

INTERNATIONAL MONETARY FUND



Staff Country Reports

Philippines: Selected Issues

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PHILIPPINES

Selected Issues

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Approved by the Asia and Pacific Department

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I. CONTAGION OF THE RECENT GLOBAL FINANCIAL TURMOIL¹

A. Introduction

1. **The global financial turmoil has impacted most emerging market countries, including the Philippines.** Spillovers were particularly prominent for countries with financial systems with high foreign bank participation, large exposures to ailing global financial institutions and structured products, and high external liabilities, including through wholesale funding. Fortunately, none of these characteristics were salient in the case of the Philippines. However, the Philippine financial system is exposed to both external and domestic channels of risk. This chapter tries to identify the main channels of risk and discuss policies to counter any further fallout from the global financial crisis.

B. Channels of Contagion

2. **So far, the spillovers from the global financial crisis on the Philippines have been relatively muted.** With a nascent capital market, the economy's exposure to securitization and off-balance sheet activities is limited. Presence of foreign capital remains low both in the capital market and the banking system. Nevertheless, equity prices have fallen and banks' debt holdings were adversely affected through rising interest rates and risk premia; direct exposure to distressed global banks; and tightening of interbank dollar funding.

Equity markets

3. **Equity prices have dropped by close to 50 percent so far in 2008, with the PSE index showing strong correlation with U.S. equity indices.** The correlation between S&P 500 and the PSE index since June 2007 was 0.90, broadly in line with regional peers.² A pair-wise granger causality test also confirms the transmission of shocks from the United States to the Philippine equity market.

Table I.1. Correlation Between Asian and U.S. Stock Indices
(July 2, 2007–October 30, 2008)

	Philippines	Thailand	Indonesia	Hong Kong, SAR	Malaysia	Singapore	Vietnam
Dow Jones	0.73	0.90	0.70	0.77	0.76	0.91	0.57
S&P500	0.88	0.90	0.70	0.81	0.85	0.97	0.78
S&P500 fin	0.91	0.76	0.49	0.64	0.78	0.89	0.89

¹ Prepared by Jack Joo Ree.

² In fact, the PSE demonstrated substantially stronger correlation than Asian peers with U.S. stock indices until September 2008.

Table I.2. Granger Causality Between the Philippine and U.S. Equity Prices
(July 2, 2007–October 30, 2008)

Lags =	3	4	5	6
S&P \Rightarrow PSE	0.00	0.00	0.00	0.00
PSE \Rightarrow S&P	0.91	0.81	0.92	0.97
S&P fin \Rightarrow PSE	0.00	0.00	0.00	0.00
PSE \Rightarrow S&P fin	0.74	0.76	0.81	0.86
S&P fin \Rightarrow PSE fin	0.00	0.00	0.00	0.00
PSE fin \Rightarrow S&P fin	0.95	0.42	0.68	0.70

Note: Null hypothesis is A does not granger cause B ($A \nRightarrow B$). Number in each cell entry represents the p-value corresponding to the test statistics.

4. **However, the local banks' direct exposures to the equity market are limited.** The Philippines' stock market capitalization (US\$44 billion) is half of Indonesia's (US\$71 billion) and Thailand's (US\$87 billion). The ratio of free floats is estimated at about 20 percent and the shallow market has resulted in lack of interest in portfolio equity by banks, which are active investors in fixed income market.³ As the result, only P 6 billion of bank equity holdings, or equivalent to 1 percent of banking system capital, are subject to fair value accounting.

5. **That said, a protracted large decline in equity price may have some consequences for the financial sector.** Banks will face difficulty in raising fresh capital in a bear market and some nonbank financial institutions (e.g., insurance companies) are more exposed to equities. Moreover, banks would be indirectly exposed as corporate clients would also find it more difficult to raise capital in local equity markets.

Debt markets

6. **Bank exposure to marketable bonds is substantial.** As of June 2008, Philippine banks held P 1.2 trillion of debt securities. Out of this, P 313 billion were recorded at cost, either as held-to-maturity securities or unquoted debt securities classified as loans. The rest, P 906 billion are primarily comprised of government securities and are priced at fair value. They either feed directly into income statements (17 percent) or into capital sections of balance sheets as unrealized gains or losses (83 percent). This P 906 billion amounts to 1.6 times the banking system capital and 17 percent of the asset, well above the exposures in regional peer countries.

³The Philippines adopts universal bank system where banks are allowed to fully own both financial and nonfinancial allied enterprises. This reduces banks' incentive to participate in portfolio equity as a minority shareholder in nonallied cooperates, which tend to be closely held. Banking law (RA 8791) sets 50 percent of net worth limit on total equity investment. However, the limit generally leaves plentiful slacks.

Table I.3. Exposure to Marketable Securities
(June 2008)

	Philippines 1/	Malaysia	Thailand	Korea 1/
Marketable debt/Asset (%)	17	9.6	12.3	10.5
Marketable debt/Capital (times)	1.6	1.3	1.3	1.7

Note: 1/ Trading account and available for sale securities.

7. **The exposure makes Philippine banks susceptible to domestic and international interest risks, sovereign spread risks, and corporate credit risks.** About 40 percent of all mark-to-market debts consist of peso-denominated government bonds with fairly long duration.⁴ Hence, they are subject to domestic interest rate risks. Roughly half of the total marketable securities are denominated in foreign currency (mainly U.S. dollar), the bulk of which are Republic of Philippines foreign currency-denominated bonds (ROPs) or credit linked notes (CLNs) linked to ROPs. The CLNs are typically levered up for yield enhancement by doubling or tripling the notional amount of the credit default swap from the principal amount of the host note.

8. **ROPs and CLNs are sensitive to sovereign spread risks.** Since the beginning of 2008, the EMBI+ Philippines widened by 360 bps, although it remained below EMBI+ Global and EMBI+ Asia. The correlation coefficient between EMBI+ Philippines and U.S. High Yield and average CDS spread for major global banks rose up to 0.9 since the beginning of 2007. Philippine banks are estimated to hold about US\$5 billion of ROPs and US\$2 billion of CLNs. Assuming an average duration of four years for both securities, and leverage of 2 for the CLN, a 100 basis point increase of the sovereign spread will result in a mark-to-market loss of US\$0.4 billion (or 3 percent of banking system equity⁵). Further, CLNs entail credit risks related to the host security issuer. For example, some large Philippine banks suffered hefty losses on their holdings of CLNs issued by Lehman Brothers.

Table I.4. Correlation - Philippine and the Global Credit Market
(January 1, 2007–September 15, 2008)

	JPM EMBI	U.S. High yield spread	Major global bank CDS
EMBI_PH	0.96	0.92	0.91

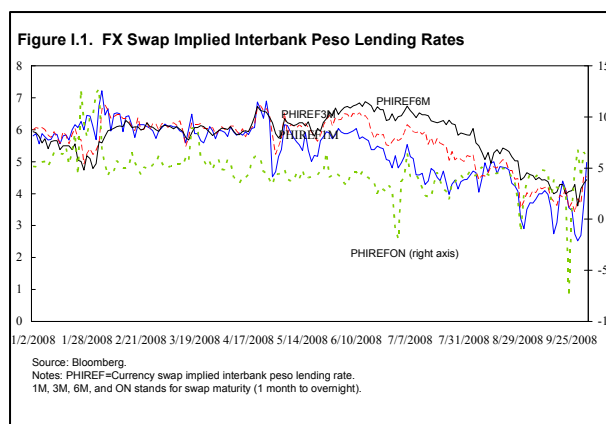
⁴ The average maturity of peso-denominated government bond is about 19 years.

⁵ All of the exposures are assumed to be marked to market.

Interbank dollar funding

9. The drying up of global liquidity has also affected the Philippine interbank dollar market.

Bulk of banks' demand for dollar settlement balance results from intermediating international trades. Net outflows of portfolio capital, with its elevated volatility since the crisis outbreak, also added to day-to-day funding pressure. Finally, the Bangko Sentral ng Pilipinas's (BSP) asset cover rules on foreign currency deposit units (FCDU), which requires 100 percent cover of FCDU liability by dollar assets, also created additional demand for dollars⁶ as mark-to-market losses kept growing on ROPs and CLNs. However, a steady inflow of remittances helped mitigate dollar shortage. Even so, short-term funding has become costlier and more volatile.



Exposure to distressed global banks

10. Thus far, Philippine banks' disclosed direct exposure to faltering global banks has been limited. Philippine banks had no direct subprime exposure and only minimal exposure to CDOs. The exposure to potentially distressed foreign financial institutions (seven U.S. and four European) was \$1.5 billion or 1.4 percent of total banking assets.⁷ Their exposure to Lehman Brothers amounted to US\$350 million (3 percent of total banking equity) and has mostly been provisioned for. That said, these exposures are concentrated on a handful of banks.

⁶ Before the BSP's temporary relaxation of the asset cover rule, banks making unrealized losses on the FDCU assets were required to immediately transfer eligible foreign currency assets from regular banking unit (RBU) to FCDU as credit (due to RBU – FDCU/EFDCU unrealized losses recognized in profit or loss and in equity; this account is not subject to asset cover requirement.). Thus, mark-to-market losses on ROPs and CLNs either shrank the dollar liquidity surplus or widened the dollar liquidity deficit of a bank.

⁷ This figure is based on BSP's survey of counterparty exposure as of September 30, 2008. It did not include exposure to Citigroup though. Citibank Philippines branch's total asset amounts to P 200 or 4 percent of total banking system asset. Hence, the overall exposure to distressed global banks must have been much larger if Citigroup exposure were accounted for.

Exposure to foreign funding

11. **Philippine banks' exposure to foreign funding is modest.** Currently, Philippine banks' foreign liability stands at P 444 billion, amounting to 28 percent of private credit and 14 percent of deposits. This is somewhat higher than peer group countries, but banks' foreign assets are substantially larger than foreign liabilities. Resident or remittance-related dollar deposits, a substitute for foreign funding, also outstrip banks' foreign liability and have held up well so far. Further, the share of banks' short term to total foreign debts amounts to 60 percent, which is less than that of Indonesia (70 percent), Korea (70 percent), and Malaysia (90 percent).

C. Mitigating Contagion

12. **Spillovers from the global financial crisis have so far not led to severe systemic financial strains in the Philippines.** However, despite substantial remedies already made, bank exposure to sovereign spread still poses the greatest risk. An unforeseen further worsening of global liquidity clogging can result in further widening of the sovereign spread and a tightening of dollar-funding conditions for the Philippine banks.

13. **Going forward, the real economic cycle will increasingly weigh on the soundness of the financial system.** The economic slowdown could reduce bank earnings and worsen asset quality as households and SMEs, including export-oriented firms, find it more difficult to service their debt. Third-quarter income statements already show a decline in profitability of the top five banks. The decline took place despite several banks taking advantage of the BSP's relaxation of accounting rules (see below). Trading gains and losses led the profit deterioration for Banco De Oro, Bank of the Philippine Islands, and Philippine National Bank.⁸ Loss provisioning also drove down net income for some banks.

⁸ Each bank took advantage of the BSP's accounting relief (option to reclassify mark-to-market assets to held-to-maturity at predated transfer price) to a different degree. For example, third quarter trading account profit can be a reflection of larger reclassification rather than better trading desk performance.

Table I.5. Top Five Banks - Recent Earnings

(In millions of pesos)

Banks	Income statement items	Sep. 2007	Dec. 2007	Mar. 2008	Jun. 2008	Sep. 2008
Metro Bank	Net Income	1,613	1,734	1,756	1,040	1,009
	Net interest income less provisioning	4,505	929	3,810	4,756	3,608
	Trading account income	615	1,898	853	511	772
Banco De Oro	Net Income	1,701	2,634	1,346	1,035	(1,320)
	Net interest income less provisioning	5,144	6,901	4,545	4,805	3,345
	Trading account income	584	1,635	720	556	(179)
Bank of the Philippine Islands	Net Income	1,924	2,372	1,549	2,284	1,489
	Net interest income less provisioning	4,760	4,957	4,101	4,138	4,308
	Trading account income	235	1,681	307	335	(159)
Philippine National Bank	Net Income	489	383	454	353	84
	Net interest income less provisioning	1,234	(664)	1,319	1,357	1,661
	Trading account income	612	445	558	553	68
Rizal Commercial Banking Group	Net Income	714	686	773	754	473
	Net interest income less provisioning	1,961	2,520	1,827	1,779	2,090
	Trading account income	n.a.	(159)	(191)	360	144

Source: Bloomberg.

Mitigating risks

14. **Regulators need to act judiciously and timely to mitigate risks of crisis transmission.** The BSP has already taken a number of steps to this end including: through a reduction in the reserve requirement ratio, a doubling of its rediscount capacity, accounting and regulatory forbearance, and stepped-up dollar liquidity provision. All of these measures were appropriate and timely. Going forward, the deposit insurance framework should be given sufficient flexibility. Targeted efforts will also be needed on strengthening the capital base of banks, particularly for banks with large sovereign spread or foreign counterparty exposures.

Exposure to sovereign spread risk

15. **Banks will need to limit losses by reducing their ROP and CLN exposures.** By adopting October 2008 amendments to International Accounting Statement (IAS) 39, the BSP allowed Philippine banks to reclassify mark-to-market securities to the held-to-maturity (HTM) account at any price prevailing between July 1 and November 14, 2008. Importantly, the BSP exempted CLNs and other hybrid (of derivative and nonderivative host instrument such as a corporate note) linked to ROPs from the requirement for bifurcation. Hence, structured instruments linked to ROPs can be reclassified without stripping its derivative components.^{9 10}

⁹ This exception has no foundation in IFSR. IFSR requires that all financial instruments that are derivatives or have an embedded derivative be classified as Fair Value through Profit and Loss (FVTPL) and measured at fair value. And the IAS39 amendment specifically prohibits the reclassification of anything that is classified as FVTPL

16. **Although these steps provided substantial relief, they are not eliminating exposure to sovereign spread risks.** So far, only part of banks' current holdings of ROPs and CLNs—most of which are linked to ROPs—have been reclassified to HTM due to the liquidity implication of reclassification (securities cannot be sold out of HTM).¹¹ Banks worry that reclassification may backfire in times of dire liquidity shortage. Hence, many banks are likely to continue to be exposed to market risks of ROPs and CLNs. Further, practical difficulties limit the scope for hedging these exposures.¹²

17. **In the end, banks will need to gradually deleverage their sovereign spread exposure.** Banks have shortened the duration of their ROP and CLN holdings. Such efforts could be strengthened. At the same time, the embedded leverage in CLN structures needs to be gradually scaled back. Ultimately, banks with higher exposure will need more capital.¹³

Exposure to international banks

18. **Exposure to international banks also needs enhanced monitoring.** The frequency of BSP monitoring on such exposures should increase and thematic on-site examination be implemented as needed. In fact, Lehman Brothers bankruptcy was a good wake up call that structured products such as CLNs entail counterparty risks, apart from the risk of the reference entity. Moreover, banks should be encouraged to reduce their counterparty concentration over time. They should also strengthen due diligence on complicated financial products. At the same time, banks with heavier exposure should be led to raise more capital.

Pressure on dollar liquidity

19. **The BSP has already taken a number of measures to alleviate pressures in dollar funding.** It has introduced a U.S. dollar-denominated deposit facility and repurchase

¹⁰ All other hybrid financial assets (other than CLNs) may be reclassified into the AFS/HTM/UDSCL only after bifurcating the embedded derivative from the host instrument and booking the derivatives under Derivatives with Positive/Negative Fair Value. Only the remaining host contract will be reclassified using predating.

¹¹ Philippine Accounting Standard (PAS) has largely converged the IFRS, particularly in terms of stringency of the tainting rules. The tainting rule effectively prohibits reversal of reclassification decision, as any security sold from the HTM will trigger a forced reclassification of all HTM securities to AFS.

¹² Market participants noted that they did not favor hedging strategy using derivatives (e.g., CDX). A key reason is their concern on reported earning volatility, which can occur when securities in AFS is matched with derivatives, which must be classified as FVTPL. Further, market liquidity of hedging instruments may grow very thin in a one-way market.

¹³ As many banks are adopting standardized framework for market risk calculation, rather than an internal VAR model, rise in sovereign spread volatility will not result in automatic adjustment of regulatory capital. Hence, a proactive supervisory review will be needed on capital adequacy to tighten the alignment between economic and regulatory capital.

agreement with banks. The BSP has also exempted until March 31, 2009, unrealized mark-to-market losses from the calculation of bank's FCDU asset cover requirement and began to directly intervene in the foreign exchange swap market as well. Yet, a substantial chunk of the unrealized mark-to-market losses are likely to remain beyond the March 31, 2009 expiration of the relief and the dollar funding pressure may revive at the expiration.

D. Lessons From Global Turmoil

Enhancing risk management capabilities and oversight

20. **Closely aligning the economy's risk management capabilities with the pace of innovation would be imperative.** The losses that Philippine banks suffered on structured products such as CLNs illustrate how banks underestimated the true risks of such products. Banks should be required to step up due diligence and risk management on this front. Oversight and disclosure of off-balance sheet activities, including the unit investment trust funds (UITFs), should also be stepped up.¹⁴ Even in more advanced emerging markets (e.g., Korea), mutual fund type instruments sold at bank often expose banks to litigation and negative publicity. Most importantly, the BSP should ensure compliance with the existing regulation on disclosure and investor competence. At the same time, banks will need to incorporate reputational, litigational risks, and other contingency risks from their off-balance sheet activities in their overall risk management framework.

Improving capital adequacy

21. **Bank capital adequacy proved critical in anchoring confidence in the banking system.** Despite much progress in efforts to align economic and regulatory capital, the global turmoil showed that even the largest global banks were not adequately capitalized. The average capital adequacy ratio of the Philippine banks is higher than U.S. banks before and after the turmoil. However, this does not exempt the Philippines from the on-going global efforts to improve capital adequacy and re-establish better norm and benchmark in this regard. It would be important to remove obstacles to capital measurement transparency, such as oversized foreclosed assets that remains on the bank balance sheet. Reliability of capital measurement also depends on quality, legal power, and independence of bank examiners and auditors¹⁵.

¹⁴ Investors in UITFs participate in a share of net asset values (NAVs) of the investment pool, which are marked to market daily. Disclosure and competency rules are in place, so that investors ideally understand that the fund's invest performance are fully passed through to them. The UITFs are not allowed to take leverage. As such, redemptions are made by drawing on liquidity reserve of the fund or by liquidating portion of the asset portfolio.

¹⁵ In general, practices such as "ever greening" and delayed recognition of asset impairment can significantly inflate income, current year profits, and capital.

22. **The BSP's regulation tool kit for capital adequacy and provisioning will also have to be stepped up.** For one, bank-by-bank differentiation of regulatory capital requirement would help safeguard the system without exacerbating procyclicality embedded in the Basel II framework. The BSP is already working on strengthening pillar 2 in order to implement individually differentiated capital adequacy ratios, which factors in business profile and risk capacity of a bank. Going forward, dynamic provisioning over a full economic cycle could also be considered to boost banks' capital reserves while mitigating excessive credit cycles.

Strengthening contingency framework

23. **Many countries expanded their deposit scheme either in the form of increased deposit insurance ceiling or blanket guaranty.** U.S. FDIC deposit insurance temporarily increased its ceiling from US\$100,000 to US\$250,000 until the end of 2009. Other countries, including Irish and Greek governments temporarily introduced blanket guaranty. The turmoil proved that deposit guarantee is still very important to contain a system-wide bank run. The Philippines deposit insurance (PDIC) system's capacity to address such challenges leaves scope for improvement. The authorities plan to raise the deposit insurance ceiling to P 500,000 from P 250,000.¹⁶ Greater flexibility in the PDIC law regarding the maximum coverage and recapitalization of PDIC should also be allowed.

E. Conclusion

24. **Overall, the Philippine financial system has so far remained resilient to the spillovers from the global financial crisis.** However, the banking sector is exposed to further mark-to-market losses on their large ROP and CLN holdings if country risk premia rise further; external funding conditions could tighten, although the large deposit base provides a cushion; and off-balance sheet activities could constitute reputational risks in the event of strong redemption pressures from the unit investment trust. From the domestic side, the earnings and asset quality will decline as the economy slows.

25. **A number of mitigating steps have already been taken,** including heightened monitoring; accounting and regulatory forbearance; and liquidity provision. However, there are scopes for additional measures to mitigate the risks. BSP should step up monitoring of off-balance sheet activities, enhance stress-testing exercises, and strengthen banks' risk management capabilities, including liquidity risk management. The regulatory forbearance should not be allowed to impair transparency about financial soundness. Going forward, a gradual reduction of banks' sovereign spread exposure is needed and capitalization should be

¹⁶ The audited net assets of the Philippine Deposit Insurance Corporation (PDIC) are relatively low at 1½ percent of system deposits (P 49 billion; end-2006). Moreover, premiums are uniformly capped at 0.2 percent of the insured amount, irrespective of risk profiles of banks.

stepped up, possibly through a proactive application of pillar 2 of the Basel II framework. The BSP should stand ready to flexibly apply existing liquidity facilities and the proposed doubling of deposit insurance could be supplemented by a legal provision allowing for a temporary blanket guarantee under extreme stress.

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II. REMITTANCES AND THE MACROBALANCE APPROACH TO EXCHANGE RATE ASSESSMENT¹⁷

A. Introduction

26. **In recent years, workers' remittances have provided an important source of balance of payments financing in a growing number of countries.** This is especially the case in the Philippines, where remittances have grown markedly since 1999, rising to over 10 percent of GDP in the last few years.

27. **Motivated by this development, substantial literature has emerged exploring the macroeconomic relevance of remittance flows.** The aim has mainly been to provide an analytical and empirical assessment of both their determinants and their impact on the macroeconomy. While the results of this evolving literature point to some interesting differences for different country groups, a general conclusion is that remittances can have important implications for both consumption smoothing and long-term growth and development in recipient countries.

28. **However, the potential implications of remittances for an economy's equilibrium saving-investment balance and equilibrium real exchange rate remain largely unexplored.** Indeed, the Fund's Consultative Group on Exchange Rate Issues (CGER) exercise has so far not incorporated remittances in its macrobalance approach to exchange rate assessment. This chapter is a first step towards filling this gap, with an application to the case of the Philippines.

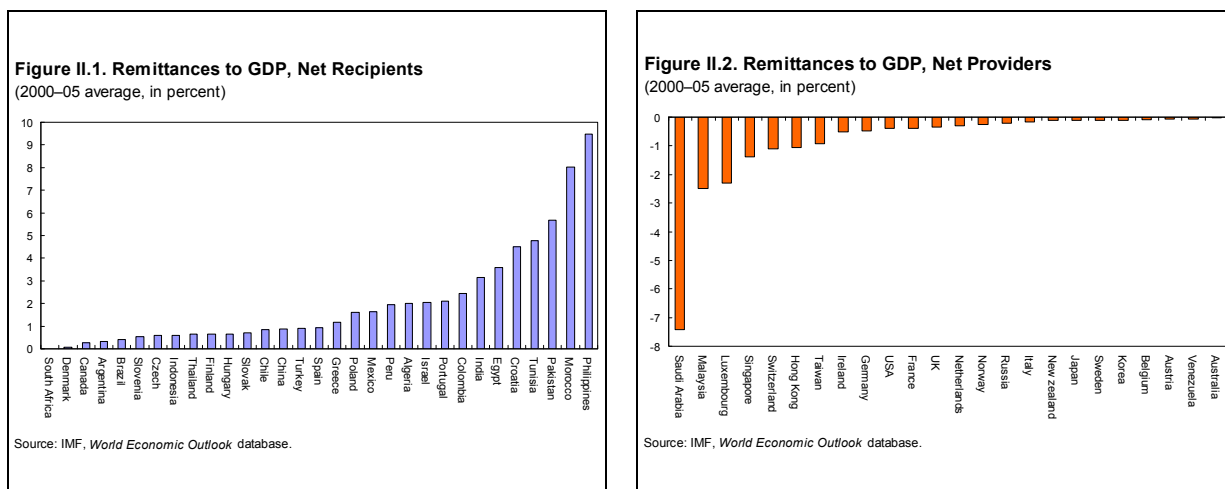
B. Background and Literature Review

29. **Workers' remittances have emerged as a major component of the balance of payments in a growing number of countries.** By 2005, recorded remittances globally had reached some US\$160 billion. Given that a substantial portion is believed to be channeled through the informal sector and thus not captured by official statistics, their actual level could be much higher. Freund and Spatafora (2005) estimate that these informal remittances may amount to about 35–75 percent of official remittances.

30. **At the same time, the distribution of remittances differs significantly among net recipient and net provider countries.** Among net recipient countries within the sample used for the purposes of this chapter, some 50 percent recorded net remittance inflows in excess of 1½ percent of GDP on average during 2000 to 2005. Among these, the Philippines clearly stands out, together with Morocco, Pakistan, Tunisia, and Croatia. By contrast, among net providers of remittances, countries with net remittance outflows in excess of 1½ percent of

¹⁷ Prepared by Ioannis Halikias.

GDP account for only 12 percent of the sample. Among the high-provider group, Saudi Arabia clearly stands out, followed at some distance by Malaysia and Luxemburg.



31. **A growing literature exploring the determinants and the macroeconomic impact of remittances in recipient economies has emerged in recent years.** The main findings can be summarized as follows:

- On *determinants* of remittances, despite many researchers' priors, evidence that macroeconomic conditions in the host country are important turns out to be surprisingly weak, see for example, Vargas-Silva and Huang (2006) on Mexico; Lueth and Ruiz-Arranz (2006) on a sample of Middle Eastern, European, and Asian countries; Gupta (2005) on India; and Roache and Gradzka (2007) on a sample of Latin American countries. Instead, the emerging consensus in the literature appears to be that the *quality of policies and institutions* in receiving countries, including multiple exchange rates, foreign exchange deposit restrictions, large black market premia, and other types of transaction costs are much more important, see for example, Aggarwal and Spatafora (2005) and Freund and Spatafora (2005).
- On the *macro-economic impact of remittances at business cycle frequencies*, an important horizon for the issues of this chapter, there is some evidence that remittances play a countercyclical, consumption-smoothing role, although the effect is not always strong. See Aggarwal and Spatafora (2005) on a large sample of developing and emerging market economies, and the case studies in Bouhga-Hagbe (2004) on Morocco, Chamon (2005) on Samoa, and Gupta (2005) on India. The empirical evidence on this issue is not unambiguous, however. Bora Durdu (2008) finds a stabilizing impact of remittances for Mexico, but not for Turkey—a finding echoed by Sayan (2004) and Sayan and Tekin-Koru (2008). Importantly, Burgess and Haksar (2005) do not find clear evidence of a countercyclical impact of remittances in the case of the Philippines.

- On the *macro impact of remittances at longer horizons*, the main transmission channels, and even the net direction of impact, are not clear cut. On the negative side, Chami and others (2003) find evidence of an adverse impact on labor force participation and labor effort. On the positive side, there is evidence of remittances having a beneficial impact on poverty reduction (Aggarwal and Spatafora, 2005) and on relaxing liquidity constraints and/or promoting financial development (Giuliano and Ruiz-Arranz, 2005, and for the case of the Philippines, Yang, 2008).

32. **However, these studies, while documenting an important macroeconomic effect of remittance flows, leave largely unexplored the impact of remittances on the equilibrium saving-investment balance and the equilibrium real exchange rate.**

C. Analytical Issues

33. **The Fund's CGER exercise aims at assessing a country's exchange rate on the basis of three distinct methodologies** (i) the **macrobalance (MB)** approach estimates the equilibrium current account balance (or savings-investment (S-I) norm) and assesses the degree of exchange misalignment on the basis of the deviation between this norm and the actual current account balance (corrected for the cycle and the impact of lagged real exchange rate changes); (ii) the **equilibrium real exchange rate (ERER)** approach directly estimates a country's "equilibrium" real exchange rate on the basis of a reduced-form equation; and (iii) the **external sustainability (ES)** approach calculates the current account balance that stabilizes a country's net foreign asset position and assesses the exchange rate on the basis of the deviation of the actual current account (corrected as in the MB approach) from this level. For the purposes of this chapter, the MB approach will be expanded to include workers remittances as one of the determinants for the S-I norm.

34. **The relevance of remittances for the equilibrium current account position would depend on the response of household saving to remittances.** At one extreme, household saving could decline such that remittances are fully offset by a higher trade deficit, leaving the S-I norm unchanged; this result tends to emerge more strongly in models that do not distinguish between tradable and nontradable goods. At the other extreme, saving would remain unchanged, implying a one-for-one impact on the equilibrium current account balance. Burgess and Haksar (2005) tests savings behavior for the Philippines using simple correlation analysis, as well as vector autoregression techniques. The authors find very weak evidence of a stabilizing impact of remittances on private consumption. As such, their results suggest that remittances could play a nontrivial role in the determination of the S-I norm.

35. **More generally, remittances (as distinct from other current external transfers) could be viewed as the endogenous outcome of the household's optimization over consumption/saving and consumption/leisure choices.** Incorporating remittances into the optimization problem, and adding a nontrivial labor supply choice, significantly complicates the analysis—and a full analytical exposition is beyond the scope of this chapter. At the same

time, such a modeling strategy carries the reward of a much richer set of results. For the issue at hand, it turns out that, in general, the “full offset” result is not robust, even under the one-good formulation.

D. Empirical Approach and Results

36. **While there are compelling theoretical reasons why remittances could impact a country’s equilibrium current account position, getting a sense of the relevant magnitudes is ultimately an empirical question.**

37. **To ensure comparability of S-I norms and exchange rate assessments, the empirical analysis in this chapter utilizes the CGER country sample.** This is a sample of 54 countries, broadly balanced between industrial (25) and emerging market economies (29), with observations spanning the 1970–2004 period. A distinct disadvantage for the issue at hand is that the sample excludes some large net remittance recipients, especially in Latin America and in central and eastern Europe. The tabulation below summarizes the set of variables considered by the CGER’s MB approach; for a discussion of the underlying economic rationale (including coefficient signs), see Lee and others (2008).

Table II.1. List of Variables

Variable	Description
CA	Current account balance as a percentage of GDP
FISCAL	Government balance as a percentage of GDP
PPPGDPP	PPP adjusted GDP per capita (constant 2000, U.S. dollars)
RYGROP	Growth rate of real GDP per capita (constant LCU)
NGDPD	Nominal GDP in billion of U.S. dollars
ODEP_30	Ratio of population (65 and above) over (30 to 64 years old)
PGRO	Total population growth
TBO	Trade balance of oil in billion of U.S. dollars
CRISIS	Indicator of banking crisis episodes
NNFAD	Nominal net foreign assets in billion of U.S. dollars

38. **As a benchmark empirical specification, estimates of the S-I norm can be obtained by regressing the current account variable on the CGER explanatory variables using a *panel-based approach*.** Under this specification, common coefficients, *including a common constant term*, are imposed across the countries of the sample. Moreover, a number of the variables (including fiscal, demographic, and income variables) are measured relative to the geometric average for trading partners based on trade weights to get a more direct mapping of relative savings and investment. The estimation results are summarized in the tabulation below.

Table II.2. Panel Specification: CGER Variables
Dependent Variable: CA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.033381	0.007540	4.427183	0.0000
FISCAL	0.334782	0.027343	12.24389	0.0000
PPPGDPP	2.36E-06	2.19E-07	10.78190	0.0000
RYGROP	-0.075709	0.032172	-2.353244	0.0187
NGDPD	4.00E-06	1.71E-06	2.339985	0.0194
ODEP_30	-0.215755	0.027558	-7.829189	0.0000
PGRO	-1.127122	0.203137	-5.548581	0.0000
TBO	0.000540	0.000110	4.890302	0.0000
CRISIS	0.017141	0.003509	4.884540	0.0000
NNFAD	4.88E-05	6.23E-06	7.841905	0.0000
R2	0.280850	Mean Dep. Var.	-0.009424	
Adj. R2	0.276454	S.D. Dep. Var.	0.052447	
S.E.	0.044603	Akaike	-3.375763	
SSR	3.143293	Schwarz	-3.341980	
Log Likelihood	2693.731	F-stat.	68.55988	
DW	0.508717	Prob (F-stat.)	0.000000	

Source: IMF staff estimates

39. **All estimated coefficients are statistically significant and have the theoretically predicted sign.** In particular:

- An increase in the fiscal balance raises the equilibrium current account balance (less than full “Ricardian equivalence”);
- Among the demographic variables, a high old-age dependency ratio and rapid population growth allow wider current account deficits in equilibrium;
- Low levels of development and rapid output growth imply wider equilibrium current account deficits as the economy is converging;
- Economic size appears to be associated with a larger equilibrium current account balance;
- Banking crises, typically associated with sudden stops, force the equilibrium current account position to shift into larger surplus (“current account reversal”).

40. **The key empirical issue for this section is the extent to which adding remittances to the CGER specification adds explanatory power, and whether the remittance variable is “economically” important.** Before proceeding, the appropriate concept of remittances to be used in the empirical analysis warrants brief elaboration. The literature has explored three different components of workers’ remittances: (i) a narrow component consisting of current *transfers* by migrants; (ii) *employee compensation* recorded under the BOP income account; (iii) *migrants’ transfers*, consisting of contra-entries to the flow of goods and changes in financial items that arise from individuals’ change of residence. From an analytical perspective, a strong case can be made for focusing on the narrow concept, as

the latter two categories are not conceptually representative of remittance behavior.¹⁸ From a more practical perspective, data limitations pose problems in using a broader concept of remittances; serious statistical problems of cross-country comparability of the latter two categories have been well documented. In any event, a broader concept entails a large number of missing observations for the sample under consideration that would result in a significant loss of degrees of freedom. For all these reasons, the empirical analysis of this section is based on the narrow transfer component of remittances.

41. **The tabulation below summarizes the empirical results from adding remittances as a ratio to GDP (REM) to the CGER explanatory variables under the panel specification.**

Table II.3. Panel Specification: Including Remittances
Dependent Variable: CA

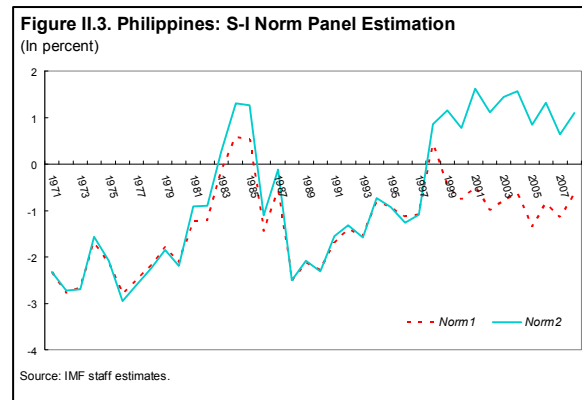
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.035353	0.007877	4.488339	0.0000
FISCAL	0.366395	0.029678	12.34552	0.0000
PPPGDPP	2.59E-06	2.49E-07	10.38141	0.0000
RYGROP	-0.106876	0.035370	-3.021725	0.0026
NGDPD	5.44E-06	1.75E-06	3.099238	0.0020
ODEP_30	-0.240561	0.029535	-8.145005	0.0000
PGRO	-1.201322	0.212591	-5.650859	0.0000
TBO	0.000657	0.000116	5.677527	0.0000
CRISIS	0.021647	0.003654	5.924194	0.0000
NNFAD	4.92E-05	6.92E-06	7.835246	0.0000
REM	0.208722	0.054345	3.840686	0.0001
R2	0.327070	Mean Dep. Var.	-0.008934	
Adj. R2	0.322046	S.D. Dep. Var.	0.052704	
S.E.	0.041657	Akaike	-3.371951	
SSR	2.629832	Schwarz	-3.331448	
Log Likelihood	2621.945	F-stat.	65.13772	
DW	0.500175	Prob (F-stat.)	0.000000	

Source: IMF staff estimates.

42. **The coefficient of the remittance variable is correctly signed, statistically significant, and economically quite important.** A 1 percentage point increase in the remittance-to-GDP ratio is estimated to raise the equilibrium current account balance by 0.2 percentage points of GDP. Moreover, inclusion of the remittance variable improves the equation fit and has very moderate impact on the estimated coefficients of the other explanatory variables, which remain statistically significant. Overall, the estimation results argue strongly for including remittances as an explanatory variable of the S-I norm, consistent with the analytical considerations of the previous section.

¹⁸ For a detailed discussion of these issues, see Chami and others (2008).

43. **Figure II.3 depicts the time series for the S-I norm for the Philippines,** estimated on the basis of the standard CGER variables (Norm 1) and including remittances (Norm 2). Clearly, including remittances has a material impact on the estimated equilibrium current account, especially over the post-1998 period. As of 2008, Norm 2 exceeded Norm 1 by over 1½ percentage points of GDP. The estimated S-I norms even differ in sign: while the MB approach using the standard CGER variables points to a small deficit as an equilibrium current account position for the Philippines, accounting for remittances instead points to a surplus.



44. **As an alternative empirical specification, the equations for the equilibrium current account are estimated using *fixed effects (FEs)***—the preferred specification in the CGER exercise: while the explanatory variable coefficients are kept identical across countries, *country-specific constant terms* are now allowed. The tabulation below summarizes the FEs estimation results on the basis of the CGER explanatory variables—to conserve space, only the Philippines-specific FE is reported.

Table II.4. FE Specification: CGER Variables
Dependent Variable: CA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.077675	0.013435	5.781634	0.0000
FISCAL	0.340338	0.029967	11.35720	0.0000
PPPGDPP	3.72E-06	3.63E-07	10.25929	0.0000
RYGROP	-0.122155	0.031084	-3.929864	0.0001
NGDPD	3.91E-07	2.56E-06	0.152842	0.8785
ODEP_30	-0.313421	0.061448	-5.100605	0.0000
PGRO	-1.637819	0.258130	-6.344933	0.0000
TBO	0.001012	0.000165	6.135922	0.0000
CRISIS	0.012604	0.003453	3.650253	0.0003
NNFAD	3.39E-05	7.88E-06	4.300656	0.0000
FE (Philippines)	-0.026224	0.010015	-2.618632	0.0089
R2	0.455943	Mean Dep. Var.	-0.009424	
Adj. R2	0.433482	S.D. Dep. Var.	0.052447	
S.E.	0.039475	Akaike	-3.586854	
SSR	2.37988	Schwarz	-3.370643	
Log Likelihood	2915.549	F-stat.	20.29928	
DW	0.668956	Prob (F-stat.)	0.000000	

IMF staff estimates.

45. **The FE estimation results do not fundamentally change the conclusions from the panel specification.** As expected, FEs considerably improve the equation fit, suggesting that country-specific factors may indeed be important. On the other hand, for the most part the conclusions regarding the statistical and economic significance of the explanatory variables

remain broadly unaffected. The main exception is the economic size variable (NGDPD) whose coefficient turns statistically insignificant under the FE specification. While the coefficients of the crisis dummy and net foreign assets are marginally lower compared to the original results, they remain statistically significant at conventional levels.

46. **The next step is to add the REM variable to the FE specification. The estimation results are summarized in the tabulation below.**

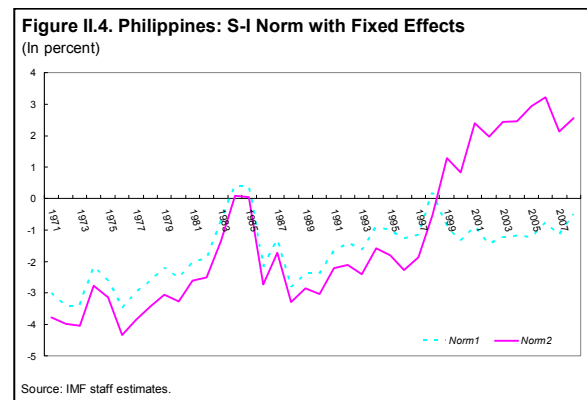
Table II.5. FE Specification: Including Remittances
Dependent Variable: CA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.081914	0.138520	5.913402	0.0000
FISCAL	0.343986	0.032336	10.63790	0.0000
PPPGDPP	4.29E-06	3.94E-07	10.86997	0.0000
RYGROP	-0.146788	0.034246	-4.286313	0.0000
NGDPD	-1.26E-06	2.62E-06	-0.481630	0.6301
ODEP_30	-0.312871	0.064371	-4.860433	0.0000
PGRO	-1.894908	0.267811	-7.075539	0.0000
TBO	0.001022	0.000168	6.088203	0.0000
CRISIS	0.014088	0.003629	3.881807	0.0001
NNFAD	3.21E-05	7.97E-06	4.028667	0.0001
REM	0.453077	0.089700	5.051009	0.0000
FE (Philippines)	-0.039293	0.010372	-3.788535	0.0002
R2	0.509781	Mean Dep. Var.	-0.008934	
Adj. R2	0.484920	S.D. Dep. Var.	0.052704	
S.E.	0.038866	Akaike	-3.592519	
SSR	2.100598	Schwarz	-3.353181	
Log Likelihood	2733.651	F-stat.	19.29697	
DW	0.669391	Prob (F-stat.)	0.000000	

IMF staff estimates.

47. **The FE estimation results presented above are broadly consistent and strengthen the results obtained under the specification without FEs.** The REM coefficient remains correctly signed and strongly significant, but its size actually *increases*: the FE estimation results suggest that an increase in remittances by 1 percentage point of GDP raises the equilibrium current account balance by almost ½ percentage point of GDP. The estimation results regarding the other explanatory variables are broadly robust, with the economic size variable remaining statistically insignificant.

48. **Figure II.4 summarizes the evolution of the equilibrium current account balance under FE estimation**, with the standard CGER explanatory variables (Norm 1) and with remittances included (Norm 2). In qualitative terms, the picture painted by Figure II.4 is broadly consistent with that of Figure II.3. It is reassuring that the estimated 2008 norm on the basis of the standard CGER variables is essentially identical across the



two specifications. At the same time, Figure II.4 confirms that taking remittances into account makes a substantial difference for the S-I norm in the case of the Philippines: with remittances incorporated in the FE specification, the equilibrium current account balance turns out to be significantly higher relative to the standard CGER model throughout the post-1998 period when remittances took off: with FE included, the estimated S-I norm for the Philippines reaches a surplus 2.6 percent of GDP in 2008 (versus 1.1 percent of GDP based on the non-FE specification).

E. Implications for the Equilibrium Exchange Rate

49. The tabulation below summarizes the S-I norm estimated using the standard CGER variables, as well as adding remittances (in bold). For reference purposes, the table also includes the exchange rate assessments on the basis of the equilibrium real exchange rate (ERER) and external sustainability (ES) approaches.

Table II.6. Philippines: Exchange Rate Assessment 1/

	Elasticities	Projected Medium-Term CA/GDP	CA/GDP Norm	Change in REER from Reference Period to Projection Date	Projected Medium-Term CA/GDP at Reference Period	RER Gap	Multilaterally Consistent RER Gap			
MB approach - standard CGER variables	0.24	0.5	-1.2	1.2	0.8	-8.2	-5			
MB approach with Remittances	0.24	0.5	1.1	1.2	0.8	1.2	1			
MB approach with Remittances - FE	0.24	0.5	2.6	1.2	0.8	7.1	5			
				Actual ln(REER)	Equilibrium ln(REER)	Misalignment	Multilaterally consistent misalignment			
ERER approach				4.58	4.45	12.9	12			
					Change in REER from reference period to projection date	Projected medium-term CA/GDP at reference period exchange rate	RER gap			
ES approach				Elasticities	Projected medium-term CA/GDP	NFA/GDP 2007	NFA-stabilizing CA/GDP	1.2	0.8	-9

Source: IMF staff estimates.

1/ All figures are in percent, except for elasticity.

50. While the standard CGER MB approach points to a peso undervaluation of 5 percent, incorporating remittances points to an *overvaluation* in the range of 1–5 percent. Even though both sets of values are reasonably close to equilibrium, the difference between the point estimates is statistically (and economically) significant. Moreover, incorporating remittances in the S-I norm estimation considerably reduces the discrepancy in the peso's exchange rate assessment between the MB and ERER approaches.¹⁹

¹⁹ The ES approach, essentially a bound test to ensure nonexplosive behavior of the NFA position, is not comparable to the other two approaches in this regard.

F. Conclusion

51. **This chapter has explored, from an analytical and an empirical perspective, the implications of workers' remittances for the Philippines' S-I norm and equilibrium exchange rate.** While remittances have emerged as an increasingly prominent source of BOP financing in the case of the Philippines, particularly over the last decade, a similar trend also characterizes a number of other emerging market and developing economies. Accordingly, the analysis and empirical findings of this chapter potentially carry broader implications for the Fund's exchange rate assessment exercise.

52. **The empirical results provide strong support that remittances are relevant for estimating the S-I norm.** Omitting this factor from the exchange rate assessment exercise could result in substantial bias in the estimated S-I norm. In the case of the Philippines, this degree of underestimation was found to be in the range of 1¼–3 percent of GDP, depending on the specification.

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III. FISCAL POLICY DURING DOWNTURNS AND THE PROS AND CONS OF ALTERNATIVE FISCAL RULES²⁰

To help formulate an appropriate fiscal response to recent external shocks, the paper explores the following issues: (i) automatic stabilizers, which are found to be small in the Philippines; (ii) the scope for discretionary countercyclical fiscal policy and concludes that, if contemplated, measures should be well-targeted, temporary, transparent, and timely; and (iii) anchoring fiscal policy through the introduction of a formalized fiscal rule and points out that such a framework should be flexible to accommodate (external) shocks while maintaining favorable debt dynamics.

A. Introduction

53. **The Philippines recently experienced a negative terms-of-trade shock from rising commodity prices and spillovers from the global financial turmoil.** The authorities resisted pressures to repeal the VAT, or adjust its rate, on oil in response to the rising commodity prices. Instead, they opted for personal income tax relief and expansion of (conditional) cash transfers, resulting in a modest increase in pro-poor spending. Moreover, the tariff on rice imports was reduced, while the import tariff on oil now depends on the oil price. Further to this, the National Food Authority continued to sell rice to the poor at below-market-prices, increasing its deficit to 1 percent of GDP from a balanced position in 2007. The authorities opted for implementing a fiscal stimulus in 2009 to dampen the slowing economy from the spillovers of the financial turmoil, delaying the goal of balancing the budget to the original target date of 2010.

54. **To help answer how fiscal policy should respond to such adverse external shocks,** the paper asks the following questions:

- How large are automatic stabilizers in the Philippines and to what extent has fiscal policy been pro- or countercyclical?
- What is the scope for countercyclical discretionary fiscal policy?
- What are the pros and cons of alternative fiscal rules?

B. The Role of Automatic Stabilizers in the Philippines

55. **Automatic stabilizers normally refer to the “automatic” response of revenues and expenditures to economic cycles.** In order to determine the magnitude of automatic stabilizers, the actual fiscal balance is compared with the fiscal balance prevailing when the economy operates at full capacity (i.e., the cyclically adjusted fiscal balance). The primary cyclically adjusted balance in period t ($PCAB_t$) is given by,

²⁰ Prepared by Dennis Botman.

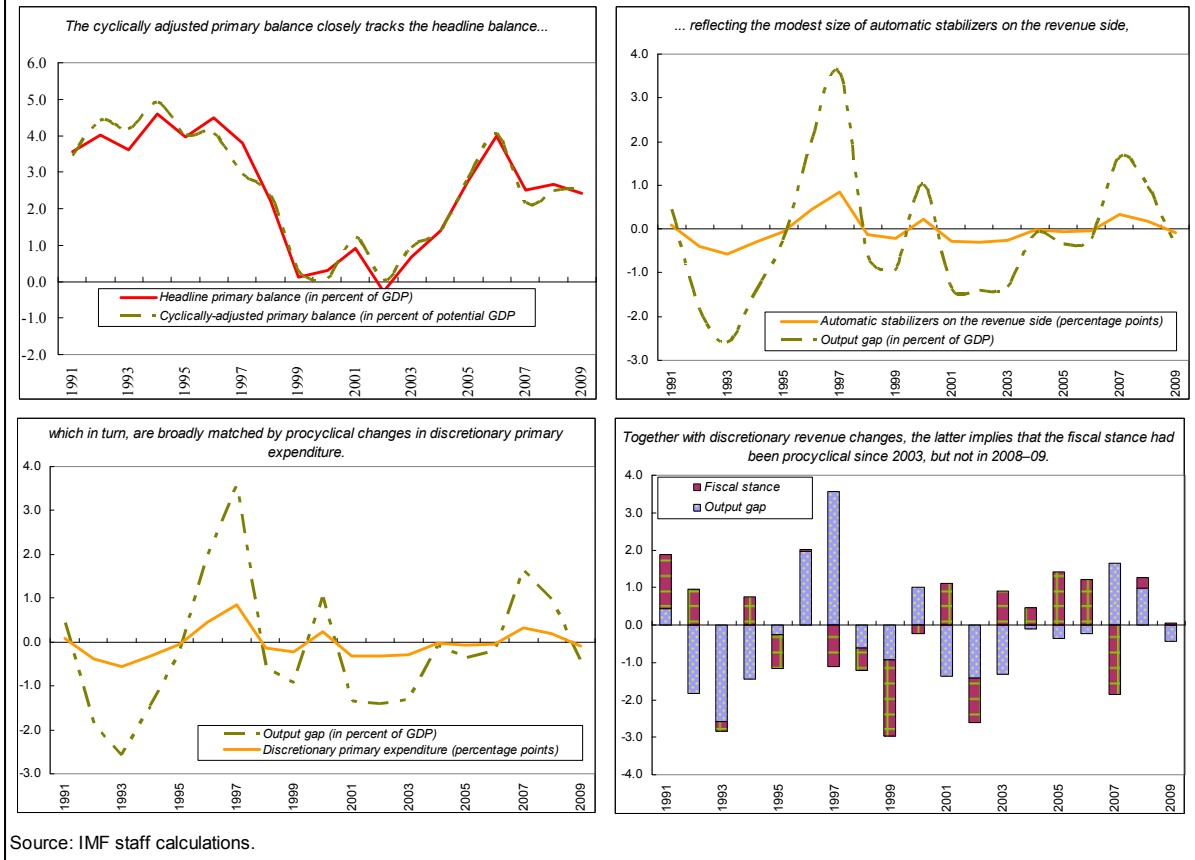
$$PCAB_t = T_t \left(\frac{Y_t^*}{Y_t} \right)^\alpha - PE_t \left(\frac{Y_t^*}{Y_t} \right)^\beta + OTR_t$$

where T_t denotes tax and nontax revenue (excluding grants, operations associated with the central-bank board of liquidators, and Bureau of Customs' noncash receipts), Y_t^* denotes potential real GDP, Y_t denotes actual real GDP, PE_t denotes primary expenditure, and OTR_t refers to other revenues (CBBOL, grants, and noncash receipts), which are assumed to not change in response to the cycle. Potential output is determined through a Hodrick-Prescott filter of real GDP data from 1989 to 2013. The parameters α and β denote the elasticity of revenue and primary expenditure, respectively, with respect to the output gap.

56. **Automatic stabilizers are found to be modest in the Philippines, in line with results found for many emerging economies.** For central government operations in the Philippines, it is reasonable to assume that automatic stabilizers on the expenditure side are equal to zero; that is $\beta=0$. As we argue below, this does not imply that primary expenditure is unrelated to the economic cycle, but that any relation with the output gap stems from discretionary decision rather than the functioning of automatic stabilizers. In contrast, the revenue elasticity, α , is taken as a measure of automatic stabilizers and is obtained using ordinary least squares estimation based on annual data from 1990 to 2007, with all variables expressed in log first differences:

$$T_t = c + \eta T_{t-1} + \alpha \left(\frac{Y_t}{Y_t^*} \right)$$

The estimate for α is significant and equal to 1.44 and alternative specifications for tax and nontax revenue separately did not yield significant coefficient estimates. The first panel in Figure III.1 shows the resulting cyclically adjusted primary balance as a share of potential GDP. As can be observed, despite the relatively large estimate for α , automatic stabilizers are small in the Philippines. This largely reflects the low GDP share of revenues: although tax revenue increases when output exceeds potential output, it has a relatively small impact on the tax-to-GDP ratio. Indeed, evidence suggests that automatic stabilizers tend to be smaller in emerging market economies. One important reason for this finding is the relatively smaller role of government in the economy in these countries: an increase in the size of government could dampen output volatility—see Fatás and Mihov (2001), although proper design matters potentially even more than the size as argued in IMF, *World Economic Outlook* (2008a).

Figure III.1. The Fiscal Stance Over the Cycle

57. **Discretionary changes in primary expenditure have broadly countered cyclical changes in revenue, implying that the deficit has been broadly neutral to the economic cycle.** To provide insight into the role of discretionary changes in primary expenditure over the cycle, we estimate,

$$PE_t = c + \eta PE_{t-1} + \beta \left(\frac{Y_t}{Y_t^*} \right)$$

Alternative specifications for interest payments or total expenditure yielded no significant association with the output gap measure. The estimate for $\beta=1.51$ and is significant. This elasticity is next used to calculate the difference between a “cyclically adjusted” primary expenditure as a share of potential GDP and headline primary expenditure as a share of actual GDP (third panel Figure III.1). This measure is taken as the discretionary response of fiscal policy to the output gap. Discretionary primary spending closely follows automatic stabilizers on the revenue side, which may reflect that expenditure compression took place, despite a negative output gap, because the high debt-to-revenue ratio required fiscal consolidation. A second reason could be related to the role of unprogrammed funds in the

Philippines, which can only be released if higher-than-anticipated revenue (or financing) has been collected. A third reason could be remaining weaknesses in cash management.

C. Is There A Role For Discretionary Fiscal Measures?

58. **The fiscal stance has been mostly procyclical in the Philippines in the past, but is projected to be countercyclical in 2008 and 2009.** The fiscal stance is defined as the change in $PCAB_t$. A negative correlation between the fiscal stance and the output gap indicates procyclicality. Interestingly, the Philippines has generally conducted procyclical fiscal policy (fourth panel, Figure III.1). In 2008, the Philippines is among the few countries where the cyclically adjusted balance is projected to improve (excluding privatization receipts, Figure III.2), partly because weakness in absorptive capacity constrains capital spending. For 2009, the Philippines is projected to have a broadly neutral fiscal stance (Figure III.3). Reforms to exemption levels in personal income taxation, the Personal Equity and Retirement Act (PERA), the scheduled reduction in the corporate income tax rate from 35 percent to 30 percent will largely be offset by a decline in discretionary primary spending.

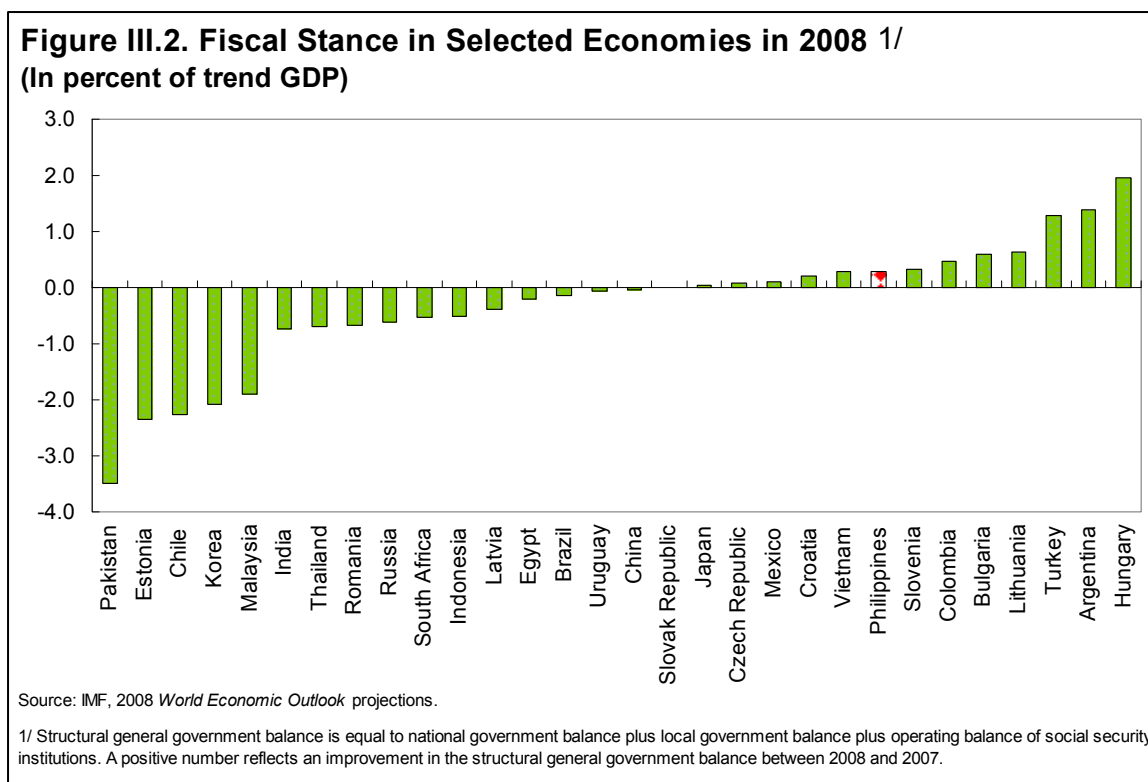
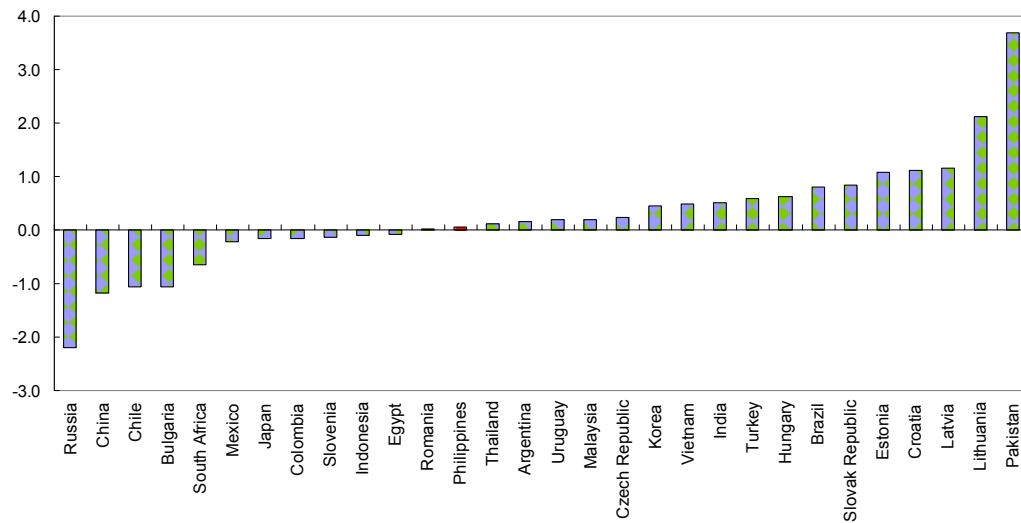


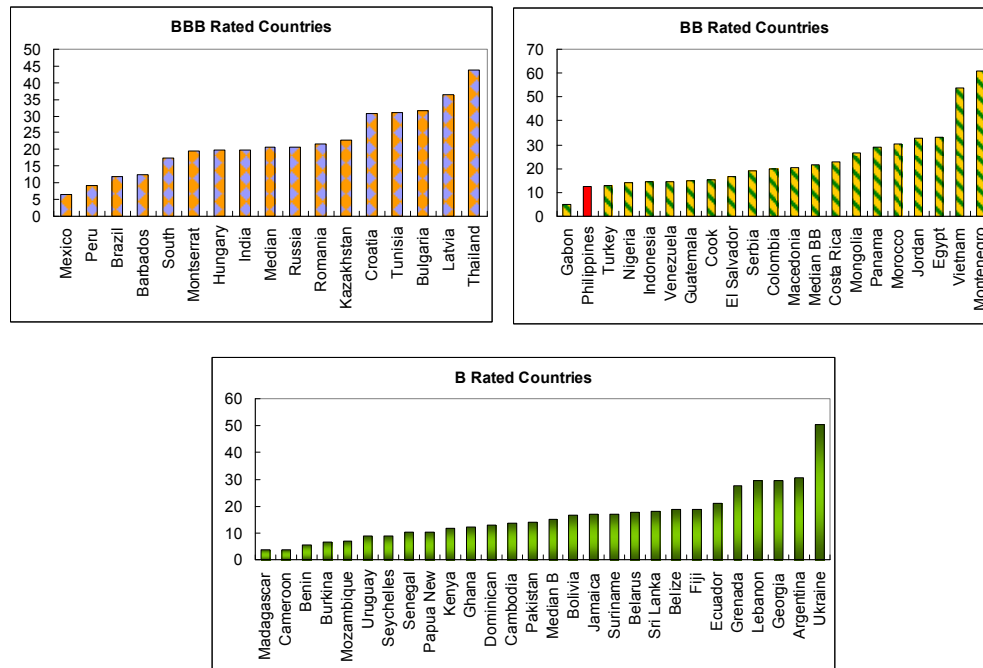
Figure III.3. Fiscal Stance in Selected Economies in 2009 1/
(In percent of trend GDP)



Source: IMF, latest *World Economic Outlook* projections.

1/ Structural general government balance is equal to national government balance plus local government balance plus operating balance of social security institutions. A positive number reflects an improvement in the structural general government balance between 2009 and 2008.

Figure III.4. Implicit Financial Contingent Liabilities
(In percent of GDP)



Source: Standard and Poor's.

59. **The IMF's *World Economic Outlook* (WEO) provides evidence on fiscal multipliers, derived from various empirical methods and from model-based estimates.**²¹

The model-based estimates suggest that public expenditure is associated with a higher fiscal multiplier, exceeding those on taxes. For example, public investment has been found to have a multiplier of about twice the size of multipliers from income taxes in Japan during the first three years of the reform—see IMF (2003). The recent analysis in the WEO publication (2008a), also suggests that public investment has the largest positive effect on output if implemented efficiently and immediately.

60. **Among tax instruments, model-based estimates suggest that reducing corporate income taxes has the largest positive effect on output.** It is followed by personal income tax, payroll taxes, and indirect tax such as the VAT. However, these rankings do not necessarily imply that these are desirable from an equity point of view. Increasing current expenditure, for example on (conditional) cash transfers, has a multiplier in between those of higher public investment and reducing tax rates (see Botman and Kumar, 2006, Baylor 2005, and IMF, 2008a).

61. **Recent evidence suggest that multipliers could be larger in emerging markets than in advanced economies, but the positive effects on growth are short lived.** In general, multipliers depend not only on the type of fiscal instrument used, but also on the interaction with monetary policy, the extent of market rigidities (more rigidities in goods and labor markets implies larger multipliers), globalization and openness (the less integrated the economy, the smaller the share of the stimulus that falls on imports), and financial innovation (more credit constraints imply larger multipliers). The WEO finds a stronger multiplier in emerging markets economies than in advanced economies, particularly for an expenditure-based stimulus, but the effect quickly turns negative.

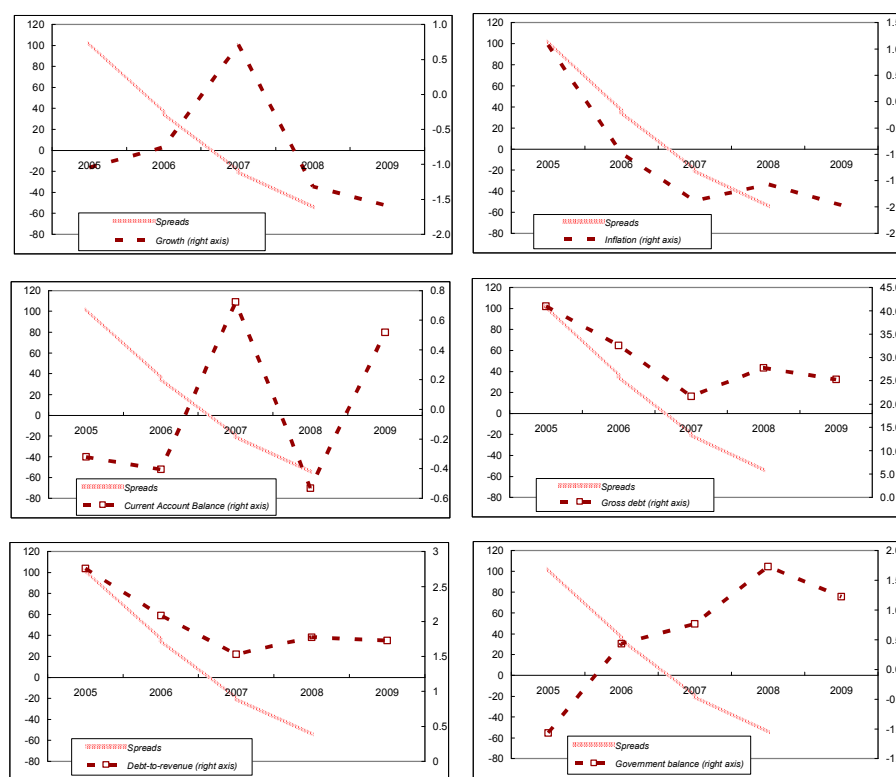
62. **The reason for the short duration of the effects of fiscal stimulus could be related to higher debt or widening spreads.** The longer debt remains high, the larger the crowding out effects on private consumption and investment, highlighting the importance that stimulus should be provided only temporarily. In addition, spreads could increase, implying gradual evaporation of the stimulus, which is particularly important for a country like the Philippines, where investor risk aversion is closely tied to the revenue effort. Indeed, if spreads increase markedly, multipliers could turn negative. Including a market-risk-premium in the WEO simulations reduces multipliers by 10–20 percent, depending how strong the risk premium responds to the debt-to-GDP ratio (Box III.1). This is particularly true for revenue-based fiscal stimulus. Multipliers are also found to be lower during downturns. This is particularly the case for a subset of countries with high initial debt levels.

²¹ International Monetary Fund, 2009, “Fiscal Policy as a Countercyclical Tool,” *World Economic Outlook*, Chapter 5, October (Washington DC).

Box III.1. What Drives Country Risk Premiums?

Evidence on the determinants of risk premia is mixed. In general, individual country spreads are mostly determined by movements in the overall EMBI (external factors), liquidity risks, and market risks. Absent major changes in fundamentals, especially in the recent period (since 2000), macroeconomic variables explain little variation in spreads on bonds issued by emerging markets. In contrast, Ferucci (2003) argues that a debtor country's fundamentals ("credit risk") and external liquidity conditions are important determinants of market spreads. Eichengreen and Mody (1998) find that higher credit quality translates into a higher probability of issuance and a lower spread. However, they also find that observed changes in fundamentals explain only a fraction of the spread compression in the period leading up to the crisis in emerging markets in 1994 (Mexican crisis). For the Philippines, spreads declined markedly over the recent period, falling below the overall EMBI in early 2007. This coincided with a general improvement in macroeconomic indicators, relative to those in neighboring countries, including on the fiscal front (Figure III.5).

Figure III.5. Spreads and Macroeconomic and Fiscal Fundamentals (2005–09) 1/



1/ Spreads is EMBI global average minus EMBI Philippines. Macroeconomic indicators for each year is equal to value in the Philippines minus average for Indonesia, Malaysia, Thailand, and Vietnam. Projections from latest WEO publication; debt-to-revenue ratio and gross debt for 2008–09 excluding Vietnam; spreads data through October Vietnam; spreads data through October.

63. **During the current global financial crisis, risk perception is probably even more important since contingent financial liabilities could be called.** Regarding the latter, although evidence suggests that the size of such liabilities could be relatively smaller in the Philippines compared to other emerging markets (Figure III.4), further provisioning may be required. Debt sustainability in the Philippines would clearly be impacted if contingent liabilities were called, including from government guarantees. Debt dynamics are also sensitive to exchange rate changes due to the high share of foreign currency-denominated public debt.

64. **In addition, it is noteworthy that recent empirical evidence suggests that the effects of discretionary fiscal stimulus decline during episodes of systemic banking crises.** The negative effect of fiscal stimulus on growth in non-oil emerging economies is statistically highly significant, reflecting binding financing constraints and exacerbating the current account deterioration (see Ivanova and Kim, 2008).

65. **In sum, if a fiscal stimulus is considered, it should be timely, targeted, transparent, and temporary.** One mechanism to deliver such stimulus, currently considered by the authorities, is through social safety nets, specifically the conditional cash transfer schemes. However, fiscal space is limited in the Philippines, requiring that any fiscal stimulus is measured as the tax effort is expected to decline in 2009 and debt remains high. Moreover, the debt-to-GDP revenue is set to rise, reversing the recent downward trend.

D. The Pros and Cons of Fiscal Rules²²

66. **Currently, the Philippines does not have a fiscal rule, although there is an implicit intention to balance the budget from 2010 onwards.** There may be rationale to adopt a more explicit fiscal rule, which should aim to strike a balance between flexibility to accommodate shocks while anchoring fiscal policy to a medium-term target and avoiding deficit bias. In general, the rationale for implementing a fiscal rule includes (i) achieving medium-term macroeconomic stability (debt dynamics), without sacrificing short-run stabilization objectives and tax smoothing; (ii) assisting other policies (monetary policy); (iii) achieving or maintaining long-run fiscal sustainability; (iv) avoiding negative spillovers (preventing subnational government deficits); and (v) enhancing credibility by avoiding deficit bias.

67. **Institutional arrangements governing fiscal rules vary considerably.** Some fiscal rules are included in the constitution (Germany, most U.S. states), which has the advantage of being more stable from a political-economy perspective. Some countries prescribe the rule in a law or regulation (New Zealand's Fiscal Responsibility Act, Canada at subnational level). In addition, rules could be enshrined in a policy guideline (The Netherlands has a

²² Most of this material is taken from Koptis and Symansky (1998).

policy norm; Indonesia has a fiscal rule contained in the Guidelines for State Policy), or an international treaty (Maastricht).

68. **The method of implementing a fiscal rule also varies among countries.** Some rules operate based on assumption, that is, compliance with rule at the time the budget is prepared/approved. Others are based on knowledge, that is, compliance during budget execution. In general, implementation depends on (i) availability of automatic or discretionary contingency measures during budget execution; (ii) provisions for safeguards or escape clauses; and (iii) effectiveness of sanctions for noncompliance with the rule (financial, judicial, and reputational). Table III.1 summarizes the characteristics of various Fiscal Responsibility Acts in selected countries.

69. **Fiscal rules can be distinguished by balanced-budget or surplus/deficit rules, borrowing rules, or debt or reserve rules.** Specifically,

- **Balanced-budget or surplus/deficit rules include:**
 - Balance between overall revenue and expenditure, or a limit on surplus/deficit to GDP;
 - Balance between structural (or cyclically adjusted) revenue and expenditure, or a limit on structural surplus/deficit as a percent of GDP;
 - Balance between current revenue and expenditure (that is, borrowing permitted only to finance capital expenditure: golden rule);
 - Or mix between the above: U.K. balance of current revenue and expenditure over the cycle, debt limit, and golden rule.
- **Borrowing rules include:**
 - Prohibition on government borrowing from domestic sources;
 - Prohibition on government borrowing from the central bank; or limit on such borrowing as a proportion of past government revenue or expenditure.
- **Debt or reserve rules include:**
 - Limit on stock of gross (or net) government liabilities to GDP;
 - Target stock of reserves of extrabudgetary contingency funds (such as social security funds) as a proportion of annual benefit payments.

Table III.1. Summary of Characteristics of Fiscal Responsibility Laws in Selected Countries

Country	Current Law	Original Laws	Procedural Rules	Numerical Rules 1/	Scope 2/	Sanctions 3/	Escape Clauses
Argentina	Federal Regime of Fiscal Responsibility, 2004	1999, 2001	Yes	E; D	NG 4/	I	Social and economic emergencies
Australia	Charter of Budget Honesty, 1998		Yes		NG	R	No
Brazil	Fiscal Responsibility Law, 2000		Yes	E; D	PS	P; I	Several
Colombia	Organic Law on Fiscal Transparency and Responsibility	1997, 2000	Yes	PB; E; D	NFPS	P; I	No
Ecuador	Fiscal Responsibility Law, 2005	2002	Yes	NOB; D; E	PS	P; I	No
India	Fiscal Responsibility and Budget Management Act, 2003		Yes	CB (MY)	NG 4/	R	National security or calamity; or such other exceptional grounds
New Zealand	Public Finance (State Sector Management) Bill, 2005	1994, 2004 5/	Yes	OBP (MY)	GG	R	No
Pakistan	Fiscal Responsibility and Debt Limitation Act, 2005		Yes	CB; D (MY)	NG	R	National security or calamity; low levels of social spending
Panama	Law No. 2 on Economic Activity Promotion and Fiscal Responsibility, 2002		No 6/	OB; D (MY)	NFPS	R	No
Peru	Fiscal Prudence and Transparency Law, 2003	1999, 2000	Yes	OB; E; D	NFPS	I	Several
Spain	Budget Stability Law, 2001		Yes	OB	NFPS	I	Exceptional circumstances
Sri Lanka	Fiscal Management Responsibility Act, 2003		Yes	OB; D (MY)	NG	R	Exceptional circumstances
United Kingdom	Code for Fiscal Stability, 1998		Yes	CB (MY) 7/	GG	R	No

Source: International Monetary Fund, 2005, "Fiscal Responsibility Laws". Paper prepared for the Executive Board, Washington, DC.

1/ E=expenditures; D=debt; OB=overall balance; OPB=operating balance; CB=current balance; NOB=non-oil balance; PB=primary balance.

MY=rule set in a multi-year period.

2/ NG=national government; GG=general government; NFPS=nonfinancial public sector; PS=public sector.

3/ I=institutional; P=personal; R=reputational.

4/ Also adopted by some subnational governments.

5/ Fiscal Responsibility Act, 1994 (and Fiscal Responsibility Amendment Act, 1998).

6/ The FRL states the ministry of finance is accountable for implementing the provisions in the law.

7/ Numerical rule not specified in the FRL.

70. **The empirical evidence shows mixed economic effects of fiscal rules.** On the one hand, fiscal rules can lower inflation and interest rates, reduce crowding out, and lower country-risk premia and indebtedness. However, fiscal rules can also create distortions. On the expenditure side, they can lead to compression of public investment, accumulation of payment arrears, creative accounting practices, and recourse to one-off measures (privatization). On the revenue side, they can result in distortions in the tax structure and administration (advanced tax payments), and cause frequent adjustments in tax rates. More generally, rigid fiscal rules may limit budget flexibility and lead to higher output variation. Specifically, while binding balanced-budget rules can limit deficits and reduce fiscal vulnerabilities, poor design can lead to inefficient expenditure frameworks and procyclicality.

71. **The empirical and theoretical literature has identified the key characteristics of a model fiscal rule. The rule should be as follows:**

- **Well-defined:** indicator, institutional coverage, specific escape clauses:
 - Overall balance preferred over current balances as investment expenditure suffers from both conceptual and measurement weaknesses;
 - Public sector rather than general government (to include off-budget operations and the cost of quasi-fiscal activities of public enterprises; however, it may be desirable to exclude the social security system as assets cover future contingent liabilities).
- **Transparent:** accounting, forecasting, and institutional arrangements.
- **Adequate:** contain inflation (limits on borrowing from the central bank), reduce remaining external vulnerabilities (limits on budget deficit), sustainability of public-debt-to-GDP ratio (limits on government debt, or a minimum primary surplus).
- **Consistent:** criteria need to be internally consistent and with other macroeconomic or policy rules (inflation targeting).
- **Simple:** appeal to legislature and public.
- **Flexible:** accommodate external shocks by allowing room for automatic stabilizers and discretionary policies to work (i.e., use of *structural* primary surplus rule or balanced-budget rules over a medium-term horizon).
- **Enforceable:** constitutional or legal statutes, perhaps with penalties; independent fiscal councils.
- **Efficient:** the rule should prevent structural one-off measures (frequent adjustment in tax rates); a fiscal rule should be a catalyst for fiscal reforms that ensure sustainability.

72. **In the Philippines, a fiscal rule will furthermore need to be consistent with a sizeable primary surplus as the debt-to-revenue ratio remains high** (Figure III.6).

Nonfinancial public sector debt has declined sharply since peaking at over 100 percent of GDP in 2003. Moreover, given the need to raise priority spending, the credibility of the fiscal framework depends critically on the revenue effort. In this regard, options for increasing the revenue-to-GDP ratio include:

- **Streamlining tax incentives.** In this regard, a compromise bill currently being discussed would gradually phase out the income tax holiday (ITH) in five years. After it expires, they would be subject to a lower income tax rate of 15 percent or a 5 percent tax on gross income earned.
- **Reforming excises.** In this regard, unifying, raising, and indexing excise rates on tobacco and alcohol products, as proposed in House Bill, Number. 3759, could yield significant additional revenue, although this would be conditional on a strengthened administration and the demand elasticity of these products (estimated to be low). Table III.2 suggests that average excise revenue in the Philippines, as a percent of GDP, was equal to the average in selected Asia and Pacific economies during 1997 to 2001. However, between 2002 and 2006 the Philippines collected only about 50 percent of the regional average.

Table III.2. Excise Revenue and Taxes on Specific Services in Selected Countries, 1997–2006 1/ 2/
(In percent of GDP)

	Average 1997–2001	Average 2002–2006
China,P.R.: Mainland 4/	0.9	1.1
India	3.2	3.2
Indonesia	0.9	1.3
Malaysia	2.0	1.9
Mongolia	3.0	3.9
Philippines 4/	2.8	1.8
Singapore	1.7	2.0
Sri Lanka 4/	3.1	3.2
Thailand 3/	3.8	4.5
Vietnam 3/	1.4	1.6
Unweighted average	2.8	3.0

Sources: IMF, *Government Finance Statistics*; IMF, *International Financial Statistics*, and IMF, *World Economic Outlook*.

1/ Including taxes on specific services.

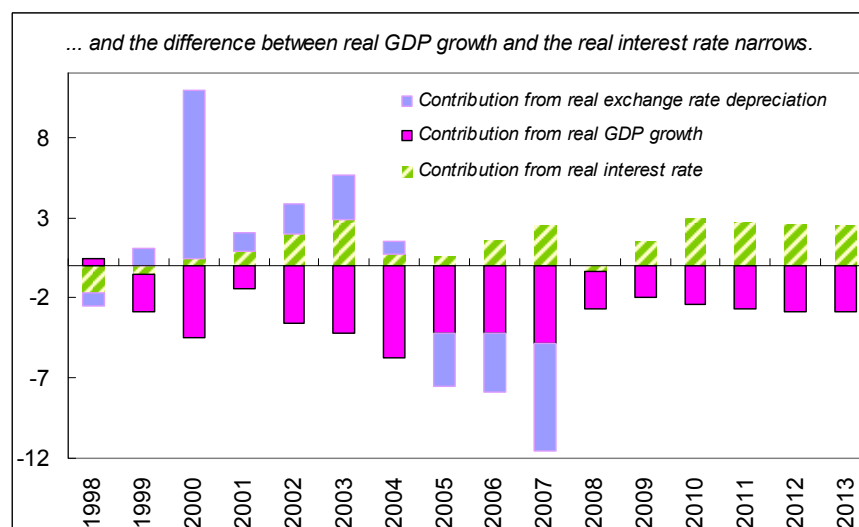
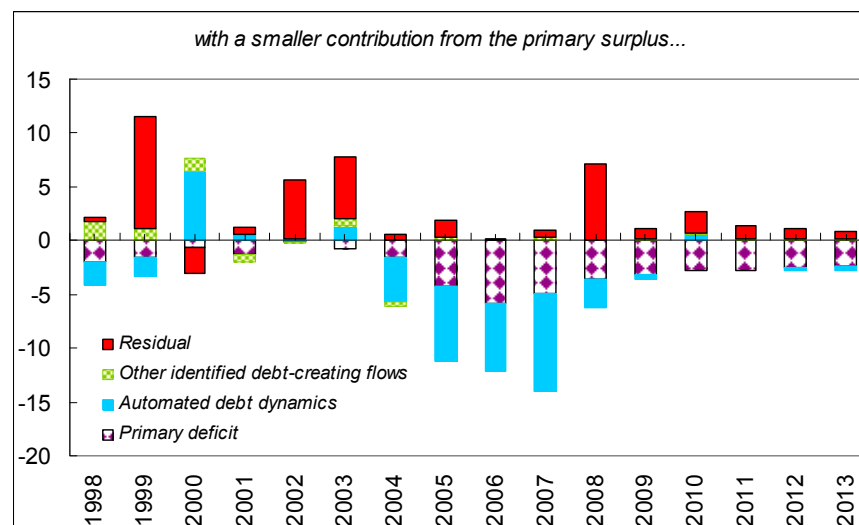
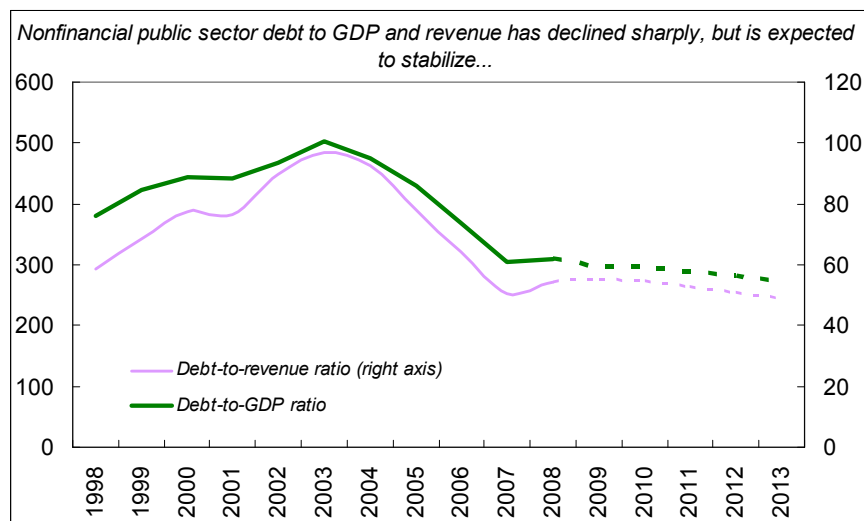
2/ Consolidated Central Government.

3/ General Government.

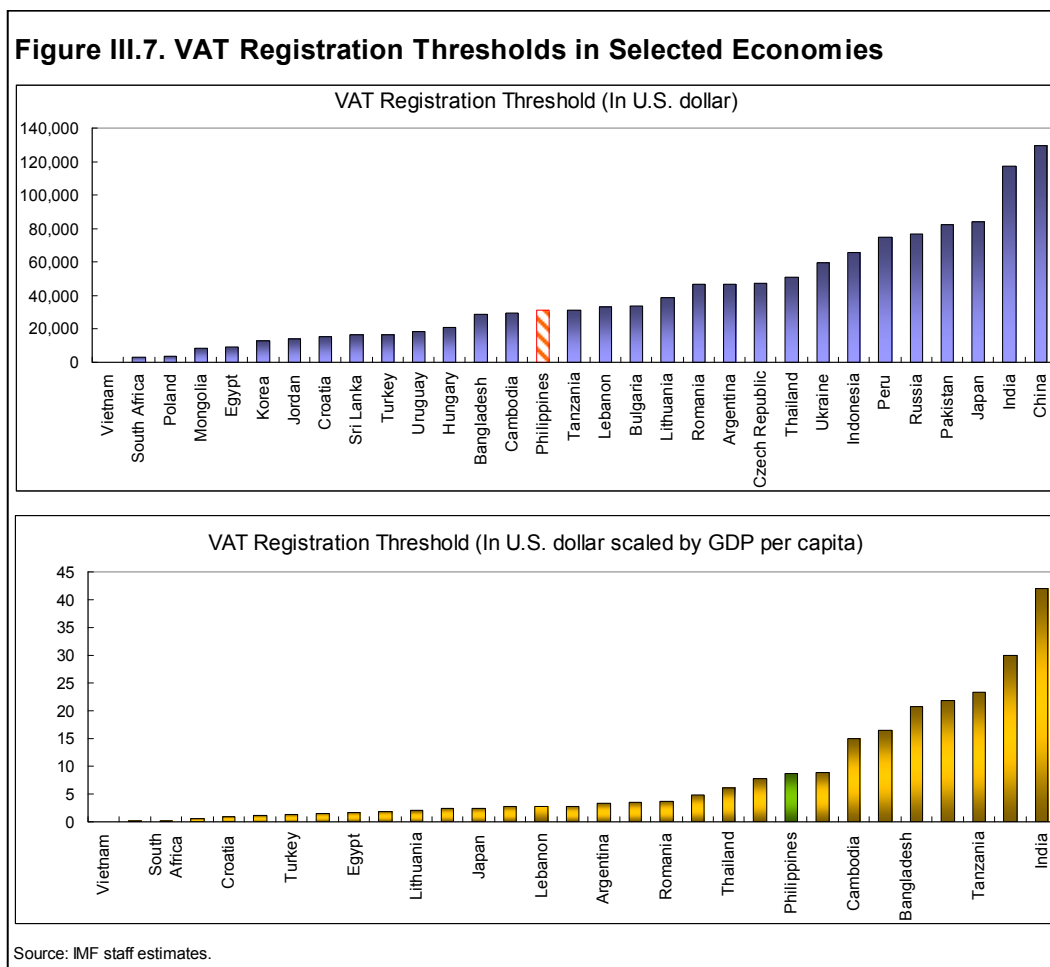
4/ Budgetary Central Government.

- **Accelerating tax administration reform.** Progress on the priorities in tax administration reform, agreed with the authorities in 2005, has recently been limited. The priorities at the Bureau of Internal Revenue include taxpayer registration, arrears collection, returns filing, and improving audits. Progress in customs administration reform has been poor since 2005 and it will be key to step up efforts to strengthen management controls, safeguard the integrity of the import and export clearance system, and upgrade enforcement/intelligence functions.

Figure III.6. Decomposing Debt Dynamics in the Philippines
(In percent of GDP)



- **Other tax base broadening measures.** One example of a potential measure is to reduce the VAT threshold to bring it in line with regional comparators (Figure III.7). Since this will bring additional taxpayers in the VAT net, a necessary requirement for such a measure to be successful is to strengthen the administrative efforts. Another important pending reform includes adopting a new list of allowable deductions for personal income taxation, avoiding those deductions that are most prone to abuse, as contemplated in the original SNITs legislative proposal. The largest revenue yields, at least over time, can be expected from excise reform, tax incentives rationalization, and accelerated administrative reforms, but these other measures could also significantly enhance the revenue effort.



E. Conclusion

73. The paper analyzed the role of automatic stabilizers in the Philippines, the pros and cons of discretionary fiscal stimulus, and the potential for a fiscal rule to anchor fiscal policy. Our conclusions can be summarized as follows:

- **Like in other emerging markets, automatic stabilizers are small in the Philippines.** Furthermore, discretionary expenditure measures have broadly offset automatic stabilizers on the revenue side, indicative of remaining difficulties with cash management, the use of unprogrammed funds, as well as the recent period of fiscal consolidation. In turn, the deficit has been broadly neutral to the economic cycle.
- **Fiscal policy has been procyclical in the past, but is projected to be countercyclical in 2008 and broadly neutral in 2009.** A modest countercyclical fiscal stance next year would be appropriate in light of the significant expected slowdown of the economy.
- **Caution should be exercised with additional fiscal stimulus.** Evidence suggests that fiscal policy is less effective during times of financial stress, given concerns about investor risk aversion, higher gross financial requirements, and debt sustainability. In the Philippines, the tax effort is projected to decline, public sector debt remains high by emerging market standards, and the debt-to-revenue ratio is projected to increase. Moreover, absorptive capacity is constrained. These factors limit the room for and effectiveness of a fiscal stimulus.
- **If contemplated, any stimulus should be well-targeted, temporary, transparent, and timely.** Specifically, the Philippines has already increased personal income tax exemptions markedly and the corporate income tax rate is set to decline in early 2009. Reducing these two taxes is traditionally considered the most supportive for economic activity, considerably more so than reducing indirect taxation. Any additional fiscal room in 2009 should be used to increase public investment and additional spending on targeted cash transfers.
- **Rather than the current informal intention to balance the budget from 2010 onwards, a more explicit fiscal rule could be considered.** Such a rule should be flexible enough to accommodate well-targeted fiscal measures in the event of adverse economic shocks, while offering a credible anchor for further reducing the debt-to-GDP ratio and the debt-to-revenue ratio.
- **The credibility of the Philippine fiscal framework depends crucially on efforts to bolster revenues.** In this regard, effort should focus on reforming excises, rationalizing fiscal incentives, and accelerating revenue administration reform.

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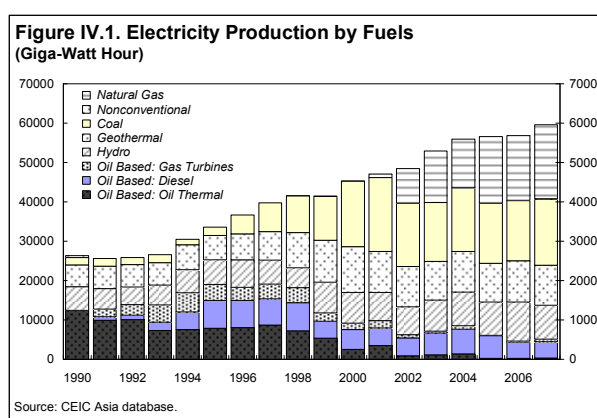
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IV. THE PHILIPPINE POWER SECTOR IN A CHALLENGING ENVIRONMENT²³

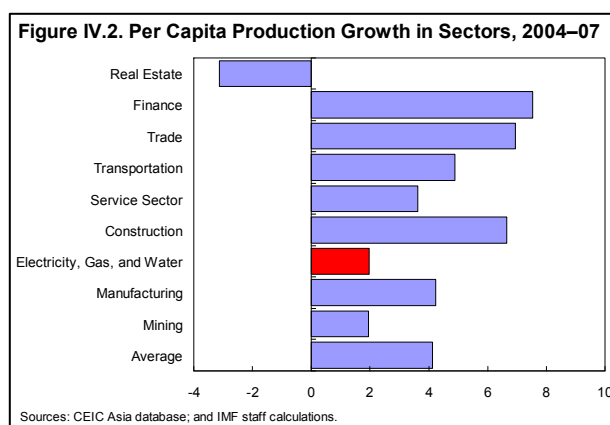
A. Introduction

74. **A reform for plan in the Philippine power sector has been under way since 2001.** The Electric Power Industry Reform Act in 2001 (EPIRA) aims to promote greater competition and attract more private investment by liberalizing the electricity market and privatizing power sector assets. Under the EPRIA, the power sector has been restructured into separate sectors (generation, transmission, and distribution) with tightened supervision applied to each sector. The privatization of generating assets, another main objective of the EPIRA, has been mostly implemented and is planned to be completed in 2009. At the same time, the electricity market is scheduled to liberalize further.

75. **The power sector reform has helped bolster electricity supply and brought about substantial revenues from privatization.** Power supply has been rising on average at 4½ percent per year since 2001, while the total hours of outage—a major problem in the mid-1990s—peaked out in 2002. At the same time, due to the Philippines' geographical disadvantage (many islands) and high cost of generation, the authorities increased the capacity of geothermal plants in the 1990s and shifted to plants with cheaper costs (e.g., coal and LNG, see chart). Revenue from privatizing the generating assets total to 2½ percent of GDP, although the pace of the privatization has slowed in 2008.



76. **Carrying out the remaining reform agenda will help improve the efficiency of the power sector, although the ongoing global financial turmoil may present challenges.** The productivity growth of the industry segment, including the power sector, has lagged behind the cross-sector average. With a high electricity price by regional standards, a more efficient power sector is necessary to support further economic development in the Philippines. Given substantial reliance on foreign investors, capital goods, and



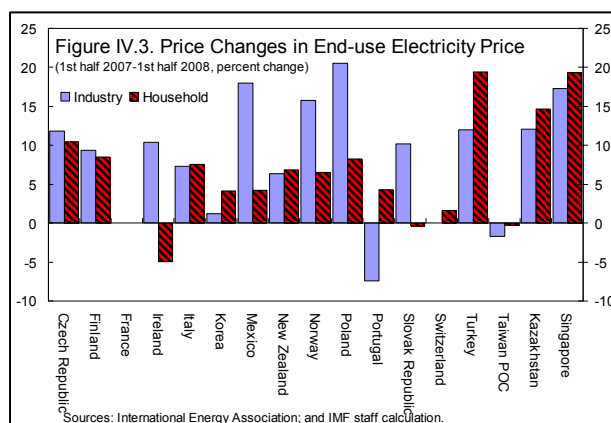
²³ Prepared by Masaaki Iizuka.

technology, attracting foreign investment is key for successful reform. In this context, the ongoing strained global financial conditions and high fuel prices (although rapidly retreating) present significant challenges by raising foreign investor risk aversion and lowering the profitability of the power sector.

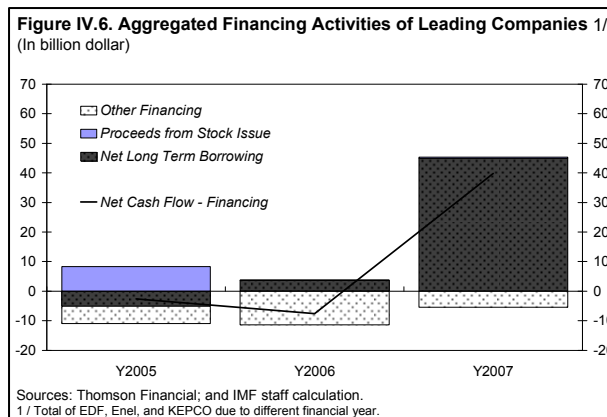
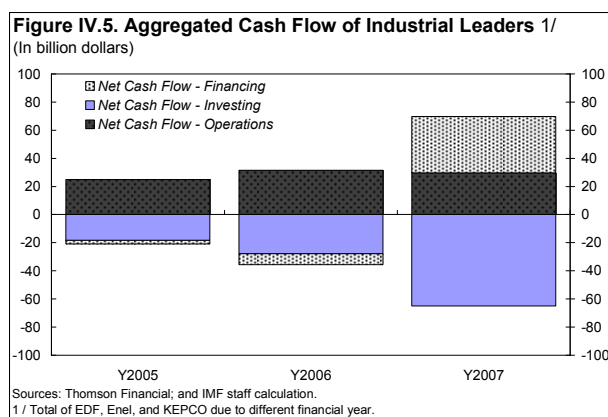
77. **This paper provides a summary of developments in the global and domestic power sector and reviews outstanding reform issues for the Philippines.** To provide context, the paper examines trends in global electricity prices and key financial indicators of global power companies. It then looks at electricity price trends in the Philippines and discusses the scope for further reform, including to what extent the pace of reform may be impacted by the turbulent global economic environment.

B. The Global Power Sector and the Soaring Fuel Prices

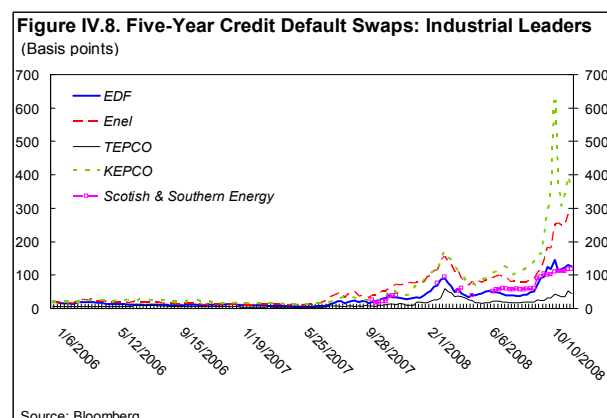
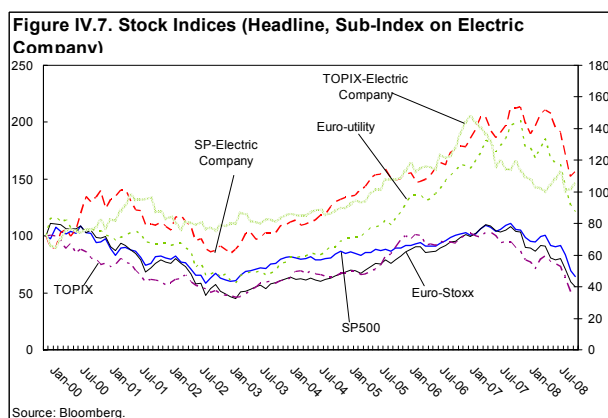
78. **Electricity prices rose globally over the last few years.** End-use electricity prices for household rose by 6½ percent on average during the first half of 2008 (year-on-year). Reflecting a more market-based system, rates for the industry sector rose by 8½ percent during the same period. The pace of price increase was, however, far below the changes in other major fuel prices, with prices on crude oil, natural gas, and coal rising 75 percent, 48 percent, and 127 percent respectively. Although the U.S. dollar has depreciated about 10 percent in nominal-effective term over this period, it only provided a partial offset to the soaring energy prices.



margins narrowed in general as the pace of fuel inflation far outpaced the pace of increase in retail electricity prices. Although the power companies generally recorded higher sales in the second quarter of 2008 compared to a year earlier, net income declined. Some companies have even been recording losses since the beginning of 2008. In many cases, this reflected the inability to pass higher fuel costs on to the retail price, which is regulated by the government in many countries. General taxation and green commitments are also reported to have contributed to pressures on the power sector. With regard to financing activities of the leading companies, aggregate net cash flow from main operating activities already started to fall in 2007 compared with 2006.²⁵ In addition to waning profit margins, this reflected stepped up investment activities, primarily financed from borrowing.



80. Key financial indicators reflect these heightened pressures on the power companies. Stock price indices for the electricity companies in major countries fell 5–



30 percent since the beginning of 2007.²⁶ Unlike during past downturns, utility stocks have moved more in tandem with the headline stock indices.²⁷ Pressures on the power sector have also been reflected in higher credit risk premia for the sector as reflected in rising credit default swap spreads.

C. Recent Developments in the Philippine Power Sector

81. **Retail electricity prices in the Philippines declined somewhat over the last year.** In metro Manila area, the average retail rate was 7.75 pesos (per kilowatt hour) for the first half of 2008, slightly lower than P 8.00 average for the first half of 2007.²⁸ The seemingly puzzling decline reflects lagged tariff adjustment, and Philippines' already regionally high tariff rates:

- Deferred adjustment and other one-off factors:* Any change to prices of the National Power Corporation (NPC) has to be approved by the Energy Regulatory Commission, and the adjustment often takes place with a significant lag, usually up to about a year. NPC prices have dropped around 20 percent since the first half of 2007, reflecting a delayed adjustment to compensate for over-charging of consumers earlier on. Moreover, Wholesale Electricity Spot Market (WESM) prices declined due to weather related factors (i.e., low temperatures and abundant hydropower generation at peak demand season contributed to the lower price).
- Already (regionally) high electricity rates and limited pass-through:* Although electricity prices are difficult to compare across countries

Figure IV.9. Unbundled Electricity Rates
(Peso/KWH)

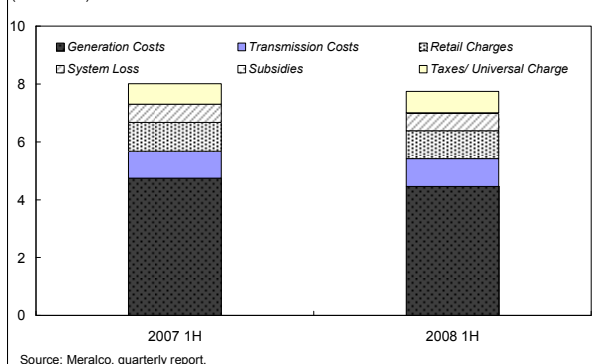


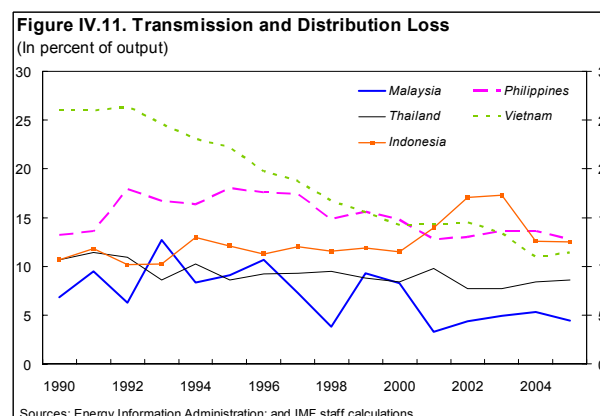
Figure IV.10. Electric Charge for Household in Selected Cities 1/<

due to the existence of various specialized rates (e.g., for different types of users, time, and generating methods), prices appear to be high in the Philippines. For example, according to the Japan External Trade Organization (JETRO), prices in the Philippines are among the highest in the East Asian region. Notwithstanding the fact that there are several special rate programs offered in some part of the country, the high electricity rates, together with concerns about the possible impact on the poor, led to strong calls against major price hikes and contributed to limiting the pass-through of higher fuel prices.²⁹

- *Exchange rate:* The peso appreciated about 12 percent against the U.S. dollar, which also provided some offsets against the rising fuel prices.

82. The high electricity rates reflect several factors, including geography, existing contracts, and a low operating level.

- *More requirements for transmission infrastructure:* Among ASEAN 5 countries, the Philippine and Indonesia have relatively high power transmission and distribution losses. The dispersed islands and frequent natural disasters require more resource inputs to build and maintain transmission infrastructure. Nonetheless, there is some room for improvement, as Japan—with numerous small islands and natural disasters—has one of the lowest loss rates in the world. Moreover, although the transmission system operates at high voltage (500 kilo voltage) in some areas in Luzon Island, this type of capacity is limited and most rural areas are still operating on low voltage.



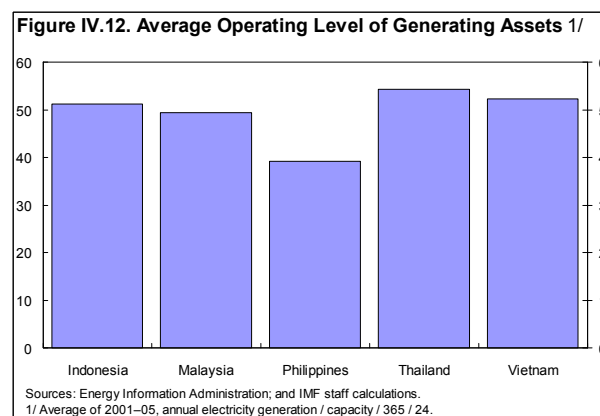
- *Existing contracts with the Independent Power Producers (IPP):* Although data on unbundled costs are limited, the share of generation costs in the total retail costs in the Philippines appears to be on the high side.³⁰ This partly reflects high operating costs of some IPPs, which provided urgent power supply in the 1990s but at the cost of somewhat higher rates. Thus, the operation costs of some gas turbines that the NPC is

²⁹ Recent proposals for lowering charges include extending preferential treatment to poor household, capping the recovery rate of system losses, and exempting taxes on the electricity charges.

³⁰ The ratios (excluding taxes) are 41 percent in France and 52 percent in Germany (J.P. Morgan), while it is 64-65 percent for the Philippines.

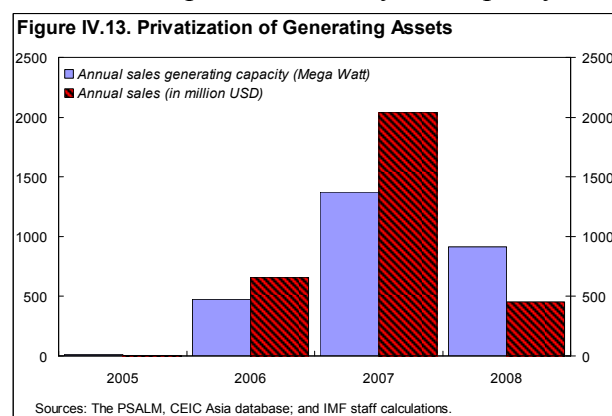
required to use regardless of the fluctuations in oil prices and exchange rates are about twice as high as those of other oil-based plants (Toba, 2003).

- *Uneven electricity demand:* The peak demand in the Philippines is more abrupt than in other ASEAN 5 countries. This is partly due to the high swings in temperature and the lack of a strong industrial base that enables the base-load demand to be distributed more evenly on a 24-hour basis (Woodhouse, 2005). This bulky demand pattern results in higher average electricity costs.



D. Investment Environment

83. **The pace of privatization slowed in 2008 and the ongoing global financial turmoil may reduce the pace further.** This slowdown in privatization, by scale, partly reflects that major plants have already been sold. However, several domestic investors already invested in the sector have expressed interest in the remaining assets. In addition, a recent proposal to eliminate 40 percent of upfront payments for generating assets could also support the privatization efforts. Nonetheless, privatization may become more difficult near term to the extent domestic and foreign investors' risk aversion has risen on the back of the global financial turmoil.



84. **More market-oriented tariff adjustment is critical for attracting FDI for sustainable investment.** As foreign capital has been contributing the majority of capital to the Philippine power sector, FDI is a critical element for sustainable power supply. Beyond privatizing the existing generating assets, the EPIRA envisages that future FDI will be conducted on a more market-oriented basis (Box 1). When the EPIRA is completed, electricity will be traded at a market-determined rate mainly through the WESM. From investors' viewpoint, the rate must be set on average at a profitable level. This, however, will require timely and cost-based tariff adjustments. As tariffs are currently adjusted with a substantial lag, the NPC continues to supply electricity at rates that are often at odds with the market conditions. If retail prices remain unchanged, the cost would be born by some

sections of the electricity supply chain, substantially reducing profitability and attractiveness for potential investors.

Box 1: EPIRA—Achievement and Future Plans

Majority of these objectives have been achieved so far:

- 70 percent of generating assets have been sold. The current plan envisages finalizing the privatization in 2009.
- Electricity rates have been mostly unbundled.
- The WESM has been operating in Luzon.

To Further ensure sufficient and sustainable energy supply, following tasks remain:

- Completing privatization of generating assets.
- Auctioning the right to manage contracted energy output by IPP.
- Rolling out of the WESM to Visayas.
- Activating the ‘open access’ stage, where sellers and buyers can trade electricity freely.

85. **Revamping infrastructure and evening out daily consumption will also help attract investors.** Investors favor a more efficient transmission system. Current low-voltage and limited transmission capacity could be improved. If transmission losses would fall to the ASEAN 5 average, total retail cost would fall by 1.5 percent. Spreading power consumption more equally on a 24-hour basis would enhance operating level.³¹ In this regard, closer cooperation between generation and retail sectors—with appropriate supervision applied to each sector—would likely help.

86. **Long-term power supply/demand should support and be commensurate with economic development.** The ultimate objective of the reform is to supply the electricity efficiently as needed. Power demand has been increasing on average $4\frac{3}{4}$ percent in 2000–07. During this period, demand grew in line with GDP. However, the recent services-led growth resulted in lower electricity demand and elasticity to overall growth of less than one. The authorities demand growth forecast of 4 percent (Luzon) is consistent with staff’s near-term growth of about 4 percent and the unit elasticity. However, this may underestimate demand if strong industry activities lead to higher growth as industry sector’s elasticity is estimated to be above 1 (see table, while others are either negative or insignificant in 1980–2007). In this regard, the impact from growing business-outsourcing industry warrants some attention.

³¹ Japanese Ministry of Economy, Trade, and Industry (2004) estimated raising operating level to 80 percent from 40 percent would reduce generating costs by about 30 percent.

Recently, the outsourcing industry has been growing by 50 percent per year, most of which is said to operate on 24/7 days basis. If this trend continues, demand may increase sooner rather than later.

Table IV.1. Results of Estimation 1/

	Coefficients	Standard Error	T-Statistics
Intercept (C ₁)	4.9	1.9	2.6
Agriculture (C ₂)	-3.1	1.7	-1.8
Industry (C ₃)	1.2	0.8	1.5
Service (C ₄)	0.1	1.1	0.1

Sources: CEIC Asia database; and IMF staff calculations.

1/ The following equation is estimated for 1981–2007:

$$\frac{D_t - D_{t-1}}{D_{t-1}} = c_1 + c_2 \frac{GDP_A_t}{GDP_t} \frac{GDP_A_t - GDP_A_{t-1}}{GDP_A_{t-1}} + c_3 \frac{GDP_I_t}{GDP_t} \frac{GDP_I_t - GDP_I_{t-1}}{GDP_I_{t-1}} + c_4 \frac{GDP_S_t}{GDP_t} \frac{GDP_S_t - GDP_S_{t-1}}{GDP_S_{t-1}}$$

Where D = electricity demand, GDP_A = real production in agricultural sectors, GDP_I = real production in industry sectors, GDP_S = real production in services sectors.

E. Conclusion

87. **A fuller implementation of the reform plan hinges on global factor as well as domestic efforts.** FDIs are necessary for improving the performance of the Philippine power sector, including addressing the low productivity and regionally high electricity prices by regional standards. The lagged price adjustments have sheltered consumers from rising electricity price despite the soaring oil prices. However, this has also hurt profitability of power companies and, thereby, likely dampened investor interest. Therefore, it will be key to introduce a more market-based and transparent pricing mechanism. It will also be important to improve the transmission system and reduce generating costs through higher operating levels. These factors could help attract foreign investors, although the current global economic turbulence may put a damper on investor interest over the near term.

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