SM/06/35
Correction 2

May 19, 2006

To: Members of the Executive Board

From: The Secretary

Subject: **Philippines—Selected Issues**

The attached factual corrections to SM/06/35 (1/31/06) have been provided by the staff:

Page 4, para. 2, lines 2 and 3: for "about 65 percent" read "68 percent"
last line through page 5, line 1: for "over the last six years, occasionally exceeding 13 percent in some of the interceding quarters."
read "over the last six years."

Page 5, Table 1: row 1, columns 1 and 2: for "11.0 39.0" read " 9.7 38.8"
row 2, columns 1 and 2: for "11.5 43.0" read "10.7 42.8"
row 3, column 2: for "45.0" read "44.9"
row 4, columns 1 and 2: for "10.3 40.0" read "10.4 40.4"
row 5, columns 2 and 4: for "40.0 19.3" read "39.5 19.4"
row 6, columns 2 and 4: for "35.0 19.5" read "35.1 19.6"
para. 3, lines 7 and 13: for "$27 billion" read "$28 billion"
line 8: for "of which nearly" read "of which"

Page 7, para. 6: for "The magnitudes of these forces...credit derivatives."
read "The forces behind increased bank holdings...credit derivatives."
footnote 5: added to read "The FCDU data from the BSP covers both resident and non-resident lending and deposits." Subsequent footnotes renumbered.

Page 10, para. 10, line 4: for "First, if the" read "First, to the extent that"

Page 15, Box 1, para. 3, line 1: for "Two major tax reforms" read "Various tax reforms"
lines 4–7: for "a second phase of tax reforms...ad valorem taxes"
read "the expansion of the VAT...ad valorem taxes"

Page 16, para. 12, line 19: after "(IPPs)." insert new footnote 15: "See also Manasan (2004) for an analysis of GOCC financial performance since the Asian crisis."

para. 13, last line: for "eroded by new tax incentives that were granted in rapidly" read "eroded by a proliferation of tax incentives in rapidly"

Page 24, new reference: "Manasan, R., 2004, "The Philippines' Fiscal Position: Looking at the Complete Picture," Philippine Institute for Development Studies Policy Note No. 2004–07." added

Page 27, para. 6, line 2: for "literature emphasizes" read "literature (see Rodrik, Subramanian, and Trebbi, 2002 and Rodrik, 2003) emphasizes"

footnote 23: for "See Rodrik, Subramanian, and Trebbi (2002) and Rodrik (2003) for general discussion about this approach." read "The demographic profile of the Philippines may also have had an effect on growth performance. However, the empirical support for such an effect is inconclusive (see Kongsamut and Vamvakidis, 2003) and demographic variables are not included in this study."

Questions may be referred to Mr. Ishi, APD (ext. 38034), Mr. Seshadri, PDR (ext. 36793), and Ms. Zakharova, FAD (ext. 37166).

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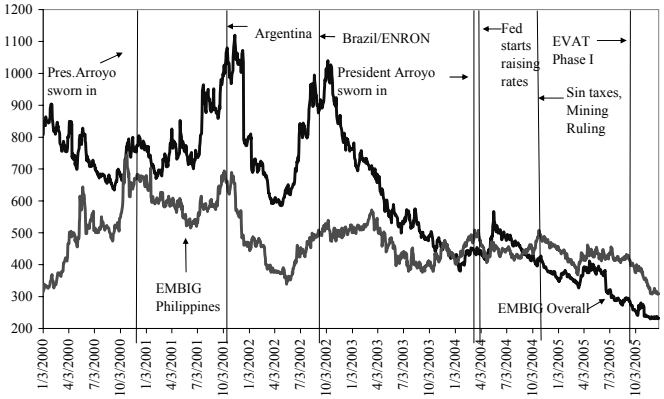
I. WHAT LIES BEHIND THE DIMINISHED VOLATILITY OF PHILIPPINES SOVEREIGN DEBT?[1]

A. Introduction and Background

1. **In 2005, the Philippines was one of the strongest performers in emerging debt markets.** Republic of Philippines bonds (RoPs) returned over 20 percent in 2005—nearly twice the return on the EMBI-Global. One of the remarkable features of this performance is the fact that the Philippines component of the EMBI-Global returned some 19 percent (annualized) during both the second and the third quarters, when the country weathered a period of considerable political turbulence. This chapter examines some of the factors that lie behind the stability in the performance of Philippine bonds, and whether this is likely to endure. It is tempting to believe that the diminished volatility of Philippine bonds is merely a reflection of what has happened in the broader market; indeed in all credit markets since 2003, abundant global liquidity has driven the search for yield, re-priced credit risk, and brought with it a sharp decline in volatility. Such reasoning would imply that the diminished volatility is only as enduring as the accommodative global conditions. While global factors have certainly played a role in the dynamics of Philippines debt, this chapter argues that there are also significant Philippines-specific factors at work. Analyses of the sustainability of this "lower-volatility" regime must take such factors into account. Principally, the chapter points to the fact that the ownership of Philippines bonds has been changing markedly over the last two to three years. So long as these trends in ownership are maintained, the sensitivity to global conditions may not be as strong as in the past.

Figure 1. EMBIG Spreads and the EMBIG Philippines Sub-index



2. **Prior to examining these factors, it is useful to establish a number of stylized facts regarding Philippine external debt.** Philippine external debt is estimated at ~~about 68~~ 68 percent of GDP,[2] roughly two-thirds of which is owed by the public sector. The general structure of this debt has been very stable. The share of short-term debt (as of June 2005, estimated at 10.9 percent) has remained in a very tight range between 9 percent and 12 percent, over the last six years. ~~occasionally exceeding 13 percent in some of the~~

[1] Prepared by Srikant Seshadri (Ext. 3-6793).

[2] Gross of domestic holdership, and including estimates of the "non-monitored" debt stock.

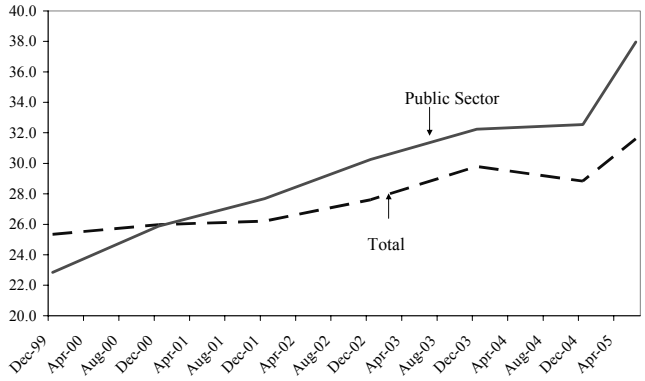
Table 1. The Structure of Philippine External Debt

	Share of S.T. Debt (Percent)	Share of Variable Rate MLT Debt (Percent)	Average Rate on Fixed Rate Debt (Percent)	Public External Debt Weighted Average Maturity (Years)
Dec-99	~~11.0~~9.7	~~39.0~~38.8	5.42	19.9
Dec-00	~~11.5~~10.7	~~43.0~~42.8	5.82	19.4
Dec-01	11.6	~~45.0~~44.9	5.98	19.0
Dec-02	~~10.3~~10.4	~~40.0~~40.4	6.11	19.1
Dec-03	10.8	~~40.0~~39.5	6.04	~~19.3~~19.4
Dec-04	9.2	~~35.0~~35.1	5.74	~~19.5~~19.6
Mar-05	10.0	34.1	5.96	20.0
Jun-05	10.9	34.6	6.09	19.9

~~intercedding quarters.~~ The medium-and long-term debt has a long weighted average life of 17.6 years (close to 20 years for public sector debt), and this too has remained within a tight range over the last several years. Through skillful management, the Philippine authorities have exploited the low interest rate environment to bring down the share of variable rate debt by over 10 percent since 2001 to around 35 percent of the total, while at the same time keeping the average interest rate of the fixed rate debt more or less constant at around 6 percent.

3. **A noteworthy trend in the last several years has been an increased reliance on external commercial financing.** The share of official creditors has become correspondingly smaller, with the share of banks and financial institutions remaining roughly constant at about one-fifth. The share of debt owed to bond and noteholders has risen, both for the private and public sectors. As of June 2005, there were some $~~27~~ 28 billion of outstanding bonds, of which ~~nearly~~ $19 billion is owed by the national government. Bond holders currently hold over 30 percent of the external debt, and close to 40 percent of the public sector's external debt. Of the $~~27~~ 28 billion in bonds, some $10 billion is held by domestic residents. The largest holders of domestically held debt are local banks (estimated at 81 percent), and insurance companies and pension funds (14 percent), with the latter two doubling their share over the last six years. Around $7 billion of the domestically held bonds are thought to be sovereign bonds, with the rest issued by other entities.

Figure 2. Bonds as a Share of Philippine External Debt (%)



B. Diminished Volatility of RoPs Has Coincided With Increased Domestic Ownership

4. **Over the past six years, the Philippines has been through a period of considerable uncertainty regarding the course of economic policy, and has suffered a series of adverse rating actions.** With the implementation of the first phase of the VAT reform law in November 2005, such concerns have begun to dissipate, but the turbulence of the preceding period is reflected by the weakening of the peso (by over 30 percent since January 2000). In the third quarter of 2005, when the currency plumbed new lows against the dollar, RoPs performed strongly. As the figures show, this represents the continuation of a broader trend towards lower volatility, which has also been accompanied by a marked rise in the domestic ownership of RoPs. It therefore seems reasonable to attribute part of the stability of the bonds to the fact that they seem to have found "steadier" hands, and not just to sanguine global conditions.[3]

Figure 3. Volatility (bps) has Diminished Markedly

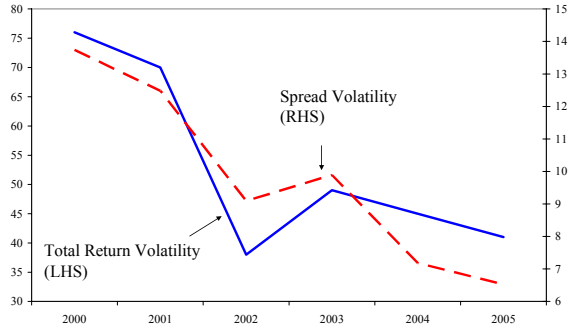
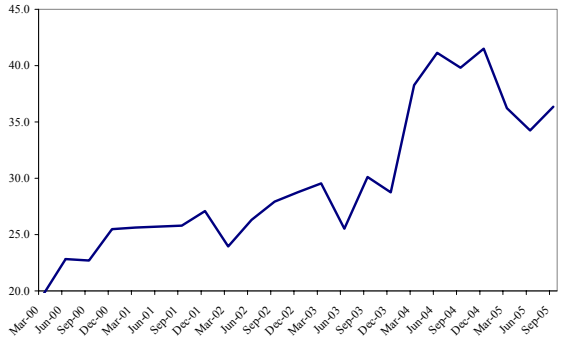


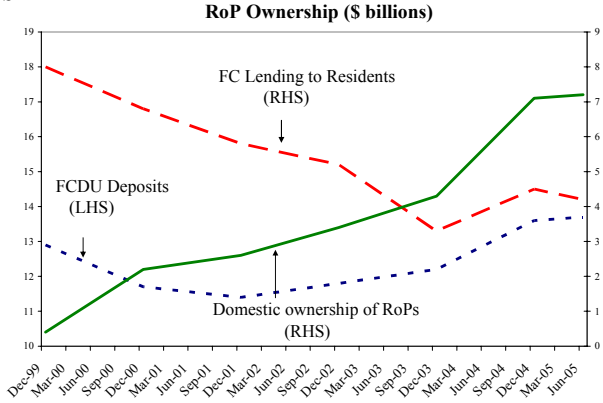
Figure 4. Domestic Investor Holdership of RoPs (%)



C. What has Driven the Demand for RoPs by Philippine Banks?

5. **As previously noted, Philippine banks are estimated to hold over 80 percent of domestically held external bonds.** This share has risen from a little over 70 percent in 1999. The driving factors behind the increase in domestic holdership of RoPs must therefore be traced back to banks' behavior. There are two concurrent drivers of the banking sector's bid for RoPs. First, in the aftermath of the Asian crisis, there has been a secular decline in foreign currency denominated lending to the private sector (though this has partially changed recently with a pick up in lending to some of the stronger performing companies, particularly telecoms). For the level of credit risk, banks, which have been awash with cash

Figure 5. FCDUs, Foreign Currency Lending to Residents and RoP Ownership ($ billions)



[3] Preliminary data from the central bank show that in 2004, domestic investors purchased over $3 billion of externally floated Philippine debt, or close to a fifth of the entire stock of RoPs, from external investors in the secondary market alone.

over the last two years, appear to be more comfortable with RoPs. Second, and just as important, starting in 2004, there was a strong rise in foreign currency deposits by residents (almost exclusively in dollars), and banks needed to match these liabilities with dollar denominated assets.[4]

6. **The forces behind increased bank holdings of RoPs deserve some scrutiny.** After remaining in a tight range between $12.9–$13.4 billion during 2001–03, foreign currency deposits have risen markedly in recent years; from end-2003 to September 2005, deposits held by Foreign Currency Deposit Units[5] (FCDUs) rose by nearly $2.4 billion. Despite this additional funding, foreign currency lending by FCDUs contracted over this period, falling from $3.5 billion at end-2003 to $3.0 billion in September 2005. Given the currency matching requirements, banks have therefore had to seek alternative foreign currency assets. Some of this demand has been met by increased interbank loans to foreign banks and U.S. Treasury instruments, but clearly RoPs also have been a major beneficiary. This period also coincides with the period when banks increased their exposure to credit derivatives based on RoP risk. In addition to $7 billion of sovereign bonds that is domestically held, market estimates suggest that financial institutions' implicit "long" position on RoPs is further enhanced by $1–1.5 billion of credit derivatives.

D. Why Might a Philippine Asset Manager Find RoPs Desirable?

7. **It is instructive to look at how a bond manager in the Philippines, choosing between peso denominated government bonds and RoPs would have fared over the last six years.** The bond manager does not face the same currency matching requirements as a bank, and is therefore relatively unconstrained in asset allocation choices. In a very stylized fashion, it is possible to demonstrate that RoPs have been a superior investment over the last six years. Figure 6 compares the cumulative value of an investment in RoPs (as measured by the Philippines sub-component of the EMBI-Global) with that of an investment in five-year peso denominated government bonds (in dollar terms), assuming a 100 percent reinvestment rate. The cumulative returns on peso bonds are some 40 percent lower over this period, primarily because the of the performance of the peso (Figure 7), not because of the performance of the bonds *per se.* Table 2 shows a comparison of quarter-on quarter total

[4] These banks could, of course, purchase other dollar denominated assets, but the existence of a strong "home bias" is common knowledge in the Philippines, and is in fact, widely prevalent globally in the asset allocation process (see *Global Financial Stability Reports* April 2004, and September 2005). While there are other equally high yielding instruments as RoPs, domestic banks frequently cite two factors as drivers of this home bias: First, their familiarity with Philippines risk, and second, an institutional aversion to other more complicated financial instruments which might offer comparable yields. Additionally, as Philippine bonds are zero-risk weighted per banking regulations, this also creates a natural advantage for RoPs.

[5] The FCDU data from the BSP covers both resident and non-resident lending and deposits.

returns on RoPs versus peso denominated bonds. Over the period from 2000–05, on average, RoPs have performed better on an absolute and risk-adjusted basis.

Figure 6. Comparative Cumulative Returns on RoPs versus Peso Bonds

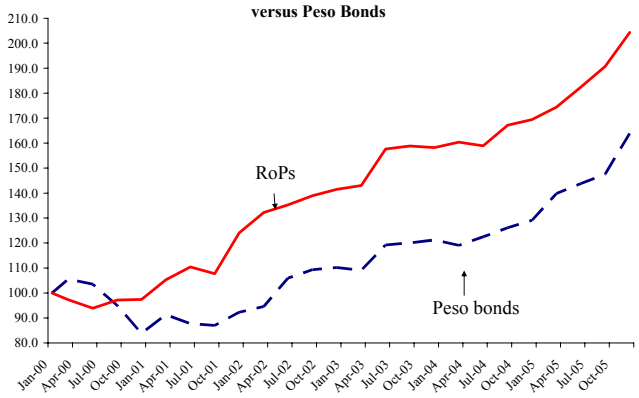


Figure 7. The Philippine Peso (PHP/USD)

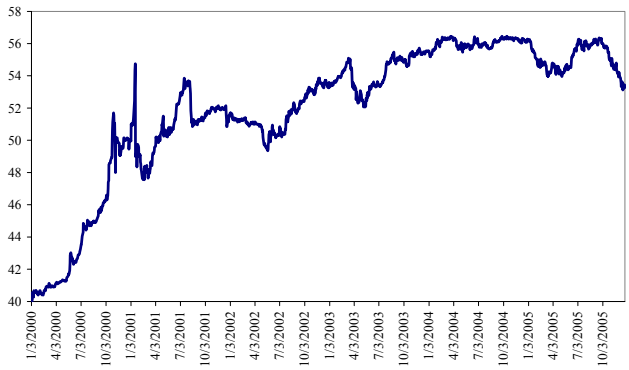


Table 2. Comparison of Quarter-on-Quarter Returns on RoPs versus Peso-Denominated Government Bonds (January 2000–December 2005)

RoPs		Peso-bonds	
Mean quarterly return (percent)	3.10	Mean quarterly return (percent)	2.23
Standard deviation of returns	4.29	Standard deviation of returns	5.68
Return per standard deviation (percent)	0.72	Return per standard deviation (percent)	0.39

8. **In order to more carefully compare the performance of RoPs against five-year peso-denominated bonds particularly during periods of turbulence, an elementary event study was performed for the period January 2000 to September 2005.** An "event" was defined as an adverse occurrence which caused a minimum week-long sell-off in either or both: (a) the peso (with a threshold weakening by at least two-thirds of the weekly standard deviation of the currency moves); (b) the Philippines EMBI-Global sub-component (with a threshold spread widening of at least two-thirds of a weekly standard deviation of spread moves). The universe of possible "events" includes political uncertainty, uncertainty associated with policy legislation, adverse reactions to unfavorable data releases, rating agency downgrades, as well as externally driven events such as the Argentine default, or the period of dislocation immediately after September 11, 2001. Using this definition, 17 "events" were identified in the specified period. The average duration of an "event" was 66 days with a standard deviation of 82 days.[6] RoPs outperformed the five-year peso bond in

[6] We treated the whole of the year 2000 as a single event, to prevent excessive clustering. Excluding this year, the average duration drops to 47 days, and the standard deviation about this average is 42 days.

12 out of these 17 "events".[7] The average outperformance (annualized) was 9.27 percent. In the 5 events where the peso asset was the stronger performer, its outperformance averaged 29.4 percent, whereas in the events where RoPs were the stronger performer, the average outperformance was 25.4 percent.[8] The results are summarized in the table below.

Table 3. Summary Results of Event Study

Event Period	RoP Returns (Annualized, Percent)	Peso Bonds Returns (in US$, Annualized, Percent)
January–December 2000	-2.50	-23.99
02/15/01–04/30/01	6.18	-51.86
06/01/01–08/06/01	2.63	-12.33
09/11/01–09/26/01	-30.80	2.80
10/22/01–11/02/01	-36.70	3.60
12/21/01–01/07/02	21.20	-10.70
05/21/02–06/25/02	-20.60	30.88
07/22/02–03/17/03	4.52	-3.80
05/15/03–06/18/03	66.50	-14.05
07/01/03–08/26/03	-17.60	-11.90
10/20/03–11/28/03	-33.60	-17.80
01/09/04–03/25/04	-3.26	-14.18
06/08/04–06/29/04	-1.70	-8.70
08/23/04–10/14/04	6.20	3.33
05/09/05–07/13/05	5.00	-10.30
07/25/05–08/03/05	13.46	-17.80
08/21/05–09/27/05	24.20	2.30
Average	0.18	-9.09

9. **Such an event study has the inherent methodological limitation that it is conducted with the benefit of hindsight, while an asset manager's decisions are forward-looking.** Therefore, the results of this study cannot be construed as concrete evidence that an asset manager would have had a definitive preference for RoPs over domestic bonds. Nonetheless, the study is suggestive of the following hypothesis: to the extent that the peso has been more sensitive to Philippines-specific adverse shocks, an asset manager may have a preference to take a long position in dollars, if there is a likelihood of

[7] The local market is much more liquid in the shorter maturities of the yield curve. The comparison with a five-year bond is, essentially, a conservative one. In reality, the coupon payment on a typical basket of Philippine government bonds is likely to be lower than that of the five-year bond, thereby lowering its total returns.

[8] Comparisons of risk-adjusted returns, by standardizing the nominal returns by the daily volatility of each asset, were also conducted. On a risk-adjusted basis, the peso bond outperformed RoPs in three events.

further adverse shocks. Given the presence of home bias, a pattern of repeated adverse shocks is likely to create a sustained demand for RoPs among asset managers. Indeed, both banks and asset managers are likely to see periods when external investors are underweighting RoPs (which would tend to be price-weakening) as relatively cheaper buying opportunities, creating greater stability for these securities over time.

10. **A short note of caution is, however, necessary.** To the extent that domestic investors have been a stabilizing influence on the price dynamics of RoPs, preventing "excessive volatility", the developments described above are salutary. However, viewed through a broader lens, the benefits of these trends are not unambiguous. First, ~~if~~ to the extent that the increased domestic bid reflects a lack of alternative investment opportunities, and is symptomatic of sluggish private sector lending, this is an area of concern—just as much as it would be if the government were crowding out other creditworthy borrowers. Second, banks and pension funds need to diversify their holdings away from government paper in order to reduce potential balance sheet vulnerabilities. More may need to be done to incentivize banks to diversify and choose from a broader universe of assets, both at home and abroad.

E. Summary and Conclusions

11. **This chapter attempts to make the case that the diminished volatility of RoPs, even through a period of extended turbulence, cannot be attributed solely to the sanguine global factors currently prevailing across all credit markets.** The increased ownership of these bonds by domestic financial institutions with a "home bias" is also likely to have played a role in the increasing stability of these assets. Furthermore, this "bid" for RoPs also appears to be driven by the behavior of depositors, as well as a secular decline in lending to other non-government entities. Further examination of depositors' behavior, their response to domestic economic and political conditions, and their resulting currency choice for holding deposits may thus be a promising area for future research.

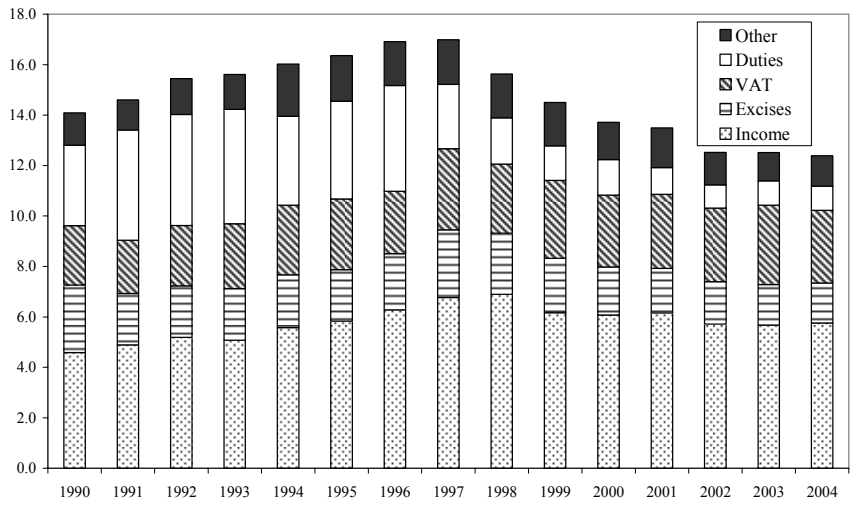
12. **Trading dynamics may change in the period ahead.** Any factor that causes the behavior of banks or depositors to change—such as a strong investment-led domestic recovery, a preference shift by domestic depositors away from dollars, or a change in the assessment of default risk by financial institutions—can cause the current dynamics to change, independent of global conditions. There is also a need for vigilance from the authorities to ensure that an investment recovery is not hampered by a slowness on the part of banks to move away from these bonds. Finally, the levels of ownership of RoPs by domestic entities needs to be monitored to ensure that they do not enhance potential balance sheet vulnerabilities.

Box 1. Philippines: National Government Tax Revenue Developments in 1990–2004

Two distinct periods can be identified in the Philippines' tax revenue performance over the period 1990–2004. Prior to the Asian crisis, tax revenues increased strongly, likely as a result of tax reforms undertaken in the late 1980s and mid-1990s. Following the crisis, however, tax revenues fell off sharply and have not yet recovered to their pre-crisis levels.

Despite the on-going trade liberalization, the NG tax ratio increased by almost 3 percentage points of GDP during 1990–97. Over two-thirds of the increase can be attributed to buoyant income tax collection, in particularly on corporate profits, and the remaining third to higher VAT receipts possibly on account of the expanding tax base. The on-going trade liberalization offset some of these gains, resulting in a loss of over ½ percent of GDP in the annual tax ratio over the eight-year period. The tax ratio peaked at 17 percent of GDP in 1997.

The Philippines: Composition of Tax Revenues, 1990-2004
(In percent of GDP)

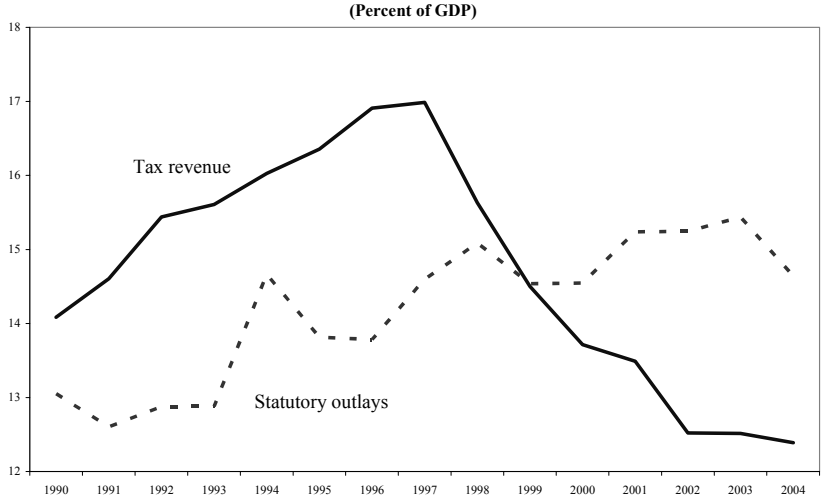


~~Two major~~ Various **tax reforms may have played a role in strengthening the revenue collection**. The first reform was started under the Aquino administration in 1986 and included the introduction of the VAT in 1988, which replaced a multi-rate manufacturers' tax, and changes in individual and corporate income tax. This reform was followed by ~~a second phase of tax reforms launched~~ the expansion of the VAT in 1994 to include services that were previously subject to percentage taxes and ~~with~~ the introduction of ~~the~~ a Comprehensive Tax Reform package (CTRP) in 1997. Under ~~this initiative,~~the CTRP, ~~the VAT was expanded in 1996 to include services that were previously subject to percentage taxes. In addition,~~ ad valorem taxes on tobacco products and alcoholic beverages were replaced with specific excises; and the taxation of petroleum products was revamped by a substantial reduction in import tariffs and the introduction of petroleum excises.

However, the revenue gains from these reforms were not sustained. National government tax revenues declined by over 4½ percentage points of GDP between 1997 and 2004. About one-third of the decline came as a result of the continuing trade liberalization and another third from lower excises that were not indexed to inflation. The remainder of the decline can be attributed to lower income tax collection (1 percent of GDP) and weaker indirect taxes, including the VAT (0.5 percent of GDP). The factors contributing to the decline in the tax ratio since the crisis are discussed in the text.

12. **These revenue and expenditure trends persisted after the Asian crisis.** From 1998 onward, cyclically-adjusted revenues generally follow the unadjusted revenue trend, reflecting relatively small cyclical fluctuations during 1999–2004 (Figure 1). After a brief improvement in 1998, cyclically-adjusted revenues continued on a declining path, closely tracking the sharp fall in national government (NG) tax collections. NFPS revenues were also affected by a decline in GOCC receipts which fell by 1½ percentage points of GDP between 1998 and 2004. Some of this decline came as a result of a moderation in the demand for electricity following the Asian crisis and unfavorable contracts between the National Power Corporation (NPC) and independent power producers (IPPs).[15] However, the primary factor explaining the deterioration in NPC's revenues was the government's decision in 2002 to cap increases in electricity tariffs and a number of subsequent pro-consumer tariff decisions.[16] Statutory expenditure outlays peaked at 15.4 percent of GDP in 2003, after increasing by 2.3 percentage points compared to the 1990 level. The share of statutory outlays in total NG expenditure went up by over 14 percentage points to 79 percent in 2003. This marked change in expenditure composition led to a less flexible budget, which has limited discretionary expenditure policy over the past few years to cuts in capital and maintenance spending (Figure 4).

Figure 3. The Philippines: National Government Tax Revenue and Statutory Outlays, 1990-2004
(Percent of GDP)



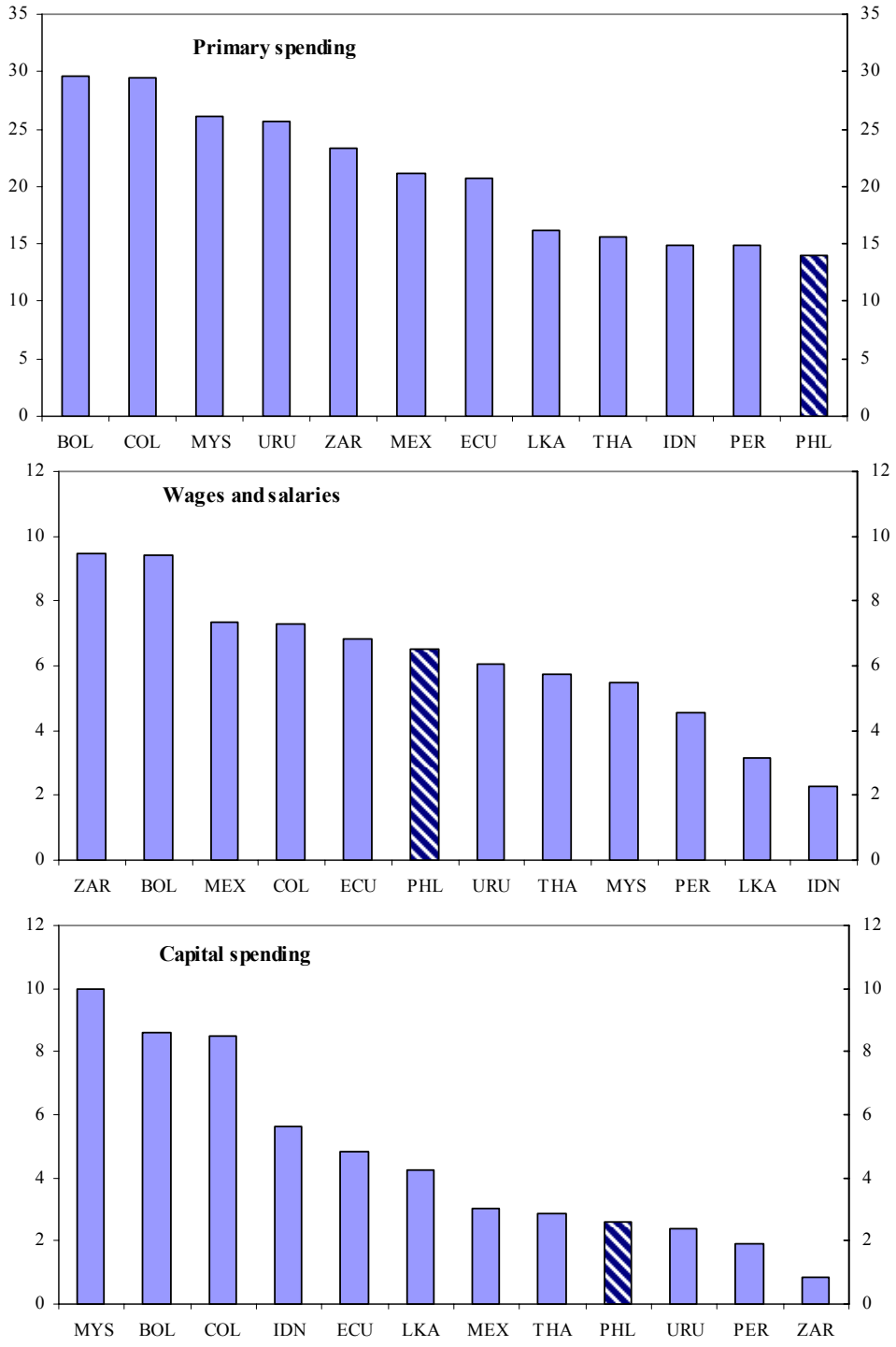
13. **There could be several explanations for why the underlying fiscal position did not improve following the Asian crisis.** First, as described above, fiscal policy was procyclical before and during the crisis and the stimulative expenditure policy continued into the early-2000s.[17] Second, the revenue reforms that boosted NG tax revenues enjoyed only temporary success for the following reasons: (i) while the VAT tax base was expanded, important sectors, including energy, were left out of the base; (ii) the income tax base was eroded by ~~new~~ a proliferation of tax incentives ~~that were granted~~ in rapidly expanding sectors of the economy,

[15] See also Manasan (2004) for an analysis of GOCC financial performance since the Asian crisis.

[16] For more information on the causes behind the weak financial performance of NPC see Box 3 in IMF (2004).

[17] Fiscal policy was on average procyclical during 1990-2004, with output gaps positively correlated with the fiscal stance in 9 out of 14 years.

Figure 6. Expenditures in the Philippines and Comparator Countries 1/
(In percent of GDP)



Sources: Government Finance Statistics (IMF); International Financial Statistics (IMF); World Economic Outlook (IMF); CEIC Database; EMED Database and FAD databases (IMF)
1/ 2003 or latest available year. Data may differ from other tables and charts presented in this paper due to the difference in data sources.

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improvement in total factor productivity growth. Behind this improvement is a rise in productivity of the services sector, possibly reflecting the rapidly expanding telecommunications industry (Figure 3).

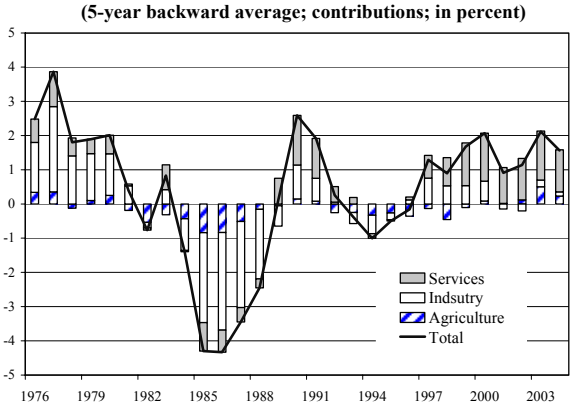
Table 2. Growth Accounting 1/
(Annual percent changes)

		Contributions to output per worker growth			
				TFP	
	Output per worker	Physical capital per worker	Human Capital	With human capital adjustment	Without human capital adjustment
	1980-89 average				
Philippines	-0.5	0.3	0.8	-1.6	-0.9
Developing economies	0.3	0.5	1.6	-1.8	-0.2
East Asia 2/	3.9	2.4	1.8	-0.2	1.5
Industrial economies	1.4	0.6	0.6	0.3	0.8
All economies	0.6	0.5	1.3	-1.2	0.1
	1990-99 average				
Philippines	0.4	0.3	0.7	-0.7	0.0
Developing economies	1.0	0.4	1.1	-0.5	0.6
East Asia	3.4	2.6	1.0	-0.2	0.8
Industrial economies	1.5	0.6	0.5	0.5	0.9
All economies	1.1	0.5	0.9	-0.2	0.7
	2000-04 average				
Philippines	1.7	0.4	0.6	0.7	1.3

Sources: Bosworth and Collins (2003); and Fund staff calculations.

1/ Regional averages are simple average.
2/ Indonesia, Korea, Malaysia, and Thailand.

Figure 3. Philippines: Labor Productivity (GDP/Employment) Growth (5-year backward average; contributions; in percent)



Sources: Fund staff calculations. See Annex 2.

C. Explaining Growth in the Philippines

6. **Philippines' growth performance can be analyzed in terms of potential growth determinants.** Much of the recent growth literature (see Rodrik, Subramanian, and Trebbi, 2002 and Rodrik, 2003), emphasizes the role of geography, economic policies, and institutions as determinants of growth.[25] How the Philippines fares compared to other regional economies is examined in terms of each of these factors:

Geography

7. **Geography sets a country's advantages and disadvantages due to its physical location.** Bloom, Sachs, Collier, and Udry (1998), Gallup, Sachs, and Mellinger (1999), and Sachs (2001) argued that geography influences growth through various channels. For example, geography would shape a large part of natural resource endowments, soil quality, and climate, which determine availability of marketable natural resources (such as oil), land productivity, and the public health environment. Geography is also an important determinant of trade and inward foreign direct investment from advanced economies, since a distant or landlocked country faces greater costs of transport.

[25] ~~See Rodrik, Subramanian, and Trebbi (2002) and Rodrik (2003) for general discussion about this approach.~~The demographic profile of the Philippines may also have had an effect on growth performance. However, the empirical support for such an effect is inconclusive (see Kongsamut and Vamvakidis, 2003) and demographic variables are not included in this study.

8. **For the Philippines, geography does not appear to be a disadvantage.** Table 3 compares the Philippines with other economies in terms of major geographical indicators selected from Gallup et al (1999).[26] The Philippines is in an advantageous position in transport with all population having access to the sea, high population density in coastal regions, and shorter distance to world markets. However, the Philippines has a tropical climate and a relatively high malaria index.

Table 3. Geography

	Philippines	East Asia 1/	All developing economies
Indicators related to integration			
Proportion of the region's population within 100 km of the coastline or ocean-navigable river	1.0	0.8	0.5
Density of human settlement (population per km2) in the coastal region (within 100 km of the coastline)	230.3	215.0	144.6
Density of human settlement (population per km2) in the interior (beyond 100 km from the coastline)	56.0	78.6	69.3
Landlocked (Yes=1, No=0)	0.0	0.0	0.2
Average distance by air of the economies within the region to the closest "core" capital-goods-supplying regions, such as the U.S., Western Europe, and Japan (in km)	3,010.0	4,237.5	5,050.0
Indicators related to natural resources and climate			
Proportion of land area within the geographical tropics	1.0	0.8	0.7
Index of Malaria prevalence (from 0, low, to 1, high)	0.6	0.3	0.4

Source: Gallup, Sachs, and Mellinger (1999).

1/ The simple average of Indonesia, Korea, Malaysia, and Thailand.

Economic policies

9. **Positive correlations between policy reforms such as increasing trade openness and growth have been widely documented, as have the negative links between high inflation and growth.** The Philippines has undertaken increasingly outward-oriented and market-based policies since the mid-1980s, including trade liberalization, privatization of government assets, strengthening of central bank independence, opening of sectors to foreign direct investment, and liberalization of domestic shipping, oil, and telecommunications. Kongsamut and Vamvakidis (2000) find that these policy shifts contributed to better economic performance in the Philippines in the 1990s.

10. **These policies have been maintained to varying degrees in recent years** (Figure 4). Since the 1990s, average inflation in the Philippines has declined, while the Philippines has also experienced a substantial increase in trade openness. However, the size of the fiscal deficit and external debt (in percent of GDP) in the Philippines has increased, much more so than in other East Asia economies. The size of government has also increased, while the total investment share to GDP has declined to the lowest in the sample period. After a significant improvement in the 1990s, net foreign direct investment (FDI) inflows

[26] Gallup, et al (1999) concluded that (i) tropical regions are hindered in development relative to temperate regions; (ii) coastal regions, and regions linked to coasts by ocean-navigable waterways, are strongly favored in development relative to the hinterlands; (iii) landlocked economies may be particularly disadvantaged by their lack of access to the sea; (iv) high population density in coastal regions would be favorable for growth, as evidenced by the fact that high growth in developing economies has often been achieved through labor intensive manufacturing exports that require good access to internal and international trade; (v) greater transport costs (measured in distance from core capital-goods-supplying regions, such as the U.S., Western Europe, and Japan) and the prevalence of infectious diseases are negatively correlated with growth.