comparable central government wages. Moreover, the local government wage bill could, in future, grow at an even faster rate than the central government bill. A separate issue that qualifies over-reliance on the wage bill as a share of GDP as a cross-country indicator of the appropriateness of a country's expenditure on salaries is that official public services' production functions tend to differ across countries.

7.   **Alternative measures include the wage bill as a share total expenditures.** This measure indicates the crowding-out effects of the wage bill. The wage bill as a share of revenue is a measure of sustainability.

8.   **Table IV.2 presents data on revenue and expenditure items as a percentage of several variables**. The table shows that the wage bill has accounted for almost 40 percent of revenues, and appears to have crowded out other recurrent (including operations and maintenance) and development expenditures. Wages are estimated to account for about one third of total expenditure and slightly less that forty percent of recurrent expenditures. Kenya spends twice as much on wages as on operations and maintenance, and more than twice as much as on development expenditure; development expenditures have not increased above five percent of GDP over the last decade. The ratio of the wage bill to recurrent-expenditure has risen from 50 percent in the 1980s to over 70 percent at present in some ministries.

Table IV.2. Kenyan Public Sector Wage Bill Relative to other Macroeconomic Indicators

	1999/00	2000/01	2001/02	2002/03	2003/04 (Prel.)	2004/05 (Proj.)	Average
As percentage of GDP							
Wage Bill	8.6	8.1	8.5	8.3	8.2	8.0	8.3
Revenues	23.4	23.0	21.5	20.5	21.7	21.4	21.9
Expenditures	23.5	27.8	24.9	25.9	23.5	25.5	25.2
Recurrent Expenditures	20.3	23.7	22.2	21.7	20.8	20.8	21.6
Operations and Maintenance	3.7	4.0	4.3	4.3	4.8	4.1	4.2
Development Expenditures	3.2	4.1	2.7	4.2	2.7	4.3	3.5
Wage Bill as percentage of :							
Revenues	36.5	35.4	39.5	40.4	37.9	37.4	37.9
Expenditures	36.4	29.3	34.1	32.0	35.1	31.4	33.1
Recurrent Expenditures	42.1	34.3	38.3	38.3	39.7	38.5	38.5
Operations and Maintenance	233.7	203.2	199.5	192.9	171.9	195.1	199.4
Development Expenditures	267.9	200.5	313.1	195.5	306.4	186.0	244.9

Source: Fund staff calculations.

9.   **Table IV.3, which is taken from a study commissioned by the Government of Kenya, compares the wage bill in Kenya to those in selected African countries.** It shows that most measures of the wage bill indicate that the burden is higher in Kenya than in many other African countries.

Table IV.3. Public Service Wage Bills in Selected Sub-Saharan African Countries

	1999/00	2000/01	2001/02	2002/03
Ghana				
Wage bill-to-GDP	5.60%	5.20%	5.20%	5.30%
Wage bill-to-Domestic Revenue	34.15%	29.38%	29.89%	27.04%
Wage bill-to-Recurrent Expenditure	34.15%	28.11%	26.80%	30.11%
Malawi				
Wage bill-to-GDP	--	5.20%	6.40%	6.20%
Wage bill-to-Domestic Revenue	--	28.42%	38.10%	34.44%
Wage bill-to-Recurrent Expenditure	--	23.01%	26.02%	26.84%
Mozambique				
Wage bill-to-GDP	5.80%	6.00%	6.70%	6.60%
Wage bill-to-Domestic Revenue	48.33%	41.96%	49.26%	52.80%
Wage bill-to-Recurrent Expenditure	47.54%	46.15%	42.95%	48.18%
Rwanda				
Wage bill-to-GDP	5.30%	5.20%	5.20%	5.10%
Wage bill-to-Domestic Revenue	54.10%	53.30%	45.20%	41.30%
Wage bill-to-Recurrent Expenditure	40.00%	41.00%	36.30%	33.20%
Senegal				
Wage bill-to-GDP	5.69%	5.70%	5.79%	5.29%
Wage bill-to-Domestic Revenue	32.91%	31.48%	32.19%	29.08%
Wage bill-to-Recurrent Expenditure	47.45%	43.16%	42.29%	44.11%
Tanzania				
Wage bill-to-GDP	4.20%	4.00%	4.00%	4.30%
Wage bill-to-Domestic Revenue	37.17%	33.90%	32.79%	34.96%
Wage bill-to-Recurrent Expenditure	35.59%	31.01%	31.01%	28.67%
Zambia				
Wage bill-to-GDP	5.30%	5.50%	6.30%	6.20%
Wage bill-to-Domestic Revenue	30.29%	27.78%	34.81%	34.25%
Wage bill-to-Recurrent Expenditure	31.74%	31.79%	32.98%	35.84%

Source: "Consultancy on Wage Bill Management and Civil Service Performance Enhancement for the Government of Kenya." December 2003. By Theodore R. Valentine and John R. Wheeler.

C. Sustainability of the Current Wage Bill

10.   **Table IV.4 assesses the macroeconomic impact of the wage bill, with constant macro-fiscal parameters (in real terms) over several years**. The results demonstrates that maintaining current policies would compromise one of the main goals of the authorities'

economic reform strategy, which is to reduce the stock of domestic debt.[3] The original PRGF program envisaged a reduction in the stock of domestic debt to 13.3 percent of GDP by 2007/8. However, under unchanged policies, the stock of domestic debt declines

Table IV. 4. Simulations Under a Static "Current Policies" Scenario

	2001/2 Act.	2002/3 Act.	2003/4 Prel.	2004/5 Budget	...	2007/8 Proj.	...	2011/2 Proj.
Revenues	21.5	20.5	21.7	20.7		20.7		20.7
Grants	0.7	1.5	1.4	1.6		1.6		1.6
Program Grants	0.2	0.0	0.4	0.4		0.4		0.4
Project Grants	0.6	1.4	1.0	1.2		1.2		1.2
Other	0.0	0.0	0.0	0.0		0.0		0.0
Expenditures	24.9	25.9	23.5	25.5		24.8		24.3
Wages	8.5	8.3	8.2	8.0		8.0		8.0
Domestic Interest Payments	2.6	2.7	2.0	2.4		2.2		1.7
Foreign Interest Payments	0.7	0.8	0.6	0.6		0.6		0.6
Other Recurrent	10.4	9.9	10.0	10.0		10.0		10.0
Domestically Financed Development	1.2	1.2	1.4	1.7		1.7		1.7
Foreign Financed Development	1.7	2.1	1.5	2.4		2.4		2.4
Other Development	-0.1	0.9	-0.2	0.5		0.0		0.0
Cash Adjustment	-0.3	0.7	0.1	0.0		0.0		0.0
Balance	-3.0	-3.2	-0.2	-3.2		-2.5		-2.0
Financing	2.9	3.1	-0.2	2.6		2.4		1.9
Net Foreign Financing	-1.2	-1.0	-0.8	0.5		1.7		1.7
Program Loans	0.0	0.0	0.5	0.6		0.6		0.6
Project Loans	1.1	0.7	0.5	1.1		1.1		1.1
Other	-2.3	-1.7	-1.8	-1.2		0.0		0.0
Net Domestic Borrowing	4.3	4.6	0.8	2.5		0.7		0.2
Other Financing Items	-0.2	-0.4	-0.2	-0.4		0.0		0.0
Discrepancy/Gap	0.1	0.1	0.4	0.0		0.0		0.0
Average Interest Rate on Domestic Debt	14.5	13.6	9.3	11.9		11.9		11.9
Stock of Domestic Debt	22.0	24.3	22.2	22.3		19.0		14.3

Source: Fund staff calculations.

---

[3] It is assumed that net lending and settlement of pending bills is zero. Likewise bank restructuring, privatization receipts, and securitization of expenditure arrears are assumed to be zero. Relative to historical values, these assumptions mean reduced financial pressures. Finally, average interest rate on domestic debt, defined as the ratio of interest payments to previous year's stock, is assumed to be 11.9 percent, the rate at which it is estimated in 2003/4.

only to 19.0 percent, from 22.9 percent of GDP in 2001/02. In order to reduce the stock of domestic debt to the envisioned level of 13.3 percent of GDP by 2007/8, a permanent adjustment in the wage bill of 1.9 percent of GDP would be needed. With such an adjustment, the stock of the debt would fall to 0.6 percent of GDP in fiscal year 2011/12, but only to 14.3 percent of GDP, in the absence of the wage adjustment. This simple exercise ignores several factors which increase fiscal pressures, particularly the implementation of pro-poor programs in the health and education sectors.

D. Wage and Public Sector Employment Structure

11.   **The size of the public sector expanded dramatically from independence in 1963 to 1993, but has dropped markedly in the past decade**. Excluding teachers, civil service employment increased from 88,600 in 1963 to over 273,700 by 1990, and has declined to 195,000 in 2003. Retrenchments effected in the context of a civil service reform launched in 1993 have been responsible for the contraction in the size of the civil service. Nevertheless, the decrease has not resulted in a lower wage bill, as the decline in the administrative civil service has been offset by an increase in the number of other classes of public sector employees, and in remuneration and salaries. Over the last decade, the number of teachers has increased by 10 percent and local government employees, by almost 50 percent. As a consequence, the overall decline in public sector employment since 1995 has been a mere 4 percent (see Table IV.5).

Table IV. 5. Employment in the Public Sector, 1995-2003 ('000s)

	1995	1998	2001	2003	Change 1995-03 (%)
Central Government (civil service and uniformed services)	256.2	219.1	195.7	195.0	-23.9
Teachers Service Commission	214.2	241.3	231.3	234.8	9.6
Parastatal Bodies	109.7	112.8	101.6	97.3	-11.3
Majority Control by Public Sector	50.3	52.5	47.5	46.4	-7.8
Local Government	57.9	74.9	82.3	85.6	47.8
Total	688.3	700.6	692.5	659.1	-4.2

Source: *Economic Survey 2004.*

12.   **A key contributor to the increase in the wage bill was the abandonment of wage guidelines in 1994**. The 1994 guideline envisaged that productivity would become the primary criteria for wage increases. To this end, a National Productivity Center was to be established. However, the Center has not been operational and during the last decade, wage awards have been set as a result of bargains between the government and powerful lobby groups and trade unions, without due regard to the cost of living or productivity changes. Indeed, a striking and puzzling aspect of the Kenyan macroeconomy is that while

productivity has been declining over the last decade, wages have risen faster than other prices, negatively affecting competitiveness.[4]

13. **In the absence of clear guidelines, the wages of local government and parastatal employees have increased sharply**. While some of these increases may have been justified, they were granted without a systematic evaluation of their economic effects and with no set performance criteria. At the same time, the majority of civil servants has not received a major adjustment since the last public wage review in 1997. As a consequence, major dislocations in the wage structure have emerged, characterized by significant differences in the pay scales of public servants, as well as extremely high pay for top officials and executives and under compensation for the middle cadres.

Table IV. 6. Estimated Real Average Earnings, 1997-2003 in KSh per annum[1]

	1998	1999	2000	2001	2002	2003	% change
Civil Service and uniformed forces	107,076	105,669	97,729	103,721	106,893	100,462	-6.18
Teachers Service Commission[2]	137,126	134,049	125,881	124,942	142,747	136,089	-0.76
Parastatal Bodies[3]	120,103	150,926	183,622	209,779	250,389	263,202	119.15
Majority Control by the Public Sector[4]	154,865	176,478	242,027	276,049	328,674	346,000	123.42
Local Government	117,655	136,738	150,414	167,724	191,145	196,211	66.77
Total Public Sector	124,037	130,741	136,409	147,971	167,670	166,886	34.55
Memorandum item: Total private sector	123,113	135,339	141,972	154,279	173,295	181,833	47.70

Source: Central Bureau of Statistics, Economic Survey 2004
1/Adjusted for the rise in consumer prices, with base period October 1997
2/Refers to position as at 30th June, annualized
3/Refers to Government wholly owned corporations.
4/Refers to institutions where Government has 51% or more shareholding but not full ownership.

As reported in another government-commissioned study,[5] the average civil service pay is now equivalent to 70 percent of teachers' pay, 50 percent of local government pay, 40 percent of state corporations pay, and 30 percent of the average pay in other state-controlled enterprises.

14. **The current pay structure is overly decompressed, with competitive pay at the low end, overcompensation at the top, and severe under compensation in the middle**. As of July 2004, the highest salary band was 118 times above the lowest band, and 53 times the median. Table IV.7 compares compensation indicators with those in neighboring countries. The table indicates that Botswana—a country with arguably one of the most effective civil service in the sub-Saharan Africa—has a compression ratio of 30 to 1.

---

[4] *Economic Survey* reports that labor productivity contracted by 1.6 percent per annum in 1998–2003, while the average real wage in the manufacturing sector increased by 8 percent.

[5] Public Sector Wage Policy Study, prepared for the Governor of Kenya, July 2004 (draft).

Table IV.7. Compression of the Wage Structure

Country	Top-to-minimum ratio	Top-to-median ratio
Botswana	30:1	4:1
Kenya	118:1	53:1
Malawi	110:1	76:1
Tanzania	20:1	5:1
Uganda	25:1	7:1
Zambia	34:1	9:1

Source: "Consultancy on Wage Bill Management and Civil Service Performance Enhancement for the Government of Kenya." December 2003. By Theodore R. Valentine and John R. Wheeler.

15.   **Compared to the private sector, it appears that the public sector overcompensates the workers in the lower cadres, but undercompensates the critical mid-level professionals**. A major difficulty in assessing Kenya's wage bill is the heavy reliance of the compensation structure on various allowances, including allowances for transport, housing, security, and utilities. The number and value of these allowances has tended to increase over the years. On average, these allowances now account for about 46 percent of the wages, with the share of allowances increasing with the compensation level.

E. Conclusions

16.   **The wage bill in Kenya appears high by various measures, with a significant dislocation in the pay structure**.

17.   **The government has begun to address the high wage bill problem**. It has recently announced a Targeted Voluntary Early Retirement Scheme that will bring down the size of the noncore public sector by 21,388 employees by June 2008. It has also set up the Public Service Remuneration Board and developed a new wage setting mechanism, in the context of the government's poverty reduction strategy (the ERS) and its agenda of reforms under the PRGF.

18.   **The new wage setting mechanism for public employees is designed to:**

- Help reduce the wage bill as a proportion of revenue;
- Consolidate the various allowances into an overall wage rate;
- Streamline and lower executive compensation across 11 public services;
- Address the under compensation of middle-term professional cadres; and
- Align future wage awards primarily to productivity changes.

V. TRADE INTEGRATION IN THE EAST AFRICAN COMMUNITY[1]

A. Introduction

1.   T**he multilateral trading system is guided by the nondiscrimination principle.**
The Fund has stressed that nondiscriminatory trade liberalization on a most-favored-nation
MFN basis is the first-best policy. Despite the well-documented superiority of MFN
liberalization, regional trade arrangements (RTAs) have always been part of the economic
relations between countries. RTAs have proliferated in Africa to such an extent that the
issues of overlapping membership in regional integration arrangements need to be addressed
(see Figure V.1).

2.   **Kenya, Tanzania and Uganda have consisted liberalized their trade regimes at
both the regional and global levels.** As they have promoted more open and liberal trade
policies, the three countries have simultaneously embarked upon a process to integrate their
economies through the creation of the East African Community (EAC).[2] The formation of the
EAC customs union is an important step in the process of deepening regional integration.
The EAC treaty provides for the formation of a customs union by 2004.[3] The formation of a
customs union requires the removal of all internal tariffs, the establishment of a common
external tariff, Rules of Origin and a variety of administrative arrangements including a
harmonized customs administration, a customs valuation system and customs procedures and
documentation.

3.   **The Chapter has three main tasks to accomplish:** First, it identifies the key
features of EAC member countries' trade flows and trade regimes (Section B). The paper
then describes the new EAC customs union (CU), particularly the EAC common external
tariff (CET), analyzes its impact on the trade regimes in EAC member countries, and
attempts to gauge its potential impact on trade by conducting simulations for Kenya (Section
C). Finally, it discusses factors other than trade that could make regional integration in the
East African region a desirable policy for Kenya (Section D), and offers conclusions in
Section E.

B. Trade Flows and Trade Regimes in the EAC

Trade Flows

4.   **Overall, the trade data in Table V.1 indicate that the direction and pattern of
trade of the three EAC members is consistent with their level of development.** They

---

[1] This chapter was prepared by Meredith A. McIntyre (AFR).

[2] In 1996 the three countries formed the East Africa Cooperation which was transformed in
2001 into the EAC.

[3] The customs union is expected to be established with the implementation of the common
external tariff on January 1, 2005.

Fig.V.1 Regional Integration Arrangements in Africa

AMU

ALGERIA LIBYE

MAROCCO TUNISIA

MAURITANIA

CAPE VERDE GAMBIA GHANA

UEMOA

BENIN BURKINA FASO TOGO

COTE D'IVORE GUINEA BISSAU

SENEGAL MALI NIGER

GUINEA LIBERIA

NIGERIA SIERRA LEONE

ECOWAS

COMESA

ECCAS

SAO TOME & PRINCIPE

CEMAC

CAMEROON

CENTRAL AFRICA

GABON

EQUATORIAL GUINEA

CONGO

CHAD

EGYPT

BURUNDI

RWANDA

ANGOLA

DRC

TANZANIA

MALAWI

ZAMBIA

ZIMBABWE

MOZAMBIQUE

SADC

IGAD

SOMALIA

DJIBOUTI

ERITREA

ETHIOPIA

SUDAN

KENYA

UGANDA

EAC

IOC

MAURITIUS COMOROS

SEYCHELLES MADAGASCAR

NAMIBIA

SWAZILAND

SOUTH AFRICA

BOTSWANA

LESOTHO

SACU

LEGEND

CEMAC:	Commounate Economique et Monetaire de l'Afrique Centrale
COMESA:	Common Market for Eastern and Southern Africa
EAC:	East African Cooperation
ECOWAS:	Economic Community of West African States
ECCAS:	Economic Community of Central African States
IOC:	Indian Ocean Commission
SACU:	Southern African Customs Union
SADC:	Southern African Development Community
UEMOA:	Union Economique et Monetaire Ouest Africaine
AMU:	Arab Maghreb Union
IGAD:	Intergovernmental Authority on Development

Note: Tanzania withdrew from COMESA in 2000.

Source: Adapted from DeRosa et al (2003)

export primary products,[4] mainly to Europe, and to a lesser extent, the Middle East. In 2001, the EU received 37.1 percent and 64.5 percent of Tanzania's and Uganda's exports. The exception is Kenya, whose exports to African countries, particularly the EAC sub-region, are substantial. Kenya's exports to the EU were 31.9 percent of the total whereas exports to other African countries accounted for 35.9 percent and to the EAC, 22.6 percent. Imports from Africa and the Middle East (mainly Egypt) are 35.7 percent of Kenya's total imports and EU imports, 27.3 percent. Tanzania and Uganda received a large share of their imports from Africa and the Middle East (35.0 percent and 60.2 percent respectively of total imports).

5.   **In the last decade intra-regional trade has grown, with the share of intra-regional exports increasing from about 6 percent in 1991 to 16 percent in 2001 and imports rising from 2.7 percent in 1991 to 10.5 percent in 2001.** Despite these gains the trade linkages between the countries could be stronger. Although Kenya sends a significant share of its exports to the EAC, it sources only 1.4 percent of total imports from the sub-region (Table V.1). Tanzania sends only 9.9 cent of total exports to the sub-region and receives from it 7.2 percent of its total imports. However, while Uganda's exports to the EAC are similarly low, it receives a substantial 48.8 percent of total imports from the EAC (mainly from Kenya).

6.   **The commodity composition of intra-regional trade reveals that unlike trade with the rest of the world, manufactures play an important role**. Table V.2 indicates that for Kenya 11.5 percent and 43.4 percent of its imports from respectively, Uganda and Tanzania are manufactures. For Uganda, 33.8 percent and 71.3 percent of its imports are from Kenya and Tanzania, and for Tanzania 56.8 percent and 16.6 percent of its imports are from Kenya and Uganda. In short, the expansion of intra-regional trade has provided a market for the manufacturing sectors in the EAC member states, particularly Kenya. The challenge is to transform these industries to produce internationally competitive exports and go beyond the regional market.

---

[4] EAC exports to the EU are principally agricultural commodities and minerals. Kenya's exports are coffee, tea, cut flowers, and vegetables; Tanzania's are gold, fish fillets, nuts (coconuts, brazil and cashew), and coffee; and Uganda's are fish fillets, gold, tobacco, and tea.

Table V.1. Kenya: EAC Countries: Exports and Imports, 2001
(in million of U.S. dollars)

	Kenya		Tanzania		Uganda		EAC	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Total	2,301	3,631	764	1,636	334	1,009	3,400	6,276
Share of industrial countries	41	42	53	38	76	28	50	39
European Union	32	27	37	25	65	22	39	26
United States	8	8	3	4	5	3	6	6
Japan	1	5	12	4	4	3	4	5
Other		2	1	5	2	0	1.1	2.4
Developing countries	58	57	47	62	25	72	49	61
Africa	36	10	19	23	8	57	27	21
East African Community	23	1	10	7	2	49	16	11
South Africa	1	7	1	13	1	7	1	9
Asia	12	18	23	25	9	11	14	19
Europe	1	1	2	1	7	1	2	1
Middle East	7	26	3	12	2	3	5	19
Western Hemisphere	0	2	1	1	0	0	0	1

Source: World Bank estimates.

Trade Regimes

7.	**The trade regime in the EAC member countries is characterized by the escalating structure of tariffs**. A "cascading tariff"[5] structure has the lowest rates being imposed on raw materials and capital goods, moderate rates on intermediate goods, and the highest rates on consumer goods. These structures reflect the historical pattern of tariffs in many countries, with high rates being placed on consumer goods partly to restrain demand and collect revenue but also to protect or stimulate domestic producers of final consumer goods over foreign competition. Trade liberalization in recent years has however brought about considerable reductions in the top rates and rationalized the structure of tariff regimes so that the differences have fallen considerably. Table V.3 provides detailed information on the key features of the trade regimes of the EAC member countries.

---

[5] Generally, it is felt that such a tariff structure promotes anti-export bias in the structure of economic incentives. This is one aspect of the general distortion to relative domestic prices and hence resource allocation caused by differentiated tariff rates. In theory a uniform tariff applied to either all imports or all exports or both will minimize domestic distortions, particularly if the exchange rate is market-determined. But the preferential rates accorded to consumer goods at the expense of capital goods and inputs will tend to bias domestic production towards consumer goods and away from exports, capital and intermediate goods.

Table V.2. Kenya: EAC Countries: Regional Trade by Commodities, 2001
(percent of total)

	Imports from:		Exports to:	
	Uganda	Tanzania	Uganda	Tanzania
Kenya				
Food products	79.8	21.6	8.4	18.8
Agricultural materials	6.1	19.3	8.4	2.8
Textiles fibres	2.4	2.0	0.0	0.0
Ores, minerals, and metals	0.1	11.8	3.9	3.6
Energy	0.1	2.0	26.4	15.7
Petroleum, petroleum products	0.0	2.0	26.1	15.7
Gas, natural and manufactured	0.0	0.0	0.3	0.0
Manufacturing	11.5	43.4	52.9	59.1
	Kenya	Tanzania	Kenya	Tanzania
Uganda				
Food products	3.6	18.3	64.5	34.6
Agricultural materials	6.3	8.6	11.7	0.5
Textiles fibres	0.1	0.2	4.7	0.4
Ores, minerals, and metals	3.5	0.3	2.8	0.0
Energy	52.7	1.4	12.9	26.4
Petroleum, petroleum products	52.4	1.4	0.1	0.0
Gas, natural and manufactured	0.3	0.0	0.0	0.0
Electric current	0.0	0.0	12.8	26.4
Manufacturing	33.8	71.3	3.3	38.2
	Kenya	Uganda	Kenya	Uganda
Tanzania				
Food products	10.8	23.1	68.4	20.0
Agricultural materials	2.6	0.1	10.9	5.4
Textiles fibres	0.2	0.1	6.0	0.6
Ores, minerals, and metals	2.9	0.0	0.3	3.3
Energy	26.7	60.0	0.5	11.8
Petroleum, petroleum products	26.7	60.0	0.5	11.8
Manufacturing	56.8	16.6	13.9	58.8

Source: United Nations Commodity Trade Statistics Database, 2003.

8.   **Table V.4 shows that all three countries had progressively reduced their tariffs since the mid-nineties.**[6] The most significant changes were in Uganda and to some extent Tanzania and this is manifested by the fall in the maximum rates, the number of tariff bands, and the simple average tariff. In addition, Uganda has narrowed the differences between the top rate on consumer goods and the lower rates on raw materials and capital goods. In contrast, Kenya has not made any progress in liberalizing its tariff schedule, but its simple average tariff has marginally declined as a consequence of modifications in tariff classifications.

C. The EAC Customs Union

The EAC Common External Tariff

9.   **The treaty establishing the East African Community (EAC), comprised of Kenya, Tanzania and Uganda, was signed by the three member governments in November 1999.** Formally launched in 2001, the EAC treaty provides for the formation of a customs union by 2004.[7] On June 23rd, 2003, the Presidents of Kenya, Tanzania, and Uganda reached an agreement on the CET for the planned customs union. The CET will have three tariff bands.[8] 0 percent for meritorious goods, raw materials and capital goods; 10 percent for intermediate goods, and 25 percent for consumer goods.

10.   **The principle of asymmetry is recognized in the Treaty establishing the East African Community as a core principle underpinning the formation of the EAC customs union.** The justification for including the principle of asymmetry in the Treaty is based on the understanding that the three EAC member states are at different levels of economic development and that there is need to address the existing imbalances which could in fact be exacerbated by the customs union. In the negotiations on the CET it was agreed that Tanzania and Uganda will eliminate tariffs on all imports except for an agreed list of commodities[9]—906 tariff lines for Tanzania and 426 for Uganda—for which the tariff will be reduced gradually to zero, within a period up to five years. In the case of Uganda the items

---

[6] These are applied rather than bound rates, which are typically higher.

[7] As illustrated in Figure V.1, EAC members also belong to other regional trade arragements including COMESA (Kenya and Uganda) and SADC (Tanzania) and this could create conflicting commitments with the EAC customs union.

[8] A 1999 report adopted by the EAC Secretariat had recommended that EAC countries adopt the Uganda tariff structure of (0, 7, 15).

[9] These temporary protection arrangements are designed to allow producers in Tanzania and Uganda sufficient time to restructure their operations to face increased competition from Kenyan imports.

Table V. 3. Kenya: Features of Trade Regimes of Kenya, Tanzania, and Uganda

	Kenya 1/	Tanzania	Uganda
Current tariff structure	bands=0, 2.5, 5, 15, 20, 25, 30, 35, 40, 100 0 2.5 (primary stage raw materials) 5 15 (most intermediate goods) 20 25 30 35 40 (processed and preserved fruits and vegetables, fruit juices, paper and paperboard items) 100 (sugar)	bands=0, 5, 10, 20, 25 0 5 (raw materials, capital goods) 10 (semi-process inputs & spare parts) 20 (processed input & vehicle parts) 25 (final consumer goods)	bands=0, 7, 15, 30 0 (plant and machinery) 7 (raw materials) 15 (consumer goods)
Unweighted average tariff	16.6	14.3	9
Weighted average tariff	13.56	…	…
Preferential tariff given to other EAC members	90 percent	80 percent	0, 4 and 6 percent
Suspended duties	oil products	4 products	Tobacco (30 percent) and imported sugar for final consumption (15 percent of decreed valuation of $410 per tonne)
Alternative minimum specific duties and minimum duty values (MDVs)	maize, wheat, sugar, rice, milk, alcohol products, tobacco products, textiles, clothing, footwear, some manufactured products. 2/	All MDVs have been abolished in January 2001 except sugar.	none
Other charges on imports	import declaration fee of Ksh 5000 or 2.75 percent, whichever is higher.		VAT@17 percent; excise tax on selected products (some specific and some ad valorem).
Import exemptions	goods used by special public sectors (armed forces, police); motor vehicles for members of the National Assembly, Permanent Secretaries, judges, univesity lecturers.	public sector imports	Imports for Presidents's use, imports by diplomats, imports of personal effects, and duty-free allowances
Trade restrictiveness indicator	6	5	2
Export duty drawbacks	yes	yes	yes
Export taxes	none	none (at cental level)	none
Membership in COMESA	yes	no (withdrew in 2000)	yes
Membership in COMESA FTA	yes	no	no
Restrictions on services	limitation on foreign ownership of shares.		

1/ Kenya has a select group of products that are granted higher rates than in the tariff structure 0-35.

2/ For Kenya, the alternative minimum duty rates are set as floor rates based on the lowest expected prices.

Table V.4. Kenya: EAC Countries: Evolution of Tariff Regimes, 1997-2002
(tariff rates in percent)

	1997	1999	2002
Kenya			
Tariff bands	5.0	5.0	5.0
Maximum rate	35.0	35.0	35.0
Simple average	18.4	16.3	16.6
Tanzania 1/			
Tariff bands	9.0	5.0	4.0
Maximum rate	50.0	25.0	25.0
Simple average	21.8	16.1	14.3
Uganda			
Tariff bands	4.0	3.0	3.0
Maximum rate	20.0	15.0	15.0
Simple average	13.2	9.0	9.0

Sources: World Trade Organization and United Nations Conference on
Trade and Development.
1/ Data for Tanzania are for 2001.

on that list will initially attract a 10 percent tariff and over a five year period this will be uniformly reduced. Tanzania has a more complicated arrangement for tariff reduction, with each product group having a different schedule for reducing tariffs, however no tariff will initially be higher than 25 percent and the reduction to zero will be within five years. In short, the EAC CET will be implemented in two phases: First, all three countries will adopt the three-band structure but Tanzania and Uganda will maintain internal tariffs on a select set of Kenyan imports; second, after five years all internal tariffs will be removed and all Kenyan imports will enter Tanzania and Uganda free of tariffs.

11.   **A major issue in the negotiations on the CET was reaching agreement on the classification of about 20 percent of the tariff lines which are defined as "sensitive items."** The EAC members claim that these are products that they would like to protect from import competition from the following products:

- Subsidized exports, mainly agricultural products, from industrialized countries;

- Second-hand products.

12.   The World Bank (2003) indicated that the "sensitive items" included cigarettes, dry cells, fabrics, garments, matches, milk, other cement, packing materials of plastic, palm oil, sugar, tires, used clothes, vehicles (reconditioned cars), vehicles chassis, rice, wheat and wheat flour. These items are equivalent to 361 tariff lines and estimated at about 20 percent of total imports.[1] As of September 2004, after rounds of negotiation, agreement was reached on the classification of sensitive products and the applicable rates of dut, with the exception of jute bags, rice, and wheat. Further, it was agreed that sensitive products could not be "protected" by the maximum rate and therefore required special policy measures. The EAC member states agreed that the sensitive items would attract rates of more than 25 percent and in some instances a mixture of specific duty and ad valorem rates.

13.   **The new common external tariff will have differential effects on the trade regimes in the member countries.** The introduction of the three-band tariff structure will increase tariffs in Uganda and to a lesser degree Tanzania, and reduce tariffs in Kenya. In Table V.5 the number of tariff lines that are likely to increase in Uganda is 3,066, compared to 1,224 in Tanzania and 1,144 in Kenya. In contrast, the EAC CET is likely to lower significantly more tariffs in Kenya (3,216) compared to Tanzania (2,364) and Uganda (1,353). In addition, World Bank (2003) research estimates that with the full implementation of the CET the simple average tariff in the three countries will be 10.9 percent which represents a significant decline for Kenya from a simple average tariff of 16.6 percent and to a lesser degree Tanzania with a simple average tariff of 14.3 percent. However, for Uganda there will be an increase of about 20 percent in the simple average tariff.[2]

---

[1] Based on 2001 data the "sensitive items" are 16.1percent of total imports in Kenya, 25.9 percent for Uganda and 30.0 percent for Tanzania.

[2] With a maximum tariff rate of 25 percent and low (or zero) rates on inputs combined with the possibility that many "sensitive" goods may have higher rates the distortions in the

14.   **Tanzania and Uganda apply excise duties and other discriminatory charges as a means of protection mainly against Kenyan imports.**[3] Tanzania applies excise taxes on 55 items at specific or ad valorem rates of 10-30 percent with peaks of over 50 percent, mostly on Ugandan and Kenyan imports. Also, there are suspended duties on 118 items in the top tariff bracket, with peaks of 35 and 40 percent. Uganda applies discriminatory excise duties at ad valorem rates of 10 percent on 467 items increasing substantially to 75 percent for beverages and 130 percent for tobacco.[4] With the implementation of the EAC CET all discriminatory excise duties (except those applied to mineral water, tobacco, beer and alcoholic beverages) together with suspended duties will be eliminated.

15.   **In the other areas required for the establishment of an EAC customs union progress has been made but there are still some outstanding issues.** The current situation can be summarized as follows:

    a. The WTO Customs Valuation Agreement has been adopted;[5]

    b. The EAC Customs Management Bill is expected to be approved by the EAC Council;

    c. Preparations are ongoing to complete the Customs Regulations and Forms;

    d. Rules of Origin[6] have been agreed which adopt the COMESA rules with some product-specific rules, mainly for garments;

    e. The Customs Union Protocol is yet to be ratified by the Member States.

---

effective rate of protection can be large and this represents a major step backwards for Uganda.

[3] This means that while tariffs are currently lower in Tanzania and Uganda the nominal rates of protection may not vary considerably between EAC members.

[4] Kenya imposes excise taxes on 459 items in the top tariff bracket with peaks of 50 and 70 percent. Suspended duties are applied to sugar, maize flour and milk in the top tariff bracket.

[5] The WTO agreement on customs valuation aims for a fair, uniform and neutral system for the valuation of goods for customs purposes. The agreement provides a set of valuation rules, expanding and giving greater precision to the provisions on customs valuation in the original GATT.

[6] Rules of origin are the criteria used to define where a product is made. Typically, they require that sufficient transformation occurs so that a product changes tariff line or a minimum of value added, e.g. 35percent within the region.

D. Trade Impact: An Assessment for Kenya

Economic Integration Theory

16.   **Regional trading arrangements (RTAs) alter the prices of imports from members of the RTA (as tariffs are phased out) relative to imports from the rest of the world.** Consequently, demand patterns will change resulting in adjustments in trade and output flows. Will these changes be beneficial to participants in an RTA? Alternatively, will a RTA generate gains from trade? Viner (1950) investigated this question and found that the welfare impact of an RTA is ambiguous. Gains will occur if higher cost domestic production is replaced by cheaper imports from a partner country—trade creation. On the other hand, if partner country production replaces lower cost imports from the rest of the world—trade diversion—there will be losses. Therefore, membership in a RTA will have positive and negative effects on an economy and it will be the net impact that will determine whether there are welfare gains or losses.

17.   **In assessing the static effects of forming an effective RTA three important principles from the theory of integration must be considered:** First, the allocative or efficiency gains of economic integration depend on whether the products produced by members of the RTA are in direct competition or complementary to each other.[7] For there to be competitive economies or efficiency gains in an RTA there must be a considerable degree of overlap in the range of commodities produced by members of the RTA. The creation of an RTA where there exists overlapping production with significant differences in production costs between members can lead to large gains from trade as resources are allocated more efficiently among member countries. Intra-industry trade (e.g., Ford cars for Honda) characterizes most trade between industrial economies and the formation of an RTA is likely to lead to competitive gains. For example, it can be argued that the members of the European Union (EU), US/Canada FTA and the Australia/New Zealand FTA are competitive economies and that there were significant gains from trade. It is questionable whether the members of a large number of RTAs between developing countries can be characterized as competitive economies. Typically, members of developing country RTAs have a narrow range of exports of goods and services, invariably primary commodities that are exported to industrialized countries often under unilateral preferential arrangements. Therefore, there is little scope for efficiency gains.

18.   **Economies whose structure of production are not competitive tend to be complementary and this can result in both gains and losses from RTAs.** Complementarity exists when members of RTAs produce commodities or products that do

---

[7] There is also the case of economies of members of an RTA being competitive and complementary. For example, in NAFTA, the United States and Mexico have important industries, but compete directly against each other, e.g., textiles and clothing and consumer electronics and the economies are also to some extent complementary. In these circumstances efficiency gains can be derived from an RTA but to avoid trade diversion, external tariffs must be low.

not compete much with the local production of other RTA members. Traditional integration theory contends that, in the case of complementary economies, economic integration will have the usual trade diversion and trade creation effects; the higher the barriers to trade with non-members, the higher the risk of trade diversion. Intuitively, one can argue that complementarity exists between developed and developing country members in an RTA (i.e., North/South RTAs). Trade between industrial countries and many developing countries is often characterized as trade in homogenous products, e.g., wheat for textiles. In this case each country will have a comparative advantage in the export of a different type of good while all goods will be consumed by all member countries. The proposed regional economic partnership agreements that are part of the Cotonou Agreement between the EU and the member states of the Africa, Caribbean and Pacific (ACP) region might be characterized as RTAs between complementary economies.

19.   **The intra-EAC trading patterns in Table V.2 indicate that trade linkages are relatively weak.** Therefore, one cannot really characterize the economies as either complimentary nor competitive. In the case of the latter, this means there is not a considerable degree of overlap in the range of commodities produced by EAC members.

The Trade Simulation Model

20.   Partial equilibrium models are widely used to simulate and measure the effects of changes in trade policy. The models assess the effects of specific changes in tariffs or other trade taxes on trade flows, revenue, prices, and some measures of welfare (consumer surplus) at a given point in time. Typically, a simulation model based on simple Vinerian customs union theory is employed. A simulation of the impact of the EAC CU was conducted utilizing a static, partial equilibrium methodology—SMART[8] (See Appendix I)[9]. Notably, SMART, unlike some partial equilibrium models, assumes that products

imported from different regions are imperfect substitutes among themselves[10].

---

[8] SMART was jointly developed by UNCTAD and the World Bank and has been widely used by negotiators of both bilateral and multilateral trade agreements.

[9] SMART is a static, partial equilibrium model operable under strict *ceteris paribus* conditions. It provides a snapshot of the projected impact of tariff reductions, whilst disregarding any adjustment process accompanying this change. Thus, the dynamics that affect the change are not explicitly modeled, nor can complex variations in the set-up be considered.

[10] Some partial equilibrium models e.g. Hoekman et al (2001) assume products imported from different regions are perfect substitutes. Thus in these models the number of parameters to be estimated is smaller than SMART. SMART provides baseline estimates of the elasticity of substitution of imports of different sources.

21.   **The World Integrated Trade Solution (WITS) software developed by the World Bank was used to conduct the simulations.**[11] WITS utilizes the UN Statistics Division COMTRADE and the UNCTAD Trade Analysis and Information System (TRAINS) databases providing access to data on trade flows[12] and MFN tariff rates at the HS six digit level of disaggregation. World Bank staff and the Kenya Revenue Authority provided information on the tariff preferences offered to COMESA partners and the negotiated common external tariff. The SMART simulations were done using the WITS software.

22.   **The simulation results produced by SMART indicate that the move from the current MFN tariff rates to the three-band EAC CET is likely to have a positive impact on trade** with an increase in trade of US$193.5 million[13] with trade creation estimated at US$193.9 million and trade diversion at US$ 0.3 million[14]. Table V.6 shows the impact on trade and the estimated trade creating and trade diverting trade flows for all products in each tariff band i.e. 0 percent and 25 percent. The results reveal that 81.2 percent (US$157.5 million) of trade creating flows resulting from the move to the new EAC CET are accounted for by products that attract a 0 percent tariff rate.[15] Trade creation has a positive effect on welfare as consumers can purchase cheaper imports than more expensive local goods. However, it means import-competing producers will need to become more competitive or move into new product lines. These sectoral adjustments are the transitional or adjustment costs of lowering trade barriers.

---

[11] I am greateful to Olivier Jammes from the World Bank for his help in using WITS to conduct the simulations and for participation in the training course he conducted on the use of the WITS software. In addition, Marcelo Olarreaga (World Bank) assisted in the derivation of the SMART equations for trade creation and trade diversion.

[12] HS 1 (1996) nomenclature.

[13] The EAC CET will significantly increase tariffs in Uganda and to some extent Tanzania and may not have a similar positive trade impact.

[14] Note, the simulations are intended to analyze the effects on trade flows and the results should not be used to make judgments about the potential impact on welfare.

[15] A lot of these products are raw materials, capital goods and to a lesser extent intermediate goods that moved from 5 percent and 10 percent to 0 percent.

Table V.5. Kenya: EAC Countries Estimated Effects of Proposed Tariff Changes

Bands Changed to 0,10,25			
Number of tariffs lowered	3,216	2,364	1,353
Number of tariff increased	1,144	1,224	3,066
Number unchanged	753	1,525	694
Bands Changed to 0,10,15			
Number of tariffs lowered	3,944	3,928	1,353
Number of tariff increased	636	952	1,859
Number unchanged	533	233	1,901

Note: Estimated at 6-digit level of HS-classification.

Table: V. 6. Kenya: Trade Simulation Results

Item	Total Trade Effect	Trade Diversion	Trade Creation
All product lines	193.54	-0.32	193.86
Product lines at 0%	157.37	-0.12	157.49
Product lines at 10%	45.28	-0.16	45.44
Product lines at 25%	-9.11	-0.04	-9.07

Source: Fund Staff Estimates

23. **The move to the maximum tariff rate of the EAC CET results in trade creation estimated at -US$9.1 million.** The model reports the results as negative trade creation but this really reflects lower trade flows resulting from higher tariff rates. In other words, this means that the new EAC CET led to higher tariff rates for some of these product lines and with higher import prices, import flows declined.[16] Further examination of the individual product tariff lines revealed that many products that attracted a 15 percent MFN tariff rate now face the maximum tariff rate. Notably, some of these products—fish, pigs, other black tea, yeasts, pictures and designs and steel products—are produced locally, hence there is a protectionist objective.

---

[16] This finding illustrates a weakness of static partial equilibrium as with higher tariff rates one would expect this would encourage regional producers to move into some of these product lines over time.

24.   **Another important feature of the results reported in Table V. 6 is the negligible trade diversion resulting from the new EAC CET.** An important factor that might be affecting the quantitative results is that the baseline imports from Tanzania and Uganda reported in the official statistics significantly underestimate intra-regional trade because of the prevalence of unrecorded informal cross-border trade. Mkenda (2001) cites surveys that indicated that in the 1994/95 period, unofficial cross-border trade between Kenya and Uganda was about 49 percent of official trade. Between Tanzania and Kenya, cross-border trade as percentage of official trade in the 1995/96 period was about 12 percent and between Tanzania and Uganda, it was about 45 percent.

25.   **The simulation results provide preliminary evidence that the EAC CU will have positive trade benefits for Kenya as the adoption of the EAC CET will lead to increased flows of cheaper extra-regional imports that are likely to, lower consumer prices with positive welfare effects.** Note that in the simulation, the removal of internal tariffs was accompanied by a lowering of MFN tariffs with the adoption of the EAC CET. A World Bank (2000) study concluded that regional integration arrangements (RIAs) between developing countries (South-South RIAs) that provide preferential access to member states but keeps external trade policy with respect to the rest-of-the-world unchanged are likely to lower welfare for the bloc as a whole. High external tariffs encourage trade diversion and provide strong incentives for inefficient firms to expand. Fundamentally, high external barriers negate the benefits from increased competition. Therefore, to ensure that an RTA does not encourage inefficiency, facilitate trade diversion, and ultimately reduce economic welfare, it is essential to lower MFN tariffs as barriers to intra-RTA trade are eliminated.[17] Therefore, Kenya could continue to derive benefits from progressively lowering trade barriers, specifically the EAC CET.

Transitional Costs

26.   **Despite the potential benefits from liberalization of the trade regime there are costs that would have to be addressed.** As noted earlier, trade creation means that the import-competing sectors would face increased competition and would need to make adjustments to improve efficiency and overall competitiveness. Consequently, there may be transitional output and employment losses associated with the EAC CU. Policies would need to be put in place to minimize the dislocations caused by the lowering of tariffs. For import-competing sectors to respond to increased competition from cheaper imports it is vital that Kenya, over the medium term, sustain the implementation of a comprehensive package of macroeconomic and structural reforms to improve efficiency and international competitiveness. This would include:

•   strong governance policies to improve transparency and accountability and eliminate corruption;

---

[17] Such an approach has been characterized as a strategy of **"open regionalism."**

- strengthening the efficiency of the financial system;

- labor market reforms to increase labor market flexibility;

- an accelerated program of parastatal reform and privatization to increase efficiency and private sector involvement in the economy; and

- and prudent fiscal policies to ensure that adequate resources are devoted to infrastructural development and improving the levels of education and health.

A poverty and social impact analysis (PSIA) of trade reforms is planned by the authorities and could provide the basis for programs to address these concerns.

27.   **The customs union is expected to result in revenue losses.** The SMART simulations estimated that the full implementation in Kenya would result in customs revenue losses of US$113.3 million. An earlier analysis by the World Bank (2003) estimated the revenue losses from the proposed three-band structure(0,10,25) of approximately US$150 million for Kenya.[18] The empirical evidence thus suggests there will be short-run revenue losses from the full implementation of the EAC CU and policymakers have to design policy responses to recoup revenue losses. Krause (2003) estimated that in Kenya customs exemptions amount to 22 percent of potential customs revenue, so to compensate for revenue losses, policymakers could streamline exemptions, widening the tax base and increasing revenues.

E. Other Reasons for East African Integration

28.   **Trade integration is not the only reason why policymakers in Kenya might find regional integration in the East African region a desirable policy.** Other factors are described below:

"Widening and deepening" of regional integration

29.   **From a Kenyan perspective, some commentators see the recently established EAC CU as providing an impetus to the COMESA CU**. Although Tanzania is not a member of COMESA[19] it is felt that the EAC group led by Kenya could set the EAC CET as the goal for the COMESA CU and be the prime force in the negotiations. A wider COMESA CU is attractive to Kenya as it provides a larger market to encourage the expansion of its manufactured or non-traditional exports to the region.

---

[18] World Bank (2003) estimated the revenue effects calculating a baseline using data on import flows, tariff schedules, excises and VAT rates. The SMART simulations only used import flows and the tariff schedule for Kenya.

[19] Tanzania has not publicly expressed its intention to join COMESA.

30.   **Another important factor might be the 'Economic Partnership Agreements'
(EPAs) that are to be negotiated between the European and sub-Saharan Africa (SSA)
countries**[20]. The Cotonu Agreement provides for the negotiation of reciprocal trade
agreements between various geographical configurations in sub-Saharan Africa and the EU
covering trade in goods and services and some trade-related areas. Currently, the regional
groupings identified to negotiate EPAs include COMESA. The EAC has not been identified
as a regional grouping for the negotiations. However, if the EAC is able to drive the
negotiations for a COMESA CU, it could potentially be an important partner in the
negotiations with the EU. Potentially, this is the most important regional agreement Kenya
will negotiate as it offers a favorable opportunity for SSA countries to integrate into the
global economy and to benefit from deeper integration with a developed region.[21]

Trade Facilitation and "Behind the Border Reforms"

31.   **Small and/or poor developing countries can pursue enhanced trading
arrangements (including outside the framework of an RTA) by deepening cooperation
in trade facilitation and "behind the border" reforms.** An important question is whether
more intensive regional cooperation in trade-related areas such as trade facilitation and
"behind the border" reforms—these areas include sanitary and phyto-sanitary (SPS)
standards, technical standards, investment code, competition law and intellectual property
rights—is likely to expand trade and raise economic growth by increasing efficiency as well
as private investment (domestic and foreign). Conceptually, adopting and implementing
simple, transparent import and export regulations and efficient procedures for customs
clearance will reduce transactions costs and enhance efficiency in EAC member countries
and improve the environment for trade expansion. "Behind the border" reforms are
increasingly an important part of the international trade architecture and of growing
importance in the multilateral trade negotiations in the WTO. These reforms place great
demands on a country's human resource and institutional capacity and it seems intuitive that
regional approaches will be beneficial for SSA countries with limited human resources and
weak administrative capacity.

Public Goods

32.   **Schiff (2000) argued that regional cooperation on public goods—such as water
basins (lakes, rivers), infrastructure (roads, railways, dams), the environment,
hydroelectric and other sources of energy, fisheries can generate benefits for member
states**. In the case of the EAC member states there is a lot scope for cooperation in these

---

[20] The Cotonu Agreement replaced the Lomé Convention after the latter expired in 2000. The
agreement provides for the continuation of non-reciprocal trade preferences between the EU
and the African, Caribbean, and Pacific countries until 2008 when they will be replaced by
EPAs to be negotiated between 2004–07.

[21] World Bank (2000) argued that RTAs between developed and developing countries were
potentially the most developmentally advantageous for developing countries.

areas and support can be received from the World Bank together with other multilateral, regional, and bilateral agencies.

F. Conclusions

33.   **Kenya, Tanzania and Uganda have undertaken trade policy reforms that have consisted of liberalization of their trade regimes at both the regional and global levels.** As they have promoted more open and liberal trade policies the three countries have simultaneously embarked upon a process to integrate their economies through the creation of the East African Community (EAC). The formation of the EAC customs union is an important step in the process of deepening regional integration. Generally, RTAs between competitive and/or complementary economies have resulted in positive static and dynamic benefits for the participating countries. However, many RTAs between developing countries are not between economies that have these characteristics and the results have been disappointing. The trade linkages between the three EAC member states are not strong. However, the establishment of the EAC CU and the introduction of the EAC CET do seem to have potentially positive benefits for Kenya. The results from a SMART trade simulation model suggest that the EAC CET, by lowering tariffs has a positive impact on trade largely from trade creation. Lower tariffs result in lower import prices and increased flows of cheaper imports that improve consumer welfare.

34.   **The preliminary evidence from the simulations supports the pursuit of more liberal trade policies.** However, there are transitional costs that must be addressed to minimize economic dislocation, including revenue losses. Furthermore, trade creation means the import-competing sectors will face increased competition from cheaper imports, and producers will have to improve efficiency and competitiveness. Sustained macroeconomic and structural reforms will be needed to ensure that a favorable enabling environment is created that will facilitate internationally competitive production.

35.   **There are other factors beyond trade integration that Kenyan policymakers may consider in pursuing closer East African integration.** These include: First, the widening and deepening of regional interaction with other countries in the Eastern and Southern African region through COMESA and the negotiation of an EPA between COMESA and the EU, with its centerpiece being a comprehensive regional trade agreement. Second, regional cooperation in trade facilitation and "behind the border" reforms offer potential benefits to Kenya. Improvements in trade facilitation can improve transparency, reduce the costs of doing business and promote trade. Regional cooperation in implementing "behind the border reforms", which are an increasingly important part of the architecture of the international trading system, can improve efficiency and facilitate trade in goods and services. Finally, regional cooperation in public goods can, among other things, lower the cost of vital infrastructural development, promoting growth and development.

APPENDIX—THE SMART SIMULATION MODEL

The simplest version of SMART and its definition of trade creation and trade diversion is presented below.

A. Simplest Version

Assumptions:

1) *Partial Equilibrium*: no income effects
2) *Armington Assumption*: HS 6 digit goods imported from different countries are imperfect substitutes, i.e., bananas from Ecuador are an imperfect substitute to bananas from Saint Lucia.
3) *Export supplies are perfectly elastic*: world prices of each variety (e.g., bananas from Ecuador) are given.

Analytical setup

One possible analytical setup for the demand structure in SMART is to assume a two-stage budgeting procedure (where income is kept exogenous). A better alternative is to assume a quasi-linear an additive utility function that is also additive on a composite numéraire good. More formally:

$$U = \sum_g u_g\left(m_g\right) + n \tag{1}$$

where n is the consumption of the composite numéraire good, m_g is the consumption of the aggregate import good g (aggregate in the sense that it is a function of imports of good g from different countries); and u_g is the sub-utility function of good g. The fact that the utility function is additive ensures that there are not substitution effects across goods g, and the linearity on the composite and numéraire good n ensures that there are no income effects.

Maximization of (1) subject to a budget constraint yields:

$$m_{g,c} = f\left(p_{g,c}^d ; p_{g,\neq c}^d\right), \forall g, c$$
$$n = y - \sum_c \sum_g p_{g,c}^d m_{g,c} \tag{2}$$

where $m_{g,c}$ are imports of good g from country c, $p_{g,c}^d$ is the domestic price of imported good g from country c, $p_{g,\neq c}^d$ is the domestic price of good g imported from all countries other than c, y is national income. Thus consumption of the composite and numéraire good, n absorbs all income effects.
Domestic prices are given by:

$$p_{g,c}^d = p_{g,c}^w \left(1 + t_{g,c}\right) \tag{3}$$

where $p_{g,c}^w$ is the world price of good g imported from c, $t_{g,c}$ is the tariff imposed on imports of good g imported from c, and is defined as:

$$t_{g,c} = t_g^{MFN}\left(1 - \theta_{g,c}\right) \tag{4}$$

where t_g^{MFN} is the Most Favored Nation (MFN) tariff imposed on good g, and $\theta_{g,c}$ is the tariff preference ratio on good g when imported from country c.[72]

Trade creation

Trade creation is defined as the direct increase in imports following a reduction on the tariff imposed on good g from country c. To obtain this, SMART uses the definition of price elasticity of import demand:

$$\varepsilon_{g,c} = \frac{dm_{g,c}/m_{g,c}}{dp_{g,c}^d/p_{g,c}^d} < 0 \tag{5}$$

Solving (5) for $dm_{g,c}$ we obtain the trade creation ($TC_{g,c}$) evaluated at world prices and associated with the tariff reduction on good g when imported from country c:[73]

$$TC_{g,c} = p_{g,c}^w dm_{g,c} = p_{g,c}^w \varepsilon_{g,c} m_{g,c} \frac{dp_{g,c}^d}{p_{g,c}^d} \tag{6}$$

Note that using (3), we have $dp_{g,c}^d = p_{g,c}^w dt_{g,c}$. Substituting this and (3) into (6) yields:

$$TC_{g,c} = p_{g,c}^w dm_{g,c} = p_{g,c}^w \varepsilon_{g,c} m_{g,c} \frac{dt_{g,c}}{\left(1 + t_{g,c}\right)} = \varepsilon_{g,c} m_{g,c} \frac{dt_{g,c}}{\left(1 + t_{g,c}\right)} \tag{7}$$

Equation (7) defines the extent of trade creation on imports of good g from country c.

---

[72] By (4), $\theta_{g,c} = 1 - t_{g,c}/t_g^{MFN}$.

[73] Recall that world prices are assumed to be fixed given the assumption of perfectly elastic export supplies in every country c for every good g.

Note that in the last equality we simply choose units of all goods so that the world prices are equal to 1. One can then interpret $m_{g,c}$ as import value of good g from country c measured at world prices. This normalization of units is undertaken from now on in order to simplify the expressions, so that $m_{g,c}$ represents both imported quantities and value of good g from country c. As long as world prices are kept exogenous (i.e., export supply functions are perfectly elastic), this normalization has no implications for the derivations above and below.

To obtain the overall level of trade creation across goods or countries one simply needs to sum equation (7) along the relevant dimensions:

$$
\begin{aligned}
TC_g &= \sum_c TC_{g,c} \\
TC_c &= \sum_g TC_{g,c} \\
TC &= \sum_g \sum_c TC_{g,c}
\end{aligned}
\tag{8}
$$

Trade diversion

If the tariff reduction on good g from country c is a preferential tariff reduction (i.e., it does not apply to other countries, $\neq c$, then imports from country), then imports of good g from country c are further going to increase due to the substitution away from imports of good g from other countries that becomes relatively more expensive. This is the definition of trade diversion in the SMART model.

In order to measure trade diversion, let us use the definition of the elasticity of substitution, $\left(\sigma_{g,c,\neq c}\right)$ across imports of good g from country c and all other countries ($\neq c$):

$$
\sigma_{g,c,\neq c} = \frac{d\left(\dfrac{m_{g,c}}{m_{g,\neq c}}\right)\bigg/ \dfrac{m_{g,c}}{m_{g,\neq c}}}{d\left(\dfrac{p_{g,c}^d}{p_{g,\neq c}^d}\right)\bigg/ \dfrac{p_{g,c}^d}{p_{g,\neq c}^d}} < 0
\tag{9}
$$

Note that:

$$d\left(\frac{p_{g,c}^d}{p_{g,\neq c}^d}\right)\bigg/ \frac{p_{g,c}^d}{p_{g,\neq c}^d} = \frac{\dfrac{p_{g,c}^w dt_{g,c}}{p_{g,\neq c}^w\left(1+t_{g,\neq c}\right)}}{\dfrac{p_{g,c}^w\left(1+t_{g,c}\right)}{p_{g,\neq c}^w\left(1+t_{g,\neq c}\right)}} = \frac{p_{g,c}^w dt_{g,c}}{p_{g,c}^w\left(1+t_{g,c}\right)} = \frac{dt_{g,c}}{\left(1+t_{g,c}\right)} \tag{10}$$

Recalling that by definition of trade diversion $dm_{g,c} = -dm_{g,\neq c}$, we have:

$$d\left(\frac{m_{g,c}}{m_{g,\neq c}}\right) = \frac{dm_{g,c}}{m_{g,\neq c}} - \frac{m_{g,c}\,dm_{g,\neq c}}{m_{g,\neq c}^2} = \frac{dm_{g,c}\left(m_{g,c}+m_{g,\neq c}\right)}{m_{g,\neq c}^2} \tag{11}$$

Substituting (11) and (10) into (9) and solving for $dm_{g,c}$ yields the expression for trade diversion, $TD_{g,c}$:

$$TD_{g,c} = dm_{g,c} = \frac{m_{g,\neq c}m_{g,c}}{m_{g,\neq c}+m_{g,c}}\frac{dt_{g,c}}{1+t_{g,c}}\sigma_{g,c,\neq c} \tag{12}$$

B. Constraining Trade Diversion

There is one additional problem associated with the measurement of trade diversion. Indeed, by definition of trade diversion it cannot be larger than the original imports of good g from other countries $\neq c$, i.e., $TD_{g,c} = dm_{g,c} = -dm_{g,\neq c} \leq m_{g,\neq c}$. A simple way of introducing this constraint is to defined trade diversion as follows:

$$TD_{g,c} = dm_{g,c} = -dm_{g,\neq c} = \begin{cases} \dfrac{m_{g,\neq c}m_{g,c}}{m_{g,\neq c}+m_{g,c}}\dfrac{dt_{g,c}}{1+t_{g,c}}\sigma_{g,c,\neq c} & \text{if} - dm_{g,\neq c} \leq m_{g,\neq c} \\ m_{g,\neq c} & \text{if} - dm_{g,\neq c} > m_{g,\neq c} \end{cases} \tag{13}$$

So the constraint is binding only when it is necessary.

An alternative to the simple constraint in (13) is the one currently used by SMART. It introduces the constraint for all observations independently of whether the constraint is binding or not. This is done by transforming (12), so that $TD_{g,c} = dm_{g,c} \leq m_{g,\neq c}, \forall g,c$:

$$TD_{g,c} = dm_{g,c} = -dm_{g,\neq c} = \cfrac{m_{g,\neq c} m_{g,c} \cfrac{dt_{g,c}}{1+t_{g,c}} \sigma_{g,c,\neq c}}{m_{g,\neq c} + m_{g,c} + \left[m_{g,c} \cfrac{dt_{g,c}}{1+t_{g,c}} \sigma_{g,c,\neq c} \right]} \qquad (14)$$

By adding the term in (14) the term in square brackets to equation (12), SMART constraints trade diversion to be equal to $m_{g,\neq c}$ when the term in square brackets (the change in tariffs multiplied by the change in relative prices and the elasticity of substitution) tends to infinity (or minus infinity). Indeed:

$$\lim_{\left[m_{g,c} \frac{dt_{g,c}}{1+t_{g,c}} \sigma_{g,c,\neq c} \right] \to -\infty} TD_{g,c} = m_{g,\neq c} \qquad (15)$$

Equation (14) is clearly an underestimation of the trade diversion effect (we add a positive term to the denominator), whenever the term in squared brackets does not tend to infinity (e.g., for small tariff changes). More problematic is the fact that the terms in square brackets cannot tend to infinity unless either imports from c $\left(m_{g,c} \right)$ or the elasticity of substitution are initially infinitely large. In which there is either no reason to worry about trade diversion or we are in a world with perfectly homogeneous goods in which case the constraint is always binding. Under more reasonable assumptions, the term in squared brackets can only tend to

$-m_{g,c} \cfrac{t_{g,c}}{1+t_{g,c}} \sigma_{g,c,\neq c}$ as $dt_{g,c}$ tends to $-t_{g,c}$ when the tariff on good g from country c is

eliminated. It is then not clear to which value the trade diversion term tends to, apart from the fact that it is clearly an underestimation of the true trade diversion for most values. For these reasons, we suggest the use of (13) rather than (14) to measure trade diversion.

Again the expression in (13) or (14) could be added across different dimensions (goods, countries or both) to obtain total trade diversion terms as we did for trade creation in equation (8). Finally, the total increase in exports of good g from country c associated with a preferential tariff granted to good g originating in country c is given by the sum of the trade diversion and trade creation terms.

REFERENCES

Balassa, Bela, 1965, "The Purchasing-Power Parity Doctrine: A Reappraisal," *Journal of Political Economy,* Vol. 72 (December), pp.584-96.

Bosworth, Barry, and Susan M. Collins, 2003, "The Empirics of Growth: An Update," (unpublished draft; Washington: Brookings Institution).

Chen, Yu-Chin, and Kenneth Rogoff, 2002, "Commodity Currencies and Empirical Exchange Rate Puzzles," IMF Working Paper 02/27 (Washington: International Monetary Fund).

DeRosa, D; Obwona, M and Roningen, V., 2003, "The New EAC Customs Union: Implications for Trade, Industry Competitiveness, and economic Welfare in East Africa" (USAID, Washington D.C.).

Krugman, Paul, 1994, "The Myth of Asia's Miracle," *Foreign Affairs*, Vol 73 (November-December), pp 62-78.

Lane, Phillip, and Gianmaria Milesi-Ferretti, 2000, "The Transfer Problem Revisited: Net Foreign Assets and Real Exchange Rates," IMF Working Paper 00/123 (Washington: International Monetary Fund).

Ng'eno, N.,2002, "The Status of Regional Trade Liberalization in East Africa" (African Centre for Economic Growth; Nairobi).

MacDonald, Ronald, 1995, "Long-run Exchange Rate Modeling: A Survey of Recent Evidence," *Staff Papers,* International Monetary Fund, Vol.42 (September), pp. 437-98.

_____, 2002, "Purchasing Power Parity and New Trade Theory," IMF Working Paper 02/32 (Washington: International Monetary Fund).

_____, and Luca Ricci, 2003 "Estimation of the Equilibrium Real Exchange Rate for South Africa," IMF Working Paper 03/44 (Washington: International Monetary Fund).

Mkenda, B., 2001, "Is East Africa an Optimum Currency Area" (Working papers in Economics no. 41, Department of Economics, Goteborg University).

Montiel, Peter J., 1999, "The Long-Run Equilibrium Real Exchange Rate: Conceptual Issues and Empirical Research," in *Exchange Rate Misalignment: Concepts and Measurement for Developing Countries*, edited by L. Hinkle and P. Montiel (Oxford University Press).

Panagariya, A., 2000, "Preferential Trade Liberalization: The Traditional Theory and New Developments," *Journal of Economic Literature*, Vol. XXXVIII (June), pp.287–331.

Rodrik, Dani, Arvind Subramanian, and Francesco Trebbii, 2002, "Institutions Rules: The Primary of Institutions Over Integration and Geography in Economic Development," IMF Working Paper 02/189 (Washington: International Monetary Fund).

Rogoff, Kenneth, 1996, "The Purchasing Power Parity Puzzle," *Journal of Economic Literature,* Vol. 34 (June), pp.647-68.

Samuelson, Paul, 1964, "Theoretical Notes and Trade Problems," *Review of Economics and Statistics,* Vol. 46 (May), pp.145-54.

Schiff, L., 1999, "Will the Real 'Natural Trading Partner' Please Stand Up?" World Bank Policy Research Working Paper No. 2161 (Washington, D.C.: World Bank).

Schiff, L., 2000, "Regional Integration and Development in Small States" (Development Research Group; World Bank, Washington D.C.)

Senhadji, Abdelhak, 2000, "Sources of Economic Growth: An Extensive Growth Accounting Exercise" Staff Papers, International Monetary Fund, Vol. 47, No.1, pp.129-57.

Stock, James H., and Mark W. Watson, 1993, "A Simple Estimator of Cointegrating Vectors in Higher Order Integrated Systems," *Econometrica,* Vol. 61, Issue 4 (July), pp.783-820.

Tahari, Amor, Dhaneshwar Ghura, Bernardin Akitoby, and Emmanuel Brou Aka, 2004, "Sources of Growth in Sub-Saharan Africa," IMF Working Paper -4/176 (Washington: International Monetary Fund).

Viner, J., 1950, *The Customs Union Issue* (New York: Carnegie Endowment for International Peace).

Venables, A., 2000, "Winners and Losers From Regional Integration Agreements" (Center for Economic Policy Research; London, UK).

Wonnacott, P., and M. Lutz, 1989, " Is There a Case for Free Trade Areas?" in *Free Trade Areas and U.S. Trade Policy*, ed. by Jeffrey Schott (Washington, DC: Institute for International Economics).

World Bank (2003). "Regional Trade Integration in East Africa—Trade and Revenue.

Young, Alwyn, 1995, "Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience," *Quarterly Journal of Economics*, Vol.110 (August), pp.641-80.

Table 1. Kenya: Gross Domestic Product by Origin at Constant Prices, 1996-2003

	1996	1997	1998	1999	2000	2001	2002	2003
				(In millions of Kenya shillings at 1982 prices)				
Primary sector	27,083	27,409	27,840	28,197	27,644	28,005	28,244	28,664
Agriculture, forestry, and fishing	26,843	27,165	27,593	27,945	27,390	27,750	27,985	28,399
Mining and quarrying	240	243	247	252	254	254	259	265
Secondary sector	18,729	19,110	19,381	19,572	19,322	19,465	19,687	20,003
Manufacturing	13,154	13,409	13,597	13,733	13,540	13,649	13,811	14,004
Construction	4,028	4,093	4,127	4,151	4,121	4,122	4,152	4,243
Utilities	1,548	1,608	1,658	1,689	1,662	1,695	1,724	1,756
Tertiary sector	52,339	53,954	55,032	55,933	56,490	57,259	58,014	59,134
Trade, restaurants, and hotels	11,934	12,407	12,693	12,947	13,077	13,247	13,459	13,648
Transport, storage, and communications	5,932	6,047	6,118	6,202	6,329	6,531	6,702	6,803
Finance, insurance, real estate, and business services	9,843	10,361	10,690	10,904	10,945	11,055	11,143	11,477
Ownership of dwellings	7,899	8,173	8,362	8,507	8,625	8,774	8,906	9,054
Other services[1]	16,733	16,965	17,168	17,373	17,514	17,652	17,804	18,152
GDP at factor cost	98,152	100,473	102,253	103,702	103,456	104,729	105,945	107,801
				(In percent of GDP)				
Primary sector	27.6	27.3	27.2	27.2	26.7	26.7	26.7	26.6
Agriculture, forestry, and fishing	27.3	27.0	27.0	26.9	26.5	26.5	26.4	26.3
Mining and quarrying	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Secondary sector	19.1	19.0	19.0	18.9	18.7	378.6	379.4	379.8
Manufacturing	13.4	13.3	13.3	13.2	13.1	189.3	189.7	189.9
Construction	4.1	4.1	4.0	4.0	4.0	122.0	122.2	122.4
Utilities	1.6	1.6	1.6	1.6	1.6	67.3	67.5	67.5
Tertiary sector	53.3	53.7	53.8	53.9	54.6	54.7	54.8	54.9
Trade, restaurants, and hotels	12.2	12.3	12.4	12.5	12.6	12.6	12.7	12.7
Transport, storage, and communications	6.0	6.0	6.0	6.0	6.1	6.2	6.3	6.3
Finance, insurance, real estate, and business services	10.0	10.3	10.5	10.5	10.6	10.6	10.5	10.6
Ownership of dwellings	8.0	8.1	8.2	8.2	8.3	8.4	8.4	8.4
Other services[1]	17.0	16.9	16.8	16.8	16.9	16.9	16.8	16.8
GDP at factor cost	100.0	100.0	100.0	100.0	100.0	460.1	460.8	461.2
				(Annual percentage change)				
Primary sector	4.5	1.2	1.6	1.3	-2.0	1.3	0.9	1.5
Secondary sector	3.4	2.0	1.4	1.0	-1.3	0.7	1.1	1.6
Tertiary sector	5.2	3.1	2.0	1.6	1.0	1.4	1.3	1.9
GDP at factor cost	4.6	2.4	1.8	1.4	-0.2	1.2	1.2	1.8

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey,* various issues.

[1]Includes general government.

Table 2. Kenya: Gross Domestic Product by Origin at Current Prices, 1996-2003

	1996	1997	1998	1999	2000	2001 Prel.	2002	2003
(In millions of Kenya shillings)								
Primary sector	133,045	147,458	157,844	150,500	136,411	144,794	145,043	154,164
Agriculture, forestry, and fishing	132,304	146,642	157,021	149,507	135,269	143,534	143,601	152,546
Mining and quarrying	741	815	823	994	1,143	1,260	1,442	1,619
Secondary sector	73,527	82,148	96,901	113,625	126,010	139,066	160,074	188,076
Manufacturing	47,758	54,607	66,006	79,121	88,715	96,969	110,853	131,614
Construction	20,015	21,263	23,933	27,070	29,134	33,161	37,993	43,870
Utilities	5,754	6,278	6,962	7,434	8,162	8,937	11,228	12,591
Tertiary sector	243,049	306,659	338,711	374,931	423,738	595,867	649,812	751,701
Trade, restaurants, and hotels	82,895	109,804	123,453	138,031	162,391	297,933	324,906	375,851
Transport, storage, and communications	35,471	41,816	43,255	45,617	50,339	57,972	72,550	84,666
Finance, insurance, real estate, and								
business services	55,719	68,747	75,010	76,078	69,750	74,174	70,099	89,041
Ownership of dwellings	26,132	29,058	30,614	33,391	36,786	41,334	46,432	46,864
Other services[1]	42,832	57,234	66,380	81,815	104,472	124,454	135,825	155,280
GDP at factor cost	449,621	536,264	593,456	639,056	686,159	879,727	954,929	1,093,941
(In percent of GDP)								
Primary sector	29.6	27.5	26.6	23.6	19.9	16.5	15.2	14.1
Agriculture, forestry, and fishing	29.4	27.3	26.5	23.4	19.7	16.3	15.0	13.9
Mining and quarrying	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1
Secondary sector	16.4	15.3	16.3	17.8	18.4	15.8	16.8	17.2
Manufacturing	10.6	10.2	11.1	12.4	12.9	11.0	11.6	12.0
Construction	4.5	4.0	4.0	4.2	4.2	3.8	4.0	4.0
Utilities	1.3	1.2	1.2	1.2	1.2	1.0	1.2	1.2
Tertiary sector	54.1	57.2	57.1	58.7	61.8	67.7	68.0	68.7
Trade, restaurants, and hotels	18.4	20.5	20.8	21.6	23.7	33.9	34.0	34.4
Transport, storage, and communications	7.9	7.8	7.3	7.1	7.3	6.6	7.6	7.7
Finance, insurance, real estate, and								
business services	12.4	12.8	12.6	11.9	10.2	8.4	7.3	8.1
Ownership of dwellings	5.8	5.4	5.2	5.2	5.4	4.7	4.9	4.3
Other services[1]	9.5	10.7	11.2	12.8	15.2	14.1	14.2	14.2
(Annual percentage change)								
Primary sector	7.9	10.8	7.0	-4.7	-9.4	6.1	0.2	6.3
Secondary sector	17.9	11.7	18.0	17.3	10.9	10.4	15.1	17.5
Tertiary sector	16.8	26.2	10.5	10.7	13.0	40.6	9.1	15.7
GDP at factor cost	14.2	19.3	10.7	7.7	7.4	28.2	8.5	14.6

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey,* various issues.

[1]Includes general government.

Table 3. Kenya: Expenditure on Gross Domestic Product at Constant Prices, 1996-2003

	1996	1997	1998	1999	2000	2001	2002 prel.	2003 est.
	(In millions of Kenya shillings at 1982 prices)							
Final consumption expenditures	108,346	115,386	115,661	111,538	117,993	121,943	116,009	117,979
Private sector	77,591	83,329	82,546	76,987	81,944	84,332	76,768	76,872
General government	30,755	32,057	33,115	34,551	36,049	37,611	39,242	41,107
Gross capital formation	20,601	21,908	22,177	21,511	20,589	20,631	19,870	20,465
Fixed capital formation	18,701	19,080	19,051	18,167	17,713	17,875	17,365	17,985
General government	3,339	3,590	3,380	3,195	3,055	3,225	2,868	3,130
Private sector	15,362	15,491	15,672	14,972	14,658	14,651	14,497	14,855
Change in inventories	1,900	2,827	3,126	3,344	2,875	2,756	2,505	2,480
Gross domestic expenditure	128,947	137,293	137,838	133,049	138,581	142,574	135,879	138,443
Net exports	-16,889	-22,890	-21,598	-15,307	-21,033	-17,987	-18,027	-17,055
Exports of goods and services	34,633	29,987	28,437	32,123	34,979	37,373	38,888	41,452
Imports of goods and services	-51,522	-52,876	-50,035	-47,430	-56,012	-55,360	-56,915	-58,507
GDP at market prices	112,058	114,403	116,240	117,742	117,548	124,587	117,852	121,389
Net indirect taxes	13,906	13,930	13,988	14,040	14,092	19,859	11,908	13,588
GDP at factor cost	98,152	100,473	102,253	103,702	103,456	104,729	105,945	107,801
	(In percent of GDP at market prices)							
Final consumption expenditures	96.7	100.9	99.5	94.7	100.4	97.9	98.4	97.2
Private sector	69.2	72.8	71.0	65.4	69.7	67.7	65.1	63.3
General government	27.4	28.0	28.5	29.3	30.7	30.2	33.3	33.9
Gross capital formation	18.4	19.1	19.1	18.3	17.5	16.6	16.9	16.9
Fixed capital formation	16.7	16.7	16.4	15.4	15.1	14.3	14.7	14.8
General government	3.0	3.1	2.9	2.7	2.6	2.6	2.4	2.6
Private sector	13.7	13.5	13.5	12.7	12.5	11.8	12.3	12.2
Change in inventories	1.7	2.5	2.7	2.8	2.4	2.2	2.1	2.0
Gross domestic expenditure	115.1	120.0	118.6	113.0	117.9	114.4	115.3	114.0
Net exports	-15.1	-20.0	-18.6	-13.0	-17.9	-14.4	-15.3	-14.0
Exports of goods and services	30.9	26.2	24.5	27.3	29.8	30.0	33.0	34.1
Imports of goods and services	-46.0	-46.2	-43.0	-40.3	-47.7	-44.4	-48.3	-48.2
GDP at market prices	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(Annual percentage change)							
Final consumption expenditures	2.8	6.5	0.2	-3.6	5.8	3.3	-4.9	1.7
Private sector	2.8	7.4	-0.9	-6.7	6.4	2.9	-9.0	0.1
General government	2.7	4.2	3.3	4.3	4.3	4.3	4.3	4.8
Gross capital formation	4.6	6.3	1.2	-3.0	-4.3	0.2	-3.7	3.0
Fixed capital formation	1.3	2.0	-0.2	-4.6	-2.5	0.9	-2.9	3.6
General government	-15.1	7.5	-5.8	-5.5	-4.4	5.5	-11.1	9.1
Private sector	5.7	0.8	1.2	-4.5	-2.1	0.0	-1.0	2.5
Change in inventories	54.4	48.8	10.6	7.0	-14.0	-4.2	-9.1	-1.0
Gross domestic expenditure	3.1	6.5	0.4	-3.5	4.2	2.9	-4.7	1.9
Net exports								
Exports of goods and services	4.6	-13.4	-5.2	13.0	8.9	6.8	4.1	6.6
Imports of goods and services	1.8	2.6	-5.4	-5.2	18.1	-1.2	2.8	2.8
GDP at market prices	4.1	2.1	1.6	1.3	-0.2	6.0	-5.4	3.0
Net indirect taxes	0.8	0.2	0.4	0.4	0.4	40.9	-40.0	14.1
GDP at factor cost	4.6	2.4	1.8	1.4	-0.2	1.2	1.2	1.8

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey*, various issues.

Table 4. Kenya: Expenditure on Gross Domestic Product at Current Prices, 1996-2003

	1996	1997	1998	1999	2000	2001 Prel.	2002 Prel.	2003 est.
				(In millions of Kenya shillings)				
Final consumption expenditures	443,965	553,884	623,698	665,001	749,097	833,939	886,159	1,000,630
Private sector	359,442	453,173	510,130	539,058	609,938	665,208	701,822	805,163
General government	84,523	100,712	113,568	125,943	139,159	168,731	184,337	195,467
Gross capital formation	107,470	115,273	120,089	120,103	122,510	128,361	128,856	141,155
Fixed capital formation	104,470	109,873	113,879	112,961	116,369	123,079	124,313	136,567
General government	18,813	19,474	19,113	18,640	19,359	21,415	19,782	21,996
Private sector	85,657	90,399	94,766	94,321	97,009	101,664	104,531	114,571
Change in inventories	3,000	5,400	6,210	7,142	6,142	5,282	4,542	4,588
Gross domestic expenditure	551,435	669,157	743,787	785,103	871,607	962,300	1,015,015	1,141,784
Net exports	-22,695	-45,922	-52,877	-42,968	-75,635	-83,569	-52,329	-50,144
Exports of goods and services	172,459	174,846	171,895	189,265	211,433	234,176	250,429	271,785
Imports of goods and services	-195,155	-220,769	-224,772	-232,233	-287,067	-317,745	-302,758	-321,929
GDP at market prices	528,739	623,235	690,910	742,136	795,972	878,731	962,686	1,091,640
Net indirect taxes	79,118	86,971	97,489	103,080	109,813	111,350	112,698	123,217
GDP at factor cost	449,621	536,264	593,421	639,056	686,159	767,381	849,988	968,424
				(In percent of GDP)				
Final consumption expenditures	84.0	88.9	90.3	89.6	94.1	94.9	92.1	91.7
Private sector	68.0	72.7	73.8	72.6	76.6	75.7	72.9	73.8
General government	16.0	16.2	16.4	17.0	17.5	19.2	19.1	17.9
Gross capital formation	20.3	18.5	17.4	16.2	15.4	14.6	13.4	12.9
Fixed capital formation	19.8	17.6	16.5	15.2	14.6	14.0	12.9	12.5
General government	3.6	3.1	2.8	2.5	2.4	2.4	2.1	2.0
Private sector	16.2	14.5	13.7	12.7	12.2	11.6	10.9	10.5
Change in inventories	0.6	0.9	0.9	1.0	0.8	0.6	0.5	0.4
Gross domestic expenditure	104.3	107.4	107.7	105.8	109.5	109.5	105.4	104.6
Net exports	-4.3	-7.4	-7.7	-5.8	-9.5	-9.5	-5.4	-4.6
Exports of goods and services	32.6	28.1	24.9	25.5	26.6	26.6	26.0	24.9
Imports of goods and services	-36.9	-35.4	-32.5	-31.3	-36.1	-36.2	-31.4	-29.5
GDP at market prices	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
			(Annual percentage change, unless otherwise indicated)					
Final consumption expenditures	13.5	24.8	12.6	6.6	12.6	11.3	6.3	12.9
Private sector	11.5	26.1	12.6	5.7	13.1	9.1	5.5	14.7
General government	22.4	19.2	12.8	10.9	10.5	21.3	9.2	6.0
Gross capital formation	5.9	7.3	4.2	0.0	2.0	4.8	0.4	9.5
Fixed capital formation	5.0	5.2	3.6	-0.8	3.0	5.8	1.0	9.9
General government	-5.7	3.5	-1.9	-2.5	3.9	10.6	-7.6	11.2
Private sector	7.7	5.5	4.8	-0.5	2.9	4.8	2.8	9.6
Change in inventories	48.5	80.0	15.0	15.0	-14.0	-14.0	-14.0	1.0
Gross domestic expenditure	11.9	21.3	11.2	5.6	11.0	10.4	5.5	12.5
Net exports								
Exports of goods and services	13.0	1.4	-1.7	10.1	11.7	10.8	6.9	8.5
Imports of goods and services	8.3	13.1	1.8	3.3	23.6	10.7	-4.7	6.3
GDP at market prices	13.6	17.9	10.9	7.4	7.3	10.4	9.6	13.4
Memorandum items:								
Current account deficit, (including official								
transfers (in percent of GDP)	0.4	-4.2	-4.9	-2.2	-2.7	-3.6	-4.1	-5.6
National savings (in percent of GDP)	20.7	14.3	12.5	14.0	12.7	11.1	9.3	7.3
Of which: central government	0.0	2.1	3.6	3.5	1.9	0.3	-1.1	-1.4

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey,* various issues.

Table 5. Kenya: Gross Domestic Product, GDP Deflator, Population,
and Real Per Capita GDP, 1987-2003

	GDP at Market Prices		GDP Deflator	Population	Real Per Capita GDP
	1982 prices	Current prices			
	(In millions of Kenya shillings)		(Index, 1982=100)	(In millions)	(In Kenya shillings)
1987	85,833	131,169	152.8	21.3	4,027
1988	91,044	148,284	162.9	22.1	4,128
1989	95,369	170,406	178.7	22.8	4,182
1990	99,434	196,435	197.6	23.6	4,222
1991	100,864	224,232	222.3	24.3	4,154
1992	100,058	264,473	264.3	25.0	4,005
1993	100,411	333,613	332.2	25.7	3,913
1994	103,055	400,679	388.8	26.3	3,917
1995	107,595	465,272	432.4	26.9	3,997
1996	112,058	528,739	471.8	27.5	4,069
1997	114,403	623,235	544.8	28.2	4,062
1998	116,240	690,910	594.4	28.8	4,038
1999	117,742	742,136	630.3	29.4	4,003
2000	117,548	795,972	677.1	30.1	3,911
2001	124,587	878,731	705.3	30.7	4,063
2002	117,852	962,686	816.9	30.7	3,843
2003	121,389	1,091,640	899.3	30.7	3,959
			(Annual percentage change)		
1987	5.9	11.7	5.4	3.8	2.0
1988	6.1	13.0	6.6	3.5	2.5
1989	4.8	14.9	9.7	3.4	1.3
1990	4.3	15.3	10.6	3.3	1.0
1991	1.4	14.2	12.5	3.1	-1.6
1992	-0.8	17.9	18.9	2.9	-3.6
1993	0.4	26.1	25.7	2.7	-2.3
1994	2.6	20.1	17.0	2.5	0.1
1995	4.4	16.1	11.2	2.3	2.0
1996	4.1	13.6	9.1	2.3	1.8
1997	2.1	17.9	15.5	2.3	-0.2
1998	1.6	10.9	9.1	2.2	-0.6
1999	1.3	7.4	6.0	2.2	-0.8
2000	-0.2	7.3	7.4	2.2	-2.3
2001	6.0	10.4	4.2	2.0	3.9
2002	-5.4	9.6	15.8	0.0	-5.4
2003	3.0	13.4	10.1	0.0	3.0

Sources: Government of Kenya, *Economic Survey,* various issues; World Bank, *World Development Indicators* , various issues; and Fund staff estimates.

Table 6. Kenya: Gross Fixed Capital Formation at Current Prices, 1996–2003

	1996	1997	1998	1999	2000	2001	2002 Prel.	2003 est.
(In millions of Kenya shillings)								
Gross fixed capital formation	104,909	109,029	112,867	111,594	116,239	121,738	122,938	134,032
General government	18,813	19,474	19,113	18,640	19,359	21,415	19,782	21,996
Enterprises and nonprofit institutions	86,096	89,555	93,754	92,954	96,879	100,323	103,156	112,037
Agriculture, forestry, and fishing	6,896	6,995	8,139	7,752	8,339	8,568	9,194	9,827
Mining and quarrying	741	877	972	1,082	1,087	1,094	1,268	2,050
Manufacturing	23,458	24,203	25,118	23,869	23,978	25,439	26,652	28,582
Construction and ownership of dwellings	11,634	13,945	13,672	14,000	16,189	15,843	16,863	19,103
Utilities	7,837	6,983	8,527	8,358	9,032	8,640	8,628	9,070
Finance, insurance, real estate, and business services	4,485	4,831	4,890	5,114	5,212	6,198	6,321	7,371
Trade, restaurants, and hotels	3,391	3,846	3,657	3,756	3,505	4,302	4,815	5,996
Transport, storage, and communications	24,253	24,253	24,253	24,253	24,253	24,254	24,255	24,256
Other services	3,400	3,622	4,527	4,770	5,284	5,985	5,160	5,782
(In percent of GDP, unless otherwise indicated)								
Gross fixed capital formation	19.8	17.5	16.3	15.0	14.6	13.9	12.8	12.3
General government	3.6	3.1	2.8	2.5	2.4	2.4	2.1	2.0
Enterprises and nonprofit institutions	16.3	14.4	13.6	12.5	12.2	11.4	10.7	10.3
Agriculture, forestry, and fishing	1.3	1.1	1.2	1.0	1.0	1.0	1.0	0.9
Mining and quarrying	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Manufacturing	4.4	3.9	3.6	3.2	3.0	2.9	2.8	2.6
Construction and ownership of dwellings	2.2	2.2	2.0	1.9	2.0	1.8	1.8	1.7
Utilities	1.5	1.1	1.2	1.1	1.1	1.0	0.9	0.8
Finance, insurance, real estate, and business services	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Trade, restaurants, and hotels	0.6	0.6	0.5	0.5	0.4	0.5	0.5	0.5
Transport, storage, and communications	4.6	3.9	3.5	3.3	3.0	2.8	2.5	2.2
Other services	0.6	0.6	0.7	0.6	0.7	0.7	0.5	0.5
Memorandum item:								
GDP at market prices (in millions of Kenya shillings)	528,739	623,235	690,910	742,136	795,972	878,731	962,686	1,091,640

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey,* various issues.

Table 7. Kenya: Sales of Agricultural Production to the Marketing Boards, 1996–2003

	1996	1997	1998	1999	2000	2001	2002 Prel.	2003 Est.
			(In thousands of metric tons) [1]					
Coffee	103.2	68.0	51.3	64.3	98.0	54.6	45.5	61.2
Tea	257.2	220.7	294.3	244.8	236.3	294.6	287.1	293.7
Maize	295.5	204.6	218.0	223.5	201.2	461.5	398.0	280.5
Wheat	130.0	124.2	176.7	52.9	70.5	77.7	57.3	61.3
Rice (paddy)	15.9	14.4	11.7	24.3	18.7	19.3	18.9	19.8
Sugarcane	3,870.5	4,278.3	4,661.0	4,415.8	3,941.5	3,550.8	4,500.0	4,200.0
Cotton	0.5	0.5	0.5	0.2	0.5	0.5	1.1	1.7
Sisal	28.1	20.1	18.1	21.9	21.4	23.2	22.1	24.8
Pyrethrum extract	90.0	90.0	70.0	80.0	70.0	78.0	174.9	106.9
			(Annual percentage change)					
Coffee	7.7	-34.1	-24.6	25.3	52.4	-44.3	-16.7	34.5
Tea	5.2	-14.2	33.3	-16.8	-3.5	24.7	-2.5	2.3
Maize	-26.3	-30.8	6.5	2.5	-10.0	129.4	-13.8	-29.5
Wheat	3.6	-4.5	42.3	-70.1	33.3	10.2	-26.3	7.0
Rice (paddy)	8.9	-9.4	-18.8	107.7	-23.0	3.2	-2.1	4.8
Sugarcane	-4.1	10.5	8.9	-5.3	-10.7	-9.9	26.7	-6.7
Cotton	150.0	0.0	0.0	-60.0	150.0	0.0	120.0	54.5
Sisal	0.7	-28.5	-10.0	21.0	-2.3	8.4	-4.7	12.2
Pyrethrum extract	-26.7	0.0	-22.2	14.3	-12.5	11.4	124.2	-38.9

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey,* various issues.

[1]Except pyrethrum, which is expressed in metric tons.

Table 8. Kenya: Value of Agricultural Production Sold to the Marketing Boards, 1996–2003

	1996	1997	1998	1999	2000	2001	2002 Prel.	2003 Est.
				(In millions of Kenya shillings)				
Coffee	14,358	16,546	13,198	10,050	11,282	6,424	5441	5957
Tea	20,336	23,635	39,137	31,088	35,970	38,565	33414	34631
Maize	3,119	2,809	2,986	3,097	2,915	6,142	4451	3337
Wheat	2,113	2,198	2,800	1,005	1,133	1,429	988	1170
Sugarcane	7,125	6,644	7,967	7,639	7,942	7,155	9070	7567
Sisal	546	781	795	875	810	957	938	1061
Pyrethrum extract	335	322	350	406	729	769	1272	782
Livestock and derivatives	14,239	14,785	14,109	15,461	13,949	15,555	19041	18979
Other	2,877	3,414	3,458	4,109	4,045	3,951	4372	5832
Total	65,048	71,134	84,802	73,731	78,775	80,947	78,987	79,315
				(In percentage of total value)				
Coffee	22.1	23.3	15.6	13.6	14.3	7.9	6.9	7.5
Tea	31.3	33.2	46.2	42.2	45.7	47.6	42.3	43.7
Maize	4.8	3.9	3.5	4.2	3.7	7.6	5.6	4.2
Wheat	3.2	3.1	3.3	1.4	1.4	1.8	1.3	1.5
Sugarcane	11.0	9.3	9.4	10.4	10.1	8.8	11.5	9.5
Sisal	0.8	1.1	0.9	1.2	1.0	1.2	1.2	1.3
Pyrethrum extract	0.5	0.5	0.4	0.6	0.9	1.0	1.6	1.0
Livestock and derivatives	21.9	20.8	16.6	21.0	17.7	19.2	24.1	23.9
Other	4.4	4.8	4.1	5.6	5.1	4.9	5.5	7.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey* , various issues.

Table 9. Kenya: Average Prices to Producers For Selected Commodities, 1996–2003 [1]

	1996	1997	1998	1999	2000	2001	2002	2003
							Prel.	Est.

(Kenya shillings per hundred kilograms, unless otherwise indicated)

	1996	1997	1998	1999	2000	2001	2002	2003
Coffee	13,914	25,150	25,178	15,632	11,509	11,776	11962.9	9729.2
Tea	7,908	10,680	13,300	12,500	15,223	13,089	11638.7	11792.5
Maize	1,055	1,373	1,284	1,386	1,449	1,360	1034	1189.5
Wheat	1,563	1,770	1,690	1,815	1,652	1,801	1724.3	1908.8
Sugarcane (per ton)	1,553	1,553	1,730	1,730	2,015	2,015	2015	1800
Seed cotton	2,136	2,000	2,096	2,100	1,910	1,800	1729.6	2107.4
Sisal	1,915	3,891	3,974	3,990	3,779	4,123	4241.4	4272.3
Pyrethrum extract (per kilogram)	3,600	3,600	5,200	5,200	9,835	9,835	7301.8	7316.6
Beef (third grade)	3,400	3,580	3,824	4,799	8,154	9,375	12169.2	11861.9
Bacon	6,600	8,174	7,651	8,164	9,022	9,516	9417.4	6729.1
Milk (per hundred liters)	1,250	1,450	1,549	1,494	1,500	1,300	1387.2	1400

(Annual percentage change)

	1996	1997	1998	1999	2000	2001	2002	2003
Coffee	-12.9	80.8	0.1	-37.9	-26.4	2.3	1.6	-18.7
Tea	16.5	35.1	24.5	-6.0	21.8	-14.0	-11.1	1.3
Maize	31.9	30.1	-6.5	7.9	4.6	-6.2	-24.0	15.0
Wheat	20.2	13.2	-4.5	7.4	-9.0	9.0	-4.3	10.7
Sugarcane (per ton)	0.0	0.0	11.4	0.0	16.5	0.0	0.0	-10.7
Seed cotton	24.2	-6.4	4.8	0.2	-9.0	-5.8	-3.9	21.8
Sisal	0.0	103.2	2.1	0.4	-5.3	9.1	2.9	0.7
Pyrethrum extract (per kilogram)	0.0	0.0	44.4	0.0	89.1	0.0	-25.8	0.2
Beef (third grade)	3.0	5.3	6.8	25.5	69.9	15.0	29.8	-2.5
Bacon	1.5	23.8	-6.4	6.7	10.5	5.5	-1.0	-28.5
Milk (per hundred liters)	-13.8	16.0	6.8	-3.6	0.4	-13.3	6.7	0.9

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey*, various issues.

[1]These prices are for calendar-year deliveries and reflect actual payouts, although average prices for two seasons that overlap during a calendar year may have differed. For coffee and tea, the prices are processed coffee and made tea, respectively.

Table 10. Kenya: Quantity Index of Manufacturing Output, 1996–2003

	1996	1997	1998	1999	2000	2001	2002 Prel.	2003 Est.
				(Indices, 1976=100)				
Food processing	194.2	195.3	200.1	204.9	199.4	200.8	208.5	207.1
Beverages and tobacco	207.5	203.0	203.7	159.7	166.1	158.2	165.4	187
Textiles	125.7	119.6	118.6	118.7	115.5	114.7	114.9	85.7
Clothing	152.0	142.4	148.4	154.8	167.2	172.8	178.4	188
Leather and footwear	68.8	61.6	57.9	48.6	54.6	59.5	61.6	58.7
Wood and cork products	74.8	74.9	73.4	82.3	75.1	71.7	31.6	27
Furniture and fixtures	54.5	54.7	55.9	55.9	56.1	57.0	51.3	50.4
Paper and paper products	192.1	196.5	222.3	238.1	258.5	263.3	262.5	248.8
Printing and publishing	465.0	465.9	465.9	466.4	424.5	424.7	447.3	448.9
Basic industrial chemicals	201.6	157.5	168.8	162.6	140.6	147.7	136.3	150.2
Petroleum and other chemicals	531.7	591.7	594.8	616.8	659.4	741.8	751.6	816.5
Rubber products	630.9	678.0	668.3	590.8	588.1	581.1	548.5	534.2
Plastic products	397.5	510.9	608.7	697.6	781.8	837.0	919.3	964.4
Clay and glass products	2,376.3	2,254.6	2,437.0	1,623.0	1,191.7	1,052.4	1,049.8	1056.4
Nonmetallic minerals	219.5	230.6	216.7	216.9	153.8	131.6	137.0	151.1
Metal products	246.4	298.6	252.9	270.1	238.1	237.7	228.7	232.7
Nonelectrical machinery	113.9	88.7	86.7	85.1	86.1	89.1	86.2	87.1
Electrical machinery	266.9	213.3	221.9	188.4	188.7	199.4	195.5	207.1
Transport equipment	713.7	594.9	433.3	360.1	241.5	212.6	227.7	236.7
Miscellaneous manufactures	569.1	661.6	765.2	917.5	1,149.6	1,190.9	1,170.7	1189.7
Total manufacturing	272.9	278.1	282.2	285.6	281.4	283.6	286.6	290.6
				(Annual percentage change)				
Food processing	-0.1	0.6	2.5	2.4	-2.7	0.7	3.8	-0.7
Beverages and tobacco	-10.1	-2.2	0.3	-21.6	4.0	-4.8	4.6	13.1
Textiles	-7.9	-4.9	-0.8	0.1	-2.7	-0.7	0.2	-25.4
Clothing	-0.7	-6.3	4.2	4.3	8.0	3.3	3.2	5.4
Leather and footwear	4.7	-10.5	-6.0	-16.1	12.3	9.0	3.5	-4.7
Wood and cork products	1.9	0.1	-2.0	12.1	-8.7	-4.5	-55.9	-14.6
Furniture and fixtures	3.8	0.4	2.2	0.0	0.4	1.6	-10.0	-1.8
Paper and paper products	25.6	2.3	13.1	7.1	8.6	1.9	-0.3	-5.2
Printing and publishing	3.0	0.2	0.0	0.1	-9.0	0.0	5.3	0.4
Basic industrial chemicals	-3.5	-21.9	7.2	-3.7	-13.5	5.0	-7.7	10.2
Petroleum and other chemicals	8.1	11.3	0.5	3.7	6.9	12.5	1.3	8.6
Rubber products	1.6	7.5	-1.4	-11.6	-0.5	-1.2	-5.6	-2.6
Plastic products	3.3	28.5	19.1	14.6	12.1	7.1	9.8	4.9
Clay and glass products	13.2	-5.1	8.1	-33.4	-26.6	-11.7	-0.2	0.6
Nonmetallic minerals	4.7	5.1	-6.0	0.1	-29.1	-14.4	4.1	10.3
Metal products	19.1	21.2	-15.3	6.8	-11.8	-0.2	-3.8	1.7
Nonelectrical machinery	45.8	-22.1	-2.3	-1.8	1.2	3.5	-3.3	1.0
Electrical machinery	5.2	-20.1	4.0	-15.1	0.2	5.7	-2.0	5.9
Transport equipment	34.9	-16.6	-27.2	-16.9	-32.9	-12.0	7.1	4.0
Miscellaneous manufactures	20.5	16.3	15.7	19.9	25.3	3.6	-1.7	1.6
Total manufacturing	3.4	1.9	1.5	1.2	-1.5	0.8	1.1	1.4

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey*, various issues.

Table 11. Kenya: Selected Statistics on Construction Activity, 1996–2003

	1996	1997	1998	1999	2000	2001	2002	2003 Prel.
Cement consumption (in thousands of tons)	1,162	1,137	1,072	1,111	1,067	1,089	1,212	1,267
Value added at constant prices (in millions of Kenya shillings at 1982 prices)	4,028	4,093	4,127	4,151	4,121	4,122	4152	4243
Employment (in thousands)	78.8	79.8	79.2	78.7	78.6	76.6	76.5	76.6
Value of building plans approved (in millions of Kenya shillings)	15,125	15,052	12,752	11,130	9,975	10,118	10,607	10,893
New private buildings in main towns								
Number	1,492	1,482	1,472	1,135	1,054	952	1,067	1,178
Value (in millions of Kenya shillings)	1,465	1,610	1,530	1,275	1,216	1,025	1,396	1,426
New public buildings in main towns								
Number	109	99	73	55	21	27	24	30
Value (in millions of Kenya shillings)	46	46	44	31	16	29	28	50

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey,* various issues.

Table 12. Kenya: Energy Supply-and-Demand Balances, 1996–2003

	1996	1997	1998	1999	2000	2001	2002 Prel.	2003 Est.
Petroleum				(In thousands of tons)				
Demand	2,784.2	2,921.9	2,942.1	3,029.1	2,986.3	2,935.6	2574	2196
Domestic demand	2,333.4	2,268.9	2,293.2	2,401.8	2,544.4	2,466.5	2,383.3	2,193.7
Liquefied gas	31.2	30.7	31.3	32.2	33.4	35.6	40.5	40.9
Premium and regular gasoline	399.3	390.6	395.8	384.6	365.7	374.3	365.8	327.1
Aviation spirit	4.6	4.1	3.2	2.5	2.2	2.4	1.8	1.5
Jet/turbo fuel	444.6	431.9	419.4	418.7	432.2	417.3	470.2	487.4
Illuminating kerosene	253.8	267.6	318.2	406.8	383.7	306.1	273.6	194.6
Light diesel oil	646.3	615.9	607.5	601.7	712.8	663.7	627.3	641.0
Heavy diesel oil	26.6	47.6	26.4	25.7	28.1	27.7	28.0	24.5
Fuel oil	424.2	386.9	397.3	439.4	490.0	558.1	498.7	412.3
Refinery usage	102.8	93.6	94.1	90.2	96.3	81.3	77.4	64.4
Export demand	450.8	653	648.9	627.3	441.9	469.1	190.6	2.2
Supply	2,784.2	2,921.9	2,942.1	3,029.1	2,986.3	2,935.6	2573.9	2195.9
Imports of crude oil	1,412.9	1,833.7	2,157.7	2,139.3	2,452.3	1,965.6	1493.4	1382.6
Petroleum fuels	963.9	893.7	1,387.8	1,250.9	874.9	1,208.3	1023.5	1820.0
Adjustment	407.4	194.5	603.4	-361.1	-340.9	-238.3	57.0	-1006.7
Electricity				(In millions of kilowatt-hours)				
Demand	3,408	3,555	3,615	3,717	3,211	3,655	3742	3807
Domestic	674	697	761	804	675	792		
Off peak	100	86	89	92	60	57	61	59
Large industrial and commercial	1,491	1,536	1,526	1,513	1,347	1,498		
Medium industrial and commercial	618	657	667	680	605	684		
Small commercial	375	418	414	466	391	490		
Street lighting	12	10	11	9	9	5	6	7
Rural electrification	138	150	147	153	125	128	134	153
Supply	4,276	4,389	4,559	4,582	4,179	4,452	4686	4662
Net generation	4,140	4,240	4,420	4,432	3,958	4,338	4,447	4,473
Imports from Uganda	137	150	139	150	221	114	238	189

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey,* various issues.

Table 13. Kenya: Employment by Industry and Sector, 1996–2003
(Number of people employed)

	1996	1997	1998	1999	2000	2001	2002	2003 Prel.
Total employment	1,618,841	1,647,434	1,664,904	1,673,550	1,695,300	1,663,600	1,699,800	1,727,600
Agriculture and forestry	302,940	305,558	308815	311,257	312,200	312,500	313700	316000
Mining and quarrying	4,851	4,964	5040	5,162	5,300	5,200	5300	5400
Manufacturing	210,423	214,493	216889	219,604	218,700	216,600	229800	241700
Electricity and water	23,356	23,445	23184	22,713	22,700	21,400	21300	21100
Building and construction	78,811	79,924	79256	78,647	78,600	76,800	76500	76600
Wholesale and retail trade	143,177	148,204	150727	153,629	155,500	156,900	157500	162800
Transport and communications	86,267	85,852	84980	83,805	84,200	84,300	85400	86900
Finance, insurance, and business services	81,051	83,165	84003	84,528	85,000	70,300	83300	83300
Community, social, and personal services	687,965	701,829	712010	714,205	733,100	719,600	727000	733800
Private sector	917,939	946,786	967,193	990,315	1,002,800	1,018,700	1,040,700	1,068,600
Agriculture and forestry	236,572	240,594	245,207	249,577	251300	254700	256300	259600
Mining and quarrying	4,133	4,264	4,345	4,497	4600	4600	4600	4700
Manufacturing	172,269	177,082	180,783	184,036	182900	183100	196400	208700
Electricity and water	1,332	1,488	1,480	1,521	1500	1600	1700	1800
Building and construction	49,592	51,593	51,856	52,163	52300	52400	52500	53100
Wholesale and retail trade	136,185	141,680	144,327	147,306	149100	150800	151400	156700
Transport and communications	41,443	43,100	43,083	43,660	44500	46200	47700	49300
Finance, insurance, and business services	62,613	65,358	66,803	68,119	68800	68800	68600	69100
Community, social, and personal services	213,800	221,627	229,309	239,436	247800	256500	261500	265600
Public sector	700,902	700,648	697,711	683,235	692,500	644,900	658,900	659,100
Agriculture and forestry	66,368	64,964	63,608	61,680	60,900	57,800	57300	56500
Mining and quarrying	718	700	695	665	700	600	600	700
Manufacturing	38,154	37,411	36,106	35,568	35,800	33,500	33400	33000
Electricity and water	22,024	21,957	21,704	21,192	21,200	19,800	19600	19300
Building and construction	29,219	28,331	27,400	26,484	26,300	24,400	24000	23500
Wholesale and retail trade	6,992	6,524	6,400	6,323	6,400	6,100	6100	6100
Transport and communications	44,824	42,752	41,897	40,145	39,700	38,100	37800	37600
Finance, insurance, and business services	18,438	17,807	17,200	16,409	16,200	1,500	14600	14200
Community, social, and personal services	474,165	480,202	482,701	474,769	485,300	463,100	465500	468200

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey*, various issues.

Table 14. Kenya: Average Wage Earnings per Employee by Industry and Sector, 1998–2003
(In Kenya shillings)

	1998	1999	2000	2001	2002	2003 Prel.
Private and public sector	131,569	150,316	173,032	198,842	228540	258344
Private sector	131,152	152,459	175,846	202,083	231453	266727
Agriculture and forestry	50,937	59,287	67,062	74,596	83364	94675
Mining and quarrying	71,187	80,320	90,008	102,657	117418	132774
Manufacturing	135,791	158,205	177,614	194,870	211716	235985
Electricity and water	161,373	236,174	274,462	316,977	367484	429833
Building and construction	116,436	136,234	156,828	175,759	200699	230399
Wholesale and retail trade	183,966	215,341	251,308	291,621	339820	394329
Transport and communications	196,999	227,428	266,585	322,235	383275	447686
Finance, insurance, and business se	241,478	277,763	320,498	374,016	433722	505486
Community, social, and personal se	139,547	161,523	187,980	219,899	255188	296552
Public sector	132,136	147,279	168,956	193,827	223940	244771
Agriculture and forestry	74,567	85,629	102,187	119,596	139848	153771
Mining and quarrying	122,997	133,655	151,278	168,081	185706	193477
Manufacturing	94,751	106,592	124,847	143,855	167051	181736
Electricity and water	154,092	175,692	209,573	245,502	285889	313656
Building and construction	108,632	124,530	148,240	173,509	202859	222892
Wholesale and retail trade	153,094	171,761	200,685	230,178	309234	348040
Transport and communications	157,607	180,018	215,426	255,717	305480	342249
Finance, insurance, and business se	290,390	334,889	401,016	469,825	579044	647777
Community, social, and personal se	134,743	148,774	168,009	191,127	218002	237072

Sources: Government of Kenya, *Statistical Abstract* and *Economic Survey* , various issues.

Table 15. Kenya: Employment and Earnings in the Public Sector, 1998–20033

	1998	1999	2000	2001	2002	2003 Prel.
Employment	711.2	698.9	692.5	658.4	659	659
Central government	227.6	224.0	222.9	195.7	195	195
Teachers' Service Commission	247.7	242.3	236.8	231.3	234	235
Parastatal bodies[1]	108.9	105.3	104.1	101.6	99	97
Other public sector [2]	49.9	48.5	48.0	47.5	47	46
Local governments	77.1	78.8	80.7	82.3	84	86
Gross earnings	93,975	102,919	117,002	127,618	147522	161317
Central government	25,962	26,664	26,982	26,589	27825	28733
Teachers' Service Commission	36,184	36,589	36,921	37,855	44670	46867
Parastatal bodies[1]	13,933	17,886	23,676	27,919	33108	37562
Other public sector [2]	8,232	9,642	14,389	17,174	20500	23522
Local governments	9,664	12,138	15,035	18,082	21419	24634
Average monthly earnings	11,011	12,272	14,080	16,153	18,660	20,396
Central government	9,506	9,920	10,087	11,322	11,897	12,279
Teachers' Service Commission	12,173	12,584	12,993	13,638	15,888	16,633
Parastatal bodies[1]	10,662	14,155	18,953	22,899	27,868	32,170
Other public sector [2]	13,748	16,567	24,981	30,131	36,582	42,244
Local governments	10,445	12,836	15,525	18,309	21,274	23,982

Source: Government of Kenya, *Statistical Abstract*, various issues.

[1]Includes Kenya Railways, Kenya Ports Authority, Kenya Post and Telecommunications Corporation, and Kenya Airways.

[2]Corporations.

Table 16: Kenya: Consumer Price Index, December 1999-September 2004

	Dec-99	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Sep-03	Dec-03	Mar-04	Jun-04	Sep-04
(Index, October 1997=100)																	
All Items	**115**	**129**	**129**	**132**	**132**	**131**	**131**	**135**	**134**	**137**	**144**	**154**	**145**	**148**	**156**	**163**	**172**
Food & Nonalcoholic Beverages	117	136	134	138	136	135	135	142	138	142	155	173	156	162	173	184	198
Alcohol & Tobacco	116	121	120	124	138	138	138	139	140	139	141	145	145	147	147	148	150
Clothing & Footwear	107	110	109	109	109	110	110	110	110	111	111	111	110	112	113	115	116
Housing	117	121	124	125	128	128	128	131	130	132	134	135	134	134	137	138	140
Fuel & Power	123	143	155	164	164	156	157	163	165	169	177	174	168	170	178	188	218
Household Goods & Services	112	117	117	119	119	119	119	119	120	120	121	122	122	123	124	126	128
Medical Goods & Services	123	135	141	144	152	153	154	154	157	160	165	168	168	169	172	172	173
Transport & Communication	113	128	127	128	129	128	129	128	129	131	136	139	138	139	169	168	172
Recreation & Education	111	120	122	127	128	130	130	132	132	133	136	137	137	137	142	143	143
Personal Goods & Services	111	118	118	120	120	121	120	122	122	123	123	125	124	124	125	128	129
Memoranda Items																	19
Overall excluding rent	115	130	129	133	132	131	132	136	135	137	146	156	146	150	159	166	176
Overall excluding food	114	122	123	125	128	127	128	129	130	131	133	134	133	134	140	142	146
Overall excluding food, fuel	113	120	120	122	124	125	125	126	126	127	129	130	130	131	136	138	139
Overall excluding rent, food	113	122	123	126	127	127	127	128	129	130	133	134	133	134	141	143	148
Overall excluding rent, food, fuel & power	111	119	119	121	123	123	124	124	125	126	128	129	129	130	136	138	139
Overall excluding food, fuel & power, transport & communication	113	118	119	121	124	124	124	125	126	127	128	129	129	130	132	133	135
Overall excluding rent, food, fuel & power, transport & communication	111	117	117	119	122	122	123	123	124	124	126	127	127	128	129	131	132
(12-month percent change)																	
All Items	10.5	11.8	9.5	4.6	3.1	1.6	2.0	2.8	1.8	4.2	10.1	13.7	7.9	8.3	8.3	5.9	19.0
Food & Nonalcoholic Beverages	14.1	16.5	11.4	2.6	0.1	-1.1	0.6	2.8	2.0	5.6	15.3	22.5	12.4	13.5	11.2	6.1	26.9
Alcohol & Tobacco	3.2	4.6	1.9	5.1	11.9	13.9	15.1	11.4	1.5	0.9	2.0	4.8	3.6	5.1	4.2	1.7	2.9
Clothing & Footwear	2.4	2.4	1.6	1.0	-0.6	-0.2	0.9	0.9	0.8	0.8	1.1	0.9	0.5	1.2	1.2	3.9	5.2
Housing	11.4	3.8	5.4	5.0	7.2	5.8	3.4	5.1	2.0	3.1	4.4	2.9	2.7	1.6	2.2	2.3	4.2
Fuel & Power	13.5	16.0	26.2	24.5	22.9	9.5	1.6	-0.3	0.5	7.8	12.5	6.5	1.6	0.8	0.5	7.9	30.1
Household Goods & Services	3.8	4.7	4.2	5.2	1.3	1.1	1.6	0.3	0.9	1.4	1.6	2.7	2.2	2.2	2.6	3.2	4.3
Medical Goods & Services	16.5	10.1	12.9	9.6	12.3	13.2	9.3	6.7	3.1	4.6	7.0	8.9	7.3	5.6	4.0	2.8	3.1
Transport & Communication	5.0	13.9	11.6	5.1	4.1	-0.3	1.4	0.3	0.7	2.5	5.8	8.1	6.7	5.9	24.0	21.3	24.5
Recreation & Education	6.7	8.3	6.4	9.2	6.9	8.0	6.5	4.0	3.6	2.4	5.1	3.6	3.3	3.3	3.9	4.3	4.9
Personal Goods & Services	1.7	6.5	5.3	6.1	2.6	2.1	1.9	1.7	1.5	1.9	2.4	2.4	1.9	1.3	1.5	2.4	3.5
Memoranda Items																	
Overall excluding rent	10.4	12.9	10.0	4.6	2.6	1.1	1.9	2.6	1.7	4.4	10.8	15.1	8.6	9.2	9.1	6.4	20.8
Overall excluding food	6.9	6.9	7.4	6.9	6.6	4.7	3.6	2.9	1.6	2.7	4.5	4.0	2.9	2.6	4.9	5.8	9.5
Overall excluding food, fuel	6.3	6.0	5.5	5.1	4.9	4.2	3.8	3.3	1.7	2.2	3.6	3.7	3.1	2.8	5.4	5.5	7.0
Overall excluding rent, food	5.5	7.9	8.0	7.6	6.3	4.4	3.6	2.2	1.4	2.6	4.5	4.3	3.0	2.9	5.7	6.9	11.1
Overall excluding rent, food, fuel & power	4.5	6.7	5.5	5.1	4.0	3.6	3.9	2.6	1.6	1.8	3.3	4.0	3.2	3.2	6.6	6.7	8.1
Overall excluding food, fuel & power, transport & communi	6.5	4.8	4.6	5.1	5.0	4.9	4.2	3.7	1.8	2.1	3.3	3.0	2.6	2.3	2.6	3.1	4.3
Overall excluding rent, food, fuel & power, transport & com	4.4	5.2	4.3	5.2	4.0	4.5	4.5	3.1	1.8	1.7	2.7	3.1	2.5	2.7	2.7	3.4	4.4

Sources: Kenyan authorities; and staff calculations

Table 17. Kenya: Central Government Fiscal Operations, 1997/98-2003/04[1]

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
	(In millions of Kenya shillings)						
Revenue and grants	184,267	197,186	184,680	216,393	204,591	225,692	268,905
Revenue	178,995	192,266	180,265	192,313	197,768	210,750	252,681
Grants	5,272	4,920	4,415	24,080	6,823	14,942	16,224
Expenditure and net lending	194,047	197,456	181,123	232,621	228,980	265,947	272,705
Recurrent expenditure	161,152	161,468	156,535	198,641	204,026	222,421	241,425
Development expenditure and net lending	32,895	35,988	24,588	33,980	24,954	43,526	31,280
Overall balance, excluding grants3	-15,052	-5,190	-858	-40,308	-31,212	-55,197	-20,024
Overall balance, including grants3	-9,780	-270	3,557	-16,228	-24,389	-40,255	-3,800
Adjustment to cash basis	4,444	-1,587	-2,563	6,650	-2,832	7,163	1,470
Overall cash balance, excluding grants	-10,608	-6,777	-3,421	-33,658	-34,044	-48,034	-18,554
Overall cash balance, including grants	-5,336	-1,857	994	-9,578	-27,221	-33,092	-2,330
Financing	6,630	2,284	3,399	8,731	29,409	36,582	-51
Foreign (net)	-7,201	-8,732	-14,227	8,107	-11,250	-10,340	-8,860
Domestic (net)	12,042	11,016	11,876	624	39,704	46,922	8,809
Privatization receipts	1,789	0	5,749	0	955	0	0
	(In percent of GDP, unless otherwise indicated)						
Revenue and grants	28.0	27.4	24.0	25.8	22.2	22.0	23.1
Revenue	27.2	26.7	23.4	23.0	21.5	20.5	21.7
Grants	0.8	0.7	0.6	2.9	0.7	1.5	1.4
Expenditure and net lending	29.5	27.5	23.5	27.8	24.9	25.9	23.5
Recurrent expenditure	24.5	22.5	20.3	23.7	22.2	21.7	20.8
Development expenditure and net lending	5.0	5.0	3.2	4.1	2.7	4.2	2.7
Overall balance, excluding grants2	-2.3	-0.7	-0.1	-4.8	-3.4	-5.4	-1.7
Overall balance, including grants2	-1.5	0.0	0.5	-1.9	-2.6	-3.9	-0.3
Adjustment to cash basis	0.7	-0.2	-0.3	0.8	-0.3	0.7	0.1
Overall cash balance, excluding grants	-1.6	-0.9	-0.4	-4.0	-3.7	-4.7	-1.6
Overall cash balance, including grants	-0.8	-0.3	0.1	-1.1	-3.0	-3.2	-0.2
Financing	1.0	0.3	0.4	1.0	3.2	3.6	0.0
Foreign (net)	-1.1	-1.2	-1.8	1.0	-1.2	-1.0	-0.8
Domestic (net)	1.8	1.5	1.5	0.1	4.3	4.6	0.8
Privatization receipts	0.3	0.0	0.7	0.0	0.1	0.0	0.0
Memorandum item:							
GDP (in millions of Kenya shillings)	658,632	718,754	769,911	837,537	920,708	1,027,163	1,162,052

Sources: Kenyan authorities; and Fund staff estimates.

1July-June fiscal year.
2On a commitment basis.

Table 18. Central Government Revenue 1999/2000 - 2003/04

	1999/00	2000/01	2001/02	2002/03	2003/04	Explanations of Items
Tax Revenue	156,345	167,881	167,937	185,155	212,068	Taxes on income and profits, Taxes on goods and services, Taxes on international trade
Taxes on Income and Profits	54,402	56,236	58,895	70,081	80,867	PAYE & Other Income Tax
Taxes on goods and services	72,137	81,966	86,349	95,378	106,860	Total VAT, Excise Duty & Other Taxes
Value-added Tax	40,944	50,298	50,872	56,135	61,725	Total VAT
Local manufactures	22,417	26,289	26,325	26,698	34,269	VAT Local
Imported manufactures	18,528	24,009	24,546	29,437	27,456	VAT Imports
Excise duties	28,493	28,318	32,077	35,643	40,085	Excise Duty
Other taxes and licenses	1,200	953	1,110	1,219	2,018	Other Taxes
Taxes on international trade	28,605	28,726	21,584	18,477	22,324	Import Duty Export duty & Imports, Exports and Essential Supplies Revenue
Import duties	28,605	28,726	21,584	18,477	22,324	Import Duty
Export duties	-	-	-	-	-	Export Duty
Other taxes	2,700	3,350	3,400	3,600	5,050	Imports, Exports and Essential Supplies Revenue
Nontax revenue	27,249	37,061	32,408	27,158	39,313	Property Income, Administrative fees and charges, Other nontax revenue
Property income	4,811	7,651	4,487	4,617	8,409	Total Public Enterprise & Financial Institutions, Loan Interest Receipts and Other Property Income
Public enterprises and Financial inst.	305	4,478	1,722	1,243	3,367	Total Investment Income
Central Bank of Kenya	-	2,000	290	1,110	867	Investment Revenue CBK
Other profits and dividends	305	2,478	1,432	133	2,500	Investment Revenue Other
Loan interest receipts	752	37	753	210	311	Loan Interest Receipts
Other property income	3,754	3,136	2,012	3,164	4,731	Airport Revenue, Aviation Revenue, Trading Licenses, Land Revenue, Forest & Mining, Rent of Buildings and Loan Redemption Receipts
Administrative fee and charges	7,764	12,578	7,054	2,382	6,632	Traffic Revenue, Fines & Forfeitures, Reimbursements and Other Fund Contributions, Miscellaneous Revenue
Other non-tax revenue	14,674	16,832	20,867	20,159	24,271	Appropriation-in-Aid
Total Revenue	183,593	204,942	200,345	212,314	251,381	Tax Revenue, Nontax Revenue

N.B.

1. On the listing of revenue items, the last column explains the re-grouping of revenue items to flow with the descriptions given by IMF.

2. The figures constitute audited revenue receipts for 1999/2000 to 2001/02. The last two years - 2002/03 and 2003/04 have been audited still have queries that are currently being addressed.

Table 19. Kenya: Economic Classification of Central Government
Expenditure and Net Lending, 1999/00-2003/04[1]

	1999/00	2000/01	2001/02	2002/03	2003/04
	(In millions of Kenya shillings)				
Recurrent expenditure	150,951	179,043	191,957	210,147	253,058
Goods and services	95,917	111,399	122,944	135,111	178,030
Wages and allowances	65,861	68,119	78,125	85,087	95,850
Other	30,056	43,280	44,819	50,024	82,180
Interest	29,387	31,035	30,384	36,026	29,700
Domestic	20,752	23,232	23,744	27,567	23,281
Foreign	8,635	7,803	6,640	8,459	6,419
Subsidies and transfers	25,647	36,609	38,629	39,010	45,328
General government	15,899	20,379	26,970	26,355	29,694
Households/nonprofit institutions	6,530	13,748	10,522	11,699	13,634
Export compensation	0	0	0	0	0
Other	3,218	2,482	1,137	956	2,000
Development expenditure and net lending	21,018	35,440	26,045	33,854	45,498
Fixed investment	17,008	28,603	23,929	25,684	33,339
Net lending	1,599	2,372	-21	247	1,046
Equity and capital transfers	2,411	4,465	2,136	7,922	11,113
Equity	2	0	0	0	0
Capital transfers	2,409	4,465	2,136	7,922	11,113
Total expenditure and net lending	171,969	214,483	218,001	244,001	298,556

Sources: Kenyan authorities; and Fund Staff estimates

[1]/July-June fiscal year.

Table 20. Kenya: Functional Classification of Central Government
Expenditure and Net Lending, 1997/98-2003/04 [1]

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
	(In millions of Kenya shillings)						
General administration	38,457	48,047	41,427	63,194	57,585	66,737	81525
Defense	10,161	11,087	12,564	14,261	16,268	17,603	19,921
Social services	62,764	68,319	60,286	64,256	71,953	83,622	106,283
Education	46,224	50,039	47,493	49,868	54,653	65,135	80,778
Health	13,053	14,194	10,054	11,898	14,337	15,351	20,705
Housing, community, and social welfare	3,488	4,085	2,739	2,489	2,964	3,136	4,799
Economic services	24,270	35,950	27,708	40,103	38,069	35,034	53,556
General administration	3,047	6,832	5,048	14,768	12,696	9,738	10,029
Agriculture, forestry, and fishing	7,756	12,912	7,696	8,236	7,850	9,368	12,738
Mining, manufacturing, and construction	2,227	2,450	2,314	3,209	2,995	2,449	3,918
Electricity, water, gas, and steam	1,996	2,644	1,383	2,377	2,382	3,058	6,026
Roads	7,532	8,744	8,849	9,459	8,857	7,467	16,728
Transport and communications	652	943	1,004	784	769	805	42
Other	1,059	1,425	1,415	1,271	2,521	2,149	4,075
Interest	37,971	40,055	29,387	31,035	30,384	36,026	29,700
Unallocated	22,318	-6,002	598	1,634	3,742	4,979	7,571
Total	195,941	197,456	171,969	214,483	218,001	244,001	298,556
	(In percent of GDP)						
Administration	5.8	6.7	5.4	7.5	6.3	6.5	7.0
Defense	1.5	1.5	1.6	1.7	1.8	1.7	1.7
Education	7.0	7.0	6.2	6.0	5.9	6.3	7.0
Health and welfare	2.5	2.5	1.7	1.7	1.9	1.8	2.2
Economic services	3.7	5.0	3.6	4.8	4.1	3.4	4.6
Interest	5.8	5.6	3.8	3.7	3.3	3.5	2.6
Unallocated	3.4	-0.8	0.1	0.2	0.4	0.5	0.7
	(In percent of total expenditure)						
Administration	22.1	23.6	24.2	29.7	26.9	27.9	28.0
Defense	5.9	5.4	7.3	6.7	7.6	7.4	6.8
Education	26.6	24.6	27.7	23.4	25.5	27.3	27.8
Health and welfare	9.5	9.0	7.5	6.8	8.1	7.7	8.8
Economic services	14.0	17.7	16.2	18.8	17.8	14.7	18.4
Interest	21.9	19.7	17.1	14.6	14.2	15.1	10.2

Sources: Kenyan authorities; and Fund staff estimates.
1 July-June fiscal year.

Table 21. Kenya: Local Government Finances, 1997/98-2003/04[1]

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
	(In millions of Kenya shillings)						
Total receipts	5,889	6,782	7,725	9,800	11,268	12,250	14,489
Municipal councils	4,568	5,521	6,140	7,141	8,146	8,274	9,992
Taxes, licenses, and cesses	2,102	1,923	2,347	2,511	2,718	2,912	3,358
Property income	309	329	390	424	480	544	634
Sale of goods and services	2,147	3,267	3,103	2,757	3,457	3,462	4,365
Government grants	10	1	300	1,449	1,491	1,356	1,635
Town and county councils	1,320	1,261	1,585	2,659	3,123	3,976	4,497
Taxes, licenses, and cesses	347	379	493	728	890	965	1,148
Property income	15	22	32	13	12	10	11
Sale of goods and services	957	858	356	603	813	1,399	1,396
Government grants	1	2	705	1,315	1,407	1,601	1,942
Total outlays	8,917	9,858	9,877	10,066	10,634	12,204	13,354
Municipal councils[2]	6,966	7,484	7,268	7,418	7,858	8,776	9,899
Current expenditure	4,911	5,828	6,121	6,561	6,937	7,240	7,853
Capital expenditure	2,001	1,580	1,052	756	805	1,321	1,844
Debt service[3]	54	76	94	101	116	215	203
Town and county councils[2]	1,950	2,374	2,610	2,648	2,776	3,428	3,454
Current expenditure	1,735	2,141	2,317	2,005	2,226	2,987	3,055
Capital expenditure	203	215	263	642	538	406	382
Debt service[3]	13	17	29	2	13	35	18
Overall balance	-3,028	-3,076	-2,152	-266	634	45	1,135
Municipal councils	-2,398	-1,964	-1,128	-277	288	-502	93
Town and county councils	-630	-1,113	-1,024	11	346	547	1,042
	(In percent of GDP)						
Total receipts	0.9	0.9	1.0	1.2	1.2	1.2	1.2
Total outlays	1.4	1.4	1.3	1.2	1.2	1.2	1.1
Current expenditure[2]	1.0	1.1	1.1	1.0	1.0	1.0	0.9
Capital expenditure	0.3	0.2	0.2	0.2	0.1	0.2	0.2
Debt service[3]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	-0.5	-0.4	-0.3	0.0	0.1	0.0	0.1

Sources: Kenyan authorities; and Fund staff estimates.

[1]July-June fiscal year.

[2]Amortization payments included as an expenditure.

[3]Excludes interest payments.

86

Table 22. Kenya: Gross Domestic Debt of the Central Government, 1996/97-2001/02 [1]

	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Treasury bills	117,643	131,029	137,540	118,050	105,745	99,836
Banks	77,583	76,326	68,469	64,981	62,246	77,924
Central bank[2]	19,302	18,421	21,166	36,256	27,017	36,903
Commercial banks	58,281	57,905	47,303	28,725	35,229	41,021
Nonbanks	40,060	54,703	69,071	53,069	43,499	21,912
National Social Security Fund	103	478	223	1,149	1,797	874
Financial institutions	1,820	2,493	3,294	1,534	984	1,131
Other	38,137	51,732	65,554	50,386	40,718	19,907
Treasury bonds	44,143	36,851	44,499	106,333	161,548	188,626
Banks	23,020	8,537	12,535	45,789	74,452	84,419
Central bank[2]	16,056	0	0	0	0	0
Commercial banks	6,964	8,537	12,535	45,789	74,452	84,419
Nonbanks	21,123	28,314	31,964	60,544	87,096	104,207
National Social Security Fund	0	0	200	0	750	2,839
Financial institutions	135	100	555	1,299	2,093	2,059
Other	20,988	28,214	31,209	59,245	84,253	99,309
Government stock	3,430	3,006	1,468	1,468	1,058	1,058
Banks	958	52	0	0	0	0
Central bank[2]	933	0	0	0	0	0
Commercial banks	25	52	0	0	0	0
Nonbanks	2,472	2,954	1,468	1,468	1,058	1,058
National Social Security Fund	1,405	1,936	759	759	409	409
Financial institutions	59	59	1	1	0	0
Other	1,008	959	708	708	649	649
Total	165,215	170,886	183,507	225,851	268,351	289,520
Banks	101,560	84,915	81,004	110,770	136,698	162,343
Central Bank[2]	36,290	18,421	21,166	36,256	27,017	36,903
Commercial banks	65,270	66,494	59,838	74,514	109,681	125,440
Nonbanks	63,655	85,971	102,503	115,081	131,653	127,177
National Social Security Fund	1,508	2,414	1,182	1,908	2,956	4,122
Financial institutions	2,014	2,652	3,850	2,834	3,077	3,191
Other	60,133	80,905	97,471	110,339	125,620	119,865
			(In percent of total)			
Memorandum items:						
Banks	61.5	49.7	44.1	49.0	50.9	56.1
Nonbanks	38.5	50.3	55.9	51.0	49.1	43.9
National Social Security Fund	0.9	1.4	0.6	0.8	1.1	1.4
Financial institutions	1.2	1.6	2.1	1.3	1.1	1.1
Other	36.4	47.3	53.1	48.9	46.8	41.4

Source: Kenyan authorities.

[1]July-June fiscal year. Face value at the end of each fiscal year. Market value would be lower. Excludes bank overdrafts and advances, tax reserve certificates, sinking-fund holdings, and

[2]At the end of 1998/99, the interest on K Sh 31,917 million of treasury bills and bonds was permanently canceled.

Table 23. Kenya: Operating Profits and Cash Position of Selected
Public Enterprises, 1998/99-2003/04[1]
(in millions of Kenyan shillings, unless otherwise indicated)

	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Operating balances[2]						
Kenya Power and Lighting						
Corporation (KPLC)	1,722	(2,576)	(4,105)	(2,849)	(2,728)	856
Kenya Post and Telecommunications						
Company (KPTC)	5,063	4,774	3,277	1,027	(1,430)	1,094
Kenya Railways (KR)[3]	709	(851)	(634)	(1,446)	(1,238)	(552)
National Cereals and Produce						
Board (NCPB)	(605)	(383)	(784)	(2,197)	(763)	(671)
Kenya Ports Authority (KPA)	(1,006)	1,091	2,066	1,681	1,443	1,631
Cash position[4]						
KPLC	(1,657)	(1,657)	(1,657)	-	544	744
KPTC	4,694	4,694	4,694	741	935	1,159
KR	(173)	(173)	(173)	(419)	(711)	(493)
NCPB	20	593	68	179	1,030	(15)
KPA	77	669	480	976	1,213	1,344

Sources: Kenyan authorities; and Fund staff estimates.

[1]July-June fiscal year.

[2]Excludes foreign exchange losses/gains.

[3]Excludes land sales.

[4]As of end of period.

Table 24. Kenya: Central Bank of Kenya Balacne Sheet, December 1999-September 2004 1/

	1999 Dec	2000 Dec	2001 Dec	2002 Dec	2003 Mar	June	Sept	Dec	2004 Mar	June	Sept
(In millions of Kenya shillings)											
Net foreign assets	50,029	58,977	75,608	70,274	79,136	81,482	84,115	88,262	85,321	86,666	79,840
Net domestic assets	28,959	18,756	3,521	18,179	4,977	4,012	-2,266	-750	1,297	3,566	10,020
Net domestic credit	23,993	15,771	3,167	21,444	7,554	7,717	502	1,767	7,227	11,238	14,345
Government (net)	25,742	19,057	14,554	18,011	22,363	14,395	-299	2,397	10,228	15,464	17,382
Private sector credit (CBK staff loans)	1,380	1,386	1,496	1,670	1,691	1,733	1,777	1,820	1,850	1,915	1,918
Commercial banks (net)	-1,749	-4,672	-12,883	1,763	-16,500	-8,411	-976	-2,450	-4,851	-6,141	-4,955
Other items (net)	4,966	2,984	353	-3,266	-2,577	-3,705	-2,768	-2,516	-5,930	-7,672	-4,325
Reserve money (RM)	78,988	77,733	79,129	88,453	84,113	85,494	81,849	87,512	86,618	90,232	89,860
Currency outside banks	42,933	43,413	45,293	53,878	49,390	49,688	49,448	55,485	54,890	55,653	56,098
Bank reserves	36,055	34,320	33,836	34,575	34,723	35,806	32,401	32,027	31,728	34,579	33,762
(In percent of annual change)											
Net foreign assets	24.9	17.9	28.2	-7.1	1.9	4.7	10.4	25.6	7.8	6.4	-5.1
Net domestic assets	-17.1	-35.2	-81.2	416.4	-364.1	-521.7	-193.5	-104.1	-73.9	-11.1	-542.2
Net domestic credit	-23.7	-34.3	-79.9	577.1	-314.6	-565.4	-87.1	-91.8	-4.3	45.6	2,759.4
Government (net)	-8.3	-26.0	-23.6	23.8	108.2	-28.2	-101.7	-86.7	-54.3	7.4	-5,913.4
Private sector credit (CBK staff loans)	6.9	0.5	7.9	11.6	13.0	12.0	8.3	8.9	9.4	10.5	8.0
Commercial banks (net)	-152.2	167.1	175.7	-113.7	4.7	-63.8	-93.6	-239.0	-70.6	-27.0	407.7
Other items (net)	41.7	-39.9	-88.2	-1,024.0	-257.6	-624.0	90.6	-22.9	130.1	107.1	56.2
Reserve money (RM)	5.3	-1.6	1.8	11.8	11.0	11.2	4.1	-1.1	3.0	5.5	9.8
Currency outside banks	11.1	1.1	4.3	19.0	7.3	5.9	6.7	3.0	11.1	12.0	13.4
Bank reserves	-0.8	-4.8	-1.4	2.2	16.7	19.5	0.5	-7.4	-8.6	-3.4	4.2

1/ Constant Kenya shilling per U.S. dollar exchange rate prevailing on September 30, 2001

Table 25. Kenya: Monetary Survey, December 1999-September 2004 1/

	1999 Dec	2000 Dec	2001 Dec	2002 Dec	2003 Mar	June	Sept	Dec	2004 Mar	June	Sept
(In millions of Kenya shillings)											
Net foreign assets	58,014	85,359	93,984	102,150	104,537	104,352	107,503	112,111	122,110	119,789	117,020
Net domestic assets	289,595	274,655	274,410	303,859	304,280	315,067	317,202	341,237	338,495	353,629	369,466
Domestic credit	358,480	331,293	334,004	364,932	370,016	383,557	391,197	405,202	415,213	429,972	447,808
Government (net)	84,134	76,448	89,078	108,607	114,859	124,235	129,987	133,675	135,379	136,574	136,025
Rest of the economy	274,347	254,845	244,926	256,325	255,157	259,321	261,210	271,527	279,833	293,398	311,783
Other public sector	7,304	8,058	8,027	8,016	7,513	6,320	6,047	5,992	8,656	9,214	11,317
Private	267,043	246,786	236,898	248,309	247,644	253,001	255,163	265,535	271,177	284,183	300,465
Other items (net)	-68,886	-56,638	-59,593	-61,073	-65,736	-68,489	-73,996	-63,965	-76,718	-76,343	-78,342
Money and quasi money (M3)	311,931	314,476	322,325	350,733	352,748	362,596	370,335	395,116	394,789	407,303	416,956
M3 and foreign currency deposits (M3X)	347,609	360,014	368,394	406,009	408,817	419,419	424,704	453,348	460,605	473,418	486,486
Currency outside banks	42,933	43,413	45,293	53,878	49,390	49,688	49,448	55,485	54,890	55,653	56,098
Deposits	304,676	316,601	323,102	352,131	359,426	369,731	375,256	397,863	405,715	417,764	430,388
M3X and nonbank holdings of government debt (M4X)	416,301	435,470	462,127	521,198	527,417	542,386	547,212	569,428	580,124	592,853	607,156
(In percent of annual change)											
Net foreign assets	15.7	47.1	10.1	8.7	9.5	7.5	10.8	9.8	16.8	14.8	8.9
Net domestic assets	1.6	-5.2	-0.1	10.7	12.4	12.0	9.2	12.3	11.2	12.2	16.5
Domestic credit	1.3	-7.6	0.8	9.3	12.3	12.2	10.4	11.0	12.2	12.1	14.5
Government (net)	-4.4	-9.1	16.5	21.9	29.6	31.1	27.9	23.1	17.9	9.9	4.6
Annual growth rates, percent	3.1	-7.1	-3.9	4.7	6.0	4.9	5.4	5.9	9.7	13.1	19.4
Other public sector	16.7	10.3	-0.4	-0.1	8.3	-4.7	-37.5	-25.3	15.2	45.8	87.1
Private	2.8	-7.6	-4.0	4.8	5.9	5.2	5.0	6.9	9.5	12.3	17.8
Other items (net)	0.0	-17.8	5.2	2.5	11.7	12.8	15.7	4.7	16.7	11.5	5.9
Money and quasi money (M3)	2.7	0.8	2.5	8.8	9.9	9.3	10.3	12.7	11.9	12.3	12.6
M3 and foreign currency deposits (M3X)	3.7	3.6	2.3	10.2	11.7	10.9	9.6	11.7	12.7	12.9	14.5
Currency outside banks	11.1	1.1	4.3	19.0	7.3	5.9	6.7	3.0	11.1	12.0	13.4
Deposits	2.7	3.9	2.1	9.0	12.3	11.6	10.0	13.0	12.9	13.0	14.7
M3X and nonbank holdings of government debt (M4X)	6.3	4.6	6.1	12.8	13.1	12.1	9.6	9.3	10.0	9.3	11.0

1/ Constant Kenya shilling per U.S. dollar exchange rate prevailing on September 30, 2001

Table 26.Kenya: Commercial Banks' Liquidity, June 1999 -September 2004

	1999		2000		2001		2002		2003		2004	
	June	December	June	December	June	December	June	December	June	December	June	September
Deposit liabilities subject to												
requirements (in million of Kenya shillings	279,908	277,129	285,779	292,682	292,536	305,058	312,440	334,554	355,520	379,632	401,511	416,616
Liquid assets (in millions of Kenya shillings)	115,790	112,045	128,509	122,468	120,977	140,003	136,598	146,815	175,408	184,131	186,431	187,618
of which												
Cash and deposits at central bank	32,920	33,481	32,081	28,909	23,914	34,563	26,186	24,341	35,531	31,317	26,608	27,416
Liquid assets (in percent)	41.4	40.4	45.0	41.8	41.4	45.9	43.7	43.9	49.3	48.5	46.4	45.0
Minimum statutory requirements (in percent)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Excess (+) or deficiency (-) (in percent)	21.4	20.4	25.0	21.8	21.4	25.9	23.7	23.9	29.3	28.5	26.4	25.0
Number of banks meeting the liquidity ratio												
deficiency	3	3	2	1	8	5	5	4	1	1	1	2
Number of banks meeting the liquidity ratio												
requirement	49	48	49	49	49	49	41	41	42	42	42	41
Cash ratio (in percent, end of the period)	12	12	11	10	10	10	10	10	10	6	6	6

Source: Central Bank of Kenya

Table 27. Kenya: Nonbank Financial Institutions' Liquidity, June 1999 - September 2004

(in millions of Kenya shilling, unless otherwise indicated)

	1999		2000		2001		2002		2003		2004	
	June	December	June	December	June	December	June	December	June	December	June	September
Total deposits	6433	6385	6174	5271	4318	2051	1958	1900	1704	1927	2039	1801
Liquid assets	3105	3473	2970	2236	2591	1288	1168	1154	1045	1232	1230	1005
Liquidity ratio (in percent)	48	54	48	42	60	63	60	61	61	64	60	56
Minimum statutory requirement (in pe	20	20	20	20	20	20	20	20	20	20	20	20
Excess (in percent)	28	34	28	22	40	43	40	41	41	44	40	36
Number of NBFIs meeting the liquidity ratio requirements	9	9	6	5	3	3	3	2	2	2	2	2

Source: Central Bank of Kenya

[1] Building societies are not required to comply with the liquidity requirements. These are Housing Finance company of Kenya, Savings and Mortgages Ltd., and East Africa Building Society.

Table 28. Kenya: Principal Interest Rates, March 2001 - September 2004
(In percent per annum)

	2001				2002				2003				2004		
	Mar.	June	Sep.	Dec.	Mar.	June	Sep.	Dec.	Mar.	June	Sep.	Dec.	Mar.	June	Sep.
Central Bank of Kenya															
Rediscount rate of treasury bills	18.0	15.1	15.4	14.0	13.1	10.3	10.6	11.4	8.8	4.8	3.9	4.4	4.6	5.0	5.7
Advances against treasury bills	18.0	15.1	15.4	14.0	13.1	10.3	10.6	11.4	8.8	4.8	3.9	4.4	4.6	5.0	5.7
Advances against Kenya government sec	18.0	15.1	15.4	14.0	13.1	10.3	10.6	11.4	8.8	4.8	3.9	4.4	4.6	5.0	5.7
Commercial banks															
Savings deposits (minimum)	4.7	4.4	4.9	4.4	3.7	4.0	3.5	4.8	3.3	3.1	1.4	1.4	1.3	1.2	1.0
Time deposits															
Three months to less than six months	7.2	6.7	6.5	6.1	5.9	5.6	5.1	5.1	4.0	4.5	3.7	3.4	...	...	...
Six months to less than nine months	6.2	6.0	5.8	5.6	5.7	5.7	5.2	4.8	3.8	5.8	3.4	5.3	...	...	...
Nine months to less than twelve months	6.2	6.0	5.8	5.7	5.7	5.2	4.8	5.1	4.0	4.5	4.6	4.1	...	...	...
Loans and advances (maximum)	20.2	19.3	19.4	19.5	18.9	18.4	18.1	18.3	18.5	18.5	14.8	13.5	12.6	12.2	12.3
Other financial institutions															
Deposit rates															
Hire purchase	4.3	5.0	4.4	4.2	5.3	4.7	3.0	3.0	3.0	3.7	2.5	2.8	...	...	...
Building societies	5.6	5.6	5.6	5.6	5.6	3.0	2.8	2.6	3.2	2.9	1.2	2.8	...	...	...
Lending rates															
Hire purchase	21.6	20.4	20.6	20.6	20.6	18.5	18.4	18.2	17.7	16.6	15.5	...	...	...	...
Building societies	19.9	19.9	19.9	19.9	19.9	19.9	18.5	16.1	15.6	15.5	18.2	16.0	...	...	...
Other interest rates															
Treasury bills (91 day)	15.0	12.1	12.4	11.0	10.1	7.3	7.6	8.4	5.8	1.8	0.9	1.4	1.6	2.0	2.7
Treasury bonds															
One year	11.9	14.9	12.5	12.5	11.1	10.8	...	...	...	8.4	...	3.9	7.3	...	...
Two year	10.4	13.3	15.4	12.3	13.0	11.1	10.9	13.1	7.2	13.0	...	7.9	13.0	6.8	...
Three year	...	...	...	...	...	...	...	...							

Source: Central Bank of Kenya.

Table 29 Kenya: Distribution of credit to private sector June 99 - September 2004

	1999		2000		2001		2002		2003		2004	
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Sep
Government	21.4	20.1	22.1	20.5	22.3	26.0	25.4	26.7	29.1	31.5	28.78	26.87
Private sector	78.6	79.9	77.9	79.5	77.7	74.0	74.6	73.3	70.9	68.5	71.22	73.13
Agriculture	6.8	7.0	6.6	6.9	6.1	6.3	6.2	6.4	6.16	6.21	5.69	5.82
Manufacturing	16.6	16.6	16.6	17.0	15.4	13.7	15.0	12.9	12.46	11.93	11.36	11.62
Trade	15.2	15.3	14.4	15.0	13.8	12.8	11.8	10.6	10.20	10.67	10.57	10.42
Exports	1.9	2.1	2.0	2.0	2.0	1.6	0.9	0.5	0.47	0.73	0.58	0.70
Imports	0.8	1.0	0.6	0.6	0.6	0.5	0.9	0.8	0.70	0.45	0.48	0.46
Domestic	12.5	12.2	11.7	12.3	11.3	10.7	10.0	9.3	9.03	9.49	9.51	9.26
Building & construction	6.5	6.5	6.5	5.7	5.7	5.5	5.4	5.1	4.84	4.40	4.15	4.14
Transport & communication	3.2	3.0	3.0	2.8	2.8	2.7	3.0	4.2	4.11	3.79	4.11	3.85
Finance and insurance	3.6	3.6	4.3	4.1	3.9	4.3	4.0	5.4	5.46	5.56	5.00	5.44
Real estate	5.6	6.2	6.8	6.2	6.4	5.5	5.5	5.4	5.17	4.38	4.24	4.10
Mining & quarrying	1.0	0.9	0.7	0.8	1.1	0.6	0.5	0.5	0.55	0.34	0.43	0.43
Private households	1.8	2.1	2.3	2.3	2.5	2.4	2.5	4.2	5.08	5.60	6.18	7.02
Other	18.3	18.7	16.8	18.8	20.0	20.2	20.7	18.6	16.90	15.61	19.48	20.29

Source: Central Bank of Kenya

Table 30. Kenya: Balance of Payments, 1996–2004

(In millions of U.S. dollars, unless otherwise indicated)

	1996	1997	1998	1999	2000	2001	2002	2003 Prel.	2004 Est.
Current account	-196	-450	-549	-234	-284	-403	291	-33	-617
Excluding official transfers	-209	-469	-549	-233	-377	-491	291	-91	-621
Exports, f.o.b.	2,083	2,060	2,012	1,755	1,773	1,881	2,136	2,411	2,650
Coffee	287	296	212	172	154	94	84	81	86
Tea	396	406	546	472	154	435	437	435	452
Oil products	97	170	149	138	463	241	258	351	380
Other	1,303	1,187	1,105	973	209	175	54	4	5
Imports, f.o.b.	-2,598	-2,944	-3,028	-2,679	-3,033	-3,176	-2,745	-3,564	-4,500
Public	-142	-92	-148	-121	-94	-91	-73	-64	-66
Private	-2,456	-2,852	-2,881	-2,557	-2,939	-3,086	-2,673	-3,500	-4,434
Oil	-448	-519	-532	-527	-850	-721	-582	-879	-1,217
Other	-2,008	-2,333	-2,349	-2,031	-2,088	-2,365	-2,091	-2,622	-3,217
Balance on goods	-515	-884	-1,016	-924	-1,259	-1,295	-609	-1,153	-1,850
Services (net)	98	90	122	298	246	257	454	481	559
Credit	952	916	831	932	970	1,083	1,117	1,152	1,293
Foreign travel	452	388	290	301	259	304	288	339	417
Other	500	528	541	631	710	779	828	813	876
Debit	-854	-826	-709	-634	-724	-826	-663	-671	-735
Balance on goods and services	-417	-794	-894	-626	-1,013	-1,038	-156	-672	-1,291
Income (net)	-226	-172	-130	-173	-131	-147	-134	-143	-122
Credit	22	39	41	32	45	43	34	62	55
Debit	-247	-211	-171	-205	-176	-190	-168	-205	-178
Of which: official interest payments	-225	-160	-148	-164	-121	-111	-90	-130	-92
Current transfers (net)	446	516	475	564	860	782	581	783	797
Private (net)	433	497	476	566	769	695	581	724	792
Official (net)	13	19	0	-2	91	87	0	58	5
Capital and financial account	643	413	616	215	223	424	-317	657	434
Capital account	112	63	79	63	54	71	90	266	276
Of which: capital transfers	112	63	79	63	54	71	90	266	276
Financial account	531	350	537	152	169	352	-407	390	158
Investment assets and liabilities (net)	43	-127	-42	-285	-276	-107	-118	230	59
Official, medium and long term	-51	-199	-172	-305	-168	-233	-28	-27	84
Inflows	400	241	287	205	306	138	195	229	317
Outflows	-452	-440	-460	-510	-474	-371	-223	-256	-233
Commercial banks (net)	88	3	80	21	-221	95	-169	104	-113
Private (net)	6	69	51	-1	113	32	80	152	88
Short-term (net) and net errors and omissions 1/	489	477	578	437	445	438	-290	161	98
Overall balance	447	-37	66	-20	-62	21	-26	624	-183
Financing items	-447	37	-66	20	62	-20	26	-624	183
Reserve assets (gross)	-397	67	5	-8	-77	-166	-3	-413	63
Use of Fund credit and loans to the Fund (net)	-25	-67	-62	-60	2	-24	-19	17	61
Change in arrears	-25	37	-79	87	0	48	48	-228	-56
Rescheduling	0	0	70	0	166	122	0	0	115
Remaining gap	0	0	0	0	0	0	0	0	0
Memorandum items:									
Gross official reserves (end of period)	855	788	783	791	897	1,064	1,067	1,480	1,417
(in months of next year's imports) 2/	2.7	2.5	2.8	2.5	2.7	3.5	2.9	3.4	2.8
Current account balance									
(percent of GDP, excluding official transfers)	-2.3	-4.4	-4.9	-2.2	-3.6	-4.4	2.4	-0.6	-4.0
(percent of GDP, excluding special imports) 3/	-1.4	-1.3	-3.1	-1.2	-1.0	-2.6	2.7	0.3	-3.3
Debt-service ratio after rescheduling 4/	24.3	22.4	23.6	27.3	19.1	14.3	10.2	10.3	6.5
Import volume growth, goods (percent)	4.5	-7.0	1.2	-5.2	3.6	7.3	-7.2	1.8	9.4
Import volume growth, goods (percent; excluding special imports) 3/	10.9	-10.0	-2.0	-5.2	-4.9 --	--	--	--	
Export volume growth, goods (percent)	11.6	-11.3	-2.4	-5.7	-10.1	11.6	16.0	6.5	7.0
Net present value of debt 5/	5,380	4,664	4,291	3,969	3,930	3,669	3,830	3,788	3,903
NPV of debt/exports (percent) 5/ 6/	187.0	156.2	145.4	140.0	142.5	126.7	123.0	110.9	103.5
Debt/GDP (percent) 5/	66.7	55.4	51.5	51.9	50.5	41.0	37.9	34.7	33.3

Sources: Kenyan authorities; and Fund staff estimates.

1/ Is believed to include underrecorded tourism earnings.
2/ In months of projected imports of goods and nonfactor services.
3/ Includes defense-related imports, imports of maize, sugar, and airplanes, and, beginning in 1998, imports related to rehabilitation of the energy sector.
4/ In percent of exports of goods and services.
5/ After Paris Club rescheduling and assumed rescheduling, under comparable terms, by commercial and non-Paris Club bilateral creditors in 2004.
6/ Three-year average of exports.

Table 31. Kenya: Tea Production and Exports, 1992–2003
(In thousand of tons, unless otherwise specified)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 prel.
Production	188.1	211.2	209.4	244.6	257.2	220.7	294.1	248.8	236.3	294.6	287.1	293.7
Smallholder	99.8	112.5	119.1	139.0	144.1	129.7	175.6	153.9	145.6	181.7	175.9	180.8
Estates	88.3	98.6	90.3	105.6	113.1	91.0	118.5	94.9	90.7	112.9	111.2	112.9
Area (in thousands of hectares)	103.5	104.9	105.9	111.3	113.7	118.8	121.0	124.2	122.8	124.3	130.3	131.5
Smallholder	72.2	73.1	73.8	79.0	81.2	86.1	87.9	90.3	88.4	85.1	85.9	86.4
Estates	31.3	31.8	32.1	32.4	32.5	32.7	33.1	33.9	34.4	35.3	44.4	45.1
Average yield (kilograms per hectare)												
Smallholder	1,730	1,942	1,776	1,996	1,383	1,774	2,246	1,915	1,793	2,147	2,078	2,136
Estates	2,816	3,339	3,013	3,404	2,816	2,866	3,699	2,946	2,790	3,453	3,294	3,331
Exports												
Volume (in thousands of tons)	169.0	191.3	177.6	225.6	253.3	199.1	263.6	260.1	217.3	268.5	272.7	262.2
Price (U.S. cents per pound)	174.4	156.1	169.5	146.6	156.5	204.1	207.1	181.6	213.0	162.0	160.2	165.8
Value (millions of U.S. dollars)	294.7	298.6	301.1	330.6	396.3	406.3	545.9	472.3	462.9	435.0	436.9	434.6

`

Sources: Tea Board of Kenya; Central Bureau of Statistics; and Fund staff estimates.

Table 32. Kenya: Coffee Production, Consumption, and Exports, 1992–2003

(In thousands of tons, unless otherwise specified)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Prel.
Opening stocks	37	28	17	35	13	11	7	24	…	…	…	…
Production 1/	80	74	96	99	97	68	68	101	52	52	55	65.9
Consumption	3	3	3	5	4	2	3	4	…	…	…	…
Total exports 2/												
Volume	79	89	80	90	116	70	51	73	88	62	49	59
Average price (U.S. cents per pound)	74	90	132	142	112	192	187	107	79	69	77	62
Value (millions of U.S. dollars)	128	177	233	282	287	296	212	172	154	94	84	81

Source: Kenyan authorities.

Table 33. Kenya: Commodity Composition of Trade, 1993–2003

(In percent of total)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Prel.
Exports											
Coffee	16.0	15.7	14.7	13.8	14.4	10.5	9.8	8.3	4.7	3.7	3.2
Tea	27.1	20.3	17.2	19.0	19.7	27.1	26.9	25.0	22.0	19.3	17.2
Horticulture	6.1	5.6	6.2	6.6	7.1	8.0	9.8	11.3	12.2	11.4	13.9
Petroleum products 1/	5.6	4.3	4.9	4.6	8.3	7.4	7.9	6.8	9.0	2.4	0.2
Other	45.1	54.1	57.0	56.0	50.6	46.9	45.6	48.5	52.0	63.1	65.6
Imports											
Consumer goods 2/	10.8	12.9	12.9	15.8	11.9	14.3	14.9	9.8	11.1	13.1	14.8
Industrial supplies 3/	42.9	47.1	41.3	41.3	43.6	38.2	37.9	26.9	31.5	35.6	33.0
Fuels and lubricants	24.8	16.2	12.6	15.7	15.3	15.8	14.9	25.1	21.4	18.4	23.5
Machinery, capital, and transport equipment	21.4	23.9	33.1	27.2	29.2	31.6	32.3	38.2	36.0	32.9	28.7

Source: Kenyan authorities (Central Bureau of Statistics *Economic Survey 2004*).

1/ Net of aircraft and ship stores.
2/ Includes food and beverages for household consumption.
3/ Includes food and beverages for industrial use.

Table 34. Kenya: Trade Volumes and Prices, 1993–2003

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Prel
Volume indices											
All exports	113	135	157	174	157	153	145	138	154	179	191
Nontraditional exports	115	157	169	175	172	155	133	125	124	156	175
All imports	80	101	133	136	137	133	123	132	142	132	134
Excluding special imports	88	98	140	146	136	138	131	135	148	143	142
Price indices 1/											
All exports	98	111	123	120	132	132	121	129	122	122	128
Nontraditional exports	113	127	158	165	148	152	154	158	162	168	174
All imports	87	88	101	96	103	109	101	108	106	109	122
Terms of trade	113	126	122	125	128	121	120	119	116	111	104
(Annual percentage changes)											
Volume indices											
All exports	11.7	19.1	16.6	10.9	-10.0	-2.0	-5.2	-4.9	11.6	16.0	6.5
Nontraditional exports	15.4	37.3	7.0	3.8	-1.6	-10.3	-13.9	-6.3	-0.9	25.8	12.5
All imports	-12.3	25.7	32.1	2.2	1.1	-3.2	-7.2	7.1	7.3	-7.2	1.8
Excluding special imports	-5.6	11.7	43.2	4.5	-7.0	1.2	-5.2	3.6	9.8	-4.0	-0.7
Price indices 1/											
All exports	-2.5	13.0	11.2	-2.3	9.9	-0.3	-8.0	6.3	-5.0	-0.6	5.0
Nontraditional exports	2.4	11.8	25.0	4.3	-10.2	2.5	1.4	2.5	2.9	3.6	3.5
All imports	-1.9	1.2	14.9	-4.8	7.7	5.0	-6.8	7.0	-2.4	3.3	12.1
Terms of trade	-0.6	11.7	-3.2	2.6	2.0	-5.0	-1.3	-0.6	-2.6	-3.8	-6.3

Source: Kenyan authorities (Central Bureau of Statistics *Economic Survey 2004*), and Fund staff.

Table 35. Kenya: Value, Unit Value, and Volume of Major Exports, 1993–2004
(In milliones of U.S. dollars, unless otherwise specified)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Prel.	2004 Est.
Coffee	177	233	282	287	296	212	172	154	94	84	81	86
Price (U.S. cents per pound)	90	132	142	112	192	187	107	79	69	77	62	71
Volume (thousands of tons)	89	80	90	116	70	51	73	88	62	49	59	55
Tea	299	301	331	396	406	546	472	463	435	437	435	452
Price (U.S. cents per kilogram)	156	170	147	156	204	207	182	213	162	160	166	164
Volume (thousands of tons)	191	178	226	253	199	264	260	217	269	273	262	275
Horticulture	68	84	119	137	146	161	173	209	241	258	351	380
Processed fruits and vegetables	45	44	94	87	65	63	60	66	79	80	80	83
Hides, skins, and leather	27	29	26	16	13	11	10	12	16	13	21	15
Price (U.S. cents per pound)	100	108	216	154	118	117	89	88	93	100	80	80
Volume (thousands of tons)	12	12	5	5	5	4	5	6	8	7	8	8
Soda ash	20	17	20	20	23	20	18	19	25	27	32	34
Cement	21	29	33	44	40	24	18	18	13	19	26	25
Price (U.S. dollars per ton)	41	51	69	66	56	56	65	58	54	53	56	58
Volume (thousands of tons)	503	573	482	675	704	427	276	308	212	316	415	436
Pyrethrum	16	28	27	31	27	12	9	9	13	10	11	12
Oil products	62	64	95	97	170	149	138	127	177	54	4	5
Other exports	370	654	897	968	875	814	685	775	882	1277	1491	1647
Total	1,103	1,484	1,924	2,083	2,060	2,012	1,755	1,852	1,974	2,258	2,530	2,739

Source: Kenyan authorities (Central Bureau of Statistics *Economic Survey 2004*), and Fund staff.

Table 36. Kenya: Destination of Exports, 1993–2003

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Prel.
Western Europe	459	527	622	708	694	618	557	540	529	614	701
United Kingdom	187	177	190	216	236	269	242	244	208	250	275
Germany	85	119	144	154	130	92	82	73	65	56	68
Netherlands	46	64	83	112	97	88	87	96	126	140	181
Other	141	167	205	226	231	169	146	127	129	167	177
Eastern Europe	2	3	2	5	6	6	9	8	12	17	22
United States	43	52	51	56	58	51	38	37	43	43	36
Canada	9	11	12	11	10	10	6	6	5	6	6
Africa	403	680	924	968	944	948	807	812	923	1060	1082
Uganda	104	194	298	334	310	322	300	317	382	399	392
Tanzania	85	162	245	266	280	267	194	145	172	181	186
Zambia	2	3	4	4	5	4	2	2	5	--	--
Other	212	321	377	364	349	355	311	347	363	480	503
Middle East	34	26	44	66	66	80	78	86	114	90	84
Asia	141	173	211	221	213	259	227	213	220	240	271
Japan	10	12	13	17	15	16	15	19	17	22	16
India	9	9	13	13	20	30	25	18	30	32	32
Other	121	151	185	191	178	213	187	176	173	186	223
Aircraft and ship stores	67	46	17	30	41	24	8	23	25	33	48
Other	7	9	41	18	28	16	25	48	11	52	46
Total	1,166	1,527	1,924	2,083	2,060	2,012	1,755	1773	1881	2159	2340
Western Europe	39.4	34.5	32.3	34.0	33.7	30.7	31.7	30.4	28.1	28.4	30.0
Eastern Europe	3.7	3.4	0.1	0.2	0.3	0.3	0.5	0.5	0.6	0.8	0.9
United States	3.7	3.4	2.7	2.7	2.8	2.5	2.2	2.1	2.3	2.0	1.5
Canada	0.8	0.7	0.6	0.5	0.5	0.5	0.3	0.3	0.2	0.3	0.2
Africa	34.6	44.5	48.0	46.5	45.8	47.1	46.0	45.8	49.0	49.1	46.2
Middle East	2.9	1.7	2.3	3.2	3.2	4.0	4.4	4.9	6.0	4.2	3.6
Asia	12.1	11.3	11.0	10.6	10.3	12.9	12.9	12.0	11.7	11.1	11.6
Aircraft and ship stores	7.4	4.5	0.9	1.4	2.0	1.2	0.5	1.3	1.3	1.5	2.1
Other	0.6	0.6	2.1	0.9	1.3	0.8	1.4	2.7	0.6	2.4	2.0

Source: Kenyan authorities (Central Bureau of Statistics *Economic Survey 2004*).

Table 37. Kenya: Commodity Composition of Imports, 1993–2003

(In millions of U.S. dollars)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Prel.
By economic category 1/											
Consumer goods	174	264	401	476	392	478	430	323	385	431	533
Food and beverages	21	48	40	63	76	114	79	115	152	94	115
Other nondurable goods	90	101	126	48	126	158	142	119	137	141	173
Durable goods	63	114	235	366	190	206	208	88	96	195	246
Of which											
Passenger cars	39	79	154	212	107	107	94	62.5	77	102	124
Intermediate goods	1,088	1,291	1,671	1,719	1,933	1,804	1,524	1,720	1832	1775	2034
Primary industrial goods	84	185	96	189	338	235	160	57	87	129	116
Processed industrial goods	606	776	1,184	1,055	1091	1041	934	834	1003	1041	1071
Fuels and lubricants	398	330	392	475	503	529	430	830	742	605	847
Capital goods	343	485	940	749	910	984	803	1,056	973	984	841
Transport equipment	108	172	359	213	361	406	323	542	496	542	347
Other machinery and equipment	235	314	581	536	549	577	480	514	477	443	495
Other goods	2	2	85	70	48	71	131	207	272	97	192
Total	1,606	2,042	3,097	3,014	3,283	3,337	2,887	3,306	3462	3287	3601
By SITC category 2/											
Food and beverages (0 and 1)	102	305	130	209	414	327	202	296	338	216	277
Mineral fuels (3)	407	333	401	448	519	532	527	850	721	582	879
Raw materials (2 and 4)	108	144	220	199	195	250	215	188	223	263	267
Chemicals (5)	307	294	516	488	492	497	458	431	479	508	591
Machinery and transport equipment (7)	329	503	995	869	844	896	680	724	681	980	903
Other manufactured goods (6, 8, and 9)	354	463	836	801	818	834	806	816	1020	770	872
Total	1,606	2,042	3,097	3,014	3,283	3,337	2,887	3,306	3,462	3,319	3,787

Source: Kenyan authorities.

1/ Customs data.
2/ Standard International Trade Classification (SITC) categories are shown in parentheses. Indirect imports are not included.

Table 38. Kenya: Imports by Country of Origin, 1993–2003

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Prel.
Western Europe	610	674	1,306	1,180	1,103	1,116	960	1,038	986	1,112	922
United Kingdom	191	270	381	390	367	403	329	329	280	270	251
Germany	114	127	206	179	217	184	159	114	149	165	140
Netherlands	...	...	86	84	81	89	72	114	68	69	80
Other	305	278	633	527	438	440	400	481	489	608	451
Eastern Europe	13	22	27	37	38	38	47	67	27	22	70
United States	93	135	126	154	240	273	188	132	267	187	184
Canada	13	10	12	31	27	23	25	13	20	15	26
Africa	33	262	270	277	488	280	527	298	404	368	477
Uganda	5	4	3	1	8	1	4	7	9	8	13
Tanzania	8	18	12	16	15	10	7	12	7	10	17
South Africa	--	--	--	--	--	--	219	211	97	227	305
Other	20	239	255	260	465	269	297	68	290	122	141
Middle East	369	315	389	476	557	595	456	963	876	655	964
Asia	305	494	827	837	741	794	718	679	818	850	909
Japan	122	176	332	219	245	260	217	164	184	220	238
India	43	78	162	168	140	143	127	133	163	176	189
Other	132	237	333	450	356	391	374	383	471	454	482
Other	275	275	140	22	89	218	-34	115	64	37	27
Total 1/	1,606	2,042	3,097	3,014	3,283	3,337	2,887	3,306	3,462	3,287	3,601
Western Europe	38.0	33.0	42.2	39.2	33.6	33.4	33.3	31.4	28.5	33.8	25.6
United Kingdom	11.9	13.2	12.3	12.9	11.2	12.1	11.4	10.0	8.1	8.2	7.0
Germany	7.1	6.2	6.7	5.9	6.6	5.5	5.5	3.5	4.3	5.0	3.9
Netherlands	...	...	2.8	2.8	2.5	2.7	2.5	3.4	2.0	2.1	2.2
Other	19.0	13.6	20.4	17.5	13.3	13.2	13.9	14.5	14.1	18.5	12.5
Eastern Europe	0.8	1.1	0.9	1.2	1.2	1.1	1.6	2.0	0.8	0.7	2.0
United States	5.8	6.6	4.1	5.1	7.3	8.2	6.5	4.0	7.7	5.7	5.1
Canada	0.8	0.5	0.4	1.0	0.8	0.7	0.9	0.4	0.6	0.5	0.7
Africa	2.1	12.8	8.7	9.2	14.9	8.4	18.3	9.0	11.7	11.2	13.2
Uganda	0.3	0.2	0.1	0.0	0.2	0.0	0.1	0.2	0.3	0.3	0.4
Tanzania	0.5	0.9	0.4	0.5	0.5	0.3	0.2	0.4	0.2	0.3	0.5
South Africa	0.0	0.0	-	-	-	-	7.6	0.1	0.4	6.9	8.5
Other	1.3	11.7	8.2	8.6	14.2	8.1	10.3	8.3	10.8	3.7	3.9
Middle East	23.0	15.4	12.6	15.8	17.0	17.8	15.8	29.1	25.3	19.9	26.8
Asia	19.0	24.2	26.7	27.8	22.6	23.8	24.9	20.6	23.6	25.9	25.2
Japan	7.6	8.6	10.7	7.3	7.5	7.8	7.5	5.0	5.3	6.7	6.6
India	2.7	3.8	5.2	5.6	4.3	4.3	4.4	4.0	4.7	5.4	5.3
Other	8.2	11.6	10.8	14.9	10.8	11.7	13.0	11.6	13.6	13.8	13.4
Other	17.1	13.4	4.5	0.7	2.7	6.5	(1.2)	3.5	1.8	1.1	0.8

Source: Kenyan authorities.

1/ Imports, c.i.f.

Table 39. Kenya: External Services, Income, and Transfer Accounts, 1996–2004

(In millions of U.S. dollars)

	1996	1997	1998	1999	2000	2001	2002	2003 Prel.	2004 Est.
Services									
Transportation account	-127	-54	-3	140	69	55	127	204	181
Credit	289	285	306	376	411	428	423	454	496
Debit	-416	-339	-309	-236	-342	-373	-296	-250	-315
Foreign travel	285	190	100	136	128	165	160	212	299
Credit	452	388	290	301	259	308	286	339	417
Debit	-167	-198	-190	-165	-131	-143	-126	-127	-119
Government	17	81	138	149	207	235	225	218	222
Credit	160	198	200	214	266	296	281	322	328
Debit	-142	-118	-62	-65	-59	-62	-56	-103	-106
Other services: private	-77	-126	-113	-126	-159	-193	-62	-158	-143
Credit	52	45	35	41	33	55	123	50	52
Debit	-129	-171	-148	-167	-192	-248	-185	-208	-195
Investment income	-226	-176	-130	-173	-130	-147	-132	-107	-122
Credit	22	39	41	32	45	43	35	60	55
Debit	-247	-214	-171	-205	-175	-190	-168	-166	-177
Transfers	432	495	474	564	1,044	854	667	1,043	1,073
Private	433	497	476	566	839	759	578	719	792
Credit	437	533	519	635	863	783	603	745	805
Debit	-4	-36	-43	-69	-24	-24	-25	-25	-13
Public	-2	-2	-2	-2	204	96	89	324	281
Credit	-2	-2	-2	-2	204	96	89	324	281
Debit	0	0	0	0	0	0	0	0	0

Sources: Kenyan authorities; and Fund staff estimates.

Table 40. Kenya: External Debt Indicators, 1999-2008 1/
(In millions of U.S. dollars, unless otherwise indicated)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Debt-stock indicators										
Stock of external debt by creditor 2/	5,473	5,268	4,716	4,907	5,117	5,250	5,562	5,854	6,128	6,324
Multilateral creditors	3,005	3,001	2,922	3,044	3,159	3,264	3,558	3,783	3,953	4,058
IMF	131	128	102	88	104	165	268	329	357	348
World Bank	2,310	2,356	2,291	2,474	2,545	2,544	2,683	2,745	2,826	2,882
African Development Bank/African Development Fund	384	355	302	305	320	351	387	469	491	513
Other	180	162	228	177	191	203	221	240	279	315
Bilateral creditors	2,057	1,661	1,600	1,591	1,631	1,690	1,762	1,868	2,005	2,125
Paris Club	1,994	1,845	1,552	1,527	1,551	1,593	1,645	1,730	1,839	1,934
Non-Paris Club	63	44	48	64	81	97	117	138	166	190
Other creditors	411	606	194	273	326	296	242	203	170	141
Stock of external debt by debtor 2/	5,473	5,268	4,716	4,907	5,117	5,250	5,562	5,854	6,128	6,324
Central government	4,853	4,629	4,312	4,491	4,691	4,739	4,923	5,096	5,288	5,439
Government guaranteed	489	511	303	328	321	346	371	428	483	537
Central bank	131	128	102	88	104	165	268	329	357	348
Net present value (NPV) of debt 3/										
In million of U.S dollars	4,083	4,099	3,430	4,193	3,807	3,824	3,981	4,132	4,300	4,424
In percent of exports of goods and services 4/	144	149	123	140	117	107	100	95	90	85
In percent of government revenue, excluding grants	43	40	140	161	129	114	112	106	99	99
In percent of GDP	43	40	31	34	27	24	24	23	22	21
Stock of arrears	227	228	276	284	56	-	-	-	-	-
Debt-service indicators 5/										
Principal payments by creditor	570	425	373	256	323	258	262	260	248	262
Multilateral creditors	174	156	128	92	113	108	100	112	104	108
IMF	60	42	24	20	10	14	7	14	10	10
World Bank	74	70	63	52	66	64	62	67	71	73
AfDB/AfDF	18	19	19	11	12	11	11	11	12	11
Other	22	25	23	8	25	20	20	20	12	13
Bilateral creditors	226	122	151	141	104	87	87	88	91	105
Paris Club	205	116	149	135	97	84	85	85	88	100
Non-Paris Club	21	6	1	7	7	3	3	3	3	5
Other creditors	170	147	95	23	106	62	75	60	54	49
Interest payments by creditor	164	99	92	89	92	94	98	87	107	111
Multilateral creditors	55	38	49	29	32	32	35	37	39	41
IMF	1	1	1	-	2	2	2	3	3	3
World Bank	35	26	34	19	20	19	20	21	21	22
AfDB/AfDF	13	8	12	6	5	5	5	5	5	5
Other	7	4	2	4	5	6	7	8	10	11
Bilateral creditors	77	37	28	43	45	47	50	48	58	62
Paris Club	75	36	28	43	40	38	36	32	33	31
Non-Paris Club	2	1	0	0	5	9	14	16	25	31
Other creditors	32	24	15	16	15	14	13	2	10	8
Debt-Service Ratios										
Before 2004 Paris Club Rescheduling										
Debt-service in percent of current year exports	27	23%	20%	9%	12%	9%	8%	8%	7%	7%
Debt-service in percent of fiscal revenue	8	27%	24%	11%	14%	10%	10%	9%	8%	8%
After 2004 Paris Club Rescheduling										
Debt-service in percent of current year exports		-	-	-	-	5%	6%	6%	7%	7%
Debt-service in percent of fiscal revenue		-	-	-	-	6%	7%	7%	8%	8%

Sources: Kenyan authorities; and staff estimates and projections.

1/ Based on external debt data available from the Kenyan authorities as of October 2004
2/ Excludes arrears.
3/ Refers to the present value of debt service calculated by using the currency-specific commercial interest reference rate (CIRR) as the discount rate.
4/ Three-year backward-looking average.
5/ Debt service due beforethe January 2004 Paris Club rescheduling, except where noted

Kenya: Tax Summary as of December 2004

Taxes	Nature of Tax	Exemptions and Deductions	Rates
1. Income taxes **1.1 Taxes on companies, corporations, and enterprises** **Income Tax Act, 1973 (No. 16 of 1973); 1974 Finance Act**.	Tax is charged on income accruing in Kenya.	Income of specified agricultural produce boards, registered pension schemes, and provident funds is exempt. Income deriving from interest on government tax reserve certificates and on specified loans to government and other public authorities, etc., is exempt, as are dividends from companies of which the recipient company controls more than 12.5 percent of the voting stock. Export processing zone enterprises are exempt for ten years commencing from date of first production, sale, or receipt. Dividend distributions are subject to compensatory tax at a rate of $t/(1-t)$ if the distributions exceed the value of the dividend tax account, where t is the current corporate tax rate of the company. Dividends received on trading account by a financial institution are exempt from taxation, but the expenses attributable to earning exempt dividend income are nondeductible. Gains of insurance companies from stock market trading are exempt. Gains of licensed dealers from stock market trading are exempt subject to maintaining minimum turnover rates. (Securities which have been held for a period not exceeding 24 months). Annual depreciation allowances as a percent of written-down value (declining balance) are as follows: machinery, 12.5%t; mining operations 40% (of the capital cost) during the first year and 10% for the next six years of the capital investment; motor vehicles and aircraft, 25%t; computers and peripheral hardware, calculators, copiers and duplicating machines, 30%; heavy earthmoving equipment and agricultural machinery, 37.5%t.	Resident company rate of 30%; nonresident company rate of 37.5%. For 1998 and 1999 resident companies, the rate was 32.5%; for nonresident companies (branches), 40 percent. The rate for export processing zone enterprises is 25%; after the first ten years. Company listing in NSE and making public issue of at least 30%, pays corporation tax at a rate of 25% for next five years following such listing thereafter. Withholding and similar taxes Following are rates on payments to residents (set-off against tax liability unless otherwise specified): ∃ On interest including discounts, rates are 10% on housing bond interest, 25 percent on bearer bond of less than 2 years duration interest, and 15% on all other interest. This is a final tax where interest is paid by a financial institution, including the central bank, to an individual; otherwise, interest is subject to income tax. ∃ On dividends, rate is 5 % on dividends from resident corporations (excluding savings cooperatives) as a final tax; otherwise it is 10%. ∃ On insurance brokerage fees and commissions, rate is 5 percent. Insurance agents= fees tax, rate is 10 %. ∃ On , consultancy, or agency fees, the aggregate value of which is K Sh 24,000, or more ; the tax rate is 5 % of the gross amount payable and in respect of contractual fee the aggregate value of which is Kshs 24,000 in a month or more the tax rate is 3% of the gross amount payable ∃ On royalties, the rate is 5%.

Taxes	Nature of Tax	Exemptions and Deductions	Rates
Corporate income tax (continued)		Annual depreciation allowances based on original expenditure (straight-line method) are as follows: buildings, 2.5 percent (hotels, 4 percent); agricultural land improvements, $33^{1}/_{3}$ percent. An initial "investment deduction" of 85 percent is granted for new investment in buildings (including hotels) and equipment outside the municipalities of Nairobi and Mombasa, and 35 percent within these municipalities. Regular depreciation is disallowed on that share of the expenditure qualifying for investment deduction. Effective 1995, investment deduction is 60 percent in all regions and qualifying investments expanded to include infrastructure and environmental expenditures. Investment deduction as percentage of capital expenditure	∃ Taxable amount of pension payments or withdrawals from registered funds, if not taxed under PAYE system, at the following rates:

Effective 1/1/2000

Taxable amount	Rate of tax (percent)
First K Sh 400,000	10.0
Next K Sh 400,000	15.0
Next K Sh 400,000	20.0
Next K Sh 400,000	25.0
Above K Sh 1,600,000	30.0

Payments to nonresidents are taxed at following rates:

∃ Interest, including discounts, 15 percent, except for oil exploration, 10 percent, and bearer bonds, 25 percent;
∃ Dividends, 10 percent;
∃ Rent of immovable property, 30 percent, and rent of other tangible property, 15 percent;
∃ Management and professional fees, 20 percent, except for oil exploration, 12.5 percent;
∃ Royalty, 20 percent;
∃ Pension, 5 percent;
∃ Entertainment and sporting events, 20 percent; and
∃ Oil exploration fees, 12.5 percent.
∃Advance tax on commercial vehicles: goods carrying vehicles at K Sh 1,500 per ton load capacity per year, and passenger carrying at K Sh 60 per passenger capacity per month (see 5.5.1)

Year of first use	Nairobi/ Mombasa	All other regions
	(In percentage)	
1/1/1988	10	60
1/1/1989	25	75
1/1/1990	35	85
1/1/1995	60	60
1/7/2000	100	100
1/1/2002	85	85
1/1/2003	70	70
1/1/2004	60	60

If manufacturing under bond for export, investment deduction is increased to 100 percent. An optional 100 percent for export processing zone enterprises is claimable within the first 20 years from date of establishment.

Taxes	Nature of Tax	Exemptions and Deductions	Rates
Corporate income tax (concluded)		In ascertaining total income, all expenditure incurred wholly and exclusively in the production of income is deductible, including, *inter alia*, pre-production business expenditures, capital expenditure on farmland for the purpose of preventing soil erosion or for clearing and planting permanent or semi-permanent crops, and interest on money employed in the production of income.	

1.2 Taxes on individuals

Taxes	Nature of Tax	Exemptions and Deductions	Rates
Income Tax Act, 1973 (No. 16 of 1973); 1974 Finance Act.	Tax is charged on income derived from, and accruing in, Kenya. A pay-as-you-earn (PAYE) system is in operation for employees. The non-employment income of a married woman living with her husband is deemed to be her husband's income for tax purposes. A wife's employment, self-employment, and professional income are taxed separately from her husband's income.	The President of Kenya is exempt from taxes on his salary, etc., as are allowances of members of parliament. Interest on post office savings bank deposits and on tax reserve certificates and specified government securities held by nonresidents are also exempt. Basic personal tax allowance of K Sh 8,712 effective January, 1998 and K Sh 9,600 effective January, 2000 and K Sh 11,520 effective Jan. 1,12,672 effective Jan 2002. Fringe benefits up to K Sh 2,400 (as from 1st January, 2004 it will be Kshs.24,000) a year are exempt, as are pension and retirement annuity payments payable to residents up to K Sh 180,000 per annum w.e.f 1st July 2004. As of January 1, 1993, one-time lump-sum payments of up to K Sh 1.4 million to the estate of a deceased pensioner are exempt.	Tax free lumpsum limit is Kshs 480,000 w.e.f 1 Jan 2004

Taxable income effective from:

		Jan 1, 2002	Jan 1, 2003	Rate of tax (percent)
First K Sh		1-116,160	1- 116,160	10.0
Next K Sh		109,440	109,440	15.0
Next K Sh		109,440	109,440	20.0
Next K Sh		109,440	109,440	25.0
Above		444,480	444,480	30.0
			Jan 1, 2004	
First			1-116,160	10.0
Next			109,440	15.0
Next			109,440	20.0
Next			109,440	25.0
Above			444,480	30.0

Taxes	Nature of Tax	Exemptions and Deductions	Rates
		Effective June 11, 1998, a fringe benefit tax is applicable to benefit from employer-provided low interest rate loans.	The top individual income tax rate was lowered from 45 percent to 40 percent effective January 1, 1993, to 35 percent effective January 1, 1995, to 32.5 percent effective January 1, 1998, and to 30 percent effective January, 2000. An additional 2.5 percent drought levy was charged on top-bracket income in 1995 only. The 30% bracket was added in 1996. Withholding and similar taxes at same rates as in Section 1.1.
Individual income tax (concluded)		Interest not exceeding K Sh 100,000 on amounts borrowed for the purchase or improvement of owner-occupied housing may be deducted. Pension contributions to a registered pension, provident, or individual retirement fund up to the amount of 30% of pensionable income or K Sh 150,000 in 1999, K Sh 180,000 in 2000, K Sh 210,000 in 2001 onward per annum per employee are also deductible. In ascertaining total income, all expenditure incurred wholly and exclusively in the production of income is deductible, including, *inter alia*, capital expenditure to prevent soil erosion and interest on money employed in the production on income. Contributions to a registered home ownership savings plan are deductible up to K Sh 48,000 per year for ten years to individuals not owning previously owning a home. Withdrawals are exempt if used to buy or construct a permanent residence. Deduction of interest expenses incurred in earning investment income is limited to the amount of investment income.	Penalty for late payment or underpayment of tax, 20 percent of tax due; for unpaid taxes, 2 percent interest for each month overdue on compounding basis; for failure to submit returns, 5 percent of amount due.
Presumptive tax on agriculture (effective July 1, 1989)	See under Section 1.1.		

Taxes	Nature of Tax	Exemptions and Deductions	Rates
2. Social security contributions. National Social Security Fund Act, 1965 (No. 28 of 1965).		Persons in the civil service and are pensionable under the Pensions Act are exempt, as are members of the armed forces, police force, prison services, and National Youth Service	The employer and employee contribute 5 percent each of salary up to a maximum contribution of K Sh 80 per month each. This is equivalent to applying a monthly wage ceiling of K Sh 1,600.
3. Other payroll taxes	NHIF		
4. Taxes on property			
4.1 Real estate taxes	Land rent on property under lease is payable		
4.2 Death and gift taxes	The estate duty has been eliminated.		
4.3 Property transfer taxes	See stamp duties under Section 7.2		
5. **Taxes on goods and services**			
5.1 **Value-added tax (VAT) VAT Act, Cap 476.**	VAT is based on the destination principle and levied on locally produced or imported taxable goods or taxable services. It is levied at the manufacturing and retail level for all taxable goods.	Unprocessed agricultural products are tax exempt. Hire services are exempt if the equipment or vehicles are zero rated or exempt except charter of aeroplane and hire of busses which will become taxable with effect from 1/9/2001. Pharmaceuticals, medical equipment, fertilizers, seeds, some seedlings, infant milk foods, animal feeds, agricultural machinery and equipment, educational textbooks, and all exports of goods and taxable services are zero-rated The Minister for Finance subject to the Act has power to remit tax under specific program and conditions detailed in the Act. Certain Public Bodies, Privileged persons and institutions are conferred zero-rated status on imports and purchases. Effective from 15/6/2001, sheath contraceptives and oil seed cakes were zero-rated.	A standard rate of 16 percent in 1998/99, 15 % in 1999/00, 18 % in 2000/01 is levied on the sale price or, in the case of imports, on the customs duty value plus the amount of customs duty. A low rate of 12% applies to electricity, vegetable oils, and restaurant services, and to most capital equipment applied through to June 10, 1999 when all these items rate of tax was raised to 15%, except restaurant and accommodation services which was set at 13 percent, together with 2 percent catering training levy. With effect from. 15/6/2000 the standard rate was revised to 18% and the rate on restaurant and accommodation to 16% with 2% catering training levy. With effect from 18/06/2003, rates were revised to standard rate 16%; 14% for accommodation and restaurant services & 2% catering training levy Zero (0) % rate for exports & other zero rated supplies

Taxes	Nature of Tax	Exemptions and Deductions	Rates
VAT (concluded)	VAT is levied on the following services: business and professional services; legal and accountancy; computer; secretarial, copying, printing, telecommunication; hotels and restaurants; agency and security services; construction; architectural and quantity surveying; materials-testing services; goods transportation, handling and storage, and courier services; advertising; rental/repair/maintenance of all machinery and equipment, including vehicles; entertainment services; cleaning and photographic services; and beauty parlors and hairdressers.	Exports of goods and services are zero rated. The minimum turnover level for registration is K Sh 3 million per year effective June 13, 2002 . ***Businesses for the mandates a threshold for the purpose of registration and where a taxpayer has more than one business the aggregate turnover of the taxpayer's businesses is taken into account for the purpose arriving at or otherwise registration threshold*** Remissions of VAT (Finance Bill 2004)	
	Effective Jan. 1, 2001, VAT was levied on all services except financial services, insurance/reinsurance, education and training services at registered institutions, medical, veterinary, dental, nursing, social welfare services by registered charitable organizations, burial and cremation services, public transportation of passengers, real property rentals, postal and money order services by Postal Corp. of Kenya, local authority services, insurance agents and brokers, stock exchange brokers, tea and coffee brokers, rental of exempt or zero-rated goods, tour operators and travel agents, shed operators, airport services. With effect from. September 1, 2001 the following services will also be exempt: services rendered by trade, professional and labour associations, sanitary and pest control services rendered to domestic households, Agricultural animals husbandry, horticultural pestal services, conference services, conducted for educational institutions. Car park services rendered by local authorities; Accommodation and restaurant services provided within the	(1). On importation or purchase of capital goods for new investment or extension/expansion of old investment, in excess of Kshs 1million. (2). On goods donated to Charitable organisations or NGOs excluding: Passenger motor vehicles of seating capacity of less than 26 persons, building materials, audio & audiovisual electronic equipment, spare parts, basic food commodities, office furniture & equipment, stationery & textiles Exemptions from VAT (Finance Bill 2004) (1). W.e.f 16.June 2004 on liquefied gas and sanitary towels and tampons (2). Accommodation & restaurant services provided within establishments operated by charitable or religious organisations, training and medical institutions will be exempted from charging VAT if operated by the proprietors	

Taxes	Nature of Tax	Exemptions and Deductions	Rates
	following establishments – Charitable or religious organisations, educational training institutions, medical institutions and cafeteria and canteens operated by employers for benefit of low income employees. Finance Bill 2004 Introduction of Section 19A, for the appointment of VAT withholding agents As a result, w.e.f from 16 June 2004, Any person who makes taxable supplies to persons other than registered persons, not withstanding the turnover limit can voluntarily register for VAT.		
5.21 Tobacco. **Customs & Excise Act (Chapter 472 of the Laws of Kenya);.**	Tax is levied on the ex factory price of cigarettes, cigars, pipe tobacco, and snuff, on the import value (including customs duty).	Not applicable. Transit shed operators and airport services were removed from exempt services. Supply of taxable services in respect of goods in transit, taxable Airport Services to transit aircrafts and taxable supplied to Aid Agencies were zero-rated.	Cigarettes, pipe and other Tobacco 130 percent or specific rate between Kshs 450 - 540 or Ksh 1,400 per mille Cigars 30 percent From 2000/01 to-date 130 percent plus excise stamp per pack of K Sh 1 on imported or domestic cigarettes over 72 mm. Excise stamp per pack of cigarettes below 72 mm is shs. 0.50
5.22 Liquor			
5.221 Excise duty on beer. Customs & Excise Act (Chapter 472 of the Laws of Kenya).	Duty is levied on ex factory price of locally brewed beer, or import value (including customs duty).	Not applicable.	Light beer 85 percent Heavy beer (stout and porter) 60 percent Nonmalt beer Ksh 24 per litre Fermented beverages (eg. chibuku) Ksh 49 per litre
5.222 Excise duty on spirits, wines and mineral waters. Customs & Excise Act (Chapter 472 of the Laws of	Levied on ex factory price of locally produced products, or on import value (including customs duty).	Not applicable.	Water, not containing added 10percnt Sugar or sweetening matter nor flavour Other water and nonalcoholic drinks 10 percent Cider 35 percent

Taxes	Nature of Tax	Exemptions and Deductions	Rates	
Kenya).			Wine Spirits	45 percent 65 percent or Ksh 100 per proof litre
5.23 Refinery throughput tax. Refinery Throughput Tax Act, 1982.	Tax is levied on all charges made by a refinery with respect of refining crude petroleum.	Charges pertaining to any class or consignment of petroleum or petroleum products or to any part of the refining process may be waived by the Minister for Finance.	Fifteen percent of refining charges. Refinery throughput tax was reduced to zero effective November 1, 1994.	
5.24 Other excises				
5.241 Second-hand motor vehicle purchase tax	Tax is levied on purchase of second-hand motor vehicles.	Ambulances, etc, are exempt.	K Sh 1,660 for vehicles with fewer than four wheels and K Sh 1,660 to K Sh 5,915 for all other vehicles, depending upon the engine capacity (2002 Finance Act).	