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CAMBODIA

Selected Issues

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I. GROWTH AND POVERTY

Chapter 1. Determinants of Growth in Cambodia and Other LICs in Asia: Evidence from Country Panel Data[1]

1.   **This chapter explores the implications for long-term sustainable growth in Cambodia from cross-country analysis of the sources of growth.** Section A describes Cambodia's recent economic growth performance and compares it with other low income countries (LICs) for the period from 1970 to 2003. Section B overviews the difference between Cambodia and some country groupings with respect to a number of growth determinants identified in the literature. Section C presents estimation results based on seven five year period averages for the 144 countries. Using these results, we consider the implications for steady state growth in Cambodia by comparing its performance relative to that of ASEAN countries.

A. Cambodia's Growth Experience and Prospects

2.   **In the last five years, Cambodia's growth performance has been amongst the best.** Cambodia's GDP growth rate has averaged 6-7 percent during 1999-2003, reflecting both external factors and good macroeconomic policies. Per capita GDP growth was much lower, however, at an average 2½ percent (Table 1). This growth performance is significantly higher than the average for all developing countries and for LICs.[2] Cambodia's pace of growth is more similar to that of other ASEAN low income countries (Myanmar, Vietnam and Laos) and of transition countries.[3]

Table 1. Real GDP Per Capita Growth[1] (Annual average, in percent)		
	1970-2003	1999-2003
All (144)	1.5	2.2
PRGF (70)	1.0	1.9
LIC-Non-Fuel (68)	1.0	1.9
Asia (23)	2.8	1.9
Asia excluding China (22)	2.6	1.8
Asia excluding islands (18)	3.1	2.3
ASIA-LIC (15)	2.4	1.9
Transition (29)	2.1	3.7
Transition LIC (13)	1.5	3.6
ASEAN (9)	3.4	2.9
ASEAN LIC (4)	3.1	3.3
Cambodia	**3.5**	**2.6**
Laos, PDR	2.9	5.4
Vietnam	3.7	2.2

Source: WEO database.

[1] Excludes advanced economies. Asia and ASEAN exclude Brunei Darussalam.

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[1] Prepared by Wafa Fahmi Abdelati (APD).

[2] LICs are defined as the group of PRGF-eligible countries. ASEAN excludes Brunei-Darussalam due to data limitations.

[3] It should be noted, however, that Cambodia's GDP per capita growth over the longer period is misleading as it reflects the sharp reduction in population in the 1970s.

3.   **However, prospects of weaker growth in the period ahead call for a deeper exploration of the factors that can contribute to sustained growth.** As elaborated in Chapter 2, Cambodia has benefited from economic rents from textile quota since 1996 under the Multi Fiber Agreement. With the elimination of the quota system in January 2005, growth is expected to slow down as its garment industry will be exposed to direct competition with neighboring countries. Cambodia's low labor productivity, inadequate and expensive infrastructure, and a cumbersome regulatory environment—as confirmed by the recent World Bank value chain studies and investment climate assessment—do not bode well for future sustainable growth.[4] Identification of key impediments to growth has become an urgent agendum.

B.   Overview of Growth Determinants

4.   **Before estimating the growth equations, Cambodia's performance is assessed for the period 1970-2001 against a number of factors that have been positively associated with growth.** These include initial conditions, macroeconomic polices, improvements in human and physical capital, institutional factors and other exogenous factors.

- **Cambodia's initial conditions in 1970 are among the weakest.** In 1970, it had one of the lowest per capita GDP in PPP terms, about one third that of other LICs (Figure 1). Life expectancy, which is one indicator of human capital conditions, was about 41 years compared to the Asian average of 54 years.

- **Physical and human capital development has been anemic.** Physical infrastructure, as proxied by the number of telephones per thousand inhabitants, has remained very low and only began to increase in the last decade (Figure 2). Illiteracy rates have remained high, particularly compared to the fast growing economies of ASEAN and transition countries.

- **Macroeconomic policy indicators, on the other hand, have been better than the average for ASEAN and for transition economies.** Accordingly, inflation has remained relatively subdued, and budget balances within the range for LICs (Figure 3).

- **Favorable external conditions, including foreign aid flows and trade agreements, have helped propel recent growth.** Cambodia's per capita aid has amounted to 10 percent of per capita GDP in the period 1970-2001 and has increased to 20 percent in the period 1995-2001 (Figure 4). Moreover, its terms of trade have remained relatively favorable and stable (Figure 5).

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[4] *Seizing the Global Opportunity: Investment Climate Assessment and Reform Strategy*. World Bank, 2004.

Figure 1. Initial conditions, 1970

GDP in $, PPP (bottom scale)   Life expectancy (in years)
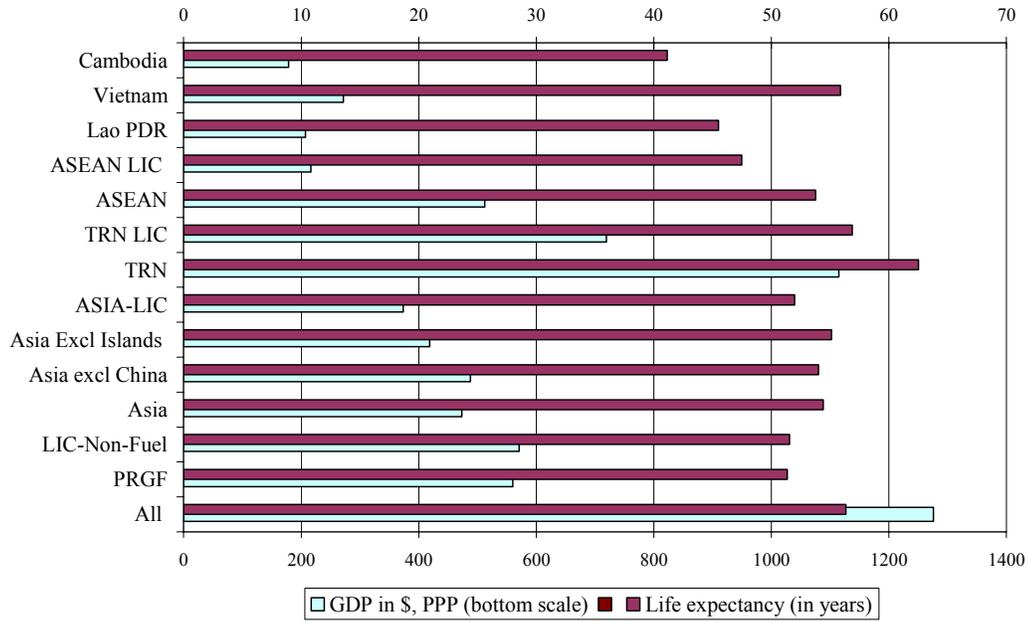
Figure 2. Human and Physical Capital
(Average 1970-2001)

Illiteracy rate   Number of telephones per '000
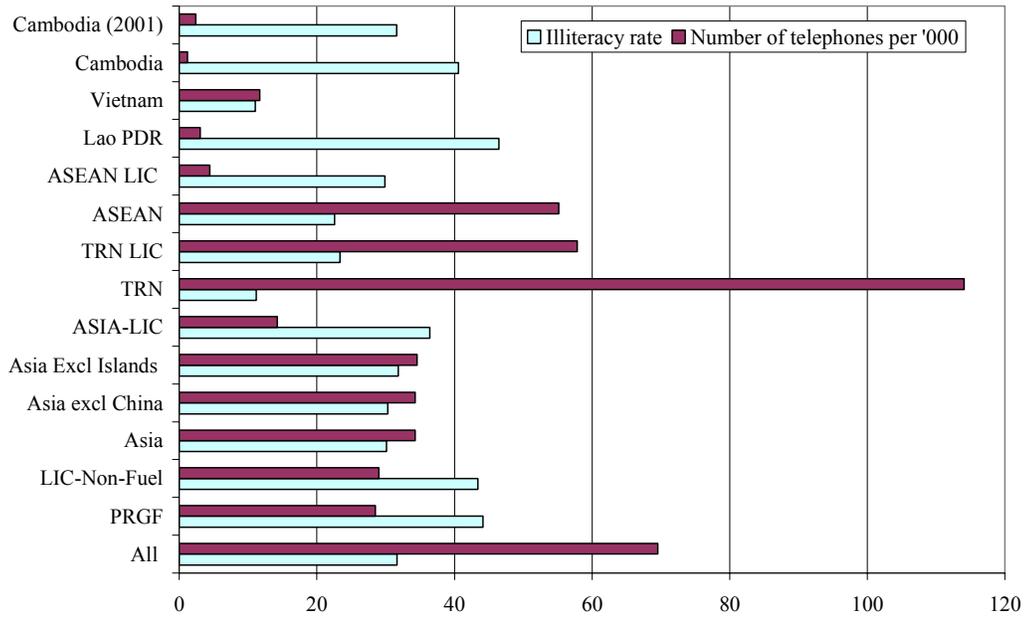
Figure 3. Macroeocomic Policies
(In percent, average 1970-2001)
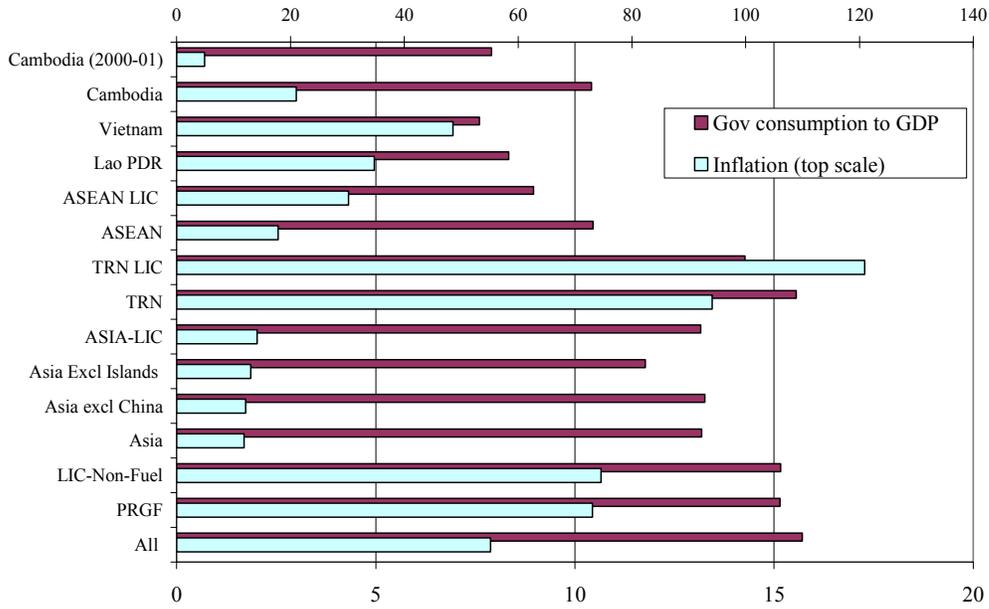
Figure 4. Aid Per Capita
(Per capita aid flows as percent of per capita GDP, average 1970-2001)
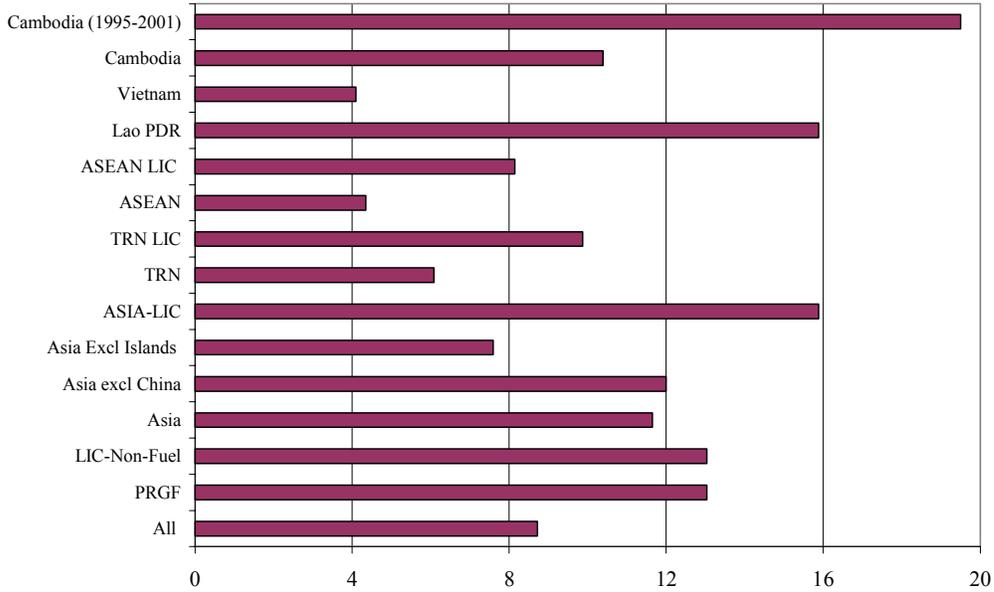
Figure 5. Volatility of Terms of Trade
(Average 1970-2003)
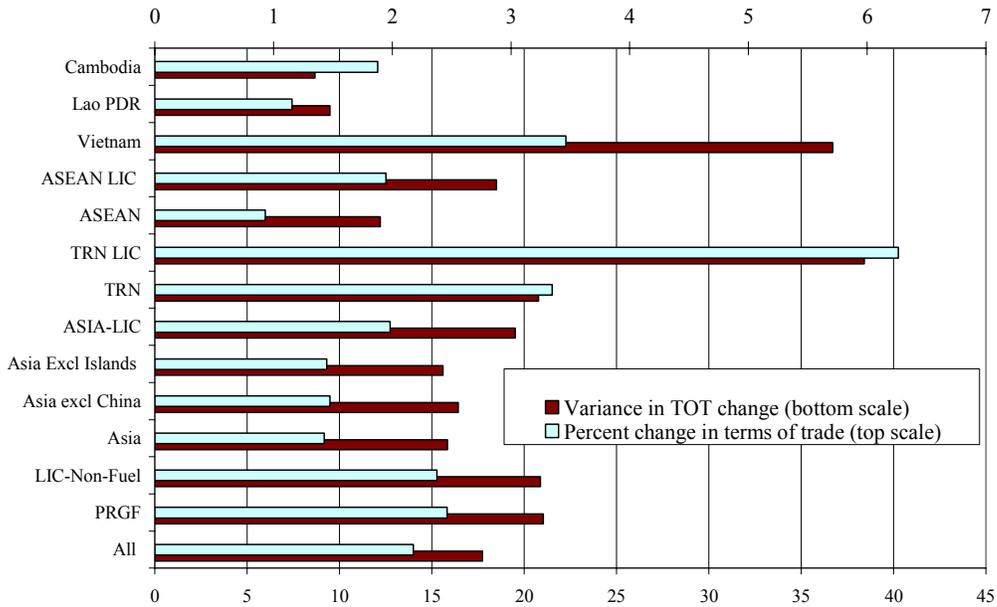
Figure 6. Financial Development Indicators
(In percent, average 1970-2001)
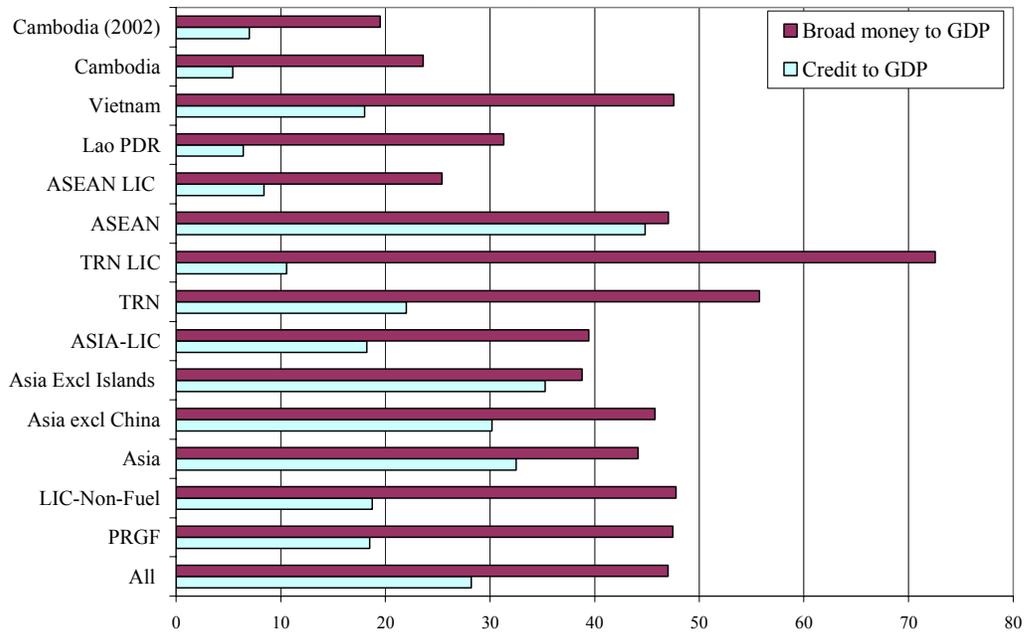
- **As with other transition economies, Cambodia lags in institutional and market development.** Financial markets remain shallow, with a bank credit to the private sector at around 7 percent of GDP, and the ratio of broad money to GDP under 20 percent (Figure 6).

5. **Weak governance has become the Achilles' heal for growth as transition economies, including Cambodia, increasingly depend on private sector development.** An earlier World Bank cross-country study shows Cambodia as weaker than most developing countries on a number of different governance indicators shown in Table 2. The average index shows that overall, Cambodia scores lower than the average for Asian LICs and Transition LICs, and well below the ASEAN average in each of the six different indicators.

Table 2. Governance Indicators

	All	PRGF	Asia	ASIA-LIC	TRN	TRN LIC	ASEAN	Lao PDR	Vietnam	Cambodia
Combined Index [1]	-0.2	-0.4	-0.2	-0.4	-0.2	-0.5	-0.1	-0.6	-0.4	-0.7
Voice and Accountability	-0.2	-0.4	-0.3	-0.4	-0.2	-0.6	-0.6	-1.0	-1.2	-0.7
Political Stability	-0.1	-0.4	-0.1	-0.3	0.1	-0.2	0.2	1.0	0.4	-1.1
Government Effectiveness	-0.3	-0.6	-0.1	-0.3	-0.3	-0.5	0.2	-0.1	-0.2	-0.7
Lack of Regulatory Burden	-0.2	-0.4	-0.1	-0.4	-0.2	-0.6	0.1	-1.1	-0.5	-0.3
Rule of Law	-0.3	-0.6	-0.2	-0.6	-0.3	-0.6	-0.1	-1.3	-0.5	-0.9
Control of Corruption	-0.3	-0.6	-0.3	-0.6	-0.3	-0.6	-0.2	-0.9	-0.6	-0.9

Source: World Bank WP 2195, "Aggregating Governance Indicators", Daniel Kaufman, Aart Kray and Pablo Zoido-Lobaton, 1999.
[1] Each of the six governance indicators are measured in units ranging from -2.5 to 2.5, with higher values corresponding to better governance outcomes

C. Results from Econometric Analysis and Implications for Cambodia

6. **Cambodia and other transition economies have been typically excluded from cross-country studies of long-term growth.** One reason might have been the structural rigidities and weaker influence of market forces that would make it more difficult to distinguish the role of macroeconomic policies in promoting capital accumulation and productivity growth. More practically, however, data shortcomings have precluded the inclusion of these countries, either because many became independent states only since the early nineties, or because earlier data collection methods were deemed unreliable. Accordingly, while some improvements have been made in data quality, the results of the following analysis still reflect such weaknesses. Nevertheless, inclusion of these countries would produce more relevant results for assessing Cambodia's medium-term growth needs.

7. **A standard growth model, described in Annex I, was estimated for 144 low- and middle-income countries.** The sample includes 70 LICs, of which 15 are Asian LICs. Real per capita GDP growth and labor productivity growth are used as alternative dependent

variables.[5] The explanatory variables included in the estimation exercise and their group means are described in Annex Table 1. The regression equation takes the following form**:**

$$\text{Per capital growth}_{it} = \alpha_i + \beta\,[\text{initial conditions}]_{it} + \delta\,[\text{macroeconomic policy}]_{it}$$
$$+ \varphi\,[\text{labor and capital inputs}]_{it} + \lambda\,[\text{external factors}]_{it}$$
$$+ \theta\,[\text{institutional factors}]_{it} + \mu_{it} + \upsilon_{it} \qquad (1)$$

Table 3. Summary Regression Results for Panel Data

	(1)	(2)	(3)	(4)	(5)	(6)		(7)	(8)
	OLS (robust SE)		GLS (Hetero panel)		RE (Hausman Taylor)			Arellano Bond Estimator	
Dependent Variable	rGr_PC	Gr_Y/L	rGr_PC	Gr_Y/L	rGr_PC	Gr_Y/L		rGr_PC	Gr_Y/L
Initial period GDP (log)	-0.755	-0.807	-0.555	-0.424	-1.957	-1.989	D1	-6.174	-5.016
	0.252 ***	0.248 ***	0.190 ***	0.179 **	0.595 ***	0.589 ***		1.000 ***	1.005 ***
Labor force growth	-0.340	-0.669	-0.243	-0.622	-0.250	-0.634	D1	-0.076	-0.334
	0.119 ***	0.141 ***	0.098 **	0.094 ***	0.133 *	0.131 ***		0.186	0.182 *
Log of inflation	-0.974	-1.048	-0.743	-0.826	-0.849	-1.011	D1	-0.990	-1.052
	0.143 ***	0.137 ***	0.071 ***	0.087 ***	0.148 ***	0.145 ***		0.198 ***	0.196 ***
Government consumption to GDP	-0.112	-0.094	-0.128	-0.118	-0.110	-0.110	D1	-0.151	-0.141
	0.023 ***	0.025 ***	0.010 ***	0.015 ***	0.033 ***	0.032 ***		0.055 ***	0.054 *
Terms of trade change, lagged	0.032	0.033	0.021	0.017	0.027	0.027	D1	0.051	0.040
	0.018 *	0.019 *	0.011 **	0.010 *	0.015 *	0.015		0.018 ***	0.018 **
Terms of trade volatility	0.000	0.000	0.000	0.000	0.000	0.000	D1	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000		0.001	0.001
Weather: crop decline	-3.318	-3.871	-1.924	-2.682	-3.578	-3.880	D1	-4.362	-4.826
	0.799 ***	0.734 ***	0.411 ***	0.420 ***	0.711 ***	0.700 ***		0.983 ***	0.976 ***
Broad money to GDP	0.000	-0.013	-0.001	0.003	0.003	-0.006	D1	-0.018	-0.042
	0.029	0.028	0.017	0.017	0.029	0.028		0.046	0.046
Aid per capita, as percent of GDP per capita	0.030	0.031	0.041	0.051	0.085	0.064	D1	0.069	0.018
	0.020	0.021	0.012 ***	0.015 ***	0.027 ***	0.026 **		0.041 *	0.041
Telephones per '000	0.002	0.002	0.002	0.001	0.001	0.002	D1	0.009	0.004
	0.003	0.003	0.002	0.002	0.003	0.003		0.005 *	0.005
Trade Restrictiveness Index	-0.011	0.031	-0.055	-0.016	-0.020	0.025	D1	-1.273	-1.574
	0.058	0.062	0.037	0.037	0.174	0.176		0.960	0.950
Gross capital formation to GDP	0.128	0.175	0.141	0.149 (EN)	0.138	0.197	D1	0.194	0.289
	0.023 ***	0.040 ***	0.014 ***	0.015 ***	0.025 ***	0.025 ***		0.038 ***	0.038 ***
Trade to GDP	-0.009	-0.004	-0.008	-0.010 (EN)	-0.003	-0.004	D1	0.008	0.011
	0.016	0.016	0.009	0.009	0.014	0.014		0.025	0.025
Secondary school enrollment	0.019	0.000	0.010	-0.003	0.045	0.023	D1	(dropped)	(dropped)
	0.010 **	0.010	0.006 *	0.006	0.019 **	0.019			
Dummy for fuel exporters	-0.449	-0.408	-0.925	-0.296	0.941	0.818	D1	(dropped)	(dropped)
	0.586	0.595	0.377 **	0.441	1.426	1.434			
Government efficiency	1.450	1.535	1.544	1.436 (EN)	2.274	2.101	D1	(dropped)	(dropped)
	0.338 ***	0.309 ***	0.202 ***	0.208 ***	1.358 *	1.358			
Lagged dependent variable							LD	-0.001	0.022
								0.050	0.049
Constant	9.348	9.935	6.141	6.215	14.718	15.890		1.206	1.035
	1.907	1.948	1.333	1.271	4.534	4.492		0.226 ***	0.229 ***
No. of Observations	640	640	640	640	640	640		463	462
R-Squared	0.299	0.367							
rho					0.616	0.629			
ST								40.65(14)	39.54(14)

Notes:
Standard errors in italics. Significance of the coefficients at the 1, 5 and 10 percent level are designated by *, **, and ***, respectively.
rho is the fraction of the variance due to u_i.
(EN) = variables designated as endogenous variables in Hausman Taylor estimation method.
D1 = first differenced variables in the Arellano Bond method, no lags were used for the independent variable.
ST refers to Chi Squared value of the Sargan Test for over-identifying restrictions.
Time dummy variables were used in equations (3) to (6).

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[5] Further work is needed to develop estimates of initial physical capital stock and human capital for many of the countries included in this study, thereby allowing application of the growth accounting approach to decomposing the sources of growth.

8.   **The results shown in Table 3 are consistent with other studies in the literature**. The empirical analysis confirms that higher real per capita growth is associated with lower initial income levels, better macroeconomic performance, faster human and physical capital accumulation, smaller government, and stronger institutions and governance. Variations in trade openness and trade restrictiveness did not yield significant coefficients for explaining growth performance. Labor force growth had the wrong sign, possibly due to widespread unemployment and underemployment. Similar results are obtained when labor productivity (change in output per worker) is used as the dependent variable.

9.   **Lessons for achieving more robust sustainable growth can be drawn by comparing Cambodia to strong performers.** For illustration purposes, the results from equation (5) in Table 3 are used to estimate the contribution to per capita growth in Cambodia of the main growth determinants.[6] The estimated contribution in the last column of Table 4 suggests that Cambodia has benefited from high per capita aid flows and stability in the terms of trade.[7]

Table 4. Difference between ASEAN Average and Cambodia on Growth Determinants [1]

	Regression Coefficients	ASEAN Mean Value (1970-2001)	Cambodia Mean Value (1970-2001)	Impact on per Capita GDP Growth
Secondary school enrollment	0.045	41.0	17.5	-6.0
Gross capital formation to GDP	0.138	24.6	14.0	-10.5
Government consumption to GDP	-0.110	10.5	10.4	0.1
Trade to GDP	-0.003	92.6	58.0	0.2
Lagged improvement in terms of trade	0.027	1.2	2.3	1.3
Terms of trade volatility	-0.001	12.2	8.7	0.0
Dweather (years of low crop yield)	-3.578	0.1	0.1	0.0
Broad money to GDP	0.003	47.1	23.6	-0.3
Government effectiveness [2]	2.274	2.7	1.8	-113.7
Telephone per '000	0.001	55.1	1.2	-4.4
Aid per capita as per cent of per capita GDP	0.085	4.3	10.4	5.0

[1] Regression results from equation 3 in Table 5.
[2] Scale adjusted from between -2.5 and +0.25 to between 0 and 5. Similar coefficients obtained for the other governance indicators.

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[6] Reasons for using equation (5) are explained in the Annex.

[7] Similarly, although the coefficient for weather, proxied by the number of years with a large drop in crop yield, was large and significant, Cambodia's share of bad weather is similar to that of other ASEAN countries and better than the average for all non-fuel exporting LICs (Annex Table 1).

10.   **In contrast, Cambodia's growth performance has been constrained by a number of factors.** They include lower levels of education and capital formation (infrastructure development as proxied by the number of telephones). Accordingly, improvements in those areas could potentially yield significant improvements in long-term growth. Above all, improved government effectiveness could be an important contributor to boost growth. The same result was obtained with substituting government effectiveness with each of the other governance indicators shown in Table 2.

D. Conclusions

11.   **Cambodia has experienced more rapid growth than other LICs since the Asian crisis**. The higher growth rates are partly consistent with the experience of other LICs and transition countries, who are starting from a lower base. Cambodia has also benefited from large aid inflows which have boosted economic activity. Relative macroeconomic stability, compared to other LICs, has also helped support higher growth rates.

12.   **The crucial question for Cambodia is how to sustain high growth rates in the presence of a number of adverse developments that are likely to lead to slower growth.** Compared to the fast growing Asian economies, Cambodia and other LICs have weaker human and physical capital base and institutional infrastructure. Sustaining such high growth rates in the future would require Cambodia to catch up with other countries in labor skills, market institutions, infrastructure, and strengthened governance. At the same time continuing with the macroeconomic stability and a relative open trade system will remain crucial to support private sector activity.

Annex

Investigating the Sources of Growth from Panel Data

A growing literature has focused on the theoretical and empirical investigation of the impact of policies and conditioning factors on the steady state rate of growth. Empirical investigation of the theory of endogenous growth has generally taken the form of either comparative regression analysis or growth accounting or, more recently, a combination of the two.[8] The growth accounting approach estimates the contribution of capital accumulation and improvements in total factor productivity, but does not capture the influence of economic policies and external factors (such as changes in the terms of trade). The more eclectic cross-country approach, inspired by the theory of endogenous growth, attempts to explain differences in growth experience by a wide range of macroeconomic, structural, and external factors. Attempts have been made to combine both approaches by adding factor contributions and conditioning factors to estimate their contributions to growth in the same equation, or to estimate the influence of policies and conditioning factors on the rate of human and physical capital accumulation and, thus, on growth.[9]

Two cross-country studies by IMF staff have focused on drawing lessons from the impact of macroeconomic and structural policies on growth in developing countries. A 1999 IMF staff study investigated the impact of macroeconomic and structural policies on growth in 84 low- and middle-income nontransition countries, subdividing them into PRGF countries and non-PRGF countries.[10] The study found that the gap between the growth rates of PRGF and non-PRGF countries has narrowed, and confirmed the positive role that good policies—single digit inflation, low budget deficits, outward-oriented policies, and streamlined governments—can play in improving growth. A 2003 study covering 94 countries, including 69 low income countries, found that institutional quality has a more significant impact on growth, and performs better than macroeconomic policy variables (with the exception of trade openness) in explaining the differences in the level of income, in growth rates and the volatility of growth.[11] Another 2003 study that combined the growth accounting approach and institutional quality for a cross-country of 74 countries, including 53 low and middle income countries, found the lower growth rates of Middle Eastern

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[8] Early papers that spurred research include Barro (1991) and Fischer (1993).

[9] Bosworth and Collins (2003) review the recent literature and apply the combined approach to 84 high and low income countries, utilizing Barro and Lee's (2000) data set of educational attainment and by extending the data on initial capital stock contained in the dataset from a World Bank 1993 study.

[10] *Economic Adjustment and Reform in Low-Income Countries*, 1999.

[11] Chapter on Growth and Institutions, in *World Economic Outlook*, April 2003.

countries can be explained by the larger size of government, poor quality of institutions, misalignment of the real exchange rate, terms of trade volatility, and barriers to trade.[12]

Estimation Approach

The approach used here is applied to 144 low- and middle-income countries, and excludes all advanced economies. Transition economies are included where data permits. The countries (denoted by i) include 71 LICs, of which 15 are Asian LICs. Variables are averaged for 7 five-year periods (denoted by t), with the seventh period ranging from 2-4 years, depending on data availability. Real per capita GDP growth is the key dependant variable, and growth in labor productivity is used as an alternative dependent variable. The explanatory variables and their means are described in Annex Table 1. The basic regression takes the following form**:**

$$\text{Per capita growth}_{it} = \text{constant} + \beta\,[\text{initial conditions}]_{it} + \delta\,[\text{macroeconomic policy}]_{it}$$
$$+ \varphi\,[\text{labor and capital inputs}]_{it} + \lambda\,[\text{external factors}]_{it}$$
$$+ \theta\,[\text{institutional factors}]_{it} + \mu_{it} + \upsilon_{it} \tag{1}$$

$$\text{Labor productivity growth}_{it} = \text{constant} + \beta\,[\text{initial conditions}]_{it}$$
$$+ \delta\,[\text{macroeconomic policy}]_{it}$$
$$+ \varphi\,[\text{labor and capital inputs}]_{it} + \lambda\,[\text{external factors}]_{it}$$
$$+ \theta\,[\text{institutional factors}]_{it} + \mu_{it} + \upsilon_{it} \tag{2}$$

A number of estimation methodologies are used to test the robustness of the coefficients. Ordinary least squares has been typically used with either annual pooled data or period averages. Using panel data with seven 5-year period averages, we use a random effects application while assuming that the independent variables are independent of the unobserved individual country effects (μ_{it}) and the true disturbance term (υ_{it}) for all i and t.[13] A key concern is the endogeneity of macroeconomic and institutional factors and their possible correlation with the unobserved omitted factors. This could be addressed by using two stage least squares with appropriate instrumental variables for the endogeneous explanatory

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[12] Chapter on "How Can Economic Growth in the Middle East Be Accelerated", in *World Economic Outlook*, September 2003.

[13] This is a restrictive assumption that is arguably difficult to support. However, a fixed effects model, which does not require this assumption, is excluded because it ignores the time invariant variables, such as the institutional factors that are of particular interest here.

variables, but it is typically difficult to obtain good instruments for these variables.[14] In the absence of readily available instruments, we used three approaches in addition to the OLS. The first is a GLS estimation that allows for heteroskedastic effects between the country panels.[15] The second is the Hausman Taylor estimation method whereby some variables are designated as exogenous and used to instrument for variables suspected to be endogenous. The third alternative is to use the lagged dependent variable along with first differences of the independent variables and apply the Arellano Bond estimator.

Although most of the methods yielded similar coefficients, equation (5) was used to draw implications for Cambodia. As for the OLS estimator, it does not take advantage of the benefit inherent in panel data analysis which can capture the impact of country specific effects stemming from unobserved, and hence, omitted variables. The Arellano-Bond estimator is deemed less suitable as it did not yield a significant coefficient for the lagged dependent variable, negating the usefulness of this estimator. However, tests confirmed the absence of first order correlation in the residuals and the existence of second order correlation, and rejected the null hypothesis in the Sargan test for over-identifying restrictions. The Hausman-Taylor estimator was preferred as it allows relaxation of the exogeneity of all regressors, and some were used as instruments for governance indicators, trade openness and capital formation to GDP, yielding similar coefficient results.

Not all variables yielded significant results. Moreover, growth in labor inputs yielded a coefficient with a negative sign, suggesting that greater labor input results in a lower per capita growth or a lower labor productivity. This may be due to mismeasurement of labor inputs: very few countries report hours worked or overall employment figures, and employment was therefore measured by labor force growth or population growth.[16] The growth in the labor force is apparently not a good measure of labor input, possibly due to the prevalence of underemployment in many developing countries, particularly in the rural areas and in state-owned enterprises. While there is room to further improve variable measurement and estimation methods, overall, the results are useful for illustrating the implications of the determinants of sustained growth for Cambodia.

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[14] In the study on the impact of institutions in the September 2003 WEO, geographic latitude and ethnolinguistic diversity were used as instruments for institutions, but instruments were not used for macroeconomic variables.

[15] Datasets of instruments used in cross-country analysis, such as the percent of population speaking a foreign language or the origin of the legal system have typically excluded transition economies.

[16] The 2003 WEO study used "economically active population growth differential" measured as the rate of growth in the labor force minus the population growth rate. This measure yielded a wrong sign in our analysis as well, possibly as advance economies are excluded.

Annex Table 1. Description of Data and Group Means for 1970-2003 1/

	All (144)	PRGF (70)	LIC-Non-Fuel (68)	Asia	Asia excl China	Asia Excl Islands (18)	ASIA-LIC (16)	TRN (29)	TRN LIC (13)	ASEAN (9)	ASEAN LIC (4)	Lao PDR	Viet-nam	Cam-bodia	No. Obs. 2/
Dependent Variables															
Real GDP per capita	1.4	0.9	0.8	2.5	2.3	3.0	2.1	2.0	1.4	3.4	3.1	2.6	3.5	3.4	1008
Growth of Ouput per Labor	1.1	0.7	0.7	2.6	2.4	3.0	2.4	1.7	0.8	3.2	3.3	3.2	3.2	3.5	921
Initial conditions															
Log of GDP (1970)	7.7	7.1	7.1	7.2	7.2	7.1	6.9	7.9	7.3	7.3	6.5	6.5	6.6	6.5	1007
1970 GDP in $, PPP	1276	560	571	474	488	419	374	1115	719	512	217	207	272	179	1008
Labor growth															
Labor force growth	2.4	2.3	2.3	2.4	2.5	2.4	2.3	1.1	2.0	2.5	2.0	2.0	2.2	1.9	921
Population growth	2.1	2.2	2.2	2.1	2.2	2.2	2.1	0.9	1.6	2.2	2.2	2.5	2.0	2.2	1008
Human capital															
Life expectancy (in years)	60.2	54.5	54.7	60.0	59.6	59.9	57.6	66.0	61.4	59.5	52.0	47.8	62.1	45.7	1000
Log of life expectancy	4.1	4.0	4.0	4.1	4.1	4.1	4.0	4.2	4.1	4.1	3.9	3.9	4.1	3.8	1000
Illiteracy rate	31.6	44.1	43.4	30.1	30.3	31.8	36.4	11.2	23.4	22.6	29.9	46.4	11.0	40.6	847
Primary school enrollment	91.0	83.4	83.5	96.4	95.5	96.2	93.1	99.4	98.8	99.6	98.2	96.0	107.5	93.9	855
Secondary school enrollment	45.1	30.5	30.6	38.7	38.1	38.5	33.0	75.2	61.8	40.9	27.3	20.9	46.8	17.5	847
Tertiary school enrollment	11.5	6.0	6.1	7.2	7.4	7.6	3.6	22.7	15.3	10.3	2.9	1.4	4.2	1.3	807
Physical capital															
Number of telephones per '000	69.5	28.5	29.0	34.3	34.3	34.6	14.3	114.1	57.8	55.1	4.4	3.0	11.7	1.2	941
Capital formation to GDP	22.8	21.5	21.5	24.4	23.8	24.6	21.8	25.6	23.4	24.6	16.8	18.9	23.1	14.0	823
Macroeconomic policies															
Inflation	55.2	73.1	74.6	11.8	12.2	13.0	14.2	94.1	120.9	17.8	30.2	34.7	48.5	21.0	1006
Log of inflation	2.2	2.3	2.3	1.9	2.0	1.9	2.1	2.1	2.2	2.0	2.5	3.0	2.8	1.7	974
Government balance	-4.2	-5.7	-5.6	-4.0	-4.2	-3.8	-5.2	-3.4	-6.4	-2.7	-5.2	-8.7	-5.2	-4.3	945
Gov consumption to GDP	15.7	15.1	15.2	13.2	13.3	11.8	13.2	15.6	14.3	10.5	9.0	8.3	7.6	10.4	813
Openness															
Trade to GDP	85.7	82.2	82.5	79.6	82.5	73.0	65.4	108.4	135.7	92.6	43.7	51.3	76.7	58.0	906
Trade Restrictiveness Index	4.6	4.6	4.6	4.2	4.2	4.2	3.8	4.8	4.8	4.8	4.3	2.5	6.0	4.5	1008
External factors															
Terms of trade change	2.2	2.5	2.3	0.7	0.7	0.7	0.9	3.9	7.7	0.9	2.1	2.0	2.6	1.7	998
Terms of rrade Change, lagged	2.2	2.5	2.3	0.8	0.8	0.8	0.9	4.0	8.0	1.2	2.5	0.9	3.6	2.3	997
Variance of ToT change	17.7	21.0	20.9	15.8	16.4	15.6	19.5	20.8	38.4	12.2	18.5	9.5	36.7	8.7	1001
Fraction of years of low crop yield	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.1	924
Aid per capita in US$	45.4	54.1	55.3	48.3	50.2	28.2	62.6	25.8	31.0	11.2	16.0	31.5	9.2	18.4	900
Aid per capita to GDP per capital	8.7	13.0	13.0	11.7	12.0	7.6	15.9	6.1	9.9	4.3	8.1	15.9	4.1	10.4	899
Financial sector development															
Credit to GDP	28.2	18.5	18.7	32.5	30.2	35.3	18.2	22.0	10.6	44.8	8.4	6.4	18.0	5.4	826
Broad money to GDP	47.0	47.5	47.8	44.2	45.8	38.8	39.4	55.8	72.5	47.1	25.4	31.3	47.6	23.6	914
Institutional factors															
Composite index	-0.2	-0.4	-0.4	-0.2	-0.2	-0.2	-0.4	-0.2	-0.5	-0.1	-0.7	-0.6	-0.4	-0.7	1001
Voice and accountability	-0.2	-0.4	-0.3	-0.3	-0.3	-0.5	-0.4	-0.2	-0.6	-0.6	-1.1	-1.0	-1.2	-0.7	1001
Political stability	-0.1	-0.4	-0.4	-0.1	-0.1	-0.1	-0.3	0.1	-0.2	0.2	-0.2	1.0	0.4	-1.1	875
Government effectiveness	-0.3	-0.6	-0.5	-0.1	-0.1	0.0	-0.3	-0.3	-0.5	0.2	-0.5	-0.1	-0.2	-0.7	987
Lack of regulatory burden	-0.2	-0.4	-0.4	-0.1	-0.1	0.0	-0.4	-0.2	-0.6	0.1	-0.7	-1.1	-0.5	-0.3	994
Rule of law	-0.3	-0.6	-0.6	-0.2	-0.2	-0.2	-0.6	-0.3	-0.6	-0.1	-1.0	-1.3	-0.5	-0.9	889
Control of corruption	-0.3	-0.6	-0.6	-0.3	-0.3	-0.3	-0.6	-0.3	-0.6	-0.2	-0.9	-0.9	-0.6	-0.9	798

Sources: WEO, WDI, and Kaufman, Kraay and Zoido-Labaton (1999).

1/ Some variables are for 1970-2001.

2/ Number of observations refers to number of 5-year period averages per variable.

Annex Table 2. List of Countries Included in the Analysis

Africa	Asia	Middle East
Angola	Bangladesh	Algeria
Benin	Bhutan	Bahrian
Botswana	Cambodia	Egypt
Burkina Faso	China	Iran, I.R. of
Burundi	Fiji	Jordan
Cameroon	India	Kuwait
Cape Verde	Indonesia	Lebanon
Central African Republic	Lao .PD.R.	Libyan Arab Jamahiriya
Chad	Malaysia	Malta
Comoros	Maldives	Oman
Congo, Dem. Rep. of	Myanmar	Qatar
Congo, Rep. of	Nepal	Saudi Arabia
Cote d'Ivoire	Pakistan	Syrian Arab Republic
Djibouti	Papua New Guinea	Turkey
Equatorial Guinea	Philippines	United Arab Emirates
Ethiopia	Samoa	Yemen, Republic of
Gabon	Singapore	Western Hemisphere
The Gambia	Solomon Islands	Antigua & Barbuda
Ghana	Sri Lanka	Argentina
Guinea	Thailand	The Bahamas
Guinea-Bissau	Tonga	Barbados
Kenya	Vanuatu	Belize
Lesotho	Vietnam	Bolivia
Madagascar	Europe	Brazil
Malawi	Albania	Chile
Mali	Bulgaria	Colombia
Mauritania	Croatia	Costa Rica
Mauritius	Cyprus	Dominica
Morocco	Czeck Republic	Dominican Republic
Mozambique, Rep of	Estonia	Ecuador
Namibia	Hungary	El Salvador
Niger	Latvia	Grenada
Nigeria	Lithuania	Guatemala
Rwanda	Madedonia, FYR	Guyana
Sao Tome and Principe	Poland	Haiti
Senegal	Romania	Honduras
Seychelles	Slovak Republic	Jamaica
Sierra Leone	Slovenia	Mexico
South Africa	Former Soviet Union	Netherlands Antilles
Sudan	Armenia	Nicaragua
Swaziland	Azerbaijan	Panama
Tanzania	Belarus	Paraguay
Togo	Georgia	Peru
Tunisia	Kazakhstan	St Kitts and Nevis
Uganda	Kyrgyz Republic	St Lucia
Zambia	Moldova	St Vincent and Grenadine
Zimbabwe	Mongolia	Suriname
	Russia	Trinidad and Tobago
	Tajikistan	Uruguay
	Ukraine	Venezuela

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Chapter 2. Implications of the Removal of Quota on Textiles and Clothing Exports[17]

13.   **This chapter examines the implications of the removal in 2005 of the quota under the Agreement on Textiles and Clothing (ATC) on the economies of low income Asian countries (LIAs).**[18] The garment sector, which took off after receiving preferential market access to the United States in 1996, has been a major contributor to growth in Cambodia since then. The analysis concludes that Cambodia is one of the most vulnerable LIAs to the removal of textile and clothing (T&C) quota since T&C exports make up almost 80 percent of its total exports, and because Cambodia is exporting almost exclusively to quota protected markets such as the United States and the European Union. Estimates presented in this chapter suggest that Cambodia's underlying GDP growth could drop by about 2 percent after the removal of the quota system.

14.   **The chapter is structured as follows.** The ATC and other agreements that can have an impact on T&C trade in Asia are summarized in the next section. Section B provides reasons why Cambodia and other LIAs are vulnerable to the removal of the quota system, and Section C presents the estimates of the impact of the elimination of the quota system on LIAs.

A. The ATC and Other agreements that Have an Impact on T&C trade in Asia[19]

15.   **The ATC was introduced with the aim of phasing out the quota system under the 1974 Multifiber Agreement (MFA).** The ATC, which became effective on January 1, 1995 is a 10 year non-extendable agreement that requires WTO members to gradually phase out T&C quota in four stages. However, only about 20 percent of U.S. and E.U. quota have been removed so far. Most of the remaining quota will be removed at the beginning of 2005.

16.   **The ATC does not cover tariff issues of T&C.** Under the Most-Favored-Nation (MFN) principle, a GATT signatory is required to provide all members the same conditions of trade. Accordingly, MFN rates are expected to be applied for trade among WTO members unless a country is entitled to preferential rates, such as under the Generalized System of Preferences (GSP) and the E.U.'s Everything But Arms (EBA) program. These are programs whereby a number of industrialized countries have recently granted comprehensive tariff and quota free access to Least Developed Countries (LDCs).

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[18] Bangladesh, Cambodia, Lao P.D.R., Mongolia, Nepal, Sri Lanka, and Vietnam.

[19] This section draws from the Mekong Capital (2003), "WTO Agreement on Textiles and Clothing (ATC): Impact on Garment Manufacturing in Cambodia, Laos and Vietnam."

17.   **GSP schemes constitute a departure from the traditional nondiscrimination principle of the GATT.** In contrast with the MFN principle, each country has its own list of preferential tariffs for qualified products under its GSP scheme. A key problem associated with the GSP schemes is that they include Rules of Origin (RoO) requirements which many LDCs are unable to meet, making these countries ineligible for preferential tariffs.[20] Furthermore, certain sectors and countries may be excluded from GSP programs if they are likely to have a negative impact on domestic industries. In the United States, T&C are considered a "sensitive" product such that no preferences are given to LDCs.

18.   **Although unlikely, the United States could use the WTO Agreement on Safeguards to impose new quotas on China, to Cambodia's advantage.** Under this Agreement, the United States can impose quotas on China potentially up to 2013; however, imposing quotas on China using safeguard clauses is costly. As a consequence, the U.S. government has used this Agreement sparingly. Since the removal of 20 percent of quotas in 2002 they introduced few new quotas which cover less then 3 percent of T&C imports from China, and will only remain effective for 1-3 years. Expanding quotas beyond that time frame would require other compensating measures by the U.S., for example, offering concessions to China in other sectors.

B.   What Makes Cambodia Vulnerable to the Removal of Quotas?

19.   **Most of LIAs, in particular Cambodia, are vulnerable to changes in T&C policies since the share of T&C in total exports is large.** In 2002, this share was more than 75 percent in Cambodia and Bangladesh, about 55 percent in Nepal and Sri Lanka, and close to 30 percent in Lao P.D.R. and Mongolia. In Vietnam, however, T&C exports only represented 13 percent of total exports, although such exports increased rapidly following the bilateral trade agreement with the United States in early 2002 (Figure 1). During the period 1996-2002, Cambodia was the only country that experienced a dramatic increase in the share of T&C in total exports (Table 1).

Figure 1. Exports of Asian Countries, 2002
(In percent of total exports)

Source: World Integrated Trade Solution (WITS), The World Bank.

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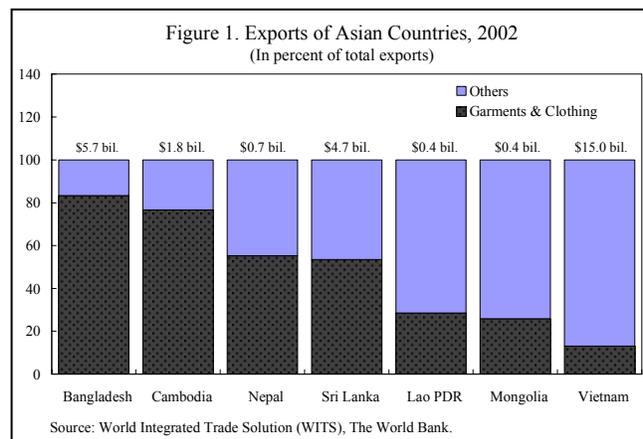
[20] As a result of RoO requirements, 58 percent of Laotian garment exports to the E.U. were tariff free compared to 27 percent for Cambodia in 2001.

20.   **Most LIAs are unable to compete with China in quota free markets.** In 2002,
LIAs exports to quota free
markets (such as Japan) were
negligible, whereas those to
quota markets (e.g., the E.U. and
the U.S.) represented more than
85 percent of total T&C exports
in most cases. In contrast,
Chinese exports of T&C to
Japan were higher than to the
European Union and the United
States combined, and those to
the rest of the world represented
almost 60 percent of total T&C
exports (Figure 2). This trade
pattern provides an indication of
the degree to which the quota system restricts China from attaining greater market share.

Figure 2. Destination of Textile and Clothing Exports
of Asian Countries, 2002
(In percent of total exports of textile and clothing)
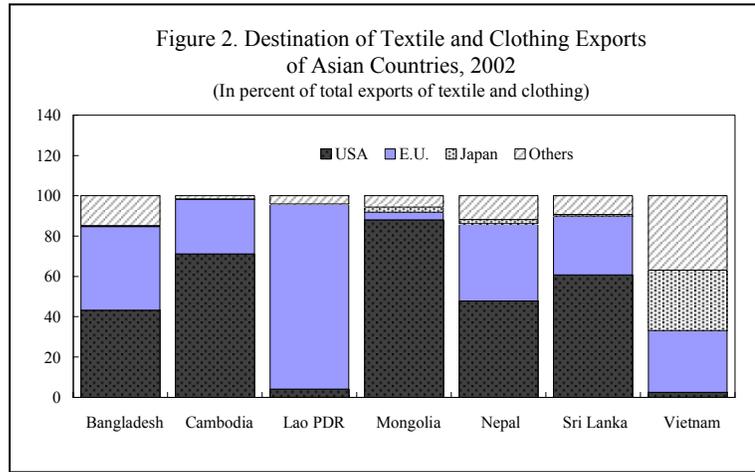
21.   **Intra-regional T&C trade is insignificant for LIAs, but not for the newly
industrialized and emerging economies in Asia (NIEA).** NIEAs are large producers of
textiles, which require capital and technology. By contrast, LIAs export mostly garments, and
very limited amounts of raw materials such as fiber and wool. The significant size of some of
the NIEA's exports to China suggests that the latter is dependent on inputs for its garment
exports (Table 2).

22.   **The removal of MFA quota in 2005 will affect a significant part of total T&C
exports from Asian countries.** Indeed, at least 40 percent of total Chinese and Indian T&C
exports to the United States (about $6 billion) are currently constrained by the MFA quota.
Accordingly, the potential loss of U.S. market share by LIAs is large since about 83 percent
of their T&C exports ($6.5 billion) are products on which quota restrict Chinese and Indian
exports to the United States. (Table 3).

23.   **The negative impact of the removal of MFA quotas on Cambodia may be
counter-balanced somewhat by other changes in trade policy in developed countries.**
Currently, the European Union and Canada are relaxing their RoO requirements. For
example, Cambodia may be able to export more items at zero tariff to Canada in the future.
Second, the United States may grant Cambodia more favorable terms for T&C exports.

24.   **Cambodia does not export significant raw materials, and therefore, will not
benefit from expected increase in demand for raw materials in China.** Countries such as
Mongolia, whose raw material exports are equivalent to almost half of their T&C exports,
will most likely benefit from increased demand in China (Table 4).

C. The Estimated Impact of the Removal of MFA Quota on Cambodia

25.   **The removal of the quota system in 2005 might reduce the T&C prices in quota zones and lead to a reallocation of the exporting countries' market share.[21]** Countries with the strongest competitive positions, whose output is currently constrained by quota, will increase their market share while those countries currently reaping rents from the quota system will lose. The 2002 experience, when approximately 15 percent of restrictive quotas were eliminated (the so called "third phase quota integration") gives some indication on the relative underlying competitive positions of these countries. In particular, China and India's exports to the US increased by about 81 percent and 10 percent, respectively, on the affected products while most of LIAs suffered a decline in their exports (Table 5).

26.   **The assessment presented in this chapter of the potential impact of the quota phase out in 2005 on LIAs relies on the 2002 experience.** The exercise analyzes separately the effects of the quota removal in the U.S. and E.U. markets. In both markets, it is assumed that the same relative shifts take place among countries' exports that followed the "third quota integration." To the extent that labor supply is fairly inelastic in the short run, it is not likely that China, for example, will be able to increase its exports of the affected items by the same magnitude as it did on the items when only 15 percent of its quota were phased out. Therefore, the relative shifts presented in Tables 6 and 7 are upper bounds, rather than point estimates, at least in the short term.[22]

27.   **One can argue that the reliance on the 2002 experience could result in overestimating the decline in exports of quota-restricted items.** This is because some producers may have already switched in 2002 from producing quota-restricted items to non-quota restricted items to reduce the impact of the 2005 shock. To counter-balance this overestimation, non-quota restricted items are assumed to grow by a generous 8 percent; part of this growth may come from a shift to production of non-quota items. Moreover, the two factors that limit this overestimation are: (i) producers may have started switching to other products well before 2002; (ii) in 2005 a significantly larger percentage of quota will be removed, which makes production substitution more difficult.

28.   **The results of this exercise suggest that exports from China to the United States and the European Union could increase by up to $5⅓ billion in 2005.** In contrast, exports of LIAs (excluding Vietnam) to the United States (Table 6) and the European Union

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[21] However, prices in quota free zones (such as Japan) would likely rise as world equilibrium is restored and welfare loss from the quotas is eliminated (see Annex).

[22] The assessment on the E.U. market is complicated because of lack of detailed data and the GSP granted to some LIA.

(Table 7) could decline by $2 billion. Vietnam is the only LIA country reviewed in this exercise that is expected to gain market share.

29.   **The external current account balance and GDP growth could be significantly affected in some LIAs.** Cambodia and Mongolia could be more heavily affected by the removal of quota, while the effects on Lao P.D.R., and Nepal may be negligible (Table 8). Ignoring the secondary impact from lower income, the deterioration of the current account balance would range from 3 percent of GDP (Cambodia) to almost nothing (Lao P.D.R., and Nepal). In addition, assuming the value added in T&C production is 35 percent on average for these countries, the decline in GDP growth would range from 2 percent (Cambodia) to almost zero (Lao P.D.R., and Nepal). The impact on Vietnam would be much more favorable should it succeed to become a WTO by early 2005.

D. Conclusion

30.   **Cambodia is among the most vulnerable countries in Asia to the removal of the quota system since almost 80 percent of its exports are in T&C.** Moreover, Cambodia is currently exporting almost 100 percent of its T&C exports to the quota protected markets of the U.S. and the E.U.. Preliminary estimates suggest that Cambodia's GDP growth could drop by about 2 percent after the removal of quotas.

31.   **China is expected to gain most from the quota removal.** China's T&C share in the combined U.S. and E.U. markets could increase from 8½ percent in 2002 to 11½ percent following the quota removal. In contrast, T&C exports of LIAs could see their share decline in these markets from 5 percent to 4 percent over the same period.

32.   **The negative impact on GDP could be significant for some LIAs.** Cambodia and Mongolia appear to be the countries that could be more heavily affected by the removal of quotas, whereas the effects on Lao P.D.R. may be negligible.

33.   **Cambodia cannot rely on safeguards for relief from the negative impact of the quota removal.** The negative impact on LIAs may be lessened somewhat if the United States uses the WTO Agreement on Safeguards to impose new quotas on China. It is difficult to predict whether future measures by the U.S. government to curb Chinese exports will protect exactly those categories that Cambodia produce, and the extent and impact of such measures.

Table 1. Exports of Asian Countries, 1996 and 2002

| | 1996 1/ | | | 2002 2/ | | |
	Total	Garments & Clothing	Others	Total	Garments & Clothing	Others
			(In millions of U.S. dollars)			
Low income countries						
Bangladesh	3,539	2,663	875	5,682	4,730	952
Cambodia	801	102	699	1,750	1,342	408
Lao PDR	317	91	226	350	100	250
Mongolia	424	27	397	404	104	300
Nepal	364	263	101	709	392	317
Sri Lanka	3,192	1,614	1,578	4,683	2,503	2,181
Vietnam	7,256	1,150	6,106	15,029	1,975	13,054
Other Asian countries						
China	151,047	37,155	113,892	325,595	61,661	263,935
Hong Kong SAR	27,431	10,740	16,691	16,786	9,316	7,470
India	33,404	9,167	24,237	44,306	10,871	33,435
Indonesia	49,727	6,504	43,223	55,886	7,804	48,083
Korea, Rep.	124,404	16,941	107,463	159,915	14,612	145,303
Malaysia	78,280	3,681	74,599	87,916	3,112	84,803
Singapore	124,651	2,741	121,910	124,679	2,386	122,293
Taiwan POC	115,646	15,088	100,558	122,765	12,288	110,477
Thailand	55,628	5,632	49,996	65,071	5,492	59,579
			(In percent of total exports)			
Low income countries						
Bangladesh	100.0	75.3	24.7	100.0	83.3	16.7
Cambodia	100.0	12.8	87.2	100.0	76.7	23.3
Lao PDR	100.0	28.6	71.4	100.0	28.6	71.4
Mongolia	100.0	6.4	93.6	100.0	25.8	74.2
Nepal	100.0	72.4	27.6	100.0	55.3	44.7
Sri Lanka	100.0	50.6	49.4	100.0	53.4	46.6
Vietnam	100.0	15.8	84.2	100.0	13.1	86.9
Other Asian countries						
China	100.0	24.6	75.4	100.0	18.9	81.1
Hong Kong SAR	100.0	39.2	60.8	100.0	55.5	44.5
India	100.0	27.4	72.6	100.0	24.5	75.5
Indonesia	100.0	13.1	86.9	100.0	14.0	86.0
Korea, Rep.	100.0	13.6	86.4	100.0	9.1	90.9
Malaysia	100.0	4.7	95.3	100.0	3.5	96.5
Singapore	100.0	2.2	97.8	100.0	1.9	98.1
Taiwan POC	100.0	13.0	87.0	100.0	10.0	90.0
Thailand	100.0	10.1	89.9	100.0	8.4	91.6

Sources: World Integrated Trade Solution (WITS); The World Bank; and IMF staff reports.

1/ Data for Lao PDR and Sri Lanka are for 1997 and 1994, respectively.
2/ Data for Nepal are for 2000. Data for Bangladesh, Indonesia, Malaysia, Taiwan POC, Thailand, and Vietnam are for 2001.

Table 2: Destination of Textile and Clothing Exports of Asian Countries, 1996 and 2002

(In millions of U.S. dollars)

	1996 [1]							2002 [2]						
	Total	China	Japan	E.U.	USA	Other Asian [3]	Others	Total	China	Japan	E.U.	USA	Other Asian [3]	Others
Low income countries														
Bangladesh	2,663	1	44	1,072	1,015	23	509	4,730	1	23	1,958	2,045	63	639
Cambodia	102	n.a.	0	99	3	n.a.	n.a.	1,342	n.a.	5	363	954	n.a.	20
Lao PDR	91	3	n.a.	52	16	n.a.	n.a.	100	0	n.a.	92	n.a.	n.a.	n.a.
Mongolia	27	0	0	4	1	15	6	104	4	3	4	92	0	2
Nepal	263	0	1	136	94	13	19	392	0	8	150	187	26	20
Sri Lanka	1,614	0	15	443	936	40	179	2,503	1	19	732	1,519	35	197
Vietnam	1,150	n.a.	n.a.	n.a.	n.a.	177	n.a.	1,975	22	592	608	47	496	211
Other Asian counties														
China	37,155	n.a.	9,918	2,816	3,975	14,083	6,365	61,661	n.a.	13,268	5,929	6,885	18,726	16,853
Hong Kong SAR	10,740	1,836	299	2,804	4,221	594	987	9,316	2,408	47	1,906	3,950	324	680
India	9,167	50	247	3,050	2,140	682	2,998	10,871	82	244	3,291	2,498	660	4,096
Indonesia	6,504	37	599	1,594	1,390	1,006	1,877	7,804	125	474	1,910	2,222	881	2,191
Korea, Rep.	16,941	1,904	1,976	1,207	2,270	4,180	5,403	14,612	2,192	884	1,317	3,113	2,233	4,874
Malaysia	3,681	25	218	797	1,216	890	534	3,112	40	191	636	1,164	573	508
Singapore	2,741	30	100	346	691	990	584	2,386	51	22	491	994	468	361
Taiwan POC	15,088	55	561	715	2,599	7,508	3,650	12,288	225	362	705	2,245	5,213	3,538
Thailand	5,632	59	615	1,068	1,580	605	1,705	5,492	63	360	1,048	2,278	476	1,266

(In percent of total exports of textile and clothing)

	1996 [1]							2002 [2]						
	Total	China	Japan	E.U.	USA	Other Asian [3]	Others	Total	China	Japan	E.U.	USA	Other Asian [3]	Others
Low income countries														
Bangladesh	...	0.0	1.7	40.2	38.1	0.8	19.1	...	0.0	0.5	41.4	43.2	1.3	13.5
Cambodia	...	n.a.	0.2	97.3	2.5	n.a.	n.a.	...	n.a.	0.4	27.0	71.1	n.a.	1.5
Lao PDR	...	3.2	n.a.	57.4	18.0	n.a.	n.a.	...	0.0	n.a.	91.8	n.a.	n.a.	n.a.
Mongolia	...	0.9	1.5	16.2	2.8	56.6	22.0	...	3.6	2.6	3.8	88.0	0.5	1.6
Nepal	...	0.0	0.3	51.7	35.7	5.1	7.2	...	0.0	2.1	38.3	47.8	6.7	5.1
Sri Lanka	...	0.0	0.9	27.5	58.0	2.5	11.1	...	0.0	0.8	29.2	60.7	1.4	7.9
Vietnam	...	n.a.	n.a.	n.a.	n.a.	15.4	n.a.	...	1.1	29.9	30.8	2.4	25.1	n.a.
Other Asian countries														
China	...	n.a.	26.7	7.6	10.7	37.9	17.1	...	n.a.	21.5	9.6	11.2	30.4	27.3
Hong Kong SAR	...	17.1	2.8	26.1	39.3	5.5	9.2	...	25.9	0.5	20.5	42.4	3.5	7.3
India	...	0.5	2.7	33.3	23.4	7.4	32.7	...	0.8	2.2	30.3	23.0	6.1	37.7
Indonesia	...	0.6	9.2	24.5	21.4	15.5	28.9	...	1.6	6.1	24.5	28.5	11.3	28.1
Korea, Rep.	...	11.2	11.7	7.1	13.4	24.7	31.9	...	15.0	6.0	9.0	21.3	15.3	33.4
Malaysia	...	0.7	5.9	21.7	33.0	24.2	14.5	...	1.3	6.1	20.4	37.4	18.4	16.3
Singapore	...	1.1	3.6	12.6	25.2	36.1	21.3	...	2.1	0.9	20.6	41.6	19.6	15.1
Taiwan POC	...	0.4	3.7	4.7	17.2	49.8	24.2	...	1.8	2.9	5.7	18.3	42.4	28.8
Thailand	...	1.1	10.9	19.0	28.1	10.7	30.3	...	1.2	6.6	19.1	41.5	8.7	23.1

Sources: World Integrated Trade Solution (WITS); the World Bank; and IMF staff reports.

1/ Data for Lao PDR and Sri Lanka are for 1997 and 1994, respectively.
2/ Data for Nepal are for 2000. Data for Bangladesh, Indonesia, Malaysia, Taiwan POC, Thailand, and Vietnam are for 2001.
3/ Includes India, Taiwan POC, Thailand, Korea, Singapore, Malaysia, Hong Kong SAR, and Indonesia.

Table 3. U.S. Textile and Apparel Imports from China, India, and Low Income Asian Countries, subject to MFA quota, 2003 1/

(In millions of U.S. dollars)

Category	Total 2003 Est. A	Subject to Quota Est. B=SUM(C:W)	A/B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
US total imports	78,761	53,679	68	1,456	945	2,914	362	15,448	488	1,227	3,616	1,247	11,181	2,064	2,450	2,808	728	760	544	1,299	2,457	817	261	609
China	11,279	3,847	34	731	210	579	246	545	152	173	177	182	180	0	185	129	71	35		140	44	44	6	18
India	3,344	2,205	66		71			190		35		11	346	389	492	258	133	76	13	67	64	34		23
Subtotal	7,817	6,504		3	87	425	3	1753	4	259	259	418	1,342	36	402	549	45	196	44	200	171	210	7	90
Bangladesh	1,961	1,669	85		11	218	0	336	2	53	68	84	111	21	157	271	29	35	32	56	110	35		39
Cambodia	1,205	903	75	1	9	45	2	261	2	2	31	23	197	2	30	53		63		15	17	143	3	3
Lao P.D.R.	5	4	99			2										2								
Mongolia	182	159	87			1		58		0	1	1	54		1	9	2	2		6		3	1	20
Nepal	161	130	81					59				2	46	2	11	2	2	2		1	2	2		
Sri Lanka	1,542	1,166	76	1	40	67		254		61	61	98	150	1	151	104	6	58	12	49	26	11	2	10.62
Vietnam	2,417	2,152	89	1	24	79	1	748		129	76	144	639	6	52	107	8	33,97		61	11	14	1	16

Sources: U.S. Office of Textiles and Apparels; and IMF staff estimates.

1/ Columns C:W include: C category 666 (other furnished apparel); D category 636 (dresses); E categories 359/659 (other cotton and MMF apparel); F category 845 (sweaters); G categories 347/348 and 647/648 (cotton trousers and slacks);H category 362 (quilts and bedspreads); I category 635 (Coats W/G); J categories 638/639 (knit blouses and shirts); K category 634 (other coats); L categories 338/339 (knit shirts and baby silk); M category 369 (other cotton, manufactured); N categories 341/641 (W/G N-knit blouses and S/V woven shirts); O categories 340/640 S/V trousers and N-K shirts; P category 363 (S/V skirts); Q category 342 (flat goods); R category 669 (other MMF manufactured); S categories 334/335 (W/G cotton coats and other coats); T category 352 (cotton underwear); U category 351 (cotton pijamas); V category 438 (K- shirts/blouses); W category 345 (cotton sweaters).

Table 4: Destination of Textile Fiber Exports of Asian Countries, 1996 and 2002 1/

(In millions of U.S. dollars)

	1996 2/							2002 3/						
	Total	China	Japan	E.U.	USA	Other Asian 4/	Others	Total	China	Japan	E.U.	USA	Other Asian 4/	Others
Low income countries														
Bangladesh	74	2	0	3	0	5	63	62	2	0	4	10	9	37
Mongolia	79	n.a.	n.a.	53	n.a.	0	25	42	19	3	14	1	3	2
Nepal	2	0	0	0	0	1	0	0	0	0	0	0	0	0
Sri Lanka	21	0	3	11	2	2	4	31	2	5	11	3	5	5
Other Asian countries														
China	711		178	198	20	266	50	902		107	309	20	386	80
Hong Kong SAR	10	6	0	1	0	0	2	5	4	0	0	0	0	1
India	475	25	42	52	8	265	83	61	1	4	10	6	9	31
Indonesia	147	24	3	11	0	59	50	125	4	3	10	3	43	61
Korea, Rep.	927	458	10	29	100	203	127	793	244	11	108	106	129	196
Malaysia	159	31	61	1	0	50	16	77	23	6	0	3	30	14
Singapore	89	1	0	0	0	59	29	42	0	0	0	0	29	12
Taiwan POC	984	34	89	30	45	605	181	811	110	64	55	75	299	208
Thailand	221	62	25	9	4	81	41	245	33	12	3	16	100	80

(In percent of total exports of textile fibers)

	1996 2/							2002 3/						
	Total	China	Japan	E.U.	USA	Other Asian 4/	Others	Total	China	Japan	E.U.	USA	Other Asian 4/	Others
Low income countries														
Bangladesh	100	3	0	4	0	7	85	100	3	0	7	16	15	59
Mongolia	100	n.a.	n.a.	68	n.a.	0	32	100	45	7	34	2	8	4
Nepal	100	3	0	1	1	94	1	100	0	33	25	6	0	36
Sri Lanka	100	0	14	50	10	7	18	100	5	17	37	8	16	17
Other Asian countries														
China	100	0	25	28	3	37	7	100	0	12	34	2	43	9
Hong Kong SAR	100	67	0	7	0	5	19	100	68	0	1	0	8	23
India	100	5	9	11	2	56	17	100	2	6	16	10	14	52
Indonesia	100	17	2	7	0	40	34	100	3	3	8	3	34	49
Korea, Rep.	100	49	1	3	11	22	14	100	31	1	14	13	16	25
Malaysia	100	19	39	1	0	31	10	100	30	8	0	4	40	19
Singapore	100	1	0	0	0	66	33	100	1	0	0	0	70	29
Taiwan POC	100	3	9	3	5	61	18	100	14	8	7	9	37	26
Thailand	100	28	11	4	2	36	19	100	13	5	1	7	41	33

Sources: World Integrated Trade Solution (WITS); The World Bank; and IMF staff reports.

1/ Textile fibers include silk, wool and other animal hair, cotton, jute, vegetable fibers, synthetic and regenerated artificial fibers.

2/ Data for Sri Lanka are for 1994.

3/ Data for Nepal are for 2000. Data for Bangladesh, Indonesia, Malaysia, Taiwan POC, and Thailand are for 2001.

4/ Includes India, Taiwan POC, Thailand, Korea, Singapore, Malaysia, Hong Kong SAR, and Indonesia.

Table 5. Impact of Phase III Quota Integration 1/

	Phase III T&C imports to the US, 2002 (US$ million)	Change in Phase III T&C imports to USA, 2001-02 (in value terms, percent change)
Bangladesh	191	-29
Cambodia	36	-27
Lao P.D.R.	0	0
Mongolia	0	-100
Nepal	5	-17
Sri Lanka	108	-34
China	2239	81
India	382	10
Vietnam 2/	38	3700

Sources: United States International Trade Commision; and IMF staff estimates.

1/ Phase III textiles and clothing are those for which quota were eliminated on January 1, 2002 in accordance with the ATC schedule.

2/ Not a WTO member, but benefited from a 2001 bilateral trade agreement with the United States.

Table 6. U.S. Imports of Textiles and Clothing (T&C) and from Asian Countries:
Estimated Impact of the Removal of Quota in 2005 (Phase IV) 1/
(In millions of U.S. dollars, unless otherwise indicated)

	T&C Exports in Base Year (2002)	Competitive index (%)	Impact of Phase IV
Total U.S. Import	72,183		6,432
China and India	11,737		3,272
Major quota items	5,145		2,763
Others	6,592		508
China	8,744		2,999
Major quota items	3,160	81%	2,569
Others	5,584	8%	431
India	2,993		272
Major quota items	1,985	10%	195
Others	1,008	8%	78
Losing Asian low-income countries	5,184		-1,240
Bangladesh	1,990		-475
Items with quota imposedon China and India	1,712	-29%	-496
Others	278	8%	21
Cambodia	1,061		-196
Items with quota imposed on China and India	805	-27%	-216
Others	256	8%	20
Lao PDR	2		-1
Items with quota imposed on China and India	2	-31%	-1
Others	0	8%	0
Mongolia	158		-42
Items with quota imposed on China and India	138	-31%	-43
Others	20	8%	2
Nepal	136		-16
Items with quota imposed on China and India	110	-17%	-18
Others	26	8%	2
Sri Lanka	1,527		-367
Items with quota imposed on China and India	1,157	-34%	-395
Others	370	8%	29
Winning Asian low-income countries	952		130
Vietnam	952		130
Items with quota imposed on Vietnam	782	15%	117
Others	170	8%	13
Other countries	54,310		4,269

Sources: U.S. Department of Commerce, Office of Textiles and Apparels; and IMF staff estimates.

Table 7. EU Imports of Textiles and Clothing (T&C) from Asian Countries:
Estimated Impact of the Removal of Quotas in 2005 (Phase IV) 1/
(In million of U.S. dollars; unless otherwise indicated)

	Base Year	T&C Exports in Base Year	Competitive index (%)	Impact of Phase IV
China	2002	5,929	0.39	2,283
India	2001	3,291	-0.09	-290
Bangladesh	2001	1,958	-0.21	-415
Cambodia	2002	363	-0.07	-25
Lao PDR	2002	92	-0.07	-6
Mongolia	2002	4	-0.07	0
Myanmar	2002	26	-0.07	-2
Nepal	2000	150	-0.07	-10
Sri Lanka	2002	732	-0.07	-50
Vietnam	2001	608	-0.17	-105

Sources: World Integrated Trade Solution (WITS); the World Bank, European Comission; and IMF staff estimates.

1/ The main assumptions in this table are:

a) The impact of Phase IV is assumed to be fully realized one year after the T&C exports of the base year.

b) The competitive index for Bangladesh, China, India, Sri Lanka, and Vietnam is taken from the actual results of Phase III T&C imports to the EU from 2001 to 2002. In Cambodia, Lao P.D.R., Mongolia, and Nepal the competitive index is assumed to be the same as in Sri Lanka.

Table 8: Estimated Impact on GDP and the External Current Account of Quota Removal in 2005 (Phase IV)

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

	External current account in 2002 (In percent of GDP)	Impact of Phase IV on T&C exports to the US (1)	Impact of Phase IV on T&C exports to the EU (2)	Total Impact (1) + (2)	Impact on External Current Account 1/ (In percent of GDP)	Impact on GDP Growth 1/ (In Percent)
China	2.8	2,999	2,283	5,282	0.3	0.1
India	1.0	272	-105	168	0.0	0.0
Low income countries in Asia						
Bangladesh	0.5	-475	-415	-890	-1.2	-0.6
Cambodia	-2.3	-196	-25	-221	-3.9	-2.1
Laos	-1.9	-1	-6	-7	-0.2	-0.1
Mongolia	-9.5	-42	0	-42	-2.5	-1.3
Nepal	5.2	-16	-10	-27	-0.3	-0.2
Sri Lanka	-2.4	-367	-50	-417	-1.6	-0.9
Vietnam	-1.1	130	-104	26	0.0	0.0

Source: IMF staff estimates.

1/ Assumes that the import content of exports is 65 percent for all countries.

Annex

Quota Constrained Equilibrium in the Textile and Clothing Market

S (excl. China)

S (total)

P^2

P^*

P^1

$D (U.S.-Q^{11})$

D (excl. U.S.)

D (total)

Q^{11} Q^{12} Q^2 Q^*
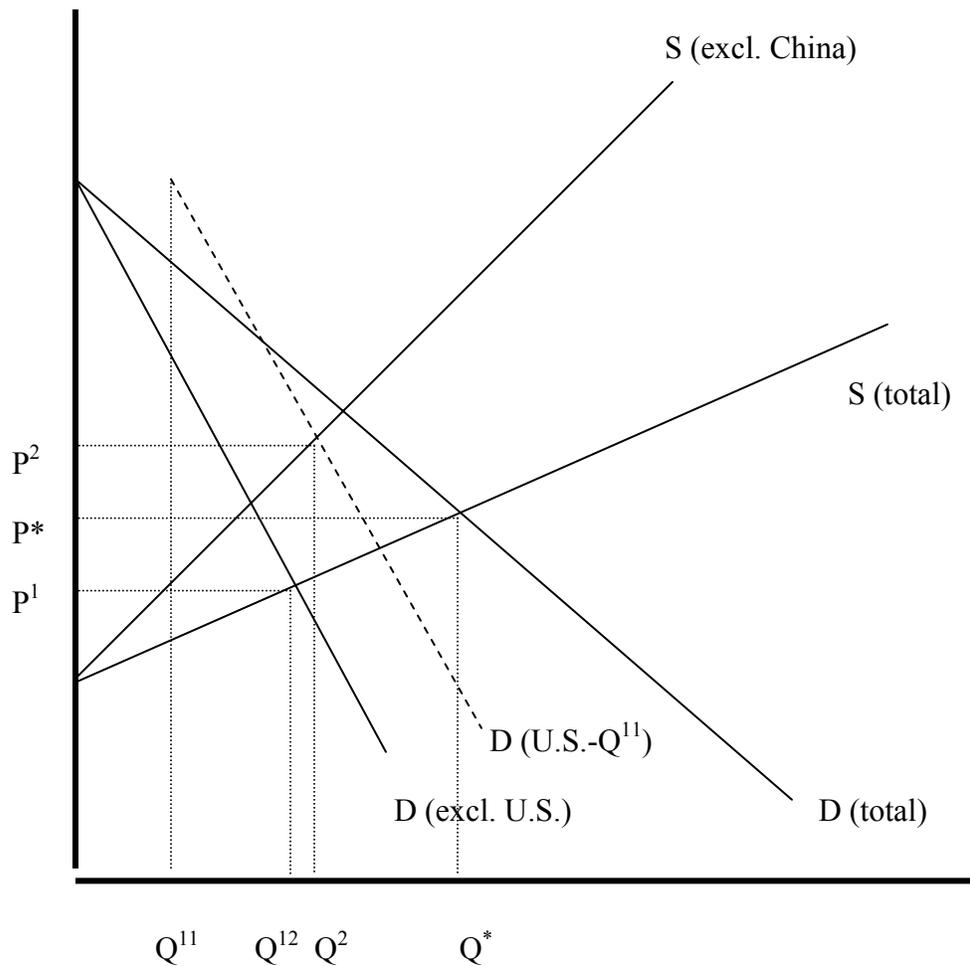
In the absence of any quota, the non-constrained equilibrium is at P^*Q^*.

Without losing generality, assume that the United States has imposed quota (zero ceiling) on all Chinese exports. Then China will export to the world excluding the U.S. at P^1. Firms in other countries will also compete for the non-U.S. market. The market share will be $Q^{12}-Q^{11}$ for China, and Q^{11} for the rest of the world. The rest of the world can still export to the (quantity constrained) U.S. market. They will export Q^2-Q^{11} to the United States at P^2.

Once the quota in the U.S. market is eliminated, the market will return to its original non-constrained equilibrium. In this process, markets with quota (U.S.) will see a decline in their prices while the previously non-constrained markets (rest of the world) will see an increase as firms will shift their exports to the United States.

Chapter 3. Achieving Pro-Poor Growth in Cambodia[23]

34.   Using household data for 1993/94 and 1999, this chapter aims at (i) analyzing whether the strong growth in Cambodia has been pro-poor, and (ii) identifying the factors that can improve the "anti-poverty effectiveness" of growth in Cambodia. Growth has not been pro-poor in rural areas where the overwhelming majority of the poor live, and the poorest 50 percent of the population would be the main beneficiaries of an increase in rural incomes.

35.   The chapter is structured as follows. Section A presents the evolution of poverty in Cambodia. Section B analyses the impact of growth on poverty. Section C discusses the two main factors that have affected the participation of the poor on growth and, in Section D, poverty reduction measures are suggested.

A. Stylized Facts

36.   **Cambodia's troubled history exacerbated poverty and perpetuated economic inequities**. Decades of destructive conflict, civil war, and economic, political, and social instability, have contributed to the widespread poverty that currently exists in the country, especially among rural dwellers. The conflict resulted in the destruction of infrastructure, human capital, and institutions, as well as large proportion of Cambodians being displaced, maimed, orphaned, or widowed. Not surprisingly, these conditions created deep poverty, and the aftermath has been accompanied by widespread economic and social inequities.

37.   **The proportion of the population classified as poor fell by only 3 percent between 1994 and 1999 despite strong growth, and is suspected to have increased since then.** Cambodia's economy grew at an average of 6 percent during 1994-2002, while the population with income below half a dollar per day, measured by the headcount ratio, fell only from 39 to 36 percent. The modest decline in poverty is corroborated by the slow increase in real per capita private consumption. Since 2000, real private consumption per capita has actually declined, implying a likely rise in poverty.

Real Private Consumption and Poverty

Log of the poverty headcount index (RHS)

Log of real private consumption per capita

Source: *World Development Indicators*, 2004.

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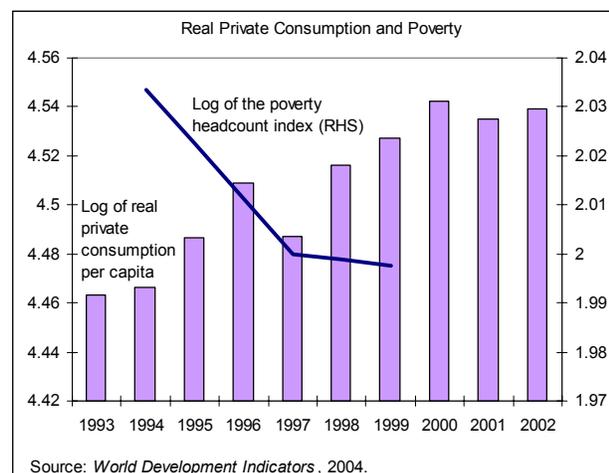
[23] Prepared by Sònia Muñoz (APD).

38. **Neighboring countries' starting position was worse, but poverty there has declined much faster than in Cambodia**. For example, the poverty ratio in Lao P.D.R. declined from 45 percent to 39 percent between 1993 and 1998. Vietnam has been much more successful, reducing the very high initial ratio of 58 percent in 1993 to 38 percent in 1998, and to 29 percent in 2002.

Source: *World Development Indicators*, 2004.
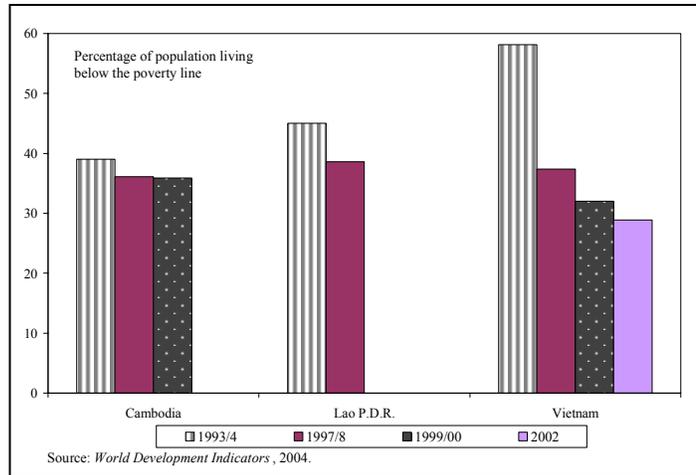
B. Analysis of the Poverty Impact of Growth

39. **Growth incidence curves (GIC)[24] are used to assess whether recent growth in Cambodia has been pro-poor.** The GIC plots the cumulative share of the population (depicted on the x-axis) against the growth rate in expenditure of the pth percentile (depicted on the y-axis) between two periods. The "rate of pro-poor growth" is defined as the growth rate in the mean (of daily expenditure per person) times the ratio of the actual change in poverty to the change that would have been observed under distribution neutrality (i.e., growth that would have impacted each percentile equally). If the distributional shifts favor the poor, then the rate of pro-poor growth exceeds the rate of growth in the mean and the growth benefits the poor by more than the average population, and vice versa.

40. **Between 1994 and 1999, economic growth in urban areas appears to have been pro-poor**. The rates of pro-poor growth exceeded the growth rate in the mean, suggesting that economic growth was accompanied by falling inequality. The highest growth rates were observed at around the 30th percentile.

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[24] This methodology was developed by Ravallion and Chen (2003). Details on the methodology are included in the Annex.

Growth Incidence Curve: Urban
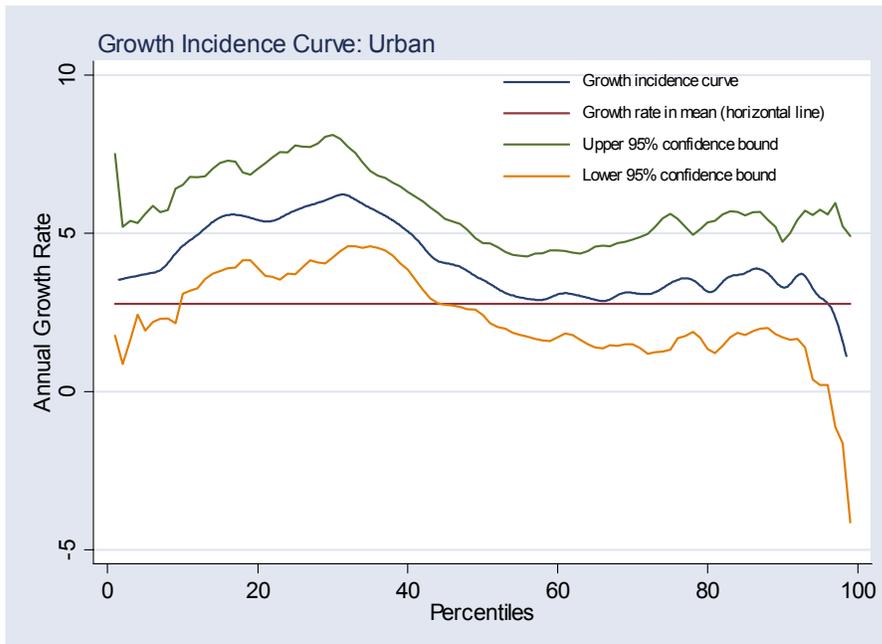
41.   **By contrast, growth in rural areas was strongly anti-poor**. Between 1994 and 1999, there was a distributional shift unfavorable to the poor, since the rate of pro-poor growth was appreciably lower than the rate of growth in the mean. The 20 percent poorest households experienced a growth rate that was not relatively favorable to them, resulting in increased poverty in this group. The growth rate tends to rise along the distribution, slowing around the seventh decile and peaking at the high end.

Growth Incidence Curve: Rural
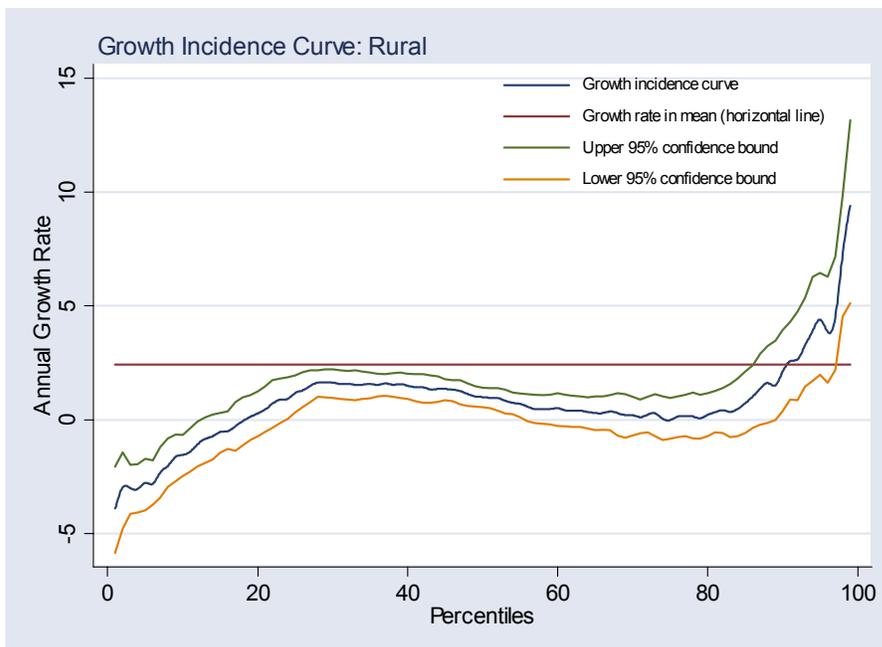
42.   **The distributional impact in the rural areas is magnified when viewed in the context of the overall economy**. The growth rate in the mean in the urban areas was higher than in that of the rural areas by one percent annually. At the same time, as noted earlier, growth in the urban areas was pro-poor while it was anti-poor in the rural areas. Thus income disparity between the poor in the rural areas and the rich in the urban areas has widened substantially.

C. Factors Affecting Pro-Poor Growth

43.   **While economic growth is the basic vehicle for reducing poverty, the extent to which the poor benefit from overall growth varies among countries depending on each country's income and asset distribution**. Ravallion (2004) emphasizes that the initial degree of inequality as well as its evolution are the two factors that make growth more or less pro-poor. Unequal access by the poor to physical assets, infrastructure and social services make it harder for them to partake in the opportunities afforded by the overall economic growth. Moreover, recent studies show that the sectoral structure of growth influences the effect that growth has on poverty, and emphasize that rural and agricultural growth have direct effects on poverty alleviation.[25]

Initial Conditions

44.   **The reduced economic opportunity in the rural areas with respect to limited access to land, infrastructure and financial resource assets, mitigated poverty alleviation**. Cambodia has a highly unequal distribution of income, caused to a substantial extent by highly unequal land ownership. Most land in the country is not yet registered, and only 10 percent of farmers have formal title to their farming land. The majority of the land is suspected to be in hands of a few powerful groups. At the more aggregate level, demarcations between land for different uses – forests, agriculture, urban areas and so forth – have yet to be made, complicating and delaying any land redistribution initiatives. Furthermore, inadequate infrastructure has limited farmers' access to markets.[26]

Sectoral Growth Pattern

45.   **Recent economic growth has benefited from favorable external factors, notably the bilateral trade agreement with the United States**. In particular, the agreement contributed to a strong growth of garment exports and the creation of over 200,000 jobs. In addition, construction activities related partly to large aid inflows, and to a lesser extent

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[25] Empirical evidence linking measures of poverty to agricultural output can be found in Datt and Ravallion (1996 and 1998) and Timmer (2002).

[26] Rural roads, with only 16 percent of the total road network paved, and the rail system are in poor condition.

tourism, also contributed to buoyant overall GDP growth. However, with the exception of the strong rebound in 2003, agriculture barely kept up with population growth.

46.   **Low growth of the agricultural sector has had an adverse impact on the poor.** On the one hand, agricultural GDP divided by total population (used as a proxy for per capita) has been falling since 1995, while 80 percent of the poor depend on agriculture for their livelihood. In turn, income per capita in the rural areas started to fall from 1995 onward.

Agricultural and non-agricultural GDP per capita[1]
(In U.S. dollars)

Sources: Ministry of Planning, National Institute of Statistics (NIS), and Fund Staff estimates.
[1]In the absence of population data in these two sectors, for illustrative purposes, agricultural GDP and non-agricultural GDP were divided by total population.
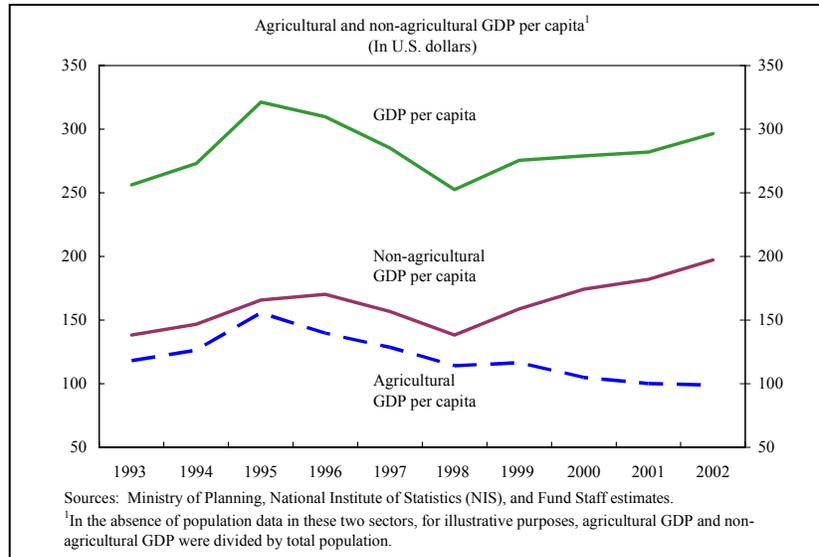
47.   **Lack of available land and investment led to substantial under-utilization of human resources in the rural areas.** Timmer (2003) points out that short work days at wage-paying jobs, disguised unemployment, and long hours spend on low-productivity tasks suggest that marginal productivity of rural labor is very low. In such circumstances, he notes that new resources such as capital to build local irrigation systems or rural roads to allow farmers access to markets, new agricultural technology that raises yields, or higher rural household income enables them to spend and invest in education, further raising their marginal productivity.

48.   **Worsening income distribution in rural areas offset the positive effect of overall growth**. The table on the right hand side shows the change in poverty between the two household surveys undertaken in 1993/4 and 1999 decomposed into three components: the growth component (the difference between the two poverty indices keeping the distribution constant), the redistribution component (the change in poverty if the mean of the two distributions is kept constant), and the residual component (the change in poverty due to interaction of growth and

Growth and Inequality Poverty Decomposition (In percent)		
	Rural	Urban
Poverty rate in 1993/94	0.427	0.246
Poverty rate in 1999	0.389	0.184
Change in poverty:	-0.038	-0.062
Growth component	-0.339	-0.025
Redistributional component	0.301	-0.037
Residual component	0	0
Source: Author's calculations based on Datt and Ravallion (1992).		

inequality). Supporting the previous results from the GICs, worsening redistribution almost offset the positive effect of economic growth in rural areas. However, redistribution alleviated poverty in urban areas and it was quantitatively more important than growth.

D. Suggested Measures for Poverty Reduction

49.   **Countries that foster higher farm incomes and encourage rural investment benefit from higher total factor productivity in addition to the higher rural output itself**. Timmer (2002) and Mellor (2000) argue that increased farm production leads to higher employment and lower basic food prices, both of which reduce poverty.[27] Furthermore, increased farm incomes stimulates demand for goods and services in the rural areas, provide food, and can generate savings that contribute to industrialization.

50.   **Land reform is a key measure that will allow the poor to benefit from higher returns in agriculture.** Agricultural growth will not reduce poverty significantly if increased farm incomes accrues to wealthy people who tend to spend on imports or capital intensive goods and services. Besley and Burgess (2000) analyze the impact of land reform on rural poverty and growth by coding land reform legislation amendments of India's states between the 1950s and 1992. They find that poverty, as measured by the poverty gap and the headcount ratio, was reduced thanks to land reform achieved during the previous four years. However, they also find that this poverty reduction may have come at the cost of lower agricultural growth.

51.   **Adequate rural infrastructure is critical to profitable farming, and, hence, to poverty alleviation**. Public provision of rural infrastructure such as roads to markets, market centers themselves, communication networks, and air and sea port facilities help farmers with marketed surpluses. Timmer (2003) notes that the effects of higher agricultural productivity also spread to subsistence-oriented farmers, especially if rural infrastructure is constructed by the poor themselves through labor-intensive public work programs.

52.   **Based on different assumptions about growth of agriculture and the garment sector, it can be shown how different sectoral growth could benefit the poorest 50 percent of the population**. For the purpose of this analysis, households sampled in the 1999 survey are divided into deciles of equal size, from the group with the lowest consumption expenditure (labeled D1) to the group with the highest (D10). As the second column in the

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[27] Lower staple food prices can stimulate livestock production and provide local markets with high-quality animal protein. In addition, the low cost of these staple foods could promote agricultural diversification into other crops such as fruits and vegetables with better demand prospects. Finally, small and medium enterprises in rural areas could benefit from low nominal wages, made possible by low basic food prices, and speed the absorption of surplus labor.

table shows, the lowest decile D1 accounted for less than 3 percent of total expenditure recorded in the survey; the highest group D10 accounted for 35 percent. Growth rates of 3 and 6 percent are assumed depending on whether agricultural productivity improves along with different scenarios for urban growth. Specifically, the subsequent columns show the percentage change in expenditure for each decile resulting from the change—given the particular spending pattern of each of the households in each group.

	1999	Simulation Results				
		Rural incomes increase by 6 percent and urban incomes by 3 percent	Rural incomes increase by 3 percent and urban incomes by 6 percent	Rural incomes increase by 6 percent and urban incomes do not increase	Rural incomes increase by 3 percent and urban incomes do not increase	Rural incomes do not increase and urban incomes by 3 percent
	(Percent of Population)	Expenditure (percent change)				
D1	2.6	5.2	3.7	4.4	2.2	0.7
D2	3.9	5.2	3.8	4.4	2.2	0.8
D3	4.9	5.3	3.6	4.6	2.3	0.6
D4	5.7	5.5	3.5	5.0	2.5	0.5
D5	6.3	5.4	3.5	4.9	2.4	0.5
D6	7.4	5.1	3.9	4.1	2.1	0.9
D7	8.7	4.5	4.5	3.0	1.5	1.5
D8	10.7	4.1	4.9	2.2	1.1	1.9
D9	15.2	4.1	4.9	2.2	1.1	1.9
D10	34.5	3.7	5.3	1.5	0.7	2.3

53.   **The simulations show the importance of rural income growth for reducing poverty.** More rapid growth of rural incomes allows a faster growth in expenditure of the lower deciles. Moreover, higher rural incomes allows farmers to invest in farm and human capital leading to further poverty alleviation.

E. Conclusion

54.   **The poor in rural areas have not benefited from economic growth, while growth in urban areas has been clearly pro-poor**. Highly unequal distribution of income, and asset inequality, including limited access to land, infrastructure and financial resource assets, have prevented growth in the agricultural sector. By contrast, the redistributional effect of growth in urban areas has helped to improve the welfare of the poor in the cities.

55.   **Investment that mobilizes underutilized resources, or that provides funds to increase human and physical capital among the rural population, will have high returns for the poor**. A new growth strategy that alters investment priorities in favor of rural growth, like those pursued in Indonesia after 1966, China after 1978, and Vietnam after 1989, will

improve factor productivity because of improved resource allocation. China's strategy was to use world markets for the provision of basic food supply and keep food costs low to provide a competitive advantage to its labor-intensive industries and producers of high-value agricultural commodities. Low grain prices can encourage livestock production, small and medium enterprise activities in rural areas, and allow farmers to specialize in higher-value products (Timmer, 2003). Consequently, a strategy that raises the productivity of staples and uses these low cost products to diversify into high value-added agricultural products will generate pro-poor growth.

56.   **A simple simulation has illustrated the importance of rural growth to the poor.** A successful structural transformation of the agricultural sector could raise rural wages. Moreover, increased food implies fewer poor people because poverty lines are defined with reference to the adequacy of food intake. The emphasis should turn to land reform, diversification into crops and livestock, and access to supply chains.

Annex: Methodology

In studying the impact of growth in poverty, we draw on household level data from the Cambodia Socio-Economic Survey (CSES) for 1993/4 and 1999, the first and last surveys available. The CSES collects expenditure data from roughly 6000 households.

This analysis uses the poverty line for rural areas, Phnom Penh and other urban areas.[28] Poverty measures based in 1993/4 were derived by deflating expenditures in each year. We use a headcount ratio of 43 percent for rural households and 25 percent for urban households. We do the calculations for rural and urban households separately, since there are striking differences between the rural and urban sectors in Cambodia.

We use the methodology of growth incidence curves (GIC) developed by Ravallion and Chen (2003). They propose using the **Watts index** (W_t) as a measure of poverty defined as the mean growth rate of the poor:

$$W_t = \int_0^{H_t} \log\left[z / y_t(p)\right] dp \tag{1.1}$$

where $y_t(p)$ is the quantile function (obtained by inverting the cumulative distribution function of expenditure $p = F_t(y)$ at the p'th quantile) and z is the poverty line.

Equation (1.1) can be written as follows:

$$W_t = \log\left(z / y_t^*\right) \tag{1.2}$$

where

$$\log y_t^* \equiv \int_0^{H_t} \log y_t(p) \, dp + (1 - H_t) \log z \tag{1.3}$$

is the mean of log censored expenditures, where the censored expenditure is $\min\left[y_t(p), z\right]$, that is, actual expenditure when located below the poverty line, and the poverty line itself otherwise. y_t^* is a stable monotonic decreasing function of the actual value of the Watts index, that is, y_t^* is the exact money metric of the Watts index. The growth rate in y_t^* is the aggregate growth rate in the expenditures of the poor, and $H_t = F_t(z)$ is the headcount index.

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[28] A poverty line is the line below which a given population is believed to live in poverty. It is a line taken to imply an income that is adequate for a person to consume a food basket that provides at least 2100 calories of energy per day with a small allowance for non-food items such as shelter and clothing.

Differentiating equation (1.3) with respect to time, we get:

$$\frac{d \log\left(y_t^*\right)}{dt} = -\frac{dW_t}{dt} = \int_0^{H_t} \frac{d \log y_t(p)}{dt} \qquad (1.4)$$

This is the measure of the growth rate consistent with the Watts index for the level of poverty.

The **growth incidence curve** is:

$$g_t(p) \equiv \frac{d \log y_t(p)}{dt} \qquad for\ 0 \le p \le 1 \qquad (1.5)$$

The equation shows how the growth rate varies by percentile of the distribution ranked by y. By normalizing equation (1.4) by the headcount index, one obtains the mean growth rate of the poor as follows:

$$g_t^p \equiv \frac{1}{H_t} \int_0^{H_t} g_t(p) \qquad (1.6)$$

Assuming that all expenditure levels grow at the same rate (leaving distribution unchanged), equation (1.6) collapses to the growth rate in the mean or the ordinary rate of growth, γ_t, and the change in the Watt index equals $\gamma_t H_t$ (from equation (1.4)).

Then, the rate of **pro-poor growth,** given by equation (1.5), can be rewritten as:

$$g_t^p \equiv \frac{dW_t}{dW_t^*} \gamma_t \qquad (1.7)$$

Therefore, the rate of pro-poor growth is the growth rate in the mean, scale up or down by the ratio of the actual change in the Watts index to the changes implied by distribution-neutral.

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II. EXCHANGE RATE POLICY AND DE-DOLLARIZATION

Chapter 4. Pro-poor Exchange Rate Policy:
A Poverty and Social Impact Analysis (PSIA)[29]

57.   This chapter reviews exchange rate policy options that could minimize any adverse impact on the poor from an exogenous shock such as the elimination of the quota system in early 2005. As long as the build up of pressures on the balance of payments is modest relative to the level of official reserves, maintaining a stable exchange rate could reduce potential adverse effect on the income of the poor.

A. Stylized Facts

58.   **Cambodia is a de-facto dollar economy.** Most prices, except for some prices of non-tradable goods and services in rural areas, are denominated in U.S. dollars, and up to 95 per-cent of total liquidity (including estimated cash in circulation) is in U.S. dollars. The domestic currency, the Cambodian riel (CR), is used mainly by the rural population as a medium of exchange, by the urban population as "coins" complementing US dollars in circulation, and by the government which spends more in riel than it collects.

59.   **As such, it is difficult to interpret the exchange rate as the relative value of currencies of two countries** that would normally change in response to differentials in inflation and productivity growth, or changes in the terms of trade. But rather, the exchange rate reflects changes in demand for riel by a small fraction of the urban population who hold

riel cash balances for transactions purpose. Although most of the poor in the rural area hold riel cash balances, they appear not to contribute much to exchange rate changes due to limited information and access to the foreign exchange market. The demand for riel is normally met by government spending through its extensive network of Treasury branches across the country. In 2002, for example, the government injected about CR 0.3 trillion riel (i.e., spending in riel net of collection in riel),

Changes in Net Claims on Government and Exchange Rate
In billions of riel

of which about two third was retained as cash in circulation, matching the trend increase in riel demand in tandem with economic growth. The remaining amount was converted back to U.S. dollars by the private sector. Given the relative stability of growth of riel demand,

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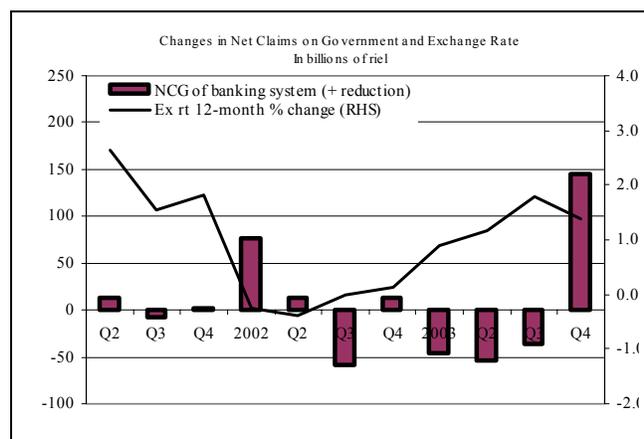
[29] Prepared by Il Houng Lee (APD).

barring any adverse sentiment, excessive cash injection of the government financed by bank borrowing is usually translated into a depreciation of the exchange rate, as the above chart shows, unless the National Bank of Cambodia (NBC) sells its foreign exchange, which it does not often do.

60.   **The demand for riel is also sensitive to non-economic related news such as political developments.** Any negative news that raises country risk will immediately lead to further dollarization, and in a much larger scale, to capital outflows. This was evidenced when total stock of foreign currency deposits dropped by 20 percent in a course of 1-2 weeks during the July 2003 elections. Moreover, bank owners withdrew their capital—which could not be withdrawn unless they liquidate the bank—in the form of bank loans to themselves. An increase in the currency risk, such as an increase in the exchange rate volatility, will prompt those holding riel to convert into U.S. dollars, as those who have access to the foreign exchange market are more concerned with retaining the value of their wealth in US$ terms. Only a small amount of excess supply/demand could affect a change in the exchange rate as the market is very shallow. In this regard, an NBER working paper reviewed about 85 countries that tried to de-dollarize,[30] and found that only two of them managed to reduce the foreign currency deposit ratio significantly and keep it low for some time through reduced exchange rate volatility.[31]

61.   **The exchange rate closely affects inflation as measured by the official CPI, although data weaknesses hamper analysis.** To illustrate this point, denote $P_T = P^*$ where P$_T$ is the price of tradable goods and P* is the world price, both in U.S. dollar.[32] The price level in turn is defined as $P = P_T^\varepsilon P_N^{(1-\varepsilon)}$ where $0 \le \varepsilon \le 1$ and

$P_N = P_N^{US\beta}\left(\dfrac{P_N^{CR}}{e}\right)^{(1-\beta)}$. P_N^{CR} is the

price of non-tradables denominated in riel; β is the share of the non-

Inflation and Exchange Rate
Annual percent change

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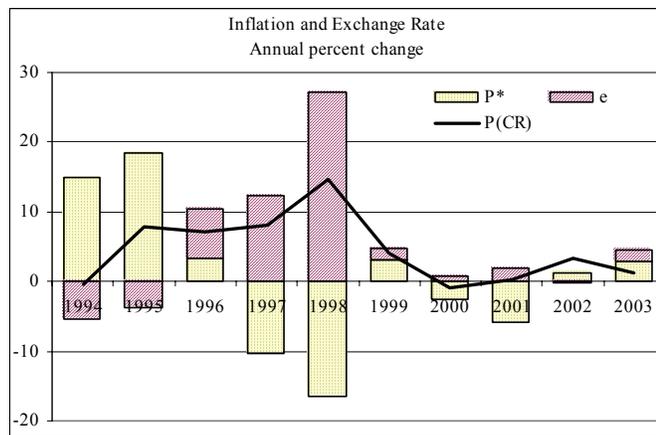
[30] Reinhart, Rogoff, and Savastano, "Addicted to Dollars" NBER Working Paper No.10015, October 2003.

[31] For more details, see Chapter 5 "De-dollarization—Country experiences and strategy for Cambodia."

[32] The real exchange rate "r" is defined as $r = \dfrac{P_N}{P^*}$ where P$_N$ is the price of non-traded goods.

tradable goods denominated in U.S. dollar where $0 \leq \beta \leq 1$. e is the exchange rate where $\dfrac{de}{dt} > 0$ implies a depreciation. However, since the official CPI is collected in riel, the observed price level is $P^{CR} = e P_T^{\varepsilon} P_N^{(1-\varepsilon)}$. The chart above illustrates this relationship, even though only partially as the official CPI (P^{CR}) is compiled from survey data collected only from Phnom Penh, and is based on an old consumption basket. P* is estimated from partner country data. Unfortunately, this chart misses the P_N component for which there are no useful proxies (see Annex for some estimates of pass-through).

B. Pro-poor Exchange Rate Policy

62. **An exogenous shock such as the elimination of the quota system in 2005 could worsen the trade deficit by about $120 million** (about 20 percent of net international reserves). While the impact on banks is likely to be limited, for example, to a slower growth in U.S. dollar deposits,[33] confidence could be shaken and further dollarization could occur and lead to capital outflows. To prevent this, the NBC could either allow the exchange rate to depreciate, or partially/fully defend the rate, which would not be difficult given the limited amount of foreign exchange reserves it might require. However, the implications of these policy options are more widespread.

Case 1. No foreign exchange market intervention: Suppose the NBC does not intervene and the exchange rate depreciates, say by 10 percent. The net impact on the fiscal position is estimated to be about 0.2 percent of GDP of additional revenue in domestic currency terms (see table below). The amount of additional fiscal revenue generated from the depreciation will not change much in the short run even if the government were to spend simply more in riel as, except for civil service wages and social transfers, government spending are largely tied to US$ prices.

Case 1a: Since the fiscal position should not be pro-cyclical, especially at a time when real GDP growth is declining, the government would need to raise civil service wages and social transfers at least to a level that would maintain a balanced

Budgetary outlays, 2002 (In percent of GDP)					
	Domestic currency	Foreign currency	Total	Impact of 10% dep.	Total
Revenue	9.0	2.3	11.2	0.2	11.5
Expenditure	-10.7	-7.3	-17.9	-0.7	-18.6
Foreign financing	0.0	7.0	7.0	0.7	7.7
Domestic bank financing	-1.1	0.0	-1.1	0.0	-1.1
Domestic non-bank	0.7	0.0	0.7	0.0	0.7
Total	-2.0	2.0	0.0	0.2	0.2

recurrent budget. In the first instance, the result of this policy will be as follows: (i) the non-garment formal sector wealth (financial assets) and income will be unchanged; (ii) the

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[33] During 2001-02, balance of payment surpluses were partly absorbed by large increases in foreign currency deposits.

financial wealth (which consists only of riel cash holding) of the rural poor will be reduced by 10 percent in U.S. dollar terms, and (iii) their income in U.S. dollar terms will be affected to the extent there is less than perfect pass through and some of their non-tradable goods and services are denominated in riel terms. To illustrate the point, define real income of the rural poor as $\frac{q_N P_N + q_T P_T}{P}$ where $q_N P_N$ is the nominal income from producing non-tradable goods/services. Since, as noted earlier, P_N is partly denominated in riel terms (assume for the sake of simplicity that all non-tradable goods are denominated in riel), real income in U.S. dollar terms is defined as $\frac{q_N P_N^{CR}(\frac{1}{e}) + q_T P_T}{P}$. To the extent there is less than full pass through of e to P_N^{CR}, the non-tradable component of their real income $\frac{q_N P_N^{CR}(\frac{1}{e})}{P}$ will decline as e increases. The reduced consumption of the poor will marginally contribute to further adjustment of the balance of payment.

Case 1b: Alternatively, the government could allow the fiscal position to be pro-cyclical. In this case, civil service wages and social spending will decline, leading to an adjustment through contraction of aggregate demand. In this case, (iv) civil servants will be relatively poorer, and (v) the recipients of social spending will be adversely affected.

Case 2: Foreign exchange market intervention: If the NBC intervenes to maintain a stable exchange rate, international reserves will decline. At least in the first instance, however, it will not lead to any of the above results noted in (ii) through (v).

Under both cases, the secondary impact will be lower GDP growth, hence reduced income, mainly in the urban areas. The rural area will be affected to the extent that there is less transfer from urban workers' income to their families.

C. Conclusion

63. **While exchange rate flexibility should be maintained in order to absorb exogenous shocks**, **careful consideration will need to be given to the redistributive effects of the exchange rate policy**. This is particularly so in cases where the potential impact of a shock on the exchange rate and on international reserves is not expected to be large, and where an adjustment of the exchange rate will not have significant impact in helping to absorb a change in the structure of the economy.

Annex: Pass-Through of Exchange Rate Changes to Domestic Prices[34]

Inflation in trading partners in U.S. dollar terms have moved broadly in tandem with domestic prices (in riel), except during the Asian crisis period (Figure 1).[35] During 1997-98, although the weighted average of trading partners' inflation in their respective currencies rose to 7-8 percent, in U.S. dollar terms, inflation declined to below 30 percent due to the large devaluations of the exchange rates against the U.S. dollar. Once trading partner inflation is converted into riel, the large difference during the Asian crisis is sharply reduced (Figure 2), although the initial sharp depreciation in the late 1997 (especially of the Thai baht) and the sharp appreciation in 1998 is clearly evident in the remaining gaps during this period.

Inflation: Cambodia and Trading Partner Countries
(in percent)

Figure 1

— Cambodia CPI Inflation rate
---- Partner country inflation in USD

Figure 2

— Cambodia CPI Inflation rate
---- Partner country inflation (in CR)
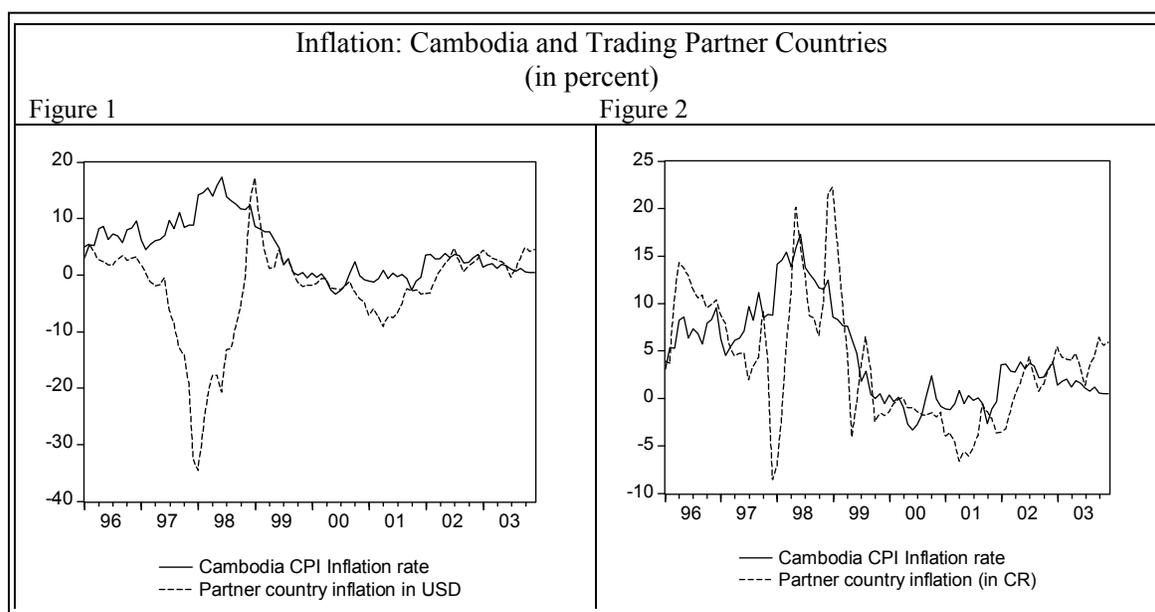
The overall pass-through from exchange rate changes to domestic prices in a dollarized economy needs to take into account the 'accounting' effect of exchange rate movements into domestic price (expressed in CR). This is illustrated from the formulation of the domestic CPI (expressed in CR) as shown in the main text, namely: $P^{CR} = e P_T^{\varepsilon} P_N^{(1-\varepsilon)}$. Substituting for price of non-traded goods $P_N = P_N^{US\beta} \left(\dfrac{P_N^{CR}}{e} \right)^{(1-\beta)}$ in U.S. dollar in the above, we can

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[34] Prepared by Srobona Mitra (MFD).

[35] The main trading partner countries, which together account for more than 60 percent of total imports, are Thailand, Singapore, Hong Kong SAR, Korea, and Vietnam. The monthly trading partners' inflation data was compiled from the monthly CPI and exchange rate, but using annual trade weights.

differentiate P^{CR} w.r.t. e to see the accounting impact of exchange rate changes on the price level:

$$\frac{\partial \log(P^{CR})}{\partial \log(e)} = \beta + \varepsilon - \beta\varepsilon . \text{ This is assuming that } \frac{\partial \log(P_N^{CR})}{\partial \log(e)} = 0 .$$

- If $\beta = 1$: we have full (accounting) pass through
- If $\beta = 0$: pass-through is ε.
- If there were no non-tradable goods, there would be full pass-through as well.

The actual pass through could be different from this 'accounting' effect due to price movements arising from policy responses of the central bank to exchange rate movements, unrelated but concomitant domestic demand and supply shocks, and from decisions by producers not to increase the prices of goods (and take a cut in profit-margin instead) in response to higher cost of imported inputs.[36]

Estimating pass through

A structural VAR model is used to estimate the extent of pass-through, using monthly data from January 1996 through December 2003. Owing to data constraints, only a trivariate VAR is considered, recognizing that there could be external factors other than the exchange rate that could affect the domestic price level. The inflation rate (in US dollar) of trading partner countries is considered a suitable candidate that might affect domestic inflation. A real variable, such as the output gap, is left out due to lack of data.[37]

Granger causality tests show that both exchange rate depreciation $\hat{e}$ and partner inflation π^* Granger-cause (that is, the lags of these variables help forecast) the domestic inflation rate π; however, inflation does not Granger-cause $\hat{e}$ and π^*. The variables $\hat{e}$ and π^* do not Granger-cause each other.

To retrieve the structural shocks to each variable, short-run restrictions are imposed—shocks to $\hat{e}$ and π have no contemporaneous effect on π^*, and shocks to π have no

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[36] See Schwartz, G (1999, "Price Developments in Brazil after floating of the Real: the First Six Months," (Selected Issues and Statistical Appendix, IMF Staff Country Report No. 99/97, September) for some of the reasons for a low pass through in Brazil.

[37] Various unit root tests confirmed the presence of unit roots in the CR/US$ exchange rate and domestic CPI series; therefore 12-month changes in the logarithm of these variables have been used for the quantitative analysis instead. Partner country inflation rate was found to be stationary.

contemporaneous effect on $\hat{e}$. These restrictions have the same effect as that of ordering the variables as π^*, $\hat{e}$, and π.[38] The lag-length of 2 was chosen using the SIC criterion, although the results are robust to inclusion of higher lags.

Following a one-standard deviation shock (increase) to exchange rate depreciation, domestic inflation goes up—with a maximum effect at 4 months. The associated pass through[39] from exchange rate depreciation to domestic inflation is 18 percent on impact, around 41 percent by the end of the first year, and 51 percent at the end of two years following the shock. The negative effect of partner country inflation shocks on domestic inflation appears to be heavily influenced by the strong negative relationship—arising from common shocks to regional exchange rates against the U.S. dollar—observed in some periods during and in the aftermath of the Asian crisis.

Pass Through of Exchange Rate and Partner Inflation
(In percent)
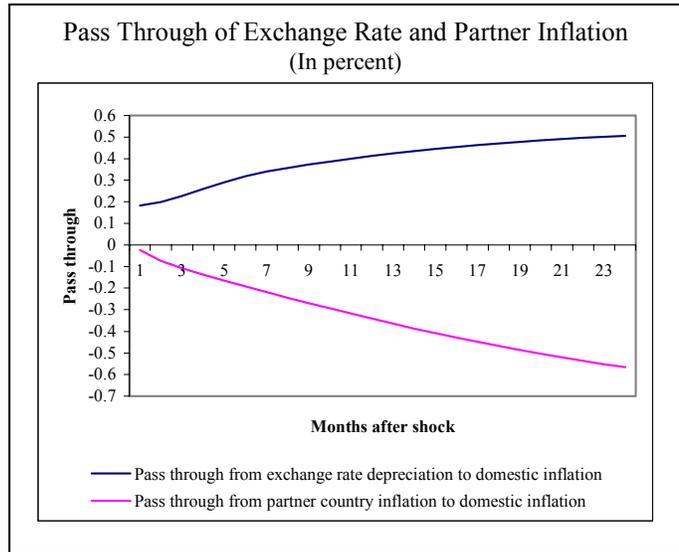
To assess whether the large shocks in the Asian crisis are producing this result, the VAR was re-run using a sub-period January 1999 to December 2003. The results now show that the induced response of inflation due to partner inflation shocks is positive, mostly after 5-9 months. However, the impulse response due to exchange rate shocks are now negative, but not significantly different from zero. The results may reflect the importance of domestic shocks as well as partner country inflation in explaining inflation movements during exchange rate stability.

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[38] This alternative to the recursive Cholesky orthogonalization requires imposing enough restrictions to identify the orthogonal (structural) components of the error terms . An ordering with $\hat{e}$ first, and π^* second does not change the results in this case.

[39] Pass through at time t is calculated from the accumulated impulse responses

as: $\dfrac{\displaystyle\sum_{i=1}^{t} IR_i(\pi \text{ to } \hat{e} \text{ shocks})}{\displaystyle\sum_{i=1}^{t} IR_i(\hat{e} \text{ to own shocks})}$, IR is the impulse-response.

Chapter 5. International Experience of De-Dollarization[40]

64.   This chapter summarizes recent research by Fund staff on country experiences of de-dollarization. The first section describes recent global trends of increasing dollarization and the experience with price stability and exchange rate pass through in dollarized economies. Section B outlines various de-dollarization approaches countries have pursued. Section C reports that there are only few cases of successful dollarization. The final section discusses options for Cambodia and the Annex presents an adaptation of the portfolio choice model to the case of Cambodia showing that greater exchange rate volatility could lead to further dollarization.

A. Dollarization Trends and Implications

65.   **Dollarization has been on the rise in the past two decades.** A recent IMF study covering some 117 countries found that financial dollarization, as measured by the share of foreign currency deposits (FCD) in broad money, doubled in the last decade.[41] This trend partly reflects the return of deposits previously held abroad following the easing of FCD restrictions in most countries. *Financial dollarization* (the use of foreign currency as a store of value) is easy to measure as data are readily available in financial statistics. However, the true extent of dollarization, which should encompass *payment dollarization* (the use of foreign currency for transactions purposes) and *real dollarization* (the use of foreign currency for denominating prices and wages), is more difficult to assess as information is not readily available.

66.   **Some countries, however, were able to avoid or contain dollarization.** The IMF study found that those countries in Asia that did not experience periods of high inflation or severe macroeconomic instability, including India, Sri Lanka, and Bangladesh (as well as more advanced economies such as Singapore, Malaysia, and Taiwan, Province of China) retained domestic-currency denominated private savings. Some countries, including Chile and Colombia, that did experience large macroeconomic imbalances barely escaped dollarization by introducing financial indexation that helped contain the erosion of financial savings. Yet another group of countries, such as

Increasing Trend of Dollarization
(Percent of foreign currency deposits to broad money)

Country Group *(number of countries)*	1980-85	1988-93	1996-01
Africa *(48)*	0	2	7
Emerging Asia *(26)*	3	8	11
Middle East *(14)*	11	20	21
Transition Economies *(26)*	-	17	29
Western Hemisphere *(29)*	5	13	23
of which: South America *(11)*	10	23	35

Source: Macroeconomic Policies in Dollarized Economies.

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[40] Prepared by Wafa Fahmi Abdelati (APD).

[41] This note draws on Rogoff, Savastano and Reinhardt (2003), "Addicted to Dollars."

Venezuela, Nigeria, and many countries in sub-Saharan Africa, relied on financial repression and capital controls. However, these measures led to waves of capital flight and financial disintermediation.

B. Approaches to De-dollarization

67. **The approaches taken by countries to reverse dollarization can be broken down into three types:**

- *Macroeconomic policies*: Pursuit of policies aimed at maintaining exchange rate and price stability (to avoid erosion of local currency value), including through inflation targeting to arrest inflation expectations. Financial liberalization that resulted in higher domestic interest rates also contributed to limiting dollarization.

  Examples:

  o Following price stabilization, the FCD ratio declined substantially in Poland and Israel. Armenia, Estonia, and Lithuania are countries where financial liberalization led to an increase in domestic interest rates, thereby helping to contain dollarization.

- *Regulatory/legal reforms*: Changing the regulatory incentive structure through the setting of differential reserve requirements or remuneration rates, or adjusting provisioning and liquidity requirements, introducing alternative financial instruments, and requiring all or certain payments or contracts to be conducted in local currency.

  Examples:

  o In Nicaragua, a premium was paid on dollar-indexed deposits over dollar deposits. Price and interest-rate indexation were broadly used in Brazil to contain dollarization.

  o Peru, in the late 1980s, imposed a 2 percent transaction tax on check payments in foreign currency. Lao P.D.R. introduced a decree requiring all domestic transactions to be carried out in local currency, supplemented by improvements in the payments, clearing, and settlement system and the issuance of large denomination bank notes.

  o Bolivia, Honduras, Nicaragua, and Peru had higher reserve requirements for FCD than on local currency deposits, although Uruguay refrained from imposing the higher reserve requirement to avoid driving dollar deposits offshore. Israel used differential remuneration rates and imposed a one-year holding period for all FCD to encourage the use of dollar-indexed deposits over dollar deposits.

- *Administrative enforcements*: Direct administrative measures such as prohibition of FCD for residents, restrictions on residents holding accounts abroad, and forced conversions of dollar to local currency deposits.

  Examples:

o Israel limited payments in foreign currency by imposing a ban on direct transfers of FCD among residents.

o Lebanon limited foreign currency lending to 60 percent of FCD, forcing banks to keep the remainder offshore. Vietnam, Malaysia, and the Philippines restricted foreign currency loans to particular uses or borrowers.

o Peru, Bolivia, and Mexico had forced conversions of FCD in the eighties. In many African countries, FCD are still not allowed or severely restricted. But in most cases there are indications of extensive (unmeasured) use of dollars as cash in circulation.

C. Successful De-dollarization Experiences

68. **There were, however, only four out of 85 countries surveyed covering 1980-2001 that succeeded in de-dollarization.**[42] Of those, only two countries, Poland and Israel, appear to have had lasting reversals with minimal side effects. For Mexico and Pakistan, it is too early to tell if de-dollarization will be sustained. Moreover, Mexico experienced doubling of capital flight and a drastic reduction of bank credit to the private sector.

69. In the case of **Poland and Israel,** both countries embarked on a successful disinflation program initially built around a strong exchange rate anchor. In Israel, the domestic financial system offered alternative forms of indexed assets, including dollar-indexed deposits (Patzams) with higher reserve remuneration rates. The Patzams proved an effective substitute for dollar deposits. In Poland, interest rates on domestic currency assets were raised to maintain a differential in favor of local currency deposits. But it is not at all clear that the conditions in Israel and Poland can be replicated by other countries, especially since the initial level of dollarization was not high in the first place.

Use of Foreign Currency in Selected Countries
(Percent of foreign currency bank deposits to broad money)

	1980	1985	1990	1995	2000
Argentina			34	44	55
Azerbaijan				50	40
Bhutan					25
Bolivia			71	79	85
Bosnia-Herzegovina					60
Cambodia				56	68
Croatia				57	70
Haiti					30
Israel	29	48	27	20	18
Lao P.D.R.				43	75
Mexico	17	3	15	10	6
Mongolia				20	26
Nicaragua			29	55	70
Pakistan			3	15	8
Peru	38	67	80	63	69
Philippines				22	29
Poland		25	80	29	15
Romania			4	23	41
Russia				20	27
Turkey			23	47	44
Uruguay			80	65	72
Vietnam		2	33	21	32
Yemen				23	31

Sources: Rogoff, Reinhardt, Savastano, *Addicted to Dollars* , NBER Working Paper 10015, October 2003, p. 46; Balino et al. *Monetary Policy in Dollarized Economies* , IMF Occasional Paper 171, 1990, pp. 4-6; Leung and Kompas, *Dollarization and Macroeconomic Policy in Vietnam* , manuscript, September 2003; pp. 7-8.

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[42] The criteria used to identify successful reversal include reducing foreign currency deposit to broad money by 20 percent and remaining below that level until the end of the sample period.

70.   **In contrast to the few success cases, there have been many more countries with experiences of unsuccessful attempts at de-dollarization.** Often, these attempts involved administrative enforcements without fully restoring confidence in the local currency or eliminating the underlying instability that led to dollarization in the first place. In both Peru and Bolivia, foreign currency deposits accounted for about 30 percent of total deposits in the early 1980s. Both countries attempted forced conversion that led to an increase in cross-border deposits, capital flight, and reduced financial intermediation. Eventually, by the end of the 1980s, foreign currency deposit in both countries increased further to 70-80 percent.

71.   **There are also several countries that have intentionally opted to maintain a high level of foreign currency as part of their broad money.** In Asia, Bhutan allows free use of the Indian rupee and Brunei the Singapore dollar to facilitate trade and economic cooperation with its larger neighbor, and to benefit from the stable macroeconomic conditions. For similar reasons, Lesotho and Namibia allow the use of the South African rand, Bosnia-Herzegovina the euro, and Haiti and the Bahamas maintain use of the U.S. dollar alongside their own currency. A few other countries, including Panama, El Salvador, and East Timor, opted for full dollarization.

D.   Steps Toward De-dollarization in Cambodia

72.   **De-dollarization is a long-term objective for Cambodia.** Country experience has shown that de-dollarization is a long-term process that requires foremost restoring confidence in the local currency. Confidence is restored when the private sector is sure that it will not be financially penalized for holding the local currency. Accordingly, only when continued macroeconomic stability and exchange rate stability are maintained, will financial deepening be brought about by an increase in the use of domestic currency.[43]

73.   **Exchange rate stability is important in maintaining price stability in highly dollarized countries.** The 2003 Board paper found systematic differences in the pass through from exchange rate to prices. The impact of exchange rate changes on inflation was found to be largest for countries with a high degree of dollarization and where there was little private liability dollarization (low share of private sector debt in total external debt). However, the impact was the lowest in countries where overall dollarization is low and domestic

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[43] In a recent paper, Ize and Levy-Yeyati (2003) argued that greater exchange rate flexibility would reduce incentives for dollarization. They advocated a floating exchange rate combined with an inflation targeting approach to foster the use of the local currency, based on a theoretical model that derives depositors' optimal portfolio. In the Annex to this note, we show that this relation between exchange rate flexibility, inflation volatility and de-dollarization does not hold in the case of Cambodia when the model is adjusted to allow depositors to evaluate their portfolio in US dollar terms instead of in local currency terms.

dollarization was negligible.[44] These results were consistent with the reluctance of central banks to tolerate large exchange rate changes, and also supports Cambodia's pursuit of stable exchange rate.

74.   **Policies could be pursued that encourage the use of local cash without recourse to administrative controls that might result in capital flight.** Such policies would comprise measures to conduct all public sector transactions in local currency, including an increase in the use of riel in the collection of tax and non-tax revenue and in payments for capital expenditure. In 2001, 74 percent of nontax revenues and 67 percent of capital expenditure were collected in foreign currency. Creating a wedge in reserve requirements between FCD and LCD could be another potential instrument. Introducing riel-denominated treasury bills could he useful in the future but is not an immediate measure to facilitate de-dollarization since banks have little need to manage riel liquidity given the low demand for riel. Finally, introducing a larger denomination of riel currency would enable payment of larger transactions in riel.

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[44] Domestic dollarization in this case refers to the ratio of foreign currency deposits in broad money and the share of government debt that is foreign-currency-denominated.

Annex: A Model for Determination of Foreign Currency Deposit Ratios[45]

We modify the model in Ize and Levy–Yeyati (2003) to analyze the dollarization issue in Cambodia. The key modification is that depositors evaluate their portfolios in U.S. dollar terms instead of in local currency terms. There are two types of deposits, one in local currency (riel), the other in U.S. dollars. Let r_{USD}^h denote the real return for the local currency deposits, r_{USD}^f the real return for foreign currency deposits, both measured in U.S. dollar terms. Assume that depositors' preferences are given as:

$$U = E(r) - c \times Var(r)/2 \tag{1}$$

$$r = (1 - \lambda) \times TD \times r_{USD}^h + \lambda \times TD \times r_{USD}^f \tag{2}$$

where r is the averaged real return of the deposit portfolio, λ is the share of deposits in the foreign currency account, TD is the amount of total deposits, and c is the risk aversion measure. Given interest rates, depositors maximize the return on their deposits by choosing what share of their deposits to hold in the foreign currency account. The optimal share of foreign currency deposits in total deposits, λ^*, can be written in the following way:

$$\lambda^* = \left[Var(r_{USD}^h) - Cov(r_{USD}^h, r_{USD}^f) \right] / Var\left(r_{USD}^h - r_{USD}^f \right) \tag{3}$$

We use the following approximations:

$$r_{USD}^h \approx R_{Riel}^h - \pi_{US} + e_{USD/Riel} \tag{4}$$

$$r_{USD}^f \approx R_{USD}^f - \pi_{US} \tag{5}$$

where $e_{USD/Riel}$ denotes the rate of change in the nominal exchange rate (U.S. dollar per Riel); π_{US} denotes the inflation rate in the United States. Substitute equations (4) and (5) into equation (3), and the optimal share of foreign currency deposits is derived as a function of nominal exchange rate changes and the inflation in the United States.

$$\lambda^* = 1 - Cov(e_{USD/Riel}, \pi_{US}) / Var\left(e_{USD/Riel} \right) \tag{6}$$

An increase in exchange rate volatility leads to a higher share of foreign currency deposits. This result is intuitive. If depositors measure everything in U.S. dollar terms, everything else being equal, higher exchange rate volatility only adversely affects the value of the riel account, but not the US dollar account.

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[45] Prepared by Zhiwei Zhang (APD).

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Ize Alain and Eduardo Levy-Yeyati, 1998, "Dollarization and Financial Intermediation: Causes and Policy Implications," IMF Working Paper 98/22, March, (Washington DC, International Monetary Fund).

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III. EXTERNAL SECTOR ISSUES

Chapter 6. Cambodia's Accession to WTO[46]

75.   **This chapter reviews the various reforms that will be introduced in connection with Cambodia's WTO accession.** The large number of laws that are expected to be enacted by the Nation Assembly in the next few years will put in place a sound legal infrastructure conducive for economic activity in Cambodia. However, the benefit of these reforms will, of course, only be realized with full enforcement of the legal framework.

A. Background

76.   **WTO ministers approved Cambodia's Membership Agreement on September 11, 2003.** However, in view of the political impasse following the July 2003 elections that prevented parliament from convening, the General Council of the WTO agreed to extend the deadline for ratification of the agreement by the Cambodian parliament from March to September 2004. With the formation of a new government in mid-July 2004, it is expected that the National Assembly will ratify the accession agreement before the deadline.

77.   **As part of the WTO accession package, the Cambodian authorities committed to adopt 46 pieces of legislation, of which 14 pieces have already been adopted (Table 1).** The remaining laws, originally envisaged to be adopted during 2004-6, will now most likely be adopted during 2004-07.[47] These legislations are aimed at providing a fair and predictable business environment. They are important for attracting foreign investment, especially in countries like Cambodia where governance is a serious problem, as they will help provide a predictable and transparent investment environment.

78.   **The Ministry of Commerce and Negotiation Team for WTO Accession of Cambodia compiled work programs for WTO accession.** It identified 101 working programs and assigned them to each relevant ministry with a specific deadline. However, progress has been slow due to a lack of local technical capacity and a lack of coordination among ministries.

B. Key Reform Areas

79.   **The reforms are expected to strengthen five aspects of private sector activity.** They will: (i) provide a transparent legal basis for commercial activities and simplify dispute

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[46] Prepared by Sumio Ishikawa (Japan Bank for International Cooperation, formerly PDR) and Koji Nakamura (PDR).

[47] All reference on future dates, including 2004, shown in this chapter for adoption of laws may now be delayed by up to one year.

resolution; (ii) ensure that property rights are upheld; (iii) protect consumer from unsafe products; (iv) facilitate a smooth functioning of external trade; and (v) promote financial intermediation.

- **To strengthen the judicial system relating to commercial activities**, the authorities have committed to: (i) ratify a Law in establishing Commercial Courts, (ii) adopt Civil Code and Civil Procedure Code, (iii) introducing a new Criminal Code and a new Criminal Procedure Code, and (iv) enacting a Law on Commercial Arbitration. Commercial courts are aimed at improving the procedures for settling commercial disputes, which are currently settled on a voluntary basis under the auspices of the Chamber of Commerce. The new Civil Code will establish the ground rules for individuals and businesses that are important for the creation of stable and predictable legal environment. The adoption of the civil and criminal Procedures Code will enable enforcement of contracts, and thereby help strengthen the rule-of-law. The law on commercial arbitration provides the enforcement mechanism of the United Nations Convention on the Enforcement of Foreign Arbitral Awards ("New York Convention") that was ratified by Cambodia in 1960. Together with the ratification of the International Center for Settlement of Investment Disputes Convention ("ICSID convention") in 2001, the introduction of the law on commercial arbitration will help businesses reduce costs and the risks of unfair treatment in commercial disputes.

- **To protect intellectual property rights,** the Cambodian authorities have already adopted and are drafting a series of legislation in line with the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement. The areas covered are copyright, trademark, geographical indications, industrial designs, patents and layout designs of integrated circuits. The parliament adopted the Law on Trademarks and Acts of Unfair Competition in 2001, the Law on Protection of Patent, Utility Models, and Industrial Designs in 2002, and the Law on Copyright and Related Rights in early 2003. The Law on Geographical Indications is expected to be adopted in 2004, and the Law on Layout Designs of Integrated Circuit in 2005. Cambodia agreed to comply with TRIPS no later than the beginning of 2007. Some NGOs have raised concern that the ongoing reform in this area may contradict the agreement reached in Doha where the least-developed member countries were excluded from the obligation to implement the section of the patent under TRIPS before 2016, particularly in the area of the patent for pharmaceutical products.

- **To ensure the safety of manufactured and agricultural products,** the authorities are committed to fully implement the Technical Barriers to Trade (TBT) Agreement starting on January 1, 2007, and the Sanitary and Phytosanitary (SPS) Agreement starting on January 1, 2008. This requires the authorities to develop technical regulations and conformity assessment procedures as well as to train staffs for their implementation. "Inquiry Points" need to be established to notify the WTO of new technical regulations and publish them in accordance with the TBT and SPS Agreements. To serve as Cambodia's TBT Inquiry Point, the Department of Industrial

Standards of Cambodia was established in the Ministry of Industry, Mines and Energy by a sub-decree in June 2002. The National Codex Committee at the Ministry of Commerce will serve as Cambodia's SPS Inquiry Point.

- **To facilitate external trade and to ensure conformity with WTO requirements,** the draft Law on Customs was adopted by the Council of Ministers in December 2002, and is expected to be approved by the Parliament in 2004. Cambodia's current custom valuation system is considered not to be in compliance with the Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade of 1994 ("Custom Valuation Agreement"). Duplication of work by customs agencies, red tape, delay in processing of documents, and over-valuations or inconsistent valuation were all concerns raised by the WTO Working Party. Accordingly, the Law on Customs: (i) specifies the customs valuation mechanism; (ii) provides a clear statement of importers' obligations and responsibilities; (iii) reduces the scope for discretion when granting exemptions; (iv) authorizes the Minister to establish procedures and requirements through regulation; (v) spells out clearly the powers and obligations of customs officers, (vi) provides a transparent and clear set of penalties, (vii) facilitates the use of electronic commerce; and (viii) clearly specifies custom tariffs.

- Provisions for Custom Valuation Agreement relating to transparency, confidentiality, right of appeal, sureties for the release of merchandise, and the accompanying interpretation notes will be implemented at the time Cambodia accedes to the WTO. However, the phasing-out of "minimum custom values" and the use of the valuation mechanism may be somewhat delayed. The present use of minimum custom values will be replaced by "transaction values." The authorities were concerned that the move to transaction values could potentially reduce government revenue, and thus requested a transition period until January 1, 2009, when Cambodia will fully implement the Custom Valuation Agreement.

- The Amended Law on Investment was enacted in February 2003, and a sub-decree to this law is being prepared with the assistance of the World Bank and FIAS. Although the amended law improves transparency by clearly defining procedures for granting exemptions, the scope of exemptions was expanded. A sub-decree to establish an industrial zone in Koh Kong was issued in February 2002, and a draft law on Export Processing Zone is expected to be approved by the National Assembly in 2004. The authorities are committed to ensuring that the measures taken under these laws will be consistent with the Agreement on Trade-Related Investment Measures (TRIM).[48]

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[48] The WTO Agreement on TRIM precludes measures that could restrict and distort trade. Reflecting the low income status of Cambodia, however, the illustrative list contained in its membership agreement includes provisions for requiring enterprises to use a certain amount

- **To comply with the principles and provisions of the General Agreement on Trade in Services,** Cambodia's authorities have prepared and are preparing several laws to promote financial intermediation. The Accounting Law, aimed at improving financial reporting, including reporting of profits for tax purposes, was enacted in 2002. With technical assistance from the Fund, the authorities have prepared the draft Negotiable Instruments and Payments Transactions Law to reduce payment system risk by eliminating legal uncertainties and to provide a firm foundation for a modern payment system. The law is expected to be enacted in 2004. The absence of a legal basis for secured transactions makes it difficult for banks to provide collateral-based lending. The authorities are preparing a draft Secured Transaction Law to be enacted by the National Assembly in 2004. It will establish a bare bones framework authorizing a property owner to use his or her business property as security for a business loan. To ensure orderly and effective insolvency procedures, the authorities are preparing an insolvency law, which is expected to be approved by the National Assembly in 2004.

C. Conclusion

80. **It is expected that WTO accession and the associated legal reforms will contribute to establishing a favorable business environment in Cambodia.** However, legal reforms by themselves are not sufficient. Enforcement of these laws and training sufficient legal staff both in the private and government sectors are needed.

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of locally produced inputs (local content requirements) and to limit the volume/value of imports they can purchase or use relative to their exports (Trade balancing requirements).

Table 1. Cambodia: Schedule for Enacting Law for WTO Conformity [1]

	2001	2002	2003	2004	2005	2006
Judicial Reform						
1 Law Establishing the Commercial Court				Expected		
2 Ratification of the New York Convention on the Enforcement of Foreign Arbitral Awards	Adopted					
3 Commercial Arbitration Law				Expected		
4 Ratification of the ICSID Convention	Adopted					
5 Civil Code				Expected		
6 Civil Procedure Code				Expected		
7 Criminal Code					Expected	
8 Criminal Procedure Code					Expected	
Trade-Related Intellectual Property Rights (TRIPS)						
1 Law on Trademarks and Acts of Unfair Competition	Adopted					
2 Law on Protection of Patent, Utility Models, and Industrial Designs		Adopted				
3 Law on Copyrights and Related Rights			Adopted			
4 Law on Geographical Indications Including Appellation of Origin				Expected		
5 Laws on Layout Designs of Integrated Circuit					Expected	
6 Law on Plant Variety Protection					Expected	
7 Law on Protection of Undisclosed Information					Expected	
Technical barriers to trade (TBT), and Sanitary and phytosanitary (SPS) measures						
1 Sub-degree on Inquiry Points for (1) Services, (2) SPS, and (3) TBT		Adopted				
2 Sub-Decree on Animal Quarantine			Adopted			
3 Sub-Decree on Plant Quarantine			Adopted			
Custom Valuation						
1 Custom Code				Expected		
2 Law on Rule of Origin				Expected		
3 Law on Anti-dumping Measures and on Countervailing Measures					Expected	
Trade-Related Investment Measures (TRIM)						
1 Amendment of Law on Investment				Adopted		
2 Law on Export Processing Zones				Expected		
Financial Intermediation						
1 Negotiable and Payment Transaction Law				Expected		
2 Accounting Law		Adopted				
3 Insolvency Law				Expected		
4 Secured Transaction Law				Expected		
5 Securities and Exchange Law						Expected
6 Commercial Leasing Law					Expected	
Other areas						
1 Postal Service Law		Adopted				
2 Water Supply Law				Expected		
3 Water Resources Management Law				Expected		
4 Telecommunication Law				Expected		
5 Tourism and Entertainment Law				Expected		
6 Civil Aviation Law				Expected		
7 Merchant Shipping Law					Expected	
8 Land Traffic Law (Highway Code)				Expected		
9 Fisheries Law				Expected		
10 Forestry Law		Adopted		Expected		
11 Land Law	Adopted					
12 Royal Decree on Cooperative	Adopted					
13 Commercial Contracts Law				Expected		
14 Commercial Agency Law					Expected	
15 Competition Law						Expected
16 Law on Safeguard Measures					Expected	
17 Law on Business Enterprises				Expected		

Source: The Cambodia authorities.

1/ Due to the political impasse, the expected dates of enactment are now delayed by about a year.

Chapter 7. Foreign Aid Flows to Cambodia[49]

81.   This chapter reviews trends of foreign aid flows to Cambodia since the restoration of peace in the early 1990s. Section A examines the sectoral distribution of aid and, in Section B, its contributions are reviewed. In Section C the macroeconomic impact of such flows are assessed. The chapter concludes that there have been no obvious side effects from foreign aid flows.

A.   Recent Developments of Foreign Aid Flows

82.   **Foreign aid flows in Cambodia have averaged 12 percent of GDP, reaching US$0.5 billion in 2003** (Table 1). About 70 percent of aid flows are in the form of official grants and the rest are concessional loan from bilateral and multilateral donors. Grants are largely provided by bilateral donors, while the bulk of concessional loans come from the World Bank and the Asian Development Bank.

Table 1. Aid Flows
(In percent of GDP)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Loans	0.6	3.2	3.4	1.2	2.8	1.7	1.9	2.8	3.2	4.7	4.1
Official Grant	10.0	9.9	11.5	11.8	8.9	9.8	8.1	8.9	8.2	8.1	7.8
Total	10.6	13.1	14.9	13.0	11.8	11.5	9.9	11.7	11.4	12.8	11.9
(in million US$)	257	355	502	443	391	354	342	418	423	512	502

Sources: Development Cooperation Report; Council for the Development of Cambodia; and
           Ministry of Economy and Finance.

83.   **Cambodia is one of the largest recipients of aid flows among the neighboring Asian countries, along with Lao P.D.R., Bhutan, and Mongolia** (Figure 1). In terms of concessionality of loans, Cambodia has received the lowest average interest charges among the countries (Table 2). In part reflecting the large share of technical corporation, Cambodia has a very large share of official grants.

Figure 1. Comparison of Aid Flows
(In US$ per capita)

Source: Global Development Finance, The World Bank.

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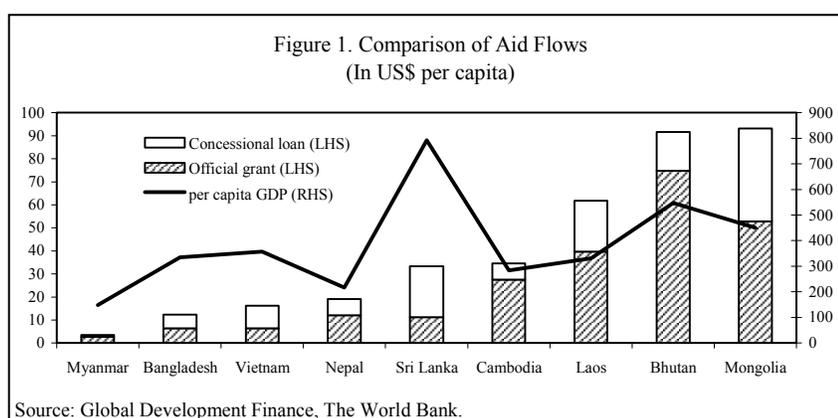
[49] Prepared by Koji Nakamura (PDR).

Table 2. Aid Flows in Low Income Countries 1/
(In percent of GDP)

	Grant	Loan	Total	Average interest rate 2/
Bangladesh	1.9	1.7	3.7	1.6
Bhutan	14.2	3.1	17.3	2.4
Cambodia	9.6	2.4	12.0	1.0
Lao PDR	12.1	6.6	18.7	1.8
Mongolia	11.9	9.1	21.0	2.1
Myanmar	1.9	0.7	2.7	1.1
Nepal	5.6	3.3	8.8	2.1
Sri Lanka	1.4	2.8	4.2	3.0
Vietnam	1.8	2.7	4.5	1.8

Source: Global Development Finance (The World Bank)
1/ Average of 1995 - 2001.
2/ In percent

84. **It is instructive to consider the uses and sectoral distribution of official development assistance.** Looked at from a functional perspective, most of the aid flows were tied to specific projects, initially as food aid and emergency relief assistance, and then investment projects and technical assistance (Table 3). By 2003, technical cooperation accounted for about 40-50 percent of the total aid flows, most of which was spent on personnel expenses of technical assistance advisors. Investment projects accounted for about 35-40 percent of the total aid flows.

Table 3. Share of Aid Flows by Type
(In percent of total)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Technical Assistance	24.2	29.7	33.7	36.1	48.0	54.8	49.8	44.9	37.3	43.8	50.3
Investment Project	23.2	38.7	40.7	40.5	40.8	44.0	33.4	35.4	45.8	44.1	37.9
Budget Support	22.8	19.3	15.2	12.8	0.7	0.0	9.0	8.2	9.7	7.4	6.1
Food Aid	29.7	12.3	10.5	10.6	10.6	1.3	7.7	11.6	7.1	4.7	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Development Cooperation Report (Council of the Development of Cambodia)

85. **Viewed sectorally, the distribution of aid was highly skewed away from agriculture.** In effect, education and health, and infrastructure together accounted for about 50 percent of total aid flows**.** By contrast, the agriculture sector received less than 10 percent (Table 4). The share of education and health has increased with greater financing from the World Bank and the AsDB, while the share of institutional building has gradually declined as the country emerged from a post-conflict situation.

Table 4. Share of Aid Flows by Sectors
(In percent of total)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003[1]
Education and health	17.8	13.9	13.1	15.1	21.0	28.0	27.9	23.2	23.5	24.7	20.4
Infrastructure	28.0	24.7	29.7	31.0	31.8	28.0	24.4	24.7	26.0	23.5	15.2
Agriculture and forestry	8.9	7.2	7.3	13.1	6.2	3.7	7.1	9.9	7.7	9.9	7.7
Institutional building	21.3	28.3	28.7	31.1	25.4	22.0	15.2	15.5	17.9	17.1	10.0
Others 2/	24.0	25.9	21.1	9.6	15.6	18.3	25.5	26.7	24.8	24.9	46.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Development Cooperation Report (Council of the Development of Cambodia)
1/ Preliminary
2/ The "other" category in 2003 is large because data are preliminary and have not yet been properly classified.

B. Contribution of Aid Flows

86.   **Aid flows have played not only a critical role in helping Cambodia rebuild the basic economic system, but also, to some extent, helping the government run the country**. The genocide under Khmer Rouge rule substantially depleted the country's human capital. While returning Cambodians from abroad have partially filled the gap, a large amount of foreign experts were needed to fill the remaining gap. Moreover, the near absence of institutions, including a legal structure, required a large amount of foreign technical assistance in drafting laws, especially for WTO accession, and establishing basic procedures of modus operandi. Such needs are reflected in the large share of technical cooperation of total aid flows.

87.   **The remaining aid flows were used largely to enhance the country's long-term growth prospects.** Aid flows were critical in supplementing investment in education and health, and basic infrastructure, which lagged substantially behind even relative to other low income countries (Table 5). With attention paid much to these urgent issues, the amount of resources allocated to a more direct alleviation of poverty has been small. This is partly reflected in the lesser aid flows to agriculture and rural development, (average of 19 percent a year in the recent past) on which the poor are so dependent.

C. Dutch Disease

88.   **Aid flows appear not to have led to a "Dutch disease" situation in Cambodia.** Much of the country's human resource is still under-utilized and aid flows were largely re-channeled abroad through payments of imported goods and services. Little was spent on locally produced goods, reflecting the limited capacity of the domestic manufacturing and services sectors. Even construction activities mostly used imported materials.

Table 5. Education Indicators		
	Cambodia [1]	Average[1]
Literacy ratio	69	74
Secondary school enrollment ratio [2]	22	57
Source: World Development Indicators (The World Bank).		
[1] 2002.		
[2] Average of low-income Asian countries excluding Cambodia, Nepal, Vietnam, Sri Lanka, Lao PDR.		

Figure 2. Sector Contribution to GDP
(In percent)

89.   **Providing a quantitative assessment of the contribution of aid inflows is marred by weak data and other parallel developments.** The bilateral trade agreement with the U.S, which led to a sharp increase in garment exports, and the pick up in

tourism following political stability in the late 1990s, helped Cambodia develop its trade and tourism sectors. The contribution to growth from these two sectors was large, such that it is

difficult to separate the net impact of aid flows on the relative growth of the tradable and non-tradable sectors, which is one measure of assessing the Dutch Disease phenomenon.[50]

90.   **Price developments indicate that the real exchange rate might have appreciated, even though data weakness bars drawing a definite conclusion**[51] (Figure 3). Prices of tradable goods as measured by prices of clothing and footwear have risen by less than the prices of non-tradable services such as housing and utility prices. However, utility prices are affected by world oil prices, and housing prices might have been driven up not only by aid inflows, but also by the recent increase in wealth of the urban areas that led to a sharp increase in demand for housing, faster than housing supply.

Figure 3. CPI
(December 2000 = 100)
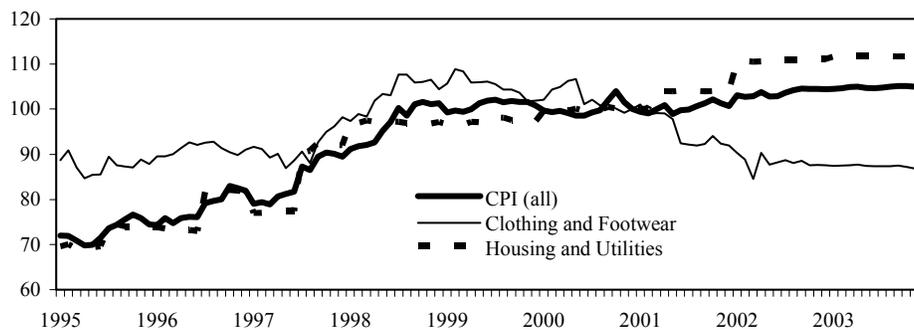
D. Aid Flows and Corruption

91.   **There is an ongoing debate whether or not aid flows induce corruption in the recipient countries**. Aid flows are said to induce corruption where resources are transferred with substantial discretion without the accompanying strengthened accountability of the decision maker. An alternative view is that aid flows are associated with improved rules and conditions that limit the discretion of the recipient country's officials, thus decreasing corruption. The result of recent empirical studies are mixed. While Alesina and Weder (2002) suggest that aid flows are positively correlated with corruption, results presented by Tavares (2003) suggest the opposite.

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[50] Nkusu (2004) summarizes the recent studies of aid flows and Dutch disease, and provides a theoretical model for investigating the Dutch disease. A Dutch phenomenon disease in the context of aid flows is suspected if (i) the real exchange rate appreciates and (ii) the tradable sector shrinks relative to the non-traded sector.

[51] The CPI is compiled from data from the main urban areas only.

92.   **There is little evidence to suggest that aid flows in Cambodia has, or has not, induced corruption.** About half of the total aid flows are executed outside the government budget, and even those that are channeled through the budget are closely monitored by the respective donors. There is some ambiguity, however, to what extent donor's budgetary financing weakens the authorities' resolve to raise fiscal revenue.

E. Conclusion

93.   **Cambodia has received large amounts of aid flows. These have been biased toward technical cooperation and thereby helped strengthen government capacity.** There is no clear evidence to indicate that aid flows to Cambodia has given rise to any adverse side effects. However, poverty remains widespread, especially in rural areas. Thus, a case could be made for reorienting some of the aid flows to sectors that may have a more direct impact in alleviating poverty.

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Chapter 8. Foreign Direct Investment[52]

94.   **This chapter reviews developments in FDI in Cambodia during the past decade.**
In Section A recent FDI trends are reviewed. FDI approvals declined steadily after the initial
surge following the peace accord when foreign investors had high expectations for potential
growth in Cambodia. In spite of the surge in tourism and the trade agreement with the U.S.
that led to rapid expansion of garment exports, FDI has failed to be sustained following the
initial surge. In Section B, the reasons for the declining FDI are provided, namely the
uncertain investment climate and the high cost of doing business.

A. Trends in FDI

95.   **FDI approvals increased dramatically following the peace accord and the
reconstruction efforts led by UNTAC that began in 1993, but declined thereafter**
(Table 1). Actual FDI disbursements, while more phased, exhibit broadly a similar trend.

Table 1. Foreign Direct Investment in Cambodia

US$ million	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
FDI approval 1/	282	1,910	617	578	556	196	160	140	145	65
in percent of GDP	10	57	18	17	18	6	4	4	4	2
FDI disbursement 2/	80	151	294	168	243	230	149	149	145	87
in percent of GDP	3	4	9	5	8	7	4	4	4	2

Source: Council for the Development of Cambodia (CDC)
1/ Approval by CDC.
2/ National Bank of Cambodia's estimation.

1994 – 1995

96.   **The initial surge in FDI approvals concentrated on tourism and construction
sectors** (Figure 1).
Cambodia's cultural
heritage, notably the
country's ancient
monuments, were perceived
by investors as having a
strong potential to attract
large numbers of foreign
tourists, especially with the
advent of political stability.
The ensuing construction of
hotels and basic

Figure 1. FDI Approval by Sector
(In millions of U.S. dollars)
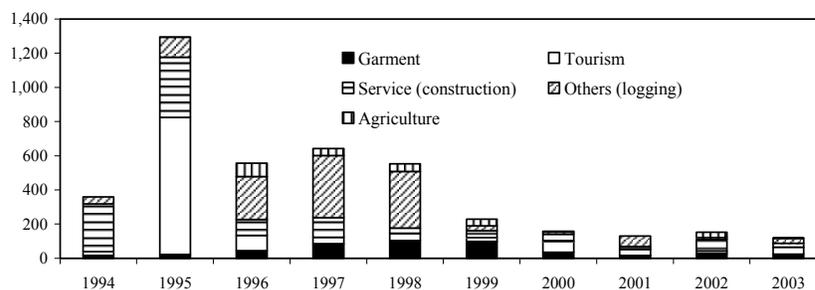
Source: CDC.
1/ Estimated by staff based on CDC investment approval data.

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[52] Prepared by Koji Nakamura (PDR).

infrastructures that had been destroyed by the civil war attracted large investment into the construction sector.

1996 – 1998

97.   **The second wave of investments concentrated on logging.** The relatively abundant hardwood in Cambodia that required little formalities to log attracted investment into the logging industry. However, due to strong complaints from the donor community regarding the rapid and chaotic depletion of forestry, the government finally embarked on a major effort to reform forestry policy in January 1999.

98.   **The next wave of investment was in the garment industry.** The 1996 signing of the bilateral trade agreement with the United States substantially reduced the effective tariff rate imposed on Cambodian garment exports to the United States. This in turn attracted substantial foreign investment in the garment manufacturing sector. However, since the relatively labor-intensive garment manufacturing industry did not require a large amount of investment to set up factories, the associated amount of FDI inflows was modest.

1999 - Present

99.   **FDI inflow to Cambodia was particularly weak since 1999.** Indeed, after 1999, annual FDI approvals fell below US$200 million, a decline that occurred against a backdrop of restored macroeconomic and political stability, both of which are key preconditions for attracting foreign investors. The decline was partly related to changes in the outlook for garment exports. The U.S. quota that was imposed in 1999 on Cambodian garment exports, and the expected phase-out of the quota system that would put Cambodia on equal footing with all WTO members appear to have kept new investors away. Only moderate investment in tourism related activities continued to attract foreign interest.

B. Reason for the Declining FDI

100.   There are several reasons behind the declining level of FDI, except for the three sectors identified above that provided some surges at different stages in the past.

- Weak governance is a serious problem. As confirmed by a recent World Bank report, informal costs in Cambodia are high.[53] The study also highlights the high cost of bribery in Cambodia. Based on data provided by several hundred manufacturers operating in Cambodia, the so-called bribe tax is roughly 5 percent of total sales in the manufacturing sector, the highest among five countries for which similar data are available. Indeed, operators report that corruption is not only the most important deterrent to investment, but that it has also increased in recent years.

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[53] *Seizing the Global Opportunity: Investment Climate and Reform Strategy,* 2004.

- Cambodia has weak rule of law. Although the legal framework should be strengthened with the expected enactment of numerous laws related to the WTO accession, the schedule for judicial reform is less clear.[54]

- Investment is also hampered by high energy costs in Cambodia, reflecting the dilapidated state of the country's diesel generators and the lack of domestic sources of fossil fuels.

- Political instability has undermined investors' climate, especially before and after the national elections.

- The domestic market is too small to attract foreign investors that would target domestic market for their products.

C. Future Prospects and Recommendations

101.   **Private sector-led growth in Cambodia clearly depends on mobilizing FDI given the scarcity of domestic savings.** Although it is difficult to cope with all the problems mentioned above in the short term, the government needs to pave the way to attract foreign investors at least by providing more favorable business environment. In the short run, the government could strengthen their efforts to reduce corruption partly by accelerating judicial reforms. It is important to have sufficient legal staff in both the government and private sectors. In the medium to long term, the government should foster human capital formation through expanding education to all, which is important for attracting foreign investment[55].

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Borensztein, Eduardo, Jose De Gregorio, and Jong-Wha Lee, 1998. "How does foreign direct investment affect economic growth?" Journal of International Economics 45 (1998) 115-135.

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[54] See Chapter 9 on legal and judicial reform.

[55] Borensztein, De Gregorio, and Lee (1998).

IV. STRUCTURAL REFORMS

Chapter 9. Legal and Judicial Reform: Recent Developments and Prospects[56]

102.   While legal and judicial reform has been on the government's agenda for the last 10 years, only in recent years has this work accelerated. So far, some progress has been made in drafting new legislation necessary to support market economy, while results are considerably more modest in judicial reform. This chapter reviews progress in Legal and Judicial Reform (LJR) since the mid-90s in Section B and summarizes ongoing reform efforts in Section C. After discussing recent anti-corruption initiatives in Section D, the last section outlines challenges faced by Cambodia in implementing LJR and considers actions that can be taken in the short-term to accelerate reforms.

A. Background

103.   **Several decades of conflict undermined Cambodia's economy and dealt a serious blow to its legal and judicial system.** In 1993, Cambodia re-emerged as the Kingdom of Cambodia in the form of a constitutional monarchy and started on the path of democratic reforms. A new Constitution was adopted in September 1993 based on the principles of liberal democracy and separation of powers. The Royal Government of Cambodia (RGC), formed pursuant to the Constitution, started reforms to transform Cambodia into a market economy.

104.   **However, after 10 years of reforms, Cambodia remains one of the poorest nations in Asia, still confronted with serious economic challenges**. Cambodia faces an urgent task of improving governance and creating a predictable business environment, both of which are crucial for achieving sustainable economic growth. Implementing broad ranging LJR would be key for improving governance. Legal and regulatory frameworks should be established to assure effective public sector management and help promote private sector development. An effective and independent judiciary should be created to resolve disputes between individuals and businesses and to safeguard the rule of law.

105.   **To date, progress in LJR in Cambodia has been slow and uneven, and governance remains weak.** In a recent World Bank report on the investment climate in Cambodia,[57] corruption was identified as the most important obstacle to private sector development. Weak and unpredictable enforcement of the existing laws, contracts and court decisions, inconsistent interpretation of laws and regulations, deficiencies in the public

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[56] Prepared by Nadia Rendak and Damien Eastman (both LEG).

[57] World Bank, 2004. "*Seizing the Global Opportunity: Investment Climate Assessment and Reform Strategy for Cambodia*", (Washington, D.C., World Bank).

procurement regime, and the lack of accountability of the government all contribute to a poor image of Cambodia in the eyes of the international business and official communities.

B. The Current Legal and Judicial System

106.   **Cambodia's legal and judicial system has undergone a substantial transformation since it achieved independence in 1956.** Initially modeled after the French legal system based on a Civil Code and a French-style judiciary, then almost completely destroyed under the Khmer Rouge regime in 1975-1979, Cambodia's legal and judicial system now represents a complex web of old and new laws, policies and judicial institutions.

107.   **As in other countries with a continental legal system, legislation is the primary source of law in Cambodia.** Other sources of law include the Constitution, international treaties ratified by Cambodia, government decrees and regulations, regulations adopted under the United Nations Transitional Authority, as well as customary laws. According to the 1993 Constitution, previously passed legislation remains in effect to the extent it does not contradict the new Constitution. Therefore, Cambodia's legal system currently comprises French-style laws adopted prior to 1956, as well as legislation subsequently adopted under various governments.[58] Since 1993, many new laws have been adopted to support the emerging market-based system, and more legislation is in the pipeline in connection with Cambodia's accession to the WTO. As there is no uniform interpretation of the above-mentioned constitutional provision, there is often confusion as to the extent to which different old laws apply. As new legislation is adopted, ensuring consistency between the old and new laws will represent a major challenge for Cambodia.

108.   **Despite many changes over the years, Cambodia's court system remains modeled after the French-style judiciary.** The 1993 Constitution established a judiciary separate and independent from the legislative and executive branches. Under the Constitution and the 1993 Law on the Organization of Courts, Cambodia's judicial system now comprises provincial and municipal courts, a Military Court, a Court of Appeals and a Supreme Court. Provincial and municipal courts are located throughout the country and are composed of a judge and a prosecutor. These are lower level courts that adjudicate the majority of disputes. A municipal court decision can be appealed to the Court of Appeals on issues of both law and fact. The Supreme Court, located in Phnom Penh, is the highest court whose jurisdiction covers the whole territory of Cambodia. With a few exceptions, the Supreme Court only hears questions of law.

109.   **Two other institutions, while not a part of the judiciary, play an important role in Cambodia's legal system.** First, the Constitutional Council was established in 1993 to

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[58] For a more detailed discussion of Cambodia's legal and judicial system see Sok Siphana, J.D., Sarin Denora, J.D., *Legal Aspects of Doing Business in Cambodia*, 1998, pp. 4-15.

decide the constitutionality of laws and regulations. Second, the Supreme Council of Magistracy (SCM) was established pursuant to the Constitution to assist the King in guaranteeing the independence of the judiciary. The SCM is in charge of disciplining judges and prosecutors and ensuring the proper functioning of the courts. The SCM is chaired by the King, to whom it submits recommendations on the appointment, suspension and removal of judges.

110.   **At present, there are no specialized courts or law to facilitate independent arbitration in Cambodia.** However, the establishment of a commercial court and commercial arbitration is envisaged under the WTO, and a non-binding arbitration was recently established under the Ministry of Labor to resolve labor disputes. In rural areas, many disputes go through an informal conciliation process before they reach the court. In the absence of specialized commercial courts, there is usually no distinction in the lower trial courts between civil, criminal and commercial matters, or between different aspects of a single dispute.

111.   **Cambodia's judicial system is plagued with problems and is regularly identified as one of the most corrupt institutions in Cambodia.**[59]   There is a perception shared both by individuals and businesses that fair and impartial resolution of their grievances through the formal court system cannot consistently be attained. The Supreme Council of Magistracy is politicized and has thus far proven ineffective. There is no legal framework ensuring that only qualified individuals are appointed as judges. There are currently 195 judges and prosecutors in Cambodia, most of whom were appointed under the previous regime and many lack the necessary training and experience, especially to resolve commercial disputes. Political interests intervene heavily in the discharge of justice—judges who act against powerful political interests risk dismissal. Cambodia's courts are generally understaffed and lack resources to effectively adjudicate cases. Enforcement of court judgments is very expensive and unpredictable. All this creates a general distrust of the judiciary and makes it, in its present form, an obstacle to the establishment of the rule of law.

C. Recent Developments

112.   **While some progress in LJR has been achieved, reforms have proved to be slow and difficult.** During 1994-2000, several attempts were made by the Government to formulate a strategy for reforming the legal and judicial system. In February 1994, the "National Programme to Rehabilitate and Develop Cambodia" set out an overall vision for LJR, and an action plan to implement the program was published by the Government in February 1995. Several laws identified as requiring attention—including a law on the statute of judges and prosecutors, a law on the organization and functioning of courts, the civil and

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[59] In the World Bank's "Seizing the Global Opportunity," the judiciary was rated lowest among a number of public institutions and agencies rated for their integrity.

criminal codes and the law on status of clerks and bailiffs—were to be adopted within three years of the publication of the action plan. However, as of July 2004, none have been adopted. Strengthening of the judiciary and law enforcement was also identified as a cross-cutting governance issue under the Government's 2001 Governance Action Plan (GAP) and in the National Poverty Reduction Strategy adopted in 2002. Again, no concrete action followed.

113. **Various institutional arrangements were made over the years to facilitate reforms but they have been mostly ineffective.** In March 1994, a Council of Jurists was created under the Council of Ministers to assist the Government in formulating reforms. Later, in April 2000, a separate Judicial Reform Council was established to formulate and implement reforms under the Supreme Council of State Reform, which in turn was created in 1999 and chaired by the Prime Minister. Despite these institutional changes, reform measures envisaged in 1994-1995 failed to produce any concrete results. In June 2002, a new body, the Council for Legal and Judicial Reform was established, and a Permanent Coordination Body (PCB) for the Council was formed in August 2002.

114. **In June 2003, the Government approved a comprehensive Strategy for Legal and Judicial Reform ("Strategy") and circulated an action plan for its implementation.** The action plan, however, did not prioritize reform measures and lacked details on the responsibilities and financing and implementation arrangements. In December 2003, a national workshop on the implementation of the Strategy was held. At the workshop, five working groups were formed to develop reform recommendations in the following areas: (i) anchoring the legal framework; (ii) empowering the market economy; (iii) improving the quality and access to legal and judicial services; (iv) strengthening legal and justice sector institutions; and (v) introducing and reinforcing alternative dispute resolution mechanisms and legal awareness.

115. **In June 2004, the Project Management Unit (PMU) created under the PCB refined the draft Action Plan into a list of short- and medium-term priorities**[60] (Box 1). Listed among short-term priorities are some of the measures that have been pending since mid- and late-90s, including the restructuring of the SCM, adoption of the law on the organization and functioning of courts, as well as enactment of the anti-corruption law. The action plan envisions, however, that implementing these measures may extend beyond 2006, making their quick passage unlikely. The Government has circulated the action plan to all interested stakeholders to generate assistance from the international community for various projects.

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[60] Short-term is defined as 2004-2006, while medium-term covers 2004–2008.

Box 1: Short- and medium-term proposed action plan for LJR reforms under the June 2004 PMU.

Since the national workshop on LJR in December 2003, the PMU has hosted various group meetings and bi-lateral meetings with representatives from the justice sector institutions, civil society and the international community. The proceedings of these meetings have served as input to establishing priorities for the PMU's action plan. The action plan is centered around seven strategic objectives: improving and protecting fundamental rights and freedoms; modernizing the legislative framework; improving access to legal and judicial information; enhancing the quality of legal process; strengthening judicial services; introducing alternative dispute resolution mechanisms; and strengthening legal and judicial institutions.

Key short-term priorities are focused on a range of new laws, and setting the foundation for restructuring the justice sector, which include: drafting a Civil Code, Civil Procedures Code, Criminal Code and Criminal Procedures Code; preparing the Statute of Magistrates; enacting the anti-corruption law; drafting laws to establish a commercial court; adopting a law on commercial arbitration; and measures to institutionalize the publication of statutory laws and court decisions (including a collection of past court decisions).

Key medium-term priorities include: completing the legislative framework pertaining to the justice sector, which will involve adopting an Administrative Procedures Code, educating the legal profession with respect to new laws and providing specialist training programs, and completing the restructuring of the courts; providing training and awareness programs on human rights and fundamental rights; introducing a law and policy for legal aid; and developing codes of ethics for judges, prosecutors and the legal practitioners.

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116. **Apart from the above-mentioned efforts to formulate a reform strategy, there has been little real progress in judicial reform.** Among few positive developments in the last several years are a modest increase of judges' salaries in January 2003 (the salaries were increased on average from $25-30/month to $200-400/month), and the establishment of the Royal School of Judges and Prosecutors in 2002. The School was established to train new and existing judges and prosecutors and to provide continuing legal education.[61] In November 2003, the School enrolled its first 55 students who will graduate in two years to become judges. The school is financed by the government and supported by several donors, including the French government, UNDP and GTZ. While the establishment of the School is a positive development, it cannot be expected to have an immediate effect on the quality of the judiciary. With the first class to graduate only in late 2005, it will take time for the School to become fully operational, and its contribution to the training of judges and prosecutors will start bearing fruit over a period of several years, at best.

117. **More has been done to modernize Cambodia's legal system when compared with the slow progress of the judiciary.** Progress has been made since 1993 in reforming many areas of legislation, including tax legislation and laws governing banking and financial sector. The 1996 Central Bank Law and the 1999 Financial Institutions Law, and their implementing regulations, established a sound legal framework for operations of commercial

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[61] However, the law on the statute of judges and prosecutors, which will make completing a training course at the School a mandatory requirement for appointment of all new judges, is yet to be adopted.

banks and for central bank's supervision. In 1994-1995, a basic legal framework for public procurement was put in place.[62] A new Land Law, adopted in 2001, established a modern legal framework for land use and transactions in land. A centralized land registry (Cadastre) was created to record title to, and all transactions (such as transfers, mortgages) in, land. Work on land titling is currently underway and is supported by several donors.

118.   **Additional laws are needed to strengthen protection of property rights, promote financial intermediation and strengthen enforcement of creditor rights.** Laws on negotiable instruments and payments transactions, insolvency, secured transactions, government and corporate securities, commercial contracts, and commercial arbitration should be adopted or, if already adopted, enacted by the National Assembly. Without these laws, the legal framework for safeguarding financial transactions and resolving commercial disputes—both essential for economic growth—remains incomplete.

119.   **Reforms on the legal side further accelerated somewhat in 2002 in conjunction with Cambodia's preparation to join the WTO**. WTO accession is an important factor in accelerating reforms in general and LJR in particular, since the WTO membership imposes on Cambodia certain obligations with respect to improving legal framework for business transactions and enforcement of contracts. To fulfill its WTO commitments, within the next several years Cambodia will have to pass 46 new laws ranging from customs to intellectual property. While14 laws have already been adopted, many others are at a drafting stage.[63]

120.   **Accession to the WTO is giving a new momentum to judicial reform.** One of the commitments under the WTO Cambodia should establish a specialized court to adjudicate commercial disputes. A draft law on commercial court was prepared under the auspices of the Ministry of Commerce and is now being discussed among government agencies and legal experts. No consensus has yet been reached on many key aspects of the new court (Box 2). As a WTO member, Cambodia should also establish procedures for appealing administrative decisions and for enforcing foreign arbitral awards.[64]

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[62] This basic legal framework for public procurement is in need of revision, especially with regards to transparency of procedures.

[63] More details on the WTO accession can be found in Chapter 6 "WTO accession—What it entails for Cambodia."

[64] In 2001, Cambodia ratified the United Nations Convention on the Enforcement of Foreign Arbitral Awards ("New York Convention") and the Convention on the Settlements of Investment Disputes between States and Nationals of Other States ("ICSID Convention"), although it has not yet adopted implementing regulations for either of the Conventions.

Box 2: Establishment of a Commercial Court

A draft law to establish Cambodia's commercial court is currently being revised. The law is aimed at establishing a court by end-2004 (now more likely in 1995) to more efficiently and effectively resolve disputes of a commercial nature. The commercial court would be comprised of three judges and two associate judges, each holding office for a renewable five year term, and appointed by Royal Decree upon recommendation from the Supreme Council of Magistracy. Only persons who have completed a specialized education program for commercial court judges would be eligible for appointment.

The court would be vested with jurisdiction to hear disputes in a broad range of commercial areas, including: business, banking & finance, insolvency, intellectual property, trade, and competition, both of a civil or criminal nature. It would also have exclusive jurisdiction over the recognition and enforcement of foreign court orders, and foreign arbitral awards. The operations of the commercial court would be governed by the Commercial Court Rules of Procedure, supplemented by the Civil Procedure and Criminal Procedure codes. The current proposal would seat the commercial court in Phnom Penh, but allow the court to temporarily sit in such places throughout Cambodia as necessary.

The current draft law has drawn comments from a number of participants, including donors, who are divided on whether the court should be based on a civil or common law system, and the extent to which the court should be separate from, and consequently outside the potential influence of, the executive branch. Additionally, issues such as the broad nature of the court's jurisdiction (which could lead to the court hearing non-commercial disputes), and whether there should be a threshold or minimum amount in dispute, are areas of the draft law which have drawn comments, and proposals for revision.

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121.   **Donors and other representatives of the international community have repeatedly expressed their disappointment with Cambodia's lack of progress in judicial reform**, most recently at the 2002 and 2003 meetings of the Consultative Group of Donors (CGD).[65] The authorities have acknowledged that reforms have lagged and have expressed their intention to make progress on LJR.

D. Anti-Corruption Initiatives

122.   **The Cambodian authorities have long acknowledged governance problems as a cross-cutting issue, but little has been done so far to address them.** While the existing criminal laws allow for prosecution for corruption, not a single case has yet been brought to court, and no government official has been charged. Eliminating corruption will require a comprehensive strategy that should include broad-ranging reforms of the civil service, increasing transparency of government operations, improving the legal and institutional frameworks for government and private businesses' operations (including changes to the public procurement regime).

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[65] Lack of progress in LJR was well-summarized in the Note on Legal and Judicial Reform prepared by the Cambodian Office of the High Commissioner for Human Rights for the January 2003.

123.   **Some positive recent initiatives aimed at addressing governance issues include:**
Cambodia's endorsement of the ADB-OECD Anti-Corruption Initiative for Asia and the
Pacific, enactment in 2000 of the Law on Audit and establishment of the National Audit
Authority (NAA); enactment of a law on accounting, and adoption of a comprehensive anti-
corruption law, which was submitted to the National Assembly in early 2004. The authorities
expressed their intention to ratify, in 2004, the new United Nations anti-corruption
convention.

124.   **The draft anti-corruption law provides for the establishment of an independent
anti-corruption agency**—the Supreme Council Against Corruption—that would investigate
but not prosecute corruption (Box 3). The law also requires government officials to declare
their assets and liabilities. While the adoption of an anti-corruption law is welcome, its
implementation will be key. Successful prosecution of corruption cases will require a strong
judiciary and law enforcement.

Box 3: Anti-corruption Law

A draft of Cambodia's anti-corruption law has been submitted to Parliament. The proposed law is intended to
tackle corruption throughout Cambodia, and defines corruption to include: acts of bribery; the giving or
accepting of unlawful gratuities or services; using unlawful authority or power on duty; embezzling or
exploiting national assets; tampering with documents; and performing tasks conflicting with designated duties.
It mandates that officers of national institutions (officers are defined to include a broad range of publicly
elected and appointed officials) declare their assets and debts in writing upon entry or exit from office, and at
least once every other year.

The proposed anti-corruption law establishes a Supreme Council Against Corruption (SCAC) with an
independent budget and the ability to source additional resources from external donors. The SCAC would
comprise six members, each member appointed by a different arm of government, and having duties which
include: the broad authority to present the government with measures to eliminate corruption; examination of
reports and instigate investigations where there are allegations of corruption; summoning necessary persons to
appear before it; and preparing files and records of its investigations. The law creates a general Secretariat,
vested with the power to investigate allegations of corrupt activity. Its organization and functioning is to be
clarified in a sub-decree, which has also yet to be enacted. Under the proposed law, neither the SCAC or the
Secretariat is vested with power to prosecute corruption. The draft law also provides for the rules of evidence,
allows the SCAC to order administrative leave for those accused of corruption, and prescribes the penalties for
persons involved in corruption, which, depending on the benefit obtained from the corruption, range from
imprisonment for one month to fifteen years and a fine of twice the amount obtained from the corruption.

Although the proposed law introduces an appointment process allowing the different arms of government to
appoint members to the SCAC, and seeks to strengthen that independence by allowing the members of the
SCAC to elect the Chairman and Vice-Chairman, the law does not require a potential appointee to meet any
minimum professional standards, thus possibly opening the way for appointments that may undermine the true
independence of the SCAC.

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125.   **Curbing corruption in the judiciary will require a comprehensive approach.** As a
priority the SCM should be reformed to make it less politicized, more independent and more
effective, and a law on the statute of judges and prosecutors should be adopted. The latter is
essential to ensure the independence and effective functioning of the judiciary, as it will
establish a judicial service tenure system, an appointment process and requirements, service
conditions and benefits, codes of conduct and a defined salary structure. While several drafts

of this law and of amendments to the law on the SCM were circulated in the past, none has thus far been adopted. Among other important measures that would help to improve governance in the judiciary is ensuring that all legislation is published on a timely basis and made available to general public. Publicizing court decisions will also increase transparency and effectiveness of the courts.

E. A Way Forward

126.   **Despite some progress in LJR, reforms have thus far been hampered by limited human and financial resources and the apparent lack of focus and commitment at the top level.** It remains to be seen whether the new government will be able to deliver on past promises.

127.   **Even with renewed commitments of the new government, Cambodia will continue to face significant challenges in implementing legal and judicial reform.** These challenges—limited human and financial resources, weak institutions and wide-spread governance problems, including in the judiciary and in law enforcement—are common to many less developed countries. In Cambodia, they have been exacerbated by several decades of conflict and a very limited pool of capable individuals currently in the public service. While Cambodia has benefited significantly from international assistance in the LJR area, that assistance creates additional challenges by conflicting influence of different "schools of thought" (civil vs. common law systems) pursued by different donors. In the absence of a clearly formulated reform strategy, it has been difficult for the donors to effectively coordinate their assistance.

128.   **The action plan prepared by the PMU in June 2004 sets out an ambitious plan for short- and medium-term reforms.** Many of the measures included in the plan are well overdue. The necessary reforms can only be implemented with the full commitment at the top level and with the mobilization of Cambodia's internal resources supplemented by international assistance.

129.   **While many reform measures may require significant donor assistance, some measures that require little or no such assistance can, and should, be implemented**. Those include:

- Adopting the law on the statute of judges and prosecutors that would establish an appointment process and the terms and conditions of service, including a code of conduct.

- Taking concrete steps to ensure the independence and the transparency of the operation of the Supreme Council of the Magistry, to enable it to fulfill its functions set forth in the Constitution.

- Establishing a commercial court that will specialize in commercial dispute resolution..

- Enacting an anti-corruption law that establishes an effective framework for investigation and prosecution of corruption offences and provides for declaration of income and assets by government officials; and preparing the implementing regulations.

- Publishing all court decisions and creating a repository of all laws in both Khmer and English.

Most of these measures were identified as short-term priorities in the action plan prepared by the Council for Legal and Judicial Reform. Implementing these measures will signal to investors and donors the authorities' commitment to LJR and will hopefully help to unlock new investment and additional international assistance.

130. **All this having been said, it has to be recognized that any progress in LJR in Cambodia will be gradual**. While the adoption of new legislation is important, it will be equally important to ensure that the new laws are effectively implemented. This will require strengthening the existing institutions and creating new institutions necessary to enforce new laws, training new cadre, fighting corruption in the government and in the judiciary and gradually changing the culture in the society towards the "rule of law". For the reforms to succeed, it will be necessary for the authorities, the private sector and the international community to work closely together.

Chapter 10. Cambodia: Taxation of Petroleum Products[66]

131.   This chapter provides an estimate of the potential revenue loss from petroleum smuggling. Section A presents some key facts. Section B provides estimates of domestic demand for gasoline and diesel, on which, in section C, foregone tax revenue from smuggling is estimated—over 1½ percent of GDP in 2003. Section D examines underlying incentives for smuggling.[67]

A. Imports, Pricing, and Taxation since 1994

Petroleum is an important source of revenue

132.   **Petroleum taxes account for about one fifth of total revenue.** Total government revenue averaged about 11 percent of GDP in the last three years, and petroleum taxes amounted to over 2 percent of GDP. Taxes are collected through import duties, excise, and VAT, as well as an "additional tax", which was introduced in 2002. The share of petroleum taxes in total revenue has, however, varied over the years. At the lowest points in 1994 and in 1999, petroleum taxes amounted to less than one tenth of total revenue. Fortunately, total revenue collection did not fall proportionately, which seems to indicate that the revenue authorities had substantial leeway in relying on different revenue sources to compensate for those shortfalls.

133.   **Gasoline and diesel are the two main sources of petroleum taxes.** Revenue from gasoline and diesel each amounted to

Petroleum Taxes and Total Revenue, 1994-2003

Total revenue in percent of GDP · Petroleum taxes as percent of total revenue (right scale)

Tax Collection on Petroleum Products
(In billion of riel)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Tax on Other	2.2	2.8	2.0	1.3	1.0	3.6	14.6	15.8	19.3	20.3
Tax on Kerosene	0.2	0.6	0.6	0.9	1.0	3.3	3.0	2.6	4.5	7.7
Tax on Diesel	15.6	25.8	36.1	41.2	56.6	64.4	106.1	158.6	207.2	220.6
Tax on Gasoline	30.2	48.6	65.3	64.1	37.3	40.7	110.8	148.7	153.8	140.8

Source: Customs and Excise Department.

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[66] Prepared by Wafa Fahmi Abdelati (APD) and Koji Nakamura (PDR).

[67] The Customs and Excise Department has been strengthening its anti-smuggling efforts in the past five years in what is an extremely challenging environment and with very limited staff. In spite of progress in this area, it has been difficult to clamp down on smuggling in a country with 400 km of shore line and 300 km of land borders that are staffed by only 1200 Customs officials. This chapter does not review the success of recent anti-smuggling efforts.

0.8 percent and 1.3 percent of GDP in 2003. Revenue from other petroleum products remains very small. Although the quantities of kerosene and fuel oil imports are quite large, they are subject to considerably lower taxes as discussed further below.

Quantities of imported petroleum products

134. **Officially recorded petroleum imports nearly doubled between 1994 and 2003.** Their volume increased by an average 9½ percent annually during the period, compared to 6½ percent real GDP growth.[68] Diesel imports grew by 13½ percent annually, but have declined from their peak in 2001. Kerosene and fuel oil imports rose by an average of 20 percent annually.

Petroleum Imports, 1994-2003 [1]
(In '000 tons)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Fuel Oil	46	51	58	41	39	81	96	102	118	122
Kerosene	7	25	24	31	30	37	30	28	50	84
Diesel	145	183	222	218	355	356	383	470	382	385
Gasoline	129	113	110	104	112	116	120	134	102	102

Source: Customs and Excise Departmant.
[1] Includes duty-exempt imports.
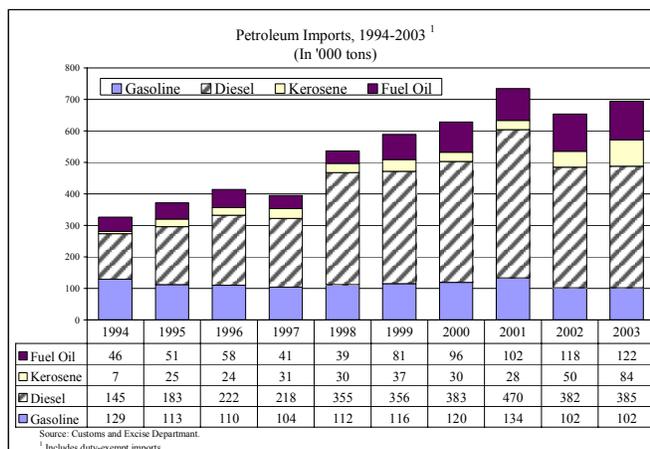
135. **Only gasoline imports declined by 20 percent over the period.** Between 1994 and 2003, gasoline imports declined on average by 2 percent a year. This decline is inconsistent with the pace of overall economic growth and the rapid rise in the number of cars as well as substantial increase in road construction and rehabilitation. The National Institute of Statistics (NIS) data report an annual average increase of 5 percent in passenger cars during the same period.

136. **The decline in officially reported gasoline imports suggests that growing domestic demand has been met through increased smuggling.** Smuggling is alleged to take place through the customs posts via mis-invoicing (declaring gasoline to be kerosene to avoid higher taxes), under-invoicing, and false claims of exemptions. Smuggling is believed to be carried out by both small and large operators. Small operators carry 30 liter "bidon" containers across the border on bicycles or in carts. According to some reports, some large operators are evading customs officers and selling their gasoline through gas stations alongside tax-paid gasoline.

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[68] Import volumes and values are based on data obtained from the Department of Customs and Excises (CED) which are still tentative and subject to revision, especially those prior to 1999. Estimates reported here may change after taking reconciling reported amounts of commodity aid and duty-exempt imports.

Several changes to the tax regime

137.   **Tax rates have been raised or adjusted a number of times since 1994**.[69] In 1994, an import duty tariff, a consumption tax, and a military tax were levied on petroleum products that cumulatively amounted to 52 percent of the gasoline price (see Annex Table 1). Rates have risen considerably since then: excises were introduced on gasoline in 1995 and a number of changes adopted in subsequent years. For gasoline, the import duty was raised from 45 percent to 50 percent in 1995 and then reduced to 35 percent on July 1, 2001. The 4 percent consumption tax was converted into a VAT at 10 percent in 1999, and was levied on import values inclusive of import duty and excises. The conversion of the consumption tax to a VAT provided relief to exporting firms who were eligible for a refund. The excise on gasoline products was raised in 2001 to compensate for the reduction in the import duty. A similar pattern was followed for diesel on which import duties were reduced in July 2001 and, to compensate, the excise was raised. Only VAT was levied on kerosene until 2004 when an import duty and excise were introduced.[70]

138.   **An additional tax burden arises whenever the reference price is higher than the actual import price.** Since 1994, taxes are levied on an administrative reference price. Only since 2004 has the market price been higher than the reference price. But most of the times, the reference price was higher than the world price.

Comparison of Gasoline Reference Price Used by CED and World Average Price (US$ per ton)
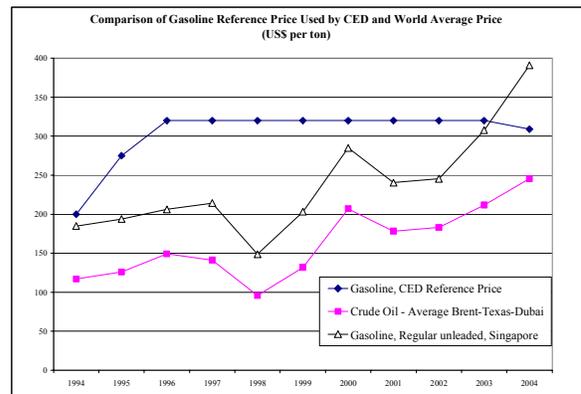
139.   **As a result, the statutory tax rate has been high, particularly for gasoline.**
The statutory tax rate, including the impact of the higher reference price, has been as high as 189 percent in 1998 when world prices were at a low point. In the case of diesel, the highest tax rate was 62 percent in 2002 and kerosene, currently at 19 percent, is at the highest point (Table 2). Currently, the statutory tax rate for gasoline is about double that of diesel.

Tax collections compared to taxes due

140.   **Tax collections have fallen short even of taxes due based on reported imports prior to 2000.**[71] During 2001-03, tax collections had become more in line with taxes due

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[69] There are no available data on import volume and tax collections for earlier years.

[70] The VAT is applied to a "reference price" per ton inclusive of all other taxes. Taxes are compounded in sequence; first the import duty, then the excise, followed by the VAT.

[71] Some of the differences between taxes due and collected could be related to timing differences, especially for commodity aid, but this does not change the basic trend.

suggesting improved tax effort that reduced tax evasion.[72] However, the difference was large in 1998-99 when nearly two thirds of taxes due on reported imports were not collected. The difference between taxes due and taxes collected also matters when estimating the distributor's margin, as seen below.

Table 1. Total Statutory Taxes (as percent of reference/market price)											
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
As percent of reference price											
Gasoline	52%	88%	88%	88%	88%	98%	98%	99%	108%	108%	108%
Diesel	26%	25%	25%	25%	25%	32%	32%	32%	51%	51%	52%
Kerosene	5%	5%	5%	5%	4%	10%	10%	10%	10%	10%	29%
Fuel oil	12%	12%	12%	12%	12%	18%	18%	18%	18%	18%	18%
Jet fuel	12%	12%	12%	12%	12%	18%	18%	18%	18%	18%	18%
Gas	11%	11%	11%	11%	11%	10%	10%	10%	10%	10%	10%
As percent of market price											
Gasoline	56%	125%	136%	131%	189%	155%	111%	132%	140%	112%	88%
Diesel	31%	36%	34%	36%	50%	52%	32%	36%	62%	51%	44%
Kerosene	5%	6%	5%	5%	7%	13%	8%	9%	9%	7%	19%
Fuel Oil	10%	10%	9%	10%	13%	17%	10%	11%	12%	10%	8%
Jet Fuel	16%	16%	13%	14%	19%	24%	15%	17%	18%	15%	13%
Gas	21%	20%	15%	17%	24%	18%	10%	11%	14%	12%	11%

Table 2. Effective Tax Rate and Revenue Shortfall									
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Effective tax rate = tax collection as percent of dutiable imports (valued at reference price)									
Gasoline	79%	86%	87%	30%	29%	75%	98%	105%	108%
Diesel	26%	25%	24%	16%	17%	26%	32%	50%	52%
Kerosene	4%	4%	4%	4%	10%	11%	10%	10%	10%
Difference = revenue shortfall									
Gasoline	9%	2%	1%	58%	70%	24%	1%	3%	-1%
Diesel	0%	1%	1%	10%	15%	6%	0%	1%	-1%
Kerosene	1%	0%	0%	0%	0%	-1%	0%	0%	0%

Fuel Oil Imports

141. **Fuel oil imports have increased on average by 22 percent annually since 1995, but they do not contribute much to taxes.** In 2003, fuel oil imports amounted to 72,000 tons, or one fifth of total petroleum imports. However, its contribution to tax collection has been negligible as

Fuel Oil Imports
('000 tons)

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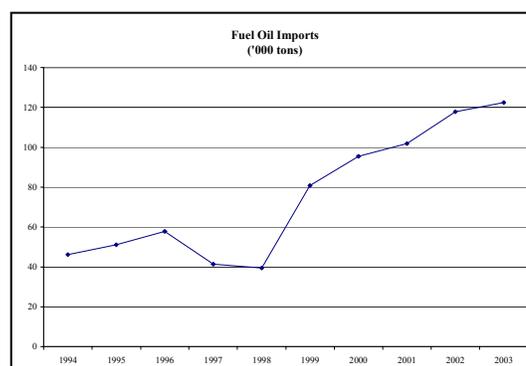
[72] In later years, the taxes due based on reported import quantities is equal to the amount actually collected. This could also reflect improved data gathering.

the statutory tax rate is about 10 percent of world market price (see Annex Table 1). Moreover, more than one half of the imported quantity was not subject to duty and it is also the only petroleum product whose reference price has remained relatively low compared to world market prices. The sharp increase in fuel oil imports may also reflect some mis-invoicing of gasoline imports to take advantage of the lower tax rate.

Table 3. Reference prices for dutiable valuation										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Gasoline	200	275	320	320	320	320	320	320	320	320	309
Diesel	200	200	275	275	275	275	275	275	275	275	267
Kerosene	230	230	230	230	230	230	230	230	230	230	230
Fuel Oil	109	120	129	129	129	129	129	129	129	129	129
ZA1	235	235	235	235	235	235	235	235	235	235	235
Gas	325	325	325	325	325	325	325	325	325	325	325

B.   Estimated Amount of Smuggling and Foregone Revenue

Estimated demand for gasoline and diesel

142.   **The demand for gasoline is estimated at 237,000 tons in 2003**, **compared to the officially reported imports of 102,000 tons** (Table 4). This estimate was derived from the following assumptions:

- no smuggling in 1995; and

- the growth of gasoline demand is derived from (i) the 5 percent growth of the number of cars in Cambodia based on the NIS Statistical Yearbook combined with

Table 4. Potential Imports of Major Petroleum Products										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Number of cars										
growth rate (%)		4.2	4.7	4.9	2.9	5.1	4.6	4.4	6.8	7.5
Consumption per a car										
growth rate (%)		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Potential gasoline consumption										
growth rate (%)		6.2	6.7	6.9	4.9	7.1	6.6	6.4	8.8	9.5
Import quantity (in thousand ton)										
Custom data: (a)										
Gasoline	129	113	110	104	112	116	120	134	102	102
Diesel	145	183	222	218	355	356	388	484	404	413
Potential imports: (b)										
Gasoline	129	137	146	156	164	175	187	199	216	237
Diesel	145	197	250	302	355	407	460	513	565	618
Difference: (b) - (a)										
Gasoline	0	24	36	52	51	60	67	65	114	135
Diesel	0	14	28	84	0	52	72	29	161	205

> information on automobile imports in the last two years, and (ii) a 2 percent growth of gasoline consumption per car since 1994, reflecting larger vehicles and engine sizes, and more extensive road network.

Hence, gasoline demand is estimated to have grown by about 7 percent per annum since 1995.

143.   **The demand for diesel is estimated at 618,000 tons in 2003**, **compared to dutiable imports of 413,000 tons.** This was based on the following assumptions:

- no smuggling in 1995 nor in 2001; and

- demand for diesel is stable and can be derived by a linear trend from 1995 and 2001.

Hence, diesel imports are estimated to have grown by 22 percent between 1995 and 1999 and by 12 percent thereafter.
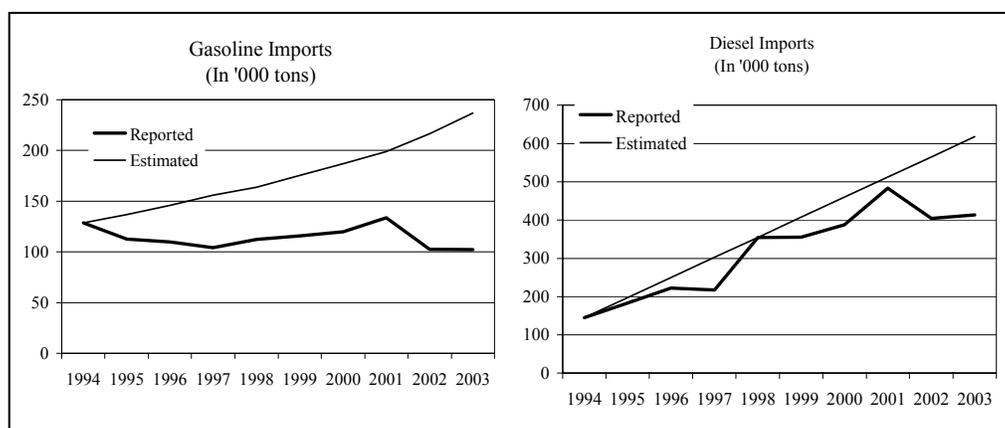
Smuggled products and foregone revenue

144.   **Foregone revenue due to smuggling is estimated to be about 1.6 percent of GDP**. Foregone tax revenue for gasoline alone is about 0.9 percent of GDP based on an estimated smuggled amount of 152 thousand tons in 2003 or about 60 percent of total demand (Table 5). For diesel, estimated foregone revenue is 0.7 percent of GDP based on an estimated 135 thousand tons of smuggled diesel or 33 percent of total demand in 2003.

145.   **Foregone revenue from smuggled petroleum products could be even higher.** First, these estimates assume that there was no smuggling in the base year, 1995. Also, foregone revenue from smuggling of kerosene, fuel oil, and other products nor from mis-

invoicing is not included.[73] Therefore, these amounts could be considered a lower bound for foregone revenue.

Table 5. Potential Tax Revenue (in billion riel)									
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Potential tax revenue: (a)									
Total	104	133	184	240	347	383	384	564	624
Gasoline	77	94	127	156	210	227	213	264	293
Diesel	28	39	57	85	136	156	171	300	331
Actual tax revenue: (b)									
Total	74	101	105	94	105	217	307	361	361
Gasoline	48	65	64	37	41	110	148	154	141
Diesel	26	36	41	57	64	106	159	207	221
Foregone tax revenue: (b) - (a)									
Total	31	32	79	147	242	167	77	203	262
Gasoline	28	29	63	119	170	116	65	110	152
Diesel	2	2	16	28	72	50	12	93	110
Summary: Foregone tax revenue (in percent of GDP)									
Total	0.4	0.4	0.8	1.3	1.8	1.2	0.5	1.3	1.6
Gasoline	0.3	0.3	0.6	1.0	1.3	0.8	0.4	0.7	0.9
Diesel	0.0	0.0	0.2	0.2	0.5	0.4	0.1	0.6	0.7

C. Incentives for Smuggling

146.   **Although retail prices in Cambodia were comparable to those in neighboring countries around 1994, the situation has since changed.** Part of the reason lies in the differences in tax regimes, both the tax rates as well as the tax structure and how they are affected by changes in international import prices. Moreover, distributor's margin is estimated to be high in Cambodia.

Comparison of retail prices to neighboring countries

147.   **The growing gap in retail prices has provided impetus for increased smuggling of gasoline.** The retail price of gasoline is 50 percent higher in Cambodia than in Thailand and nearly 60 percent higher than in Vietnam. Moreover, the gap has likely widened recently in the last month as Vietnam has reduced taxes in 2004 in view of the sharp increase in world prices.

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[73] There may have been some substitution toward using more kerosene recently.

Gasoline Retail Price Comparison
(US $ per liter)

Diesel Retail Price Comparison
(US $ per liter)
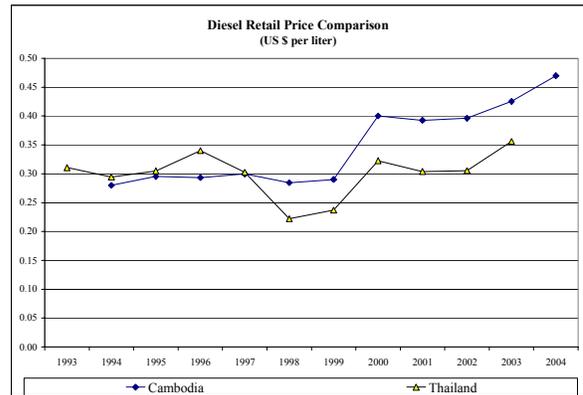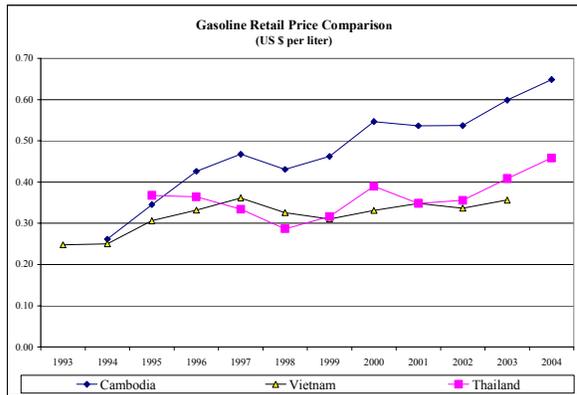
148.   The retail price of diesel is also higher in Cambodia but by a smaller margin.
The retail price of diesel is nearly 20 percent higher in Cambodia than in Thailand. Diesel retail prices are not available for Vietnam but are likely lower than in Cambodia.

149.   However, in the case of kerosene the price gap is large only relative to Vietnam, by 36 percent. There is only a small gap between kerosene prices in Cambodia and Thailand. But the price of kerosene is still 36 percent higher than in Cambodia.

Kerosene Retail Price Comparison
(US$ per liter)
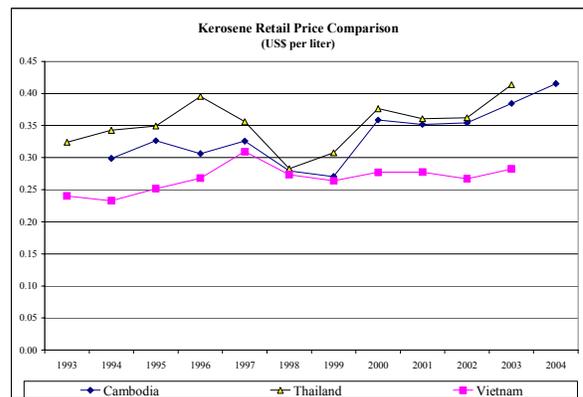
Comparison with tax regimes in neighboring countries

150.   The widening retail price gap can be partly explained by the different tax rates and tax structures between Cambodia, Thailand and Vietnam. In 2002, the tax rate on gasoline in Cambodia was 140 percent, compared to 53 percent in Thailand and 57 percent in Vietnam (Table 6). In Cambodia, the tax/duties are ad valorem and compounded. In Thailand, however, taxes are specific, in baht per liter. Thus, the difference widens during price increases and vise versa. Moreover, petroleum products are exempt of VAT in Thailand.

151.   The distributor's margin in Cambodia is also larger. The margin, calculated as the difference between the retail price and after-tax cost (market import price plus all taxes), is about 10 cents per liter in Cambodia. As calculated, it does not include operating and fixed costs of distributors and retailers. The margin in Thailand and Vietnam is about 8 and 6 cents per liter, respectively. For diesel, the distributor's margin has ranged between 5 and 12 cents per gallon. Part of the reason for the higher margin in Cambodia may be higher import and transport costs.

Table 6. Comparison of Tax Regimes in 2002

A. Tax structure comparison

	Cambodia					Thailand					Vietnam				
	Import duty (1)	Excise	Other (2)	VAT	Total (%)	Import duty	Excise liter (1)	Other (2)	VAT (3)	Total (baht)	Import duty	Excise (1)	Other	VAT	Total (%)
Gasoline, regular	35	33.33		10		0	3.69	0.37	0	4.1	20	15	0	10	45
Gasoline, premium	35	33.33		10		0	4.69	0.47	0	5.2	20	15	0	10	45
Diesel	15	4.4		10		0	2.35	0.24	0	2.6	20	15	0	10	45
Kerosene (3)	0			10		0	3.06	0.31	0	3.4	0	0	0	10	10
Other (lubricants)	15	25		10							0	0	0	10	10

B. Calculation for gasoline:

	Import duty ($)	Excise ($)	Other ($)	VAT ($)	Total ($)	Price in Riel	Import duty ($)	Excise ($)	Other ($)	VAT ($)	Total ($)	Price in Riel	Import duty ($)	Excise ($)	Other ($)	VAT ($)	Total ($)	Price in Riel
Import price per liter	0.18						0.18						0.18					
Reference price per liter	0.23						0.18						0.18			0.08		
Taxable base	0.23	0.31	0.41	0.43			0.18						0.18	0.29		0.21		
Tax per liter of gasoline (4)	0.08	0.104	0.02	0.04	0.25		0.00	0.09	0.009	0.00	0.09	4.05	0.04	0.04	0	0.02	0.10	
Cumulative tax rate (% of import price)					**140**						**53**						**57**	
After tax cost in $ and riel					0.42	1660					0.27	1060					0.28	1084
Retail price					0.54	2100					0.36	1392					0.34	1317
Implied distributor's margin ($)					0.11						0.08						0.06	
Implied distributor's margin (% of import price)					64%						48%						34%	

Notes:
(1) Based on prescribed reference price of $320 per ton for gasoline and $275 for diesel.
(2) A additional import duty of 2 cents per liter for gasoline and 4 cents per liter for diesel or 23.32 per ton for gasoline and 46.64 per ton for diesel.
(3) An import duty of 7 percent has been levied on Kerosese since 2004.

Notes:
(1) Excise duty levied in baht per liter.
(2) Surcharge on excise for local governments, at 10 percent of excise.
(3) Petroleum products are exempt from VAT.

Notes:
(1) Tax base = sale price/(1+Tax rate).

Sources: Summary of Tax System in each country's Statistical Appendix, Howell Zee (2003), and staff estimates.

152. **When tax evasion is taken into account, the margins in Cambodia are even larger although they have narrowed in the past two years.**[74] When collections fall significantly below the taxes due, this provides a much wider distributor's margin for those not paying the taxes. For both diesel and gasoline, the effective margin was significantly
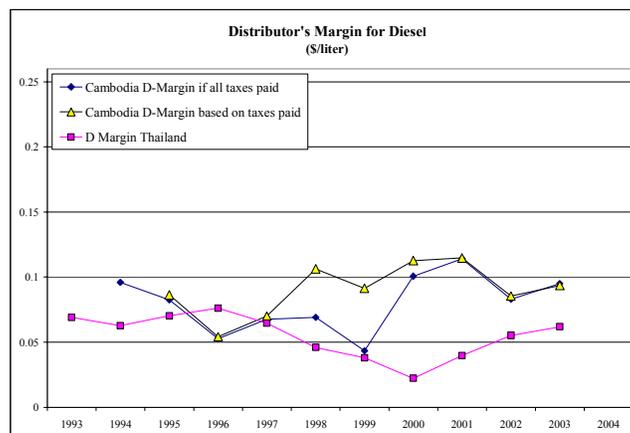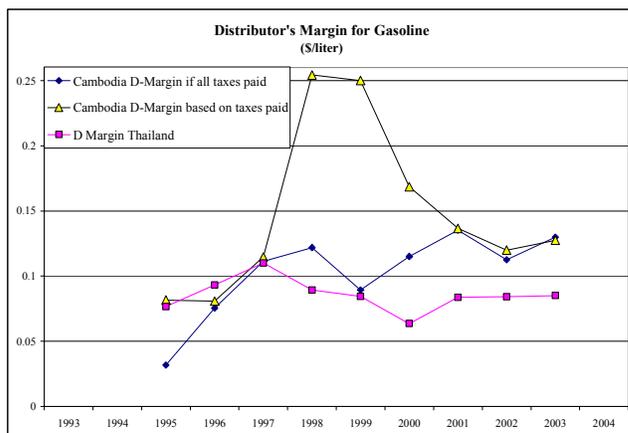
[74] The larger margins accrue to tax evaders and smugglers, but not to all distributors.

higher in 1998 and 1999, due to significant tax evasion.

D. Conclusions

153.   **The problem of gasoline smuggling must be tackled in order to safeguard fiscal revenue.** In spite of efforts by the Customs and Excise Department to strengthen anti-smuggling efforts, smuggling has increased due to increasing world prices since 1998 and the widening gap between the pump prices in Cambodia and those in neighboring countries. Neighboring countries with a broader revenue base can deal more effectively with rising world prices through changes in taxes and duties. However, the exceptionally narrow revenue base and the low revenue yield in Cambodia, obviously place a constraint on the government's ability to moderate rising petroleum import costs by altering taxes on those products. Only when tax collections are significantly improved through lower smuggling, however, could consideration be given to lowering the tax burden on Cambodian consumers through lower petroleum tax rates.

154.   **To substantially reduce the incentives for smuggling, Cambodia will need to more than half its total compounded tax rate on petroleum products.** This would initially reduce revenue by about 1 percent of GDP. Even if all of the estimated smuggled products were then to be imported legally and taxes on them collected in full, this would only generate ¾ percent of GDP. However, if some smuggling continues, or if the price elasticity of demand is low, there would be a sharp decline in revenue in the short term. Accordingly, substantially greater efforts are needed to combat petroleum smuggling before any reduction of tax rates can be envisaged.

Annex Table 1. Official Tax Rates
(In percent of reference price)

	1994	1995	1996	1997	1998	1999	2000	2001 1/	2002	2003	2004
Import duties											
Gasoline	45%	50%	50%	50%	50%	50%	50%	43%	35%	35%	35%
Diesel	20%	20%	20%	20%	20%	20%	20%	18%	15%	15%	15%
Kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%
Fuel oil	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Jet fuel	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Gas	7%	7%	7%	7%	7%	0%	0%	0%	0%	0%	0%
Military tax 1/											
Gasoline	0.8%	0.6%	0.5%	0.4%	0.3%	0.3%	0.3%	0.3%			
Diesel	0.7%	0.6%	0.5%	0.4%	0.3%	0.3%	0.3%	0.3%			
Kerosene	0.6%	0.7%	0.6%	0.6%	0.4%	0.4%	0.4%	0.4%			
Fuel oil	1.1%	1.1%	0.9%	0.8%	0.7%	0.6%	0.6%	0.6%			
Jet fuel	0.6%	0.6%	0.6%	0.5%	0.4%	0.4%	0.4%	0.4%			
Gas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Excise											
Gasoline	0%	20%	20%	20%	20%	20%	20.0%	26.7%	33.33%	33.33%	33.33%
Diesel	0%	0%	0%	0%	0%	0%	0.0%	2.2%	4.35%	4.35%	4.35%
Kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%
Fuel oil	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Jet fuel	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Gas	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Additional tax 3/											
Gasoline									9%	9%	9%
Diesel									17%	17%	18%
Consumption tax and VAT											
Gasoline	4%	4%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Diesel	4%	4%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Kerosene	4%	4%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Fuel oil	4%	4%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Jet fuel	4%	4%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Gas	4%	4%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Effective VAT 4/											
Gasoline	6%	7%	7%	7%	7%	18%	18%	18%	19%	19%	19%
Diesel	5%	5%	5%	5%	5%	12%	12%	12%	14%	14%	14%
Kerosene	4%	4%	4%	4%	4%	10%	10%	10%	10%	10%	12%
Fuel oil	4%	4%	4%	4%	4%	11%	11%	11%	11%	11%	11%
Jet fuel	4%	4%	4%	4%	4%	11%	11%	11%	11%	11%	11%
Gas	4%	4%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Total tax rate											
Gasoline	52%	88%	88%	88%	88%	98%	98%	99%	108%	108%	108%
Diesel	26%	25%	25%	25%	25%	32%	32%	32%	51%	51%	52%
Kerosene	5%	5%	5%	5%	4%	10%	10%	10%	10%	10%	29%
Fuel oil	12%	12%	12%	12%	12%	18%	18%	18%	18%	18%	18%
Jet fuel	12%	12%	12%	12%	12%	18%	18%	18%	18%	18%	18%
Gas	11%	11%	11%	11%	11%	10%	10%	10%	10%	10%	10%

Source: Excise Office, Customs and Excise Department of Cambodia.

1/ Import duty and excise tax for gasoline and diesel were changed on July 1, 2001.
 Tax rates in 2001 are calculated as the average of tax rates before and after the change.
2/ Tax used for military operation was levied at 3 riel per liter from 1994 to 2001.
3/ Per unit taxes have been levied since 2002: Gasoline: 2 cents per liter, Diesel: 4 cents per liter
4/ VAT is levied on after-tax-value. The effective VAT is = VAT rate times (1+ Excise + Import duty + Additional tax).
 Ad valorem tax rates in the above table are calculated based on the actual import values of gasoline and diesel.

Annex Table 2. Official Tax Rates
(In percent of market price)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Market import price											
Gasoline	185	194	206	214	149	203	285	240	245	308	391
Diesel	166	169	207	191	140	172	282	246	228	278	318
Kerosene	204	192	236	216	154	182	320	271	248	313	363
Fuel Oil	140	142	177	164	117	137	246	210	192	226	276
Jet Fuel	176	178	213	202	149	176	291	252	235	285	320
Gas	171	182	244	220	152	181	314	285	228	276	310
Adjustment between administration and market price											
Gasoline	1.1	1.4	1.6	1.5	2.2	1.6	1.1	1.3	1.3	1.0	0.8
Diesel	1.2	1.4	1.3	1.4	2.0	1.6	1.0	1.1	1.2	1.0	0.8
Kerosene	1.1	1.2	1.0	1.1	1.5	1.3	0.7	0.8	0.9	0.7	0.6
Fuel Oil	0.8	0.8	0.7	0.8	1.1	0.9	0.5	0.6	0.7	0.6	0.5
Jet Fuel	1.3	1.3	1.1	1.2	1.6	1.3	0.8	0.9	1.0	0.8	0.7
Gas	1.9	1.8	1.3	1.5	2.1	1.8	1.0	1.1	1.4	1.2	1.1
Tariff rate											
Gasoline	49%	71%	78%	75%	108%	79%	56%	57%	46%	36%	28%
Diesel	24%	28%	27%	29%	39%	32%	19%	20%	18%	15%	13%
Kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%
Fuel Oil	5%	6%	5%	6%	8%	7%	4%	4%	5%	4%	3%
Jet Fuel	9%	9%	8%	8%	11%	9%	6%	7%	7%	6%	5%
Gas	13%	13%	9%	10%	15%	0%	0%	0%	0%	0%	0%
Military tax											
Gasoline	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%
Diesel	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%
Kerosene	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%
Fuel Oil	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%
Jet Fuel	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%
Gas	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Excise tax											
Gasoline	0%	43%	47%	45%	65%	47%	34%	51%	59%	47%	36%
Diesel	0%	0%	0%	0%	0%	0%	0%	3%	6%	5%	4%
Kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%
Fuel Oil	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Jet Fuel	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Gas	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Additional tax											
Gasoline	0%	0%	0%	0%	0%	0%	0%	0%	11%	9%	7%
Diesel	0%	0%	0%	0%	0%	0%	0%	0%	21%	17%	15%
Kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fuel Oil	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Jet Fuel	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Gas	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
VAT											
Gasoline	6%	10%	11%	11%	16%	28%	20%	24%	25%	20%	15%
Diesel	6%	7%	6%	7%	9%	19%	12%	13%	17%	14%	12%
Kerosene	5%	5%	4%	4%	6%	13%	7%	9%	9%	7%	7%
Fuel Oil	3%	4%	3%	3%	5%	10%	6%	7%	7%	6%	5%
Jet Fuel	6%	6%	5%	5%	7%	14%	9%	10%	11%	9%	8%
Gas	8%	8%	6%	6%	9%	18%	10%	11%	14%	12%	11%
Total tax rate											
Gasoline	56%	125%	136%	131%	189%	155%	111%	132%	140%	112%	85%
Diesel	31%	36%	34%	36%	50%	52%	32%	36%	62%	51%	43%
Kerosene	5%	6%	5%	5%	7%	13%	8%	9%	9%	7%	19%
Fuel Oil	10%	10%	9%	10%	13%	17%	10%	11%	12%	10%	8%
Jet Fuel	16%	16%	13%	14%	19%	24%	15%	17%	18%	15%	13%
Gas	21%	20%	15%	17%	24%	18%	10%	11%	14%	12%	11%

Source: Excise Office, Customs and Excise Department of Cambodia.