

Working Paper

INTERNATIONAL MONETARY FUND



WP/06/93

IMF Working Paper

The Tax System in India: Could Reform Spur Growth?

Hélène Poirson

IMF Working Paper

Asia and Pacific Department

The Tax System in India: Could Reform Spur Growth?

Prepared by Hélène Poirson¹

Authorized for distribution by Jerald Schiff

April 2006

Abstract

This Working Paper should not be reported as representing the views of the IMF.

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

This paper assesses the effects of India's tax system on growth, through the level and productivity of private investment. Comparison of India's indicators of effective tax rates and tax revenue productivity with other countries shows that the Indian tax system is characterized by: (1) a high dependence on indirect taxes, (2) low average effective tax rates and tax productivity, and (3) high marginal effective tax rates and large tax-induced distortions on investment and financing decisions. The paper finds that the most recently proposed package of reforms would improve tax productivity and lower the marginal tax burden and tax-induced distortions. But firms that rely on internal sources of funds or face problems borrowing would continue to face high marginal tax rates.

JEL Classification Numbers: E62, H20, O40

Keywords: Growth, Tax Policy, Tax Reform

Author(s) E-Mail Address: hpoirson@imf.org

¹ I would like to thank Mark De Broeck, Catriona Purfield, and Jerald Schiff for useful comments.

	Page
I. Introduction and Overview	3
II. The Indian Tax System: Stylized Facts and Issues	5
III. Priorities for Reforms	15
Boxes	
1. Empirical Evidence on Taxation and Growth.....	4
2. Main Features of the Tax System (December 2005)	5
3. Kelkar 2002 Reports' Proposals	7
Figures	
1. India: Tax Burden, 1974/75–2004/05	6
2. Selected Asian Countries: AETRs on Labor, Capital, and Consumption.....	9
Tables	
1. India: Structure of General Government Tax Revenue, 2004/05	6
2. Average Effective Tax Rates Comparison, 1990–2000.....	8
3a. Revenue Productivity of the Corporate Income Tax (CIT), 2001	10
3b. Revenue Productivity of the Corporate Income Tax (CIT), 2003	11
4a. Marginal Effective Tax Wedge by Investment Type.....	13
4b. Marginal Effective Tax Wedge by Financing Source.....	13
5. Statutory and Effective Tax Rates on Corporations	14
6. India: Tax Wedges under Current vs. Reformed Tax System	17
Annexes	
I. Average Effective Tax Rates (AETRs) Based on Macroeconomic Data	18
II. Tax Parameter Data, December 2005	19
References.....	20

I. INTRODUCTION AND OVERVIEW

While the ratio of tax revenue to GDP in India is low by international standards, marginal rates are high. Economic theory suggests that high tax rates may depress employment, investment, and growth. The empirical evidence is mixed. Cross-country studies generally confirm the negative impact of a high tax burden on economic activity, but their results are not robust. Firm-level evidence and simulation results are more conclusive, supporting the view that high tax rates have an adverse effect on growth and distort financing and investment decisions (Box 1). High tax rates may also contribute to the growth of the “shadow economy,” carrying costs in terms of foregone tax receipts and lower productivity growth (Farrel, 2004; Schneider and Klinglmair, 2004).

To improve the tax intake and savings and investment rates, which are low by regional standards,² a series of tax reforms have been considered in India.³ Their main thrust is to combine lower statutory rates with base broadening, to realize more revenues while lowering the marginal tax burden and removing distortions. This in turn should foster growth, leading to an “expansionary” fiscal adjustment.

This paper assesses the effects of India’s tax system on growth. Section II establishes stylized facts about the tax system: (i) a high dependence on indirect taxes, (ii) low average effective tax rates (AETRs) and tax productivity, and (iii) high marginal tax rates and tax-induced distortions on investment and financing decisions. Section III finds that the proposed tax reforms would improve tax productivity and lower the marginal tax burden and tax-induced distortions. But firms that rely on internal sources of funds or face problems borrowing would continue to face high marginal tax rates.

² National savings during 1999–2004 in India reached 24 percent of GDP on average annually, compared to 43 percent in China, 34 percent in Malaysia, and 32 percent in Korea.

³ For a history of reforms, see Ministry of Finance (1982, 2001, and 2004), Patel (1995), Muhleisen (1998), Burgess, Howes and Stern (1997), and Shome (2004).

Box 1. Empirical Evidence on Taxation and Growth

High labor taxation can negatively affect employment and growth by pushing up labor costs. In the presence of strong and decentralized labor unions, labor taxes are shifted into real wages, reducing labor demand; this in turn leads to substitution away from labor and downward pressure on the marginal product of capital, reducing investment and growth. Empirical evidence for European Union (EU) countries confirms this view.¹ High marginal effective tax rates (due to the combination of tax and benefit systems) can also affect labor supply decisions by affecting the choice between additional work and leisure.²

Consumption taxes should not in theory affect savings and investment decisions since future and current consumption are treated equally, and they remain neutral with respect to various sources of income. Empirical evidence is mixed, however. Some studies find that such taxes indeed have no impact on employment and growth,³ but others find that—like income taxes, although to a lesser extent—they have a negative impact on growth by distorting the choice between labor and leisure, and also could depress savings.⁴

Corporate taxes raise the required rate of return on investment and thereby depress investment. In addition, corporate taxes tend to favor debt over equity financing or retained earnings, potentially leading to an inefficient allocation of resources, higher insolvency risks, and discrimination against smaller companies that face more difficulties borrowing. Corporate taxes are also non-neutral given the widespread use of rebates, exemptions, and special regimes for specific sectors or regions. This also benefits large companies which can bear a lower tax burden through tax planning and fiscal engineering.⁵ Cross-country studies confirm a negative link between the tax burden (measured by tax revenue to GDP) and growth for high-income countries. However, the result does not hold for low- and middle-income countries, perhaps reflecting measurement problems.⁶ Firm-level empirical results, as well as simulation results using computable general equilibrium models, in contrast support the view that higher taxes negatively affect growth.⁷

Taxation of capital income—even when at a low level—appears to have a distortionary effect on savings. Cross-country studies find little evidence for EU member countries that taxes affect the aggregate level of savings, but they appear to influence its composition and location. Many EU countries tend to grant favorable treatment to specific savings instruments, such as retirement schemes and housing investment. Moreover, they generally apply a preferential treatment to non-residents, thus distorting saving flows and potentially enhancing tax evasion possibilities associated with cross-border investment.⁸

¹See Daveri and Tabellini (2000).

²For example, see Organization for Economic Cooperation and Development (2001).

³See Daveri and Tabellini (2000) and Kneller, Bleaney, and Gemmel (1999).

⁴For example, see Milesi-Ferretti and Roubini (1995) and Tanzi and Zee (2000).

⁵See Rao and Lukose (2002); Organization for Economic Cooperation and Development (2001); Joumard (2002); and Nicodeme (2002).

⁶See Blankenau, Nicole, and Tomljanovich (2004). The marginal or effective tax rate on corporates ideally should be used.

⁷See Fishman and Svensson (2000) and Feltenstein and Shah (1995).

⁸See Organization for Economic Cooperation and Development (2001).

II. THE INDIAN TAX SYSTEM: STYLIZED FACTS AND ISSUES

The Tax System

The authority to levy taxes in India is divided between the central government and the state governments. The central government levies direct taxes such as personal income tax (PIT) and corporate tax (CIT); indirect taxes such as customs and excise duties and a service tax; and a sales tax on inter-state transactions (CST). States levy a VAT on goods, state sales taxes, and various local taxes. As in other developing countries, tax incentives feature prominently in India, with tax holidays being the preferred form of incentives (see Flanagan, 2005). Such incentives may be important for some companies to offset other costs of doing business in India—such as still relatively high import duties, restrictive labor laws, and inadequate public infrastructure—but an unfortunate outcome has been to thin out the overall direct and indirect tax bases (Shome, 2004).

Since 1991, the tax structure has been substantially rationalized. Changes at the central government level include reducing customs and excise duties, lowering CIT rates, extending a form of VAT to some industries, and broadening the tax base to some services (Box 2). At the state level, the main reform has been the introduction in 2005 of the VAT in 24 states and union territories, after ten years of delay.

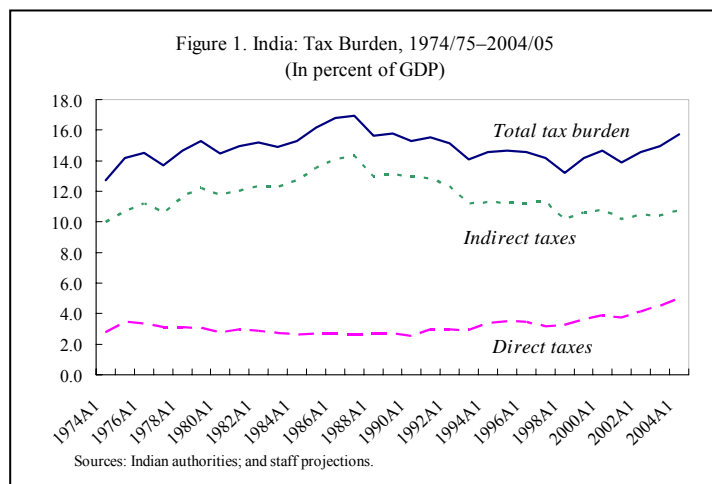
Box 2. Main Features of the Tax System, December 2005

The principal direct taxes include PIT and CIT, state taxes on agricultural income, wealth tax, and various withholding taxes. The PIT is levied on non-agricultural income at rates of 10 percent–31.5 percent. It applies to Indian residents and foreigners, on income earned in India. The exemption threshold of Rs. 111,250 (US\$2,472) results in a relatively narrow tax base of about 40 million taxpayers. States levy some taxes on agricultural income (land revenue tax and agricultural income tax), but their combined incidence is considerably less than that of the PIT. A wealth tax is levied on net assets in excess of Rs. 1.5 million (US\$33,333). The CIT is levied at a rate of 33.66 percent for domestic companies (including surcharges), but with significant exemptions. Other corporate taxes include a 12.75 percent tax (including surcharges) on dividend distribution, a minimum alternative tax on profits, a tax on fringe benefits, and various withholding taxes on interest, royalties, etc.

The main indirect taxes are the state VAT and sales taxes, central customs and excise duties, central service tax, and CST. The state VAT and sales taxes are levied on intrastate trade and the CST on interstate trade, at a rate that varies depending on the type of transaction and good. In VAT-implementing states, the VAT rates are 1 percent, 4 percent, and 12.5 percent. Sales taxes are also levied on specific items (e.g., petroleum products). The 5 states that have not implemented VAT continue to levy state sales taxes. The center levies customs duties and a basic excise duty (CENVAT) on goods manufactured or produced in India. The CENVAT base is truncated to manufacturing and eroded by a complex and extensive system of exemptions, including for small-scale industries and Special Economic Zones. Special central excise duties are levied on specific items. A service tax is levied by the center on some 71 services. Other minor taxes and duties imposed at both center and state level include stamp duty, taxes on land and buildings, and taxes on motor vehicles.

Stylized Facts

After declining below 14 percent of GDP in 2001/02, India's general government tax revenue rebounded to 15¾ percent of GDP in 2004/05. This exceeds the average for Asian emerging market countries by over 1 percentage point, but is 3¾ percentage points below the average for all emerging market countries. The decline in revenue in the 1990s occurred as major tax reforms were implemented, aimed at improving the buoyancy of revenues and increasing the share of direct taxes in total revenues. Direct tax revenues increased, but indirect tax collections declined, mainly due to tariff reductions (Figure 1).



Recent reforms have had some success in reversing the declining trend of revenues. The peak tariff reduction for non-agricultural imports advocated by the 2002 Kelkar committee reports (Box 3) was fully implemented but the revenue loss was more than offset by buoyant corporate tax collections. Excise and PIT revenues rose, but only marginally, reflecting the extension of further exemptions, deductions, and rebates. The states succeeded in raising sales tax collections, and a VAT was introduced in 2005.

Despite reforms, the tax structure remains dominated by indirect taxes. State taxes on commodities and services are the prominent source of general government revenue (representing nearly a third of the total tax intake), followed by central government excises (one-fifth of the total) (Table 1). The share of revenue from indirect taxes exceeds two-thirds, slightly above the average for emerging Asian economies, and significantly above the average for all emerging market countries (54 percent).

Table 1. India: Structure of General Government Tax Revenue, 2004/05

	Billions of Rupees	Percent of GDP	Percent of Total
Central government	3,049.8	9.8	62.4
Corporate tax	835.7	2.7	17.1
Income tax	483.1	1.6	9.9
Excises	991.6	3.2	20.3
Customs	576.6	1.9	11.8
Other 1/	162.9	0.5	3.3
States and union territories 2/	1,834.7	5.9	37.6
Taxes on income	16.4	0.1	0.3
Taxes on property and capital transactions	215.3	0.7	4.4
Taxes on commodities and services	1,602.9	5.2	32.8
Total	4,884.5	15.7	100.0

Sources: Indian authorities; and staff estimates.

1/ Mostly service tax.

2/ Staff estimates based on projected GDP growth and historical elasticities.

Box 3. Kelkar 2002 Reports' Proposals

As part of its overall reform agenda, the government in 2002 set up a tax reform task force (Kelkar task force) to propose a far-reaching reform agenda for direct and indirect taxes.¹ Proposals centered around the following elements:

- A change in the exemption level and rate structure of the PIT and broadening of the base, as well as the elimination of most exemptions and replacement of allowances by credits. A constitutional amendment would allow the government to tax agricultural income. The general exemption would be increased, the number of brackets reduced, and the highest marginal rate reduced to 30 percent. A range of special deductions would be eliminated with some converted into credits. The report also proposed changes to the taxation of capital income, specifically exempting dividends from Indian companies and long-term capital gains on equity.
- A reduction in the rate and in the large number of deductions and exemptions of the CIT. The rate would be reduced from 35 percent (net of 2 percent surcharge) to 30 percent for domestic companies and from 40 percent to 35 percent for foreign companies. The minimum alternate tax would be eliminated.
- A rationalization of the import tariff structure and export promotion schemes. The existing 20 tariff rates, ranging up to 182 percent, would be reduced to a range of 0-20 percent for most goods, with higher rates—up to 150 percent—for certain agricultural products and “demerit” goods. Exemptions would be significantly narrowed.
- Broadening the base of the CENVAT and moving it further toward a VAT.

¹ See Ministry of Finance (2002a and 2002b).

The overall tax burden, as measured by the AETR, is low compared to advanced economies and higher-income emerging markets in the region.⁴ The AETR on labor, at 2 percent in 2001, is much lower than in the European Union, United States, or Japan, which range from

⁴ The AETR is a standard indicator of the effective tax burden on categories of income or consumption. It summarizes various tax effects, including statutory tax rates, the effective tax base (accounting for tax evasion, exemptions, and the extent of informal activity), and the quality of tax administration. It is measured as the ratio of tax collections to the notional tax base derived from national accounts. See Annex I for details on the calculation of AETRs in India.

21–36 percent (Table 2).⁵ This reflects India’s narrow tax base and the lack of a social security system. The AETR on capital income is also low, owing to the wide coverage of tax incentives, low personal taxes on capital income, and a large informal sector. The operating surplus of unincorporated enterprises (a proxy for the share of the informal sector) accounted for three quarters of the operating surplus of the economy in 2000/01. India’s low AETRs on capital and labor match those of other low-income countries in the region (Sri Lanka and China), but are much below those of higher-income emerging

market countries like Korea and Thailand (Figure 2). These results suggest ample room for AETRs on capital and labor to increase further in India as income levels rise, without adversely affecting competitiveness. India’s AETR on consumption is broadly average, despite a tax base that largely excludes services. As in other countries in Asia, it has declined over time.

	Average Effective Tax Rate			Total Tax Wedge on Labor 1/
	Labor	Capital	Consumption	
India 2/	1.6	5.2	15.0	15.9
Australia	20.9	30.7	12.1	30.5
Austria	39.6	24.3	16.2	51.2
Belgium	41.3	32.7	15.0	51.7
Canada	29.6	36.8	13.9	39.4
Czech Republic	41.5	21.6	13.0	47.2
Denmark	39.9	39.5	20.6	56.0
Finland	45.0	26.0	18.7	58.0
France	40.5	33.2	15.1	51.3
Germany	35.0	21.2	13.4	44.9
Greece	34.9	12.9	15.5	46.5
Hungary	...	14.7	22.2	...
Ireland	26.3	...	21.2	41.9
Italy	37.7	31.0	13.9	47.9
Japan	24.1	27.9	6.4	29.4
Korea	9.9	16.7	15.8	24.2
Netherlands	36.4	32.7	18.0	47.9
New Zealand	25.1	...	18.5	38.9
Norway	36.2	24.7	25.7	52.5
Poland	...	20.9	17.1	...
Portugal	23.9	17.6	19.9	39.0
Spain	30.7	20.0	14.5	40.8
Sweden	49.6	35.7	19.8	59.6
Switzerland	30.9	27.1	9.3	37.3
United Kingdom	22.6	34.0	15.7	34.8
United States	23.4	27.3	6.4	28.3
Unweighted average	32.4	26.5	15.9	43.4
EU15 average	38.0	28.7	17.8	48.9

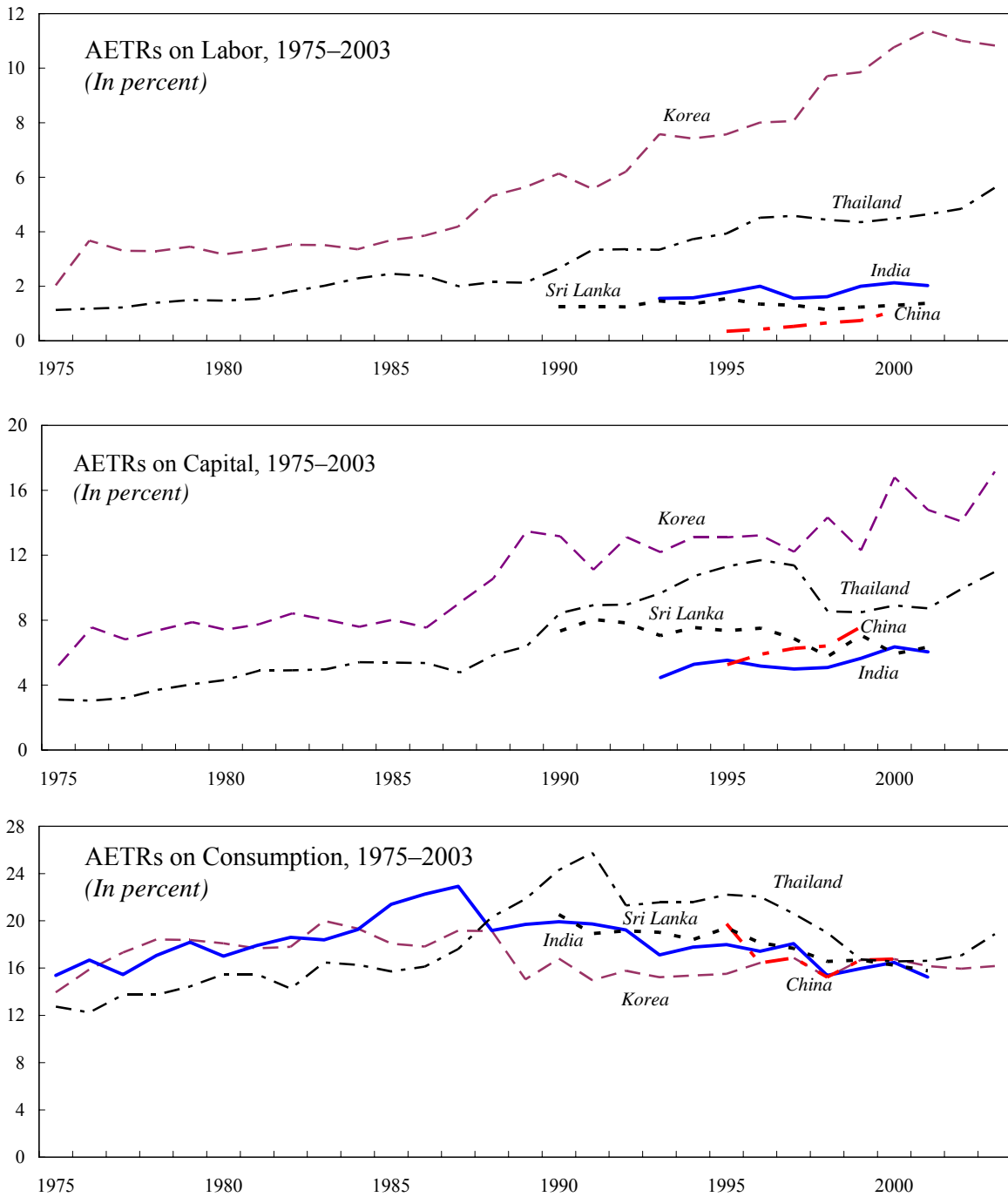
Sources: Carey and Rabesona (2002); and staff estimates for India.

1/ Combined effective tax rate on labor and consumption.

2/ Average 1993-2000, based on data availability.

⁵ Estimates for countries that are not members of the Organization for Economic Cooperation and Development (OECD) are not publicly available.

Figure 2. Selected Asian Countries: AETRs on Labor, Capital, and Consumption



Source: Staff estimates.

AETRs are relatively low in India mainly owing to low tax productivity.⁶ For example, CIT tax productivity is much below the average for both OECD and non-OECD countries, reflecting a tax base thinned-out by exemptions and widespread tax evasion (Tables 3a and 3b).⁷ This suggests ample scope for increasing revenue without raising rates, via expansion of the taxpayer net, lifting of

Table 3a. Revenue Productivity of the Corporate Income Tax (CIT), 2001
(In percent)

	Statutory CIT Rate	Effective CIT Rate	Revenue Productivity 1/
India	35.9	3.5	9.7
France	33.3	8.9	26.8
Germany	38.9	2.1	5.3
Italy	37.0	6.7	18.2
Japan	40.9	8.7	21.2
Korea	29.7	9.6	32.4
United Kingdom	30.0	9.9	32.9
United States 2/	45.8	5.3	11.6
OECD average	32.3	9.6	29.7

Sources: Standard & Poor's; and staff estimates for India and Korea.
1/ Ratio of effective CIT rate to statutory CIT rate.
2/ As of 2000.

exemptions, and stepped up tax administration. During the period 1993-2001, India increased AETRs on labor and capital despite reductions in statutory rates and continued widespread exemptions. This suggests that improved tax administration and compliance were the main factors underlying the improvement in tax productivity and resulting rise in AETRs.

The Burden of Taxation on Investors

This section assesses to what extent the Indian income tax code affects incentives to invest. We calculate two standard indicators, the marginal effective tax wedge (METW) between the pre- and post-tax return on capital, and the marginal effective tax rate (METR), defined as

⁶ Tax productivity measures the extent to which revenues that should be received—given the rate and potential base of the tax—are actually being realized. It captures all the factors that influence the AETR, other than the statutory tax rates. It is measured as the ratio of the effective to statutory tax rate (Kraemer and Zhang, 2004).

⁷ In Table 3a, following the Kraemer-Zhang approach, we use the operating surplus of the economy (from national accounts) as the potential tax base. In Table 3b, in the absence of such data for non-OECD countries, we use nominal GDP.

Table 3b. Revenue Productivity of the Corporate Income Tax (CIT), 2003

(In percent)

	Statutory CIT Rate 1/	Corporate Taxes/GDP 2/	Revenue Productivity 3/
India	35.9	2.3	6.4
Argentina 35.0		2.7	7.7
Bolivia 2	5.0	1.8	7.2
Chile (2001)	17.0	4.6	27.2
China	33.0	2.5	7.5
Colombia	35.0	4.7	13.4
Hungary	16.0	8.0	49.8
Indonesia	30.0	1.7	5.5
Mexico (2000)	33.0	5.0	15.3
Pakistan	35.0	3.6	10.2
Peru	30.0	3.4	11.4
Philippines	32.0	2.6	8.2
Poland	19.0	4.9	25.6
Russia	24.0	4.0	16.6
Singapore (2001)	22.0	8.0	36.5
South Africa	37.8	5.5	14.4
Thailand	30.0	3.0	10.0
Turkey	33.0	2.5	7.6
Ukraine	25.0	5.0	20.0
Uruguay	35.0	2.6	7.4
Venezuela	34.0	14.7	43.1
All: Mean	29.0	4.5	17.2

Sources: KPMG; IMF *Government Finance Statistics*; IMF *International Financial Statistics*; and various country databases.

1/ As of January 1, 2004.

2/ Used as proxy for the effective CIT rate. For 2003, unless otherwise indicated.

3/ Ratio of corporate tax/GDP to statutory CIT rate.

the ratio of the METW to the real required pre-tax rate of return.⁸ By summarizing various tax effects, including the statutory CIT and personal tax rates on capital income, depreciation allowances, and inventory valuation method, the METW measures the potential cost of taxation to investors, which in turn affects their decision to invest. The AETR, although commonly used for this purpose, does not accurately reflect incentives, as it is backward

⁸ See Annex II for tax parameters used. See OECD (1991) for further details on the methodology and parameters. Indirect taxes impose additional costs on investment, but the METR approach focuses on direct taxation, thus understating the tax burden on investors. Comparable estimates have been published for OECD countries.

looking and measures the average rather than marginal tax burden. Moreover, international comparisons using the AETR are difficult to interpret due to differences in accounting definitions and the timing of tax payments. Further, it does not incorporate personal tax provisions.

The marginal tax burden in India is lower than the OECD average, but tax-induced distortions tend to be high. Firms that rely on internal financing are particularly penalized, as they face a marginal tax wedge more than ½ percentage point higher than the OECD average (Tables 4.a. and 4.b.):

- The marginal tax wedge (1.4 percent) is slightly below the OECD average. This reflects low personal taxes, including the elimination of tax on long-term capital gains in 2004/05.
- However, the standard deviation of the marginal tax wedge across investment assets is three times higher than the OECD average. Inventory investment is treated more harshly than investments in machinery and buildings, so that firms that need to carry more inventories are penalized, more so than in other countries. The use of the FIFO (first in first out) method for inventory valuation also entails a higher tax burden, as increases in the value of inventories due solely to inflation are taxed.
- The standard deviation of the marginal tax wedge across financing sources is nearly twice as high as the OECD average. The negative tax wedge enjoyed by debt financing means that the government is effectively subsidizing marginal debt-financed investments, more so than in other countries. Investments financed by new equity face a below-average tax wedge, thanks to relatively low dividend taxation. However, investments financed by retained earnings face a tax wedge in excess of 2½ percent (compared to the OECD average of 2 percent). Smaller firms that face problems in borrowing and tend to be more dependent on internal sources of funds are thus disadvantaged compared to larger firms (Rao and Lukose, 2002; Joseph et al., 1998). The relatively large tax advantage of debt finance may also have contributed to relatively high financial leverage in India, exacerbating firms' vulnerability. The average debt-to-equity ratio for Indian companies is high relative to their counterparts in Asian countries and elsewhere, and has risen recently to 1.4 in 2002 from a low of 1.2 in 1996 (Topalova, 2004).

A related result is that corporates that have only limited access to debt financing, particularly smaller firms, face a high effective marginal tax rate. The METR for investments financed by retained earnings or equity is nearly 33 percent, compared to the OECD average of 22 percent, reflecting a relatively high CIT rate (Table 5).⁹

⁹ The METR calculated here follows the methodology of Devereux, Griffith, and Klem (2002) and ignores any personal taxes, focusing on the marginal tax burden at the firm level.

The prevalence of tax incentives for special sectors and regions in India means that the marginal tax burden also varies greatly across sectors and regions. The marginal tax wedge for a firm that benefits from a corporate tax exemption is only 0.4 percent, one full percentage point lower than that of a firm that does not enjoy the tax holiday. Other incentives, such as accelerated depreciation provisions, also result in a lower marginal tax burden for benefiting firms. Such large variations in METWs in turn result in large distortions to investment decisions and allocative efficiency.

Table 4a. Marginal Effective Tax Wedge by Investment Type 1/
(In percent)

	Standard Deviation 2/	Weighted Average	Investment Type		
			Machinery	Building	Inventories
India	1.3	1.4	1.2	0.2	2.7
Canada	1.0	3.6	2.7	4.1	5.1
Germany	0.4	1.2	0.9	1.4	1.9
Japan	1.0	2.0	1.0	3.1	2.8
United Kingdom	0.5	2.2	1.9	2.2	3.1
United States	0.4	1.9	1.5	2.5	2.0
OECD average	0.4	1.6	1.2	1.7	2.3

Sources: Dalsgaard (2001) based on OECD calculations; and staff estimates for India.

1/ These indicators show the degree to which the personal and corporate tax systems scale up (or down) the pre-tax real rate of return that must be earned on an investment, given that the representative investor can earn a 4 percent real rate of return on

2/ The standard deviation across investment vehicles provides an indicator of the neutrality of the tax system towards corporate investment decisions. The lower the standard deviation, the more neutral the tax system.

Table 4b. Marginal Effective Tax Wedge by Financing Source 1/
(In percent)

	Standard R Deviation 2/	Sources of Financing		
		Retained earnings	New equity	Debt
India	1.6	2.6	2.5	-0.2
France	2.9	3.6	7.7	0.7
Germany	0.7	0.9	2.5	1.3
Italy	0.4	1.3	1.3	0.4
Japan	2.3	3.3	5.5	-0.1
Korea	0.5	0.6	1.6	1.6
United Kingdom	0.5	2.9	2.4	1.6
United States	1.5	1.7	4.8	1.4
OECD average 3/	0.9	2.0	3.2	1.0

Sources: Joumard (2001) based on OECD calculations; and staff estimates for India.

1/ These indicators show the degree to which the personal and corporate tax systems scale up (or down) the pre-tax real rate of return that must be earned on an investment, given that the representative investor can earn a 4 percent real rate of return on a demand deposit. The representative investor is supposed to be a resident person, taxed at the top marginal income tax rate (see OECD, 1991). The estimates shown refer to 2004 for India, to 1999 for other countries.

2/ The standard deviation across financing instruments provides an indicator of the neutrality of the tax system towards corporate financing decisions. The lower the standard deviation, the more neutral the tax system.

3/ Weighted average across available countries (weights based on 1995 GDPs and PPPs).

Table 5. Statutory and Effective Tax Rates on Corporations

(In percent)

	Statutory Corporate Tax Rate, 2004 1/	Statutory Corporate Tax Rate, 1999	Marginal Effective Tax Rate 2/
India	35.9	...	32.9
Australia	30.0	...	...
Austria	34.0	34.0	17.4
Belgium	34.0	40.2	25.6
Canada	36.1	34.6	24.0
Czech Republic	28.0	...	...
Denmark	30.0	...	...
Finland	29.0	29.0	19.5
France	34.3	36.4	29.9
Germany	38.3	38.3	28.3
Greece	35.0	37.5	27.7
Hungary	18.0	...	...
Ireland	12.5	10.0	6.6
Italy	37.3	40.3	9.2
Japan	42.0	40.9	31.8
Korea	29.7	...	...
Luxembourg	30.4	...	...
Netherlands	34.5	35.0	24.3
New Zealand	33.0	...	...
Norway	28.0	...	...
Poland	19.0	...	...
Portugal	27.5	35.2	20.3
Spain	35.0	35.0	29.5
Sweden	28.0	28.0	16.1
Switzerland	24.1	...	...
United Kingdom	30.0	30.0	20.3
United States	40.0	39.3	23.8
Unweighted average	30.3	33.6	22.0
EU15 average	32.2	34.4	22.3

Sources: KPMG for 2004 statutory tax rate; staff estimates for India; Devereux, Griffith and Klemm (2002) for 1999 statutory tax rate; and for effective tax rates for other countries.

1/ As of January 1, 2004.

2/ Based on investment in plant and machinery, financed by equity or retained earnings (but not debt). Taxation at the shareholder level is not included (hence no distinction is made between new equity and retained earnings). Other assumptions include: real post-tax required rate of return fixed at 10 percent. The estimate is for the current tax system for India, the 1999 tax system for all other countries.

III. PRIORITIES FOR REFORMS

The facts highlighted above suggest that a tax reform combining lower statutory rates with base broadening could help achieve a pro-growth fiscal adjustment in India. AETR and tax productivity estimates suggest ample scope for raising direct tax revenue through the removal of exemptions and improved tax administration and compliance. In addition to reducing tax-induced distortions, the removal of exemptions would create room for further lowering statutory rates, which in turn would enhance the return of the tax system and further improve the neutrality of the tax system. Meanwhile, the planned introduction of a national VAT on goods and services (GST) would help improve the revenue productivity of domestic indirect taxes, helping recoup expected trade revenue losses, and also enhance economic efficiency. These broad directions for tax reform were highlighted in the government's 2004 road map to meet the deficit targets of its Fiscal Responsibility and Budget Management Act (FRBMA) (Ministry of Finance, 2004).

An Assessment of the FRBMA Road Map Tax Proposals

The road map proposes a number of changes to income taxation and the introduction of a GST.

- Direct tax measures include further reductions in statutory rates. The road map proposes a reduction of the CIT rate to 30 percent and elimination of the surcharge; reduction of the general depreciation rate to 15 percent; elimination of the withholding tax on distribution of dividends; and elimination of the long-term capital gains tax. Several measures, including the reduction in the CIT and depreciation rates and the elimination of the long-term capital gains tax, have been implemented over the last two years. This has contributed to lowering the marginal tax wedge and reducing its variation across investment assets, thus increasing the return on investment and contributing to economic efficiency. The implementation of remaining measures in the 2006/07 budget would help consolidate those gains.
- Introduction of the GST and further reduction in customs duties are the hallmarks of proposed indirect tax reforms. The GST would replace the existing state VAT, CST, central excise duties, and central service tax. Tariffs have already dropped in the last two budgets and the government envisages further cuts in coming years to bring them down to levels in member countries of the Association of Southeast Asian Nations.
- The reforms also envisage a significant increase in tax productivity via the removal of most exemptions and incentives, expansion of the taxpayer net, and increased reliance on information technology to improve tax administration and compliance. The computerization of tax administration—including increased tax withholding at the source, the introduction of a tax information network and a tax information system to track interstate transactions, and the computerization of customs—is well under way. The planned introduction of large taxpayer units in major cities in 2006 should help reduce compliance and transaction costs for large taxpayers. However, most

exemptions remain in place. The government announced that it would let existing corporate tax exemptions lapse, but extended sunset clauses in some cases, and introduced new incentives in the context of the 2005 Special Economic Zones Act. New services have been added to the tax net over the last two years, but the move toward a GST will require further expansion of the service tax base and the removal of most excise exemptions, including for small-scale industries and selected areas.

Implementation of remaining tax reforms would further decrease the marginal tax burden on investment and reduce tax-induced distortions. The METW would decrease further to 1.2 percent, thanks to lower personal taxes (Table 6). Neutrality with respect to sources of financing would improve, but firms that rely on internal financing (mainly smaller firms) would remain relatively penalized. The marginal tax wedge faced by such firms would remain $\frac{1}{4}$ percentage point above the OECD average. Neutrality with respect to investment patterns would also improve, but the standard deviation of the METW across investment assets would remain more than double the OECD average, suggesting scope for further improvements.

To mitigate potentially excessive reliance on debt finance and help further improve the neutrality of the tax system, additional measures can be considered. These include (see International Monetary Fund, 2004): limiting the deductibility of interest to a percentage of net taxable income; limiting debt for the purposes of income tax (e.g., debt-to-equity ratios in Canada are limited to 2, in Germany to 1.5, and in Japan to 3); limiting interest to a referential rate (e.g., in Portugal, the 12-month Euribor plus 1.5 percent); or introducing an allowance for corporate equity.¹⁰

The recent introduction of a state VAT is a major step toward the GST. By allowing full integration of goods and services taxation at the national level, a GST should help secure further gains in economic efficiency, with favorable effects on investment and exports. However, successful introduction will require bringing remaining states into the VAT, phasing-out the CST, and reaching agreement with states on the sharing of GST revenues.¹¹

Base-broadening measures envisaged by the road map would imply a significant increase in tax productivity and economic efficiency gains as tax-induced distortions are reduced. For example, corporate tax revenue is projected to nearly double from 2.3 percent of GDP

¹⁰ The notional rate of return on invested equity is deductible under the CIT in Croatia (1994–2001), and imputed equity return is taxed at a reduced rate in Austria and Italy (until 2001).

¹¹ The Indian constitution currently gives the center the exclusive right to tax services, while precluding it from taxing sales. To introduce the GST, a “grand bargain” therefore needs to be struck between the center and the states. Specifically, the latter would agree to let the center tax sales, in exchange for a share of GST revenues.

in 2003/04 to 4.2 percent of GDP by 2008/09, despite a lower CIT rate, as most exemptions are eliminated. CIT tax productivity would more than double to 14 percent by 2008/09 (nearing the non-OECD average). The removal of most tax incentives would also result in lower variation of the marginal tax burden across sectors and regions, contributing to higher economic efficiency. Meanwhile, the proposed introduction of a GST with few exemptions should help enhance indirect tax productivity and improve economic efficiency by harmonizing tax rates across states. Moreover, a truly destination-based GST would allow the emergence of a single Indian market, greatly enhancing India's attractiveness as an investment destination.

Table 6. India: Tax Wedges under Current vs. Reformed Tax System					
(In percent)					
Type of Investment	Mode of Financing				Standard Deviation 1/
	Retained earnings	New equity	Debt	Weighted average	
Tax System, 2005/06 2/					
Machinery	2.4 <i>44.0</i>	2.3 <i>42.8</i>	-0.4 <i>-13.5</i>	1.2 <i>27.6</i>	1.6
Buildings	1.3 <i>30.3</i>	1.2 <i>28.6</i>	-1.3 <i>-74.5</i>	0.2 <i>4.8</i>	1.5
Inventories	4.1 <i>57.1</i>	3.9 <i>56.3</i>	0.9 <i>23.7</i>	2.7 <i>46.7</i>	1.8
Weighted average	2.6 <i>46.4</i>	2.5 <i>45.3</i>	-0.2 <i>-6.6</i>	1.4 <i>31.1</i>	1.6
Standard deviation 1/	1.4	1.4	1.1	1.3	
Tax System, FRBMA Road Map 2/					
Machinery	2.1 <i>39.9</i>	2.1 <i>39.9</i>	-0.3 <i>-9.9</i>	1.0 <i>24.9</i>	1.3
Buildings	1.1 <i>26.7</i>	1.1 <i>26.7</i>	-1.1 <i>-56.1</i>	0.1 <i>4.4</i>	1.3
Inventories	3.5 <i>53.1</i>	3.5 <i>53.1</i>	0.9 <i>22.6</i>	2.4 <i>43.2</i>	1.5
Weighted average	2.3 <i>42.3</i>	2.3 <i>42.3</i>	-0.1 <i>-4.0</i>	1.2 <i>28.2</i>	1.4
Standard deviation 1/	1.2	1.2	1.0	1.1	

Source: IMF staff estimates.

1/ The standard deviation measures the neutrality of the tax system with respect to corporate financing and investment decisions. The lower the standard deviation, the more neutral the tax system.

2/ Corresponding marginal effective tax rates are reported in italics.

Average Effective Tax Rates (AETRs) Based on Macroeconomic Data

The AETR on labor is derived in two steps. First, the effective tax rate on total household income is calculated as the ratio of individual income tax and household income, including: operating surplus of unincorporated enterprises (OSPUE), property income (PEI), and wage income (CE). Second, the AETR on labor is calculated by dividing the sum of taxes paid on labor income (tax on wages and salaries—calculated by applying the household income AETR to wage income¹—social security contributions, and other payroll taxes) by the sum of wages and salaries and employer-paid social security contributions.

The AETR on capital is obtained by dividing the sum of taxes paid by capital (corporate income tax, household taxes on capital income, and various property taxes) by the net operating surplus of the economy.

The AETR on consumption is calculated as the sum of domestic taxes on goods and services, export, and import duties, divided by the sum of private and government nonwage consumption, net of indirect taxes. Indirect taxes are excluded in the denominator to reflect the common practice of expressing indirect tax rates as a percentage of the price before tax.

More recent studies however have argued that it is preferable to express the consumption tax base in gross terms (i.e., including indirect tax rates in the denominator), to improve comparability with the tax ratios on labor and capital and facilitate calculating a combined AETR on labor and consumption (Carey and Rabesona, 2002). We therefore also present this alternative (revised) estimate together with the original Mendoza et al. (1994) estimate.

¹ Labor and capital income of households are assumed to be taxed at the same rate.

Tax Parameter Data, December 2005

(In percent)

A. Corporate Tax System		
Corporate tax rate on retained earnings	33.66	
Inventory valuation	FIFO	
Long-term capital gains tax rate	0	
Dividend distribution tax rate	12.75	
B. Personal Tax System		
Interest income tax rate	10.71	
Dividend income tax rate	0	
Short-term capital gains tax rate	10.2	
Long-term capital gains tax rate	0	
Proportion of assets realized each period	10	
C. Tax Depreciation Rates		
Machine	ry	Buildings
Depreciation method	Declining balance	Declining balance
Rate for declining balance	15	10

References

- Blankenau, W., S. Nicole, and M. Tomljanovich, 2004, "Public Education Expenditures, Taxation, and Growth," *Journal of Development Economics*, Vo. 73, Issue 2, pp. 583–605.
- Burgess, Robin, Stephen Howes, and Nicholas Stern, 1997, "The Reform of Indirect Taxes in India," in *India: the Future of Economic Reform*, ed. by R. Cassen and V. Joshi (New York: Oxford University Press).
- Carey, David and Josette Rabesona, 2002, "Tax Ratios on Labour and Capital Income and on Consumption," *OECD Economic Studies*, No. 35, Vol. 2, pp. 129–174.
- Dalsgaard, Thomas, 2001, "The Tax System in New Zealand: An Appraisal and Options for Change," Economics Department Working Paper No. 7 (Paris: Organization for Economic Cooperation and Development).
- Daveri, F., and G. Tabellini, 2000, "Unemployment, Growth, and Taxation in Industrial Countries," *Economic Policy*, Vol. 15, Issue 30, pp. 47–104, April.
- Devereux, Michael, Rachel Griffith, and Alexander Klemm, 2002, "Corporate Income Tax Reforms and Tax Competition," *Economic Policy*, Vol. 17, Issue 35, pp. 451–95, October.
- Farrel, Diana, 2004, "Boost Growth by Reducing the Informal Economy," *The Asian Wall Street Journal*, October 18.
- Feltenstein, A. and A. Shah, 1995, "General Equilibrium Effects of Investment Incentives in Mexico," *Journal of Development Economics*, Vol. 46, pp. 253–69.
- Fishman, R. and J. Svensson, 2000, "Are Corruption and Taxation Really Harmful to Growth? Firm Level Evidence," (unpublished; New York: Columbia University).
- International Monetary Fund, 2004, "Taxation and the Financing Structure of the Firm," paper presented at the IMF-Singapore Regional Training Institute and the Fiscal Affairs Department (unpublished; Washington).
- Joseph, Mathew, Rupa Nitsure, L. Bhagirathi, and Madan Sabnavis, 1998, "India's Economic Reforms: Private Corporate Sector Response," paper presented at the 1998 ABAS International Conference on Emerging Economies, Budapest, Hungary.
- Joumard, Isabelle, 2002, "Tax Systems in European Union Countries," *OECD Economic Studies*, Vol. 34, pp. 91–151

- Kneller, R., M. F. Bleaney, and N. Gemmel, 1999, "Fiscal Policy and Growth: Evidence from OECD Countries," *Journal of Public Economics*, Vol. 74, Issue 2, pp. 171–190.
- KPMG, 2004, *Corporate Tax Rate Survey*. Available via the Internet at <http://www.kpmg.com>.
- Kraemer, Moritz, and Eileen Zhang, 2004, "Flexibility in Taxing Times—A New Index of Governments' Revenue-Raising Potential" (London: Standard & Poor's).
- Mendoza, Enrique, Assaf Razin, and Linda Tesar, 1994, "Effective Tax Rates in Macroeconomics, Cross-Country Estimates of Tax Rates on Factor Incomes and Consumption," *Journal of Monetary Economics*, No. 34, pp. 297–323.
- Milesi-Ferretti, Gian-Maria, and Nouriel Roubini, 1995, "Growth Effects of Income and Consumption Taxes: Positive and Normative Analysis," NBER Working Paper 5317 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Ministry of Finance, 2004, *Report of the Taskforce on Implementation of the Fiscal Responsibility and Budget Management Act, 2003* (New Delhi: Government of India).
- , 1982, "Economic Reforms Two Years After and the Task Ahead," Department of Economic Affairs Discussion Paper (New Delhi: Government of India).
- , 2001, *Economic Survey 2000–2001* (New Delhi: Government of India).
- , 2002a, *Report of the Task Force on Indirect Taxes* (New Delhi: Government of India).
- , 2002b, *Report of the Task Force on Direct Taxes* (New Delhi: Government of India).
- Muhleisen, Martin, 1998, "Tax Revenue Performance in the Post-Reform Period," *India—Selected Issues*, IMF Country Report No. 98/112 (Washington: International Monetary Fund).
- Nicodeme, G., 2002, "Sector and Size Effects on Effective Corporate Taxation," Economic Papers No. 175 (Brussels: European Commission).
- Organization for Economic Cooperation and Development, 1991, *Taxing Profits in a Global Economy* (Paris).
- , 2001, *Tax and the Economy: A Comparative Assessment of OECD Countries*, (Paris).

- Patel, Urjit, 1995, "State Indirect Taxes: Present System and Scope for Reform," *India—Background Papers*, IMF Country Report No. 95/87 (Washington: International Monetary Fund).
- Rao, S. Narayan, and Jijo Lukose, 2002, "An Empirical Study on the Determinants of the Capital Structure of Listed Indian Firms," (unpublished; Mumbai: Indian Institute of Technology).
- Schneider, Friedrich, and Robert Klinglmaier, 2004, "Shadow Economies Around the World: What Do We Know," CESifo Working Paper Series No. 1167 (Munich: Center for Economic Studies and Institute for Economic Research).
- Shome, Partha, 2004, "India: Resource Mobilization through Taxation," (unpublished; Washington: International Monetary Fund).
- Tanzi, Vito, and Howell Zee, 2000, "Taxation and the Household Saving Rate: Evidence from OECD Countries," *Banca Nazionale del Lavoro Quarterly Review*, Vol. 53, pp. 31–43.
- Topalova, Petia, 2004, "Overview of the Indian Corporate Sector: 1989–2002," IMF Working Paper No. 04/64 (Washington: International Monetary Fund).