

Philippines: Selected Issues

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PHILIPPINES

Selected Issues

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Approved by the Asia and Pacific Department

January 18, 2012

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I. GROWTH SPILLOVERS FROM THE GLOBAL ECONOMY TO THE PHILIPPINES¹

A. Introduction

1. **There are currently important downside risks in advanced economies, arising from the financial turbulence in Europe and the fragile recovery in the United States, with associated risks of spillovers to other economies.** A key question for policymakers around the world is what the impact on domestic growth would be in the event of external downside risks materializing. A good understanding of the transmission channels is also crucial for determining the appropriate policy response.
2. **As a small open economy, the Philippines is influenced by global developments through both trade and financial channels.** Weaker global growth hurts demand for Philippine exports, which in turn affects consumption and investment. The financial system has only limited exposure to Europe and little reliance on foreign wholesale funding, but contagion could still occur through pullbacks of credit by European banks to the domestic corporate sector or a retreat by foreign investors from local equity and bond markets.
3. **Exports, remittances, and portfolio and other capital flows are important transmission channels for external shocks.** The share of exports in GDP is about 50 percent, making trade a key channel. Remittances are equivalent to 10 percent of GDP and, although they held up well during 2008–2009, a global downturn would hurt the earnings on which they are based. FDI inflows have been stable around 1 percent of GDP. Non-FDI capital flows have increased during the past decade, driven by portfolio inflows.
4. **This chapter presents some key facts related to the different channels and estimates the spillover effects using a Bayesian VAR model.** The chapter studies the impact of different external shocks on growth in the Philippines, and also investigates the importance of the different transmission channels for each type of shock. The main findings are that external growth shocks have a larger impact than financial shocks on Philippine growth, and that trade is the most important transmission channel. There is also evidence of spillovers from external developments to domestic demand, especially investment.

B. External Linkages

Trade

5. **During the past decade both exports and imports have remained stable at about 50 percent of GDP, making trade an important transmission channel.** Trade declined as a share of GDP during the global crisis, but subsequently rebounded to the pre-crisis level.

¹ Prepared by Ola Melander.

The Philippines used to be a major exporter of garments and clothes, but has shifted into the electronics sector and is also diversifying into the agri-business sector. In 2010, electronics accounted for 61 percent of exports and the share of electronics in imports was 30 percent.

6. The destinations of exports have changed during the past decade as the weight of the United States has fallen while those of Asian countries, especially China, have risen.

The share of exports to the United States has fallen from nearly 30 percent in 2000 to under 15 percent in 2010 (Figure I.1). During the same period, China's share has risen from 2 percent to 11 percent. Other emerging Asian economies have also become more important as trading partners, while the shares of the Euro Area and Japan have remained broadly stable at 13 percent and 15 percent, respectively.

7. The Philippines has developed tighter supply-chain links with China and the euro area over the last decade.

The supply chain mainly comprises electronics, especially semiconductors. China's share has increased in the intermediate goods exports of ASEAN economies, including the Philippines. Hence a slowdown in China would affect the Philippines through lower demand for intermediate goods from the electronics sector. The euro area has also become more important as a destination for intermediate goods exports and its share is twice as large in the Philippines (about 20 percent) as in ASEAN peers.

8. There is a clear positive correlation between export growth and GDP growth, indicating that export activity has second-round effects on domestic demand.

The correlation coefficient between the growth rates of exports and GDP was as high as 0.83 over the past decade. Fixed investment has a higher correlation with exports than does private consumption.

Capital Flows

9. Non-FDI capital flows have increased over time, driven by portfolio inflows, while FDI flows have been more stable.

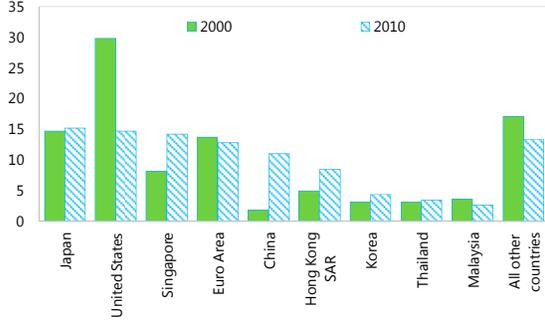
Net FDI flows have averaged 1.0 percent of GDP during the period 2000–2010. Net portfolio flows were 0.8 percent of GDP and net other flows –0.7 percent of GDP. Non-FDI flows have increased in importance over time, driven by rising portfolio inflows during the second half of the decade. The top sources of portfolio inflows in 2010 were the United States, Singapore, the United Kingdom, Luxembourg, and Hong Kong SAR, contributing over 80 percent to total registered portfolio investments.

10. Financial contagion could occur through pullbacks of credit by European banks to the domestic corporate sector.

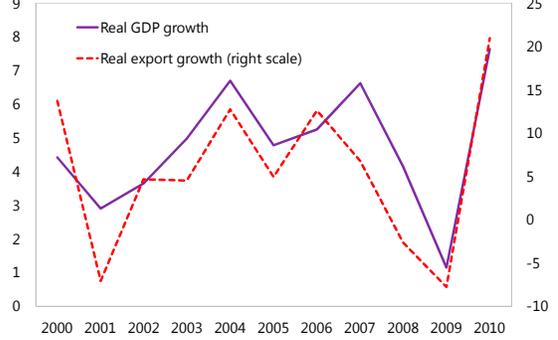
Foreign banks have significant claims on the Philippines, in particular the corporate sector which accounts for about 40 percent of the total claims. The aggregate claims of euro area, U.K., and U.S. banks are of similar size at about 4 percent of GDP each. French, German, and Dutch banks account for almost all euro area claims. To a large extent the claims are funded locally, mitigating the risks of foreign bank retrenchment.

Figure I.1. Trade, Capital Flows, and Remittances

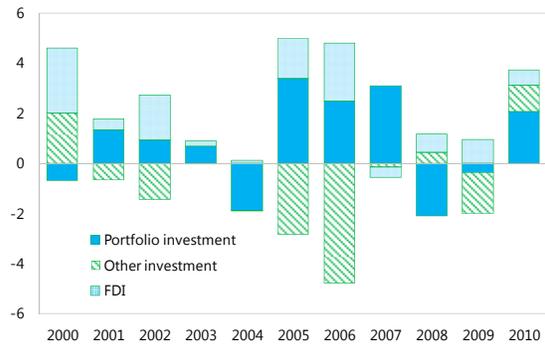
Philippines: Export Shares by Destination
(In percent)



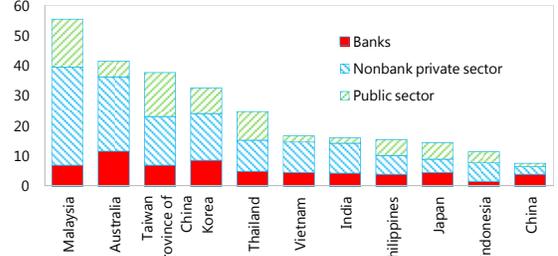
Export Growth and GDP Growth
(In percent)



Net Capital Flows
(In percent of GDP)

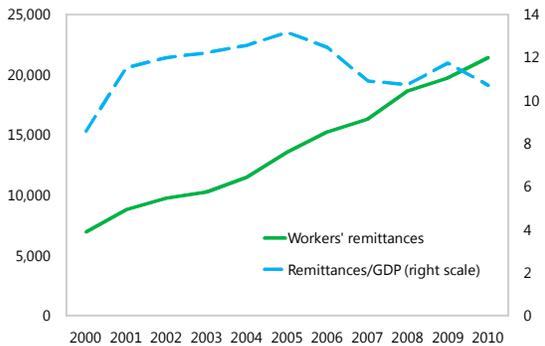


BIS Reporting Banks' Foreign Claims on Selected Asian Economies by Sector 1/
(In percent of GDP; as of 2011:Q2)

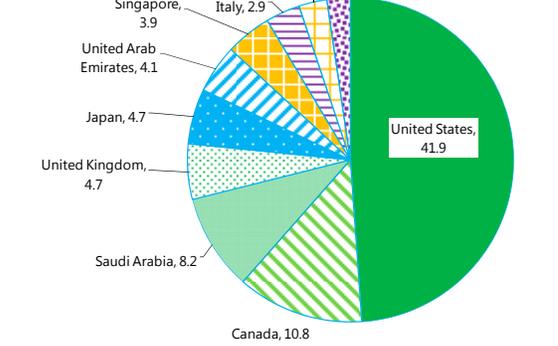


Sources: Bank for International Settlements (BIS); CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.
1/ Claims are on ultimate risk basis. Uses sum of quarterly GDP in U.S. dollar between 2010:Q3 and 2011:Q2 in the denominator.

Remittances
(In millions of U.S. dollar and share of GDP)



Remittances Shares, 2010
(In percent)



Remittances

11. **During the past decade remittances from Overseas Filipino Workers (OFWs) have grown at about 10 percent on average.** The ratio of remittances to GDP has increased from 8 percent in 2000 to about 11 percent in recent years, making the Philippines one of the top recipient countries worldwide.

12. **The most important source of remittances is the United States, which accounted for more than 40 percent of remittances in 2010.** Nevertheless, the sources are diverse with Asia, Europe, and the Middle East each accounting for 10–20 percent of the total flows. Since 2000, the share of remittances originating in the United States has declined by more than 20 percentage points. Meanwhile, the shares of Europe, the Middle East and Canada have increased by 5–10 percent each, reflecting larger diversification.

C. Empirical Analysis

Methodology

13. **The empirical estimation follows a Bayesian Vector Autoregression (BVAR) approach.** The method was suggested by Villani (2009) and uses informative priors on steady-state values. Bayesian estimation improves the efficiency and is particularly appropriate given the short sample period.²

14. **The model is identified using a standard Cholesky decomposition.** The variables are ordered as follows, starting with the most exogenous shock: external GDP growth, VIX, net portfolio and other capital flows, remittances, exports, private consumption, fixed investment, and domestic GDP growth. The external GDP growth rate is an average of the growth rates for the United States, Euro Area, Japan, and China, weighted by their relative shares of Philippine exports during the sample period. External growth shocks are assumed to be contemporaneously independent of all other shocks; the VIX is assumed to be contemporaneously affected only by external growth shocks; net portfolio and other capital flows are assumed to be contemporaneously affected only by external growth and the VIX.

Effects of Global Shocks on Growth in the Philippines

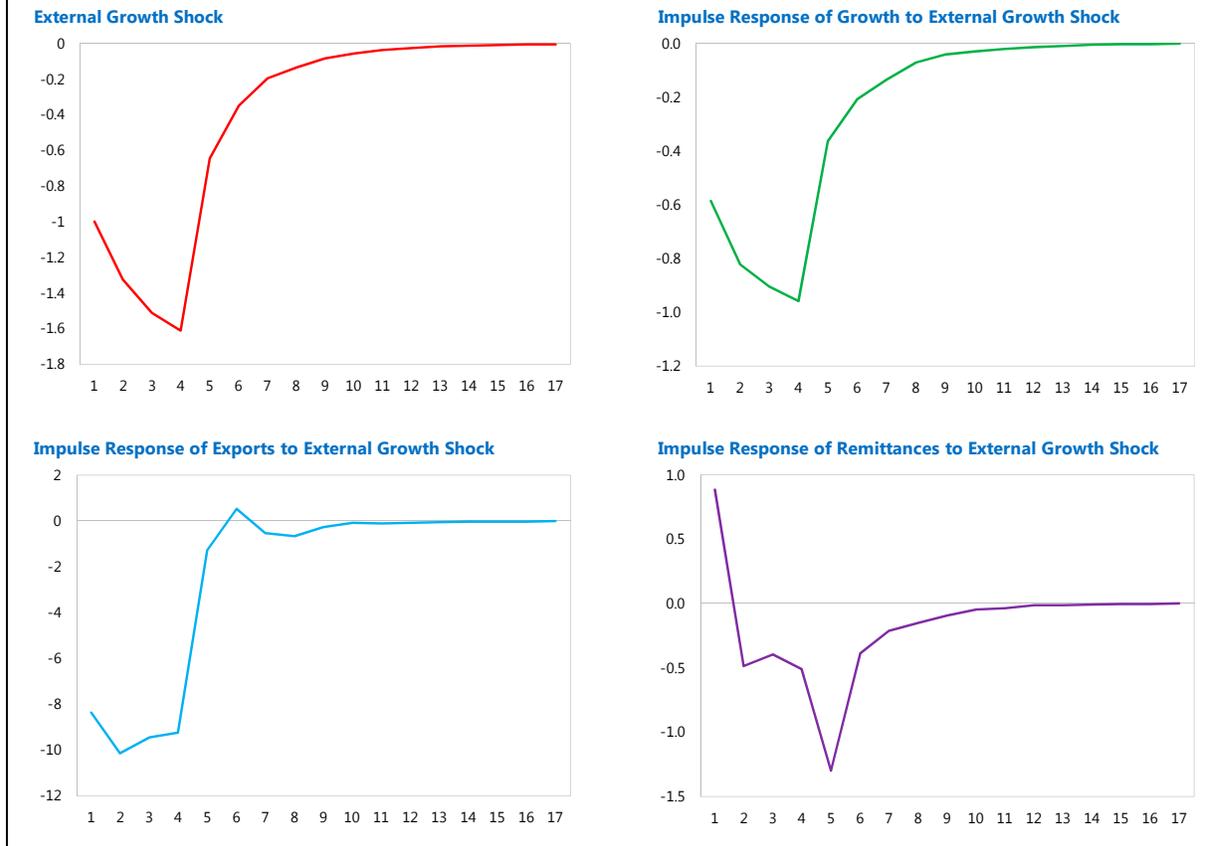
15. **The results indicate that external growth shocks have a larger impact on Philippine growth than financial shocks.** External growth shocks cause Philippine growth

² Other recent IMF papers using the same methodology are Duttagupta and Barrera (2010) studying the effects of the global crisis on Canada, Osterholm and Zettelmeyer (2008) investigating spillovers to Latin America, and Porter (2010) studying price dynamics in China.

to decrease by about two thirds of the peak response of external growth itself (Figure I.2). A 1 percentage point negative shock followed by a peak response of external growth of 1.6 percentage points after four quarters, causes Philippine growth to decline by almost 1 percentage point after four quarters.³

Figure I.2. Impulse Responses to an External Growth Shock

(In percentage points)



16. **Trade is the most important transmission channel.** Shocks to external growth have a statistically significant impact on exports, with a 1 percentage point negative external growth shock causing export growth to decline by 10 percentage points after two quarters. Remittances are more resilient, gradually declining by about 1.3 percentage points after five

³ The estimated impact of external growth is in line with other estimates for the Philippines. The IMF October 2011 *Regional Economic Outlook: Asia and Pacific* finds similar effects using another methodology to investigate the vulnerability of selected Asian countries to a slowdown in the United States and the euro area. The estimated effect for the Philippines was larger than for China, India, and Indonesia, but smaller than for other ASEAN economies.

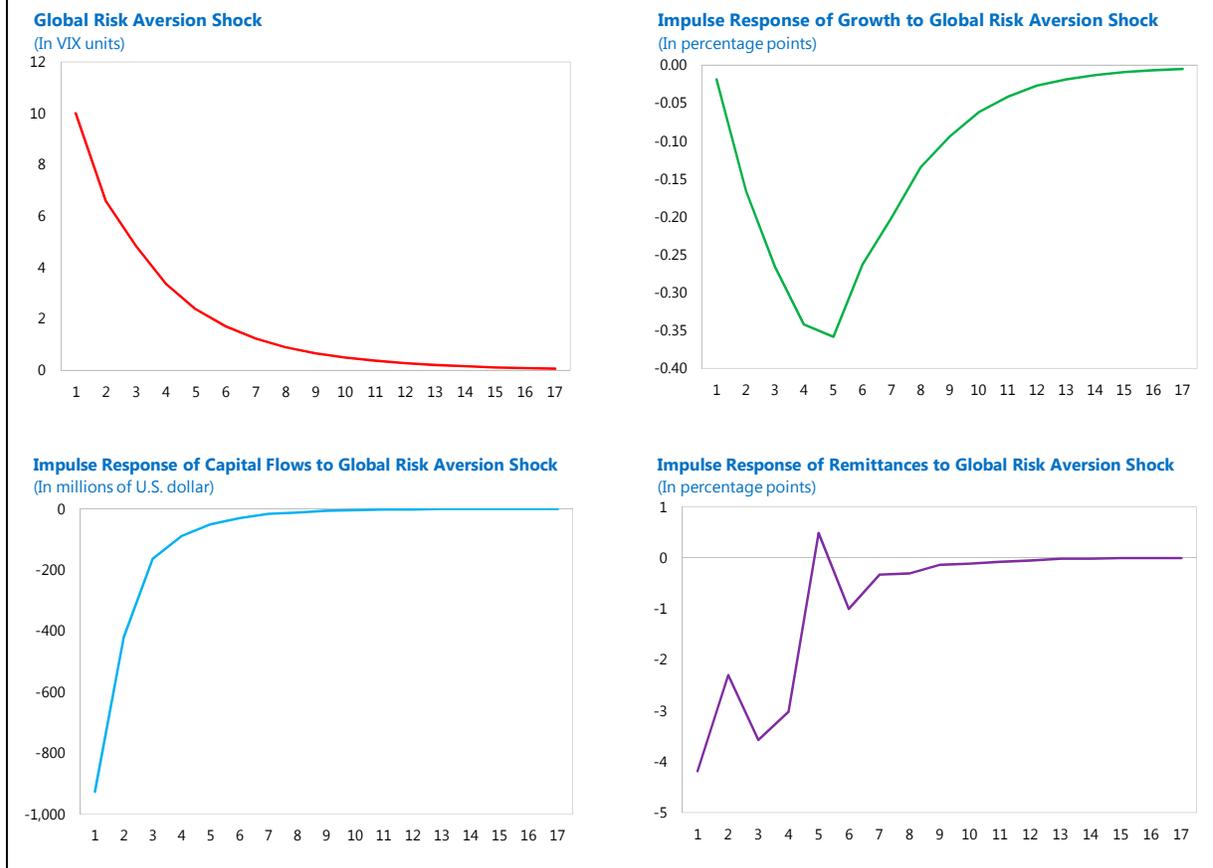
quarters. The more gradual impact may reflect slowly deteriorating labor market conditions in host countries. However, the effect on remittances is not statistically significant at standard levels and, indeed, remittances have held up well during the global crisis reflecting the diversity of destinations of OFWs.

17. **The impact of global risk aversion shocks on Philippine growth is smaller than the impact of external growth shocks.** Even a relatively large shock increasing the VIX by 10 units—equivalent to the difference between the long-term average VIX level and the elevated levels seen in late 2011—only has a minor effect on Philippine growth (Figure I.3). The negative impact on growth gradually rises to about one third of a percentage point after five quarters. The shock is transmitted through a transitory impact on capital flows and a somewhat more persistent impact on remittances. The adverse effect on remittances may reflect caution in response to a general increase in uncertainty as well as labor market weakening in host countries.

18. **There are also spillovers from external developments to domestic demand, in particular fixed investment.** When exports decline consumption does not change, but exporters cut back on investment and there are also spillovers to investments related to the domestic economy. In addition, adverse shocks to capital flows or remittances have a negative impact on investment as financing becomes more scarce and costly.

Scenario Analysis

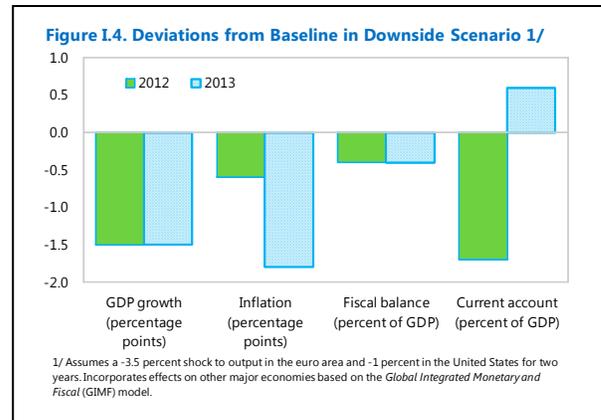
19. **The model can be used to produce conditional forecasts based on assumptions about the future paths of some of the exogenous variables.** By comparing the resulting GDP growth projections with the corresponding forecasts under the baseline scenario, it is possible to estimate the impact of a specific downside global scenario. The scenario and estimated impacts in this section are presented only for illustrative purposes and do not represent any judgment on likely scenarios for the global economy or the Philippines.

Figure I.3. Impulse Responses to a Global Risk Aversion Shock

20. **In an adverse global scenario growth in the euro area and the United States falls significantly in 2012 and 2013, causing spillovers to growth in other major economies.** The scenario from the IMF October 2011 *Regional Economic Outlook: Asia and Pacific* assumes that growth in the euro area and the United States declines by 3.5 percentage points and 1 percentage point, respectively, below the baseline for two years. The impact on Japan and China is estimated using the IMF's *Global Integrated Monetary and Fiscal* (GIMF) model.⁴ The total impact on external growth relative to the baseline in the G-4 economies weighted by their relative share of Philippine exports is 2.2 percentage points in 2012 and 2.3 percentage points in 2013.

⁴ Growth in Japan falls by 1.8 percentage points in the first year and by 1.4 percentage points in the second year. China is hit harder with growth declining by 3.0 percentage points in the first year and 3.9 percentage points in the second year.

21. **Staff estimates indicate that growth in the Philippines could drop by about two third of the decline in external growth before any fiscal and monetary response.** GDP growth declines by about 1.5 percentage points in both 2012 and 2013 relative to the baseline projection (Figure I.4). The impact is calculated before any fiscal and monetary response. The output gap turns negative, contributing to a decline in inflation, and the fiscal balance deteriorates due to revenue automatic stabilizers.⁵ The impact on exports and fixed investment is larger than the impact on private consumption, reflecting the resilience of remittances. The current account balance falls at first as exports decline faster than imports, and then rises as weaker domestic demand leads to lower imports.



22. **The scenario analysis shows that the effects of weaker economic conditions in the euro area and United States could have a significant impact on the Philippines.** To some extent the effects could be mitigated by resilience in other key trading partners, such as the ASEAN countries, as well as the deployment of a range of policy tools. Many of the measures that were successful during the 2008–2009 global crisis could be usefully reactivated.

⁵ The estimated impact of the output gap on inflation is taken from Peiris (2011). It is assumed that a 1 percentage point decline in the output gap causes the fiscal revenue to GDP ratio to fall by about 0.1 percent of GDP, and that nominal expenditure is unchanged.

References

- Dutttagupta, R., and N. Barrera, 2010, “The Impact of the Global Crisis on Canada: What Do Macro-Financial Linkages Tell Us?” IMF Working Paper No. 10/5 (Washington: International Monetary Fund).
- Osterholm, P., and J. Zettelmeyer, 2008, “The Effect of External Conditions on Growth in Latin America,” *IMF Staff Papers*, Vol. 55, No. 4, pp. 595–623 (Washington: International Monetary Fund).
- Peiris, S. J., 2011, “Forecasting and Monetary Policy Analysis System for the Philippines,” in *Philippines—Selected Issues*, IMF Country Report No. 11/58 (Washington: International Monetary Fund).
- Porter, N., 2010, “Price Dynamics in China,” IMF Working Paper No. 10/221 (Washington: International Monetary Fund).
- Villani, M., 2009, “Steady State Priors for Vector Autoregressions,” *Journal of Applied Econometrics*, Vol. 24, No. 4, pp. 630–50.

II. INTEREST RATE TRANSMISSION, LENDING CONDITIONS, AND MONETARY POLICY¹

A. Introduction

1. **Policy interest rates are expected to anchor money market rates and Treasury bill/bond (T-bill) yields that act as benchmarks for deposit and loan rates.** In the Philippines, interbank money market and Treasury bond yields have at times fallen below the policy rate due to the limited amount of government securities held by the BSP for repo operations and inability of the BSP to issue its own securities to mop up excess liquidity. When interbank and T-bill rates are below policy rates, the impact of policy rates on lending rates could be blunted because the former often acts as a benchmark for lending rates. Therefore, this paper evaluates the role of policy rates as well as lending conditions (proxied by the spread between the T-bill and policy rate) when assessing monetary conditions.
2. **To assess the impact of policy interest rates and lending conditions on the output gap, the paper estimates an extended Global Projection Model using Bayesian techniques.**² A GPM model that incorporates commodity prices, lending conditions, and headline and core inflation can provide a systematic framework to consider policy trade-offs under an inflation forecast targeting (IFT) regime like the Philippines (see Laxton and others, 2009).
3. **The paper is structured as follows:** Section II looks at the empirical interest rate transmission mechanism and macro-financial linkages. Section III estimates an extended GPM model for the Philippines incorporating global commodity prices and lending conditions to assess their impact on the real economy and usefulness for forecasting inflation. Section IV concludes with some policy implications.
4. **The main conclusions are that lending conditions have a larger impact than policy rates on the output gap and thus on headline inflation.** Therefore, lending conditions should be taken into account when evaluating the monetary stance and inflation forecast. Lending conditions are, in turn, largely determined by portfolio inflows, excess bank reserves, and treasury issuances. Global fuel and food prices also have a significant impact on headline inflation in the Philippines and there are significant second-round effects.

B. Interest Rate Transmission and Lending Conditions

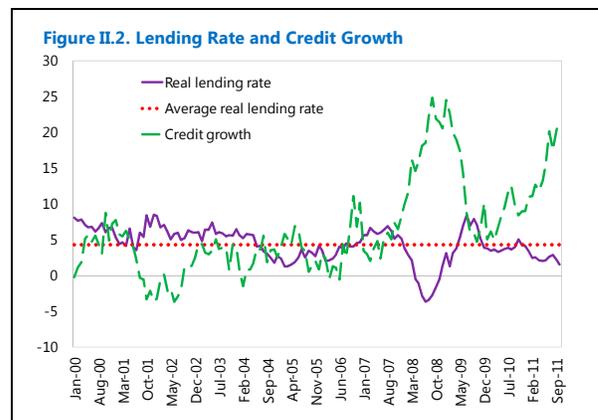
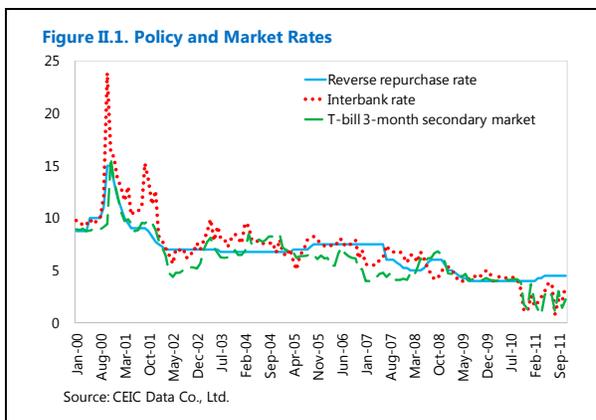
5. **To assess whether the current interest rate structure has blunted the effectiveness of the interest rate and credit channel of monetary policy, the paper**

¹ Prepared by Yoga Affandi and Shanaka J. Peiris.

² See Carabenciov and others (2008) and IMF (2011) for more detail.

examines: (i) the persistence and volatility of the deviation of market rates from policy rates; (ii) the determinants of the divergence of market rates from policy rates.; and (iii) the interest rate transmission mechanism and its relationship to lending conditions.

6. **The interest rate and credit channels are two of the key transmission mechanisms of monetary policy in emerging markets.**³ In theory, money market and T-bill yields should be a premium over overnight policy rates (Reverse Repurchase Rate, RRP) reflecting term, liquidity and credit (counterparty) risk factors. In the Philippines, as of December 2011, benchmark interbank money market (PHIBOR) and T-bill yields (91-day and 1-year) are significantly below the RRP rate (Figure II.1). The concern here is that lower market rates could translate to retail bank rates (on deposits and loans) that are below levels consistent with the central bank's policy stance and thus inflation objective.⁴ In particular, real lending rates in the Philippines are significantly below their historical levels and credit growth to the private sector has risen sharply (to 22 percent by November 2011, Figure II.2). Historically in Asia, low interest rates and credit booms have been characterized by a high incidence of economic crises.⁵



³ See Mishkin (1996) for a more comprehensive view of the channels of monetary transmission and Guinigundo (2008) for their importance in the Philippines.

⁴ For simplicity, this paper associates the deposit rate with the interest rate channel and lending rate with the credit channel of monetary policy as in most dynamic stochastic general equilibrium models with a banking sector.

⁵ See Chapter 3, *Regional Economic Outlook: Asia and Pacific*, October 2011 for the historical relationship between rapid credit growth and economic crises in Asia including the role of interest rates in driving the credit cycle.

7. **The deviation of T-bill yields from policy rates has been more persistent and volatile than deviations of money market rates.** The estimates of a GARCH (1,1) framework from 2000–11 find the long run mean of the interbank (IB) money market rate is 0.56 percentage points above the policy rate while the average T-bill (TB) yield is 0.37 percentage points below (Table II.1).⁶ Deviations of market rates tend to persist over time in terms of level and volatility, suggesting that influence of the policy rate over the yield curve is limited, particularly in the case of treasury securities.⁷

Table II.1. Dynamics of the Deviation of Market Rates from the Policy Rate

	IB = Interbank- RRP	TB = T bills - RRP
Long run mean of divergence = $-\alpha_1/\alpha_2$	0.56	-0.3
Speed of reversion = $-\alpha_2$	-0.37	-0.19
Variance = $\beta_2 + \beta_3$	1.32	1.52

8. **The persistence of the negative spread between T-bill and policy rates weakens the interest rate and credit channels of monetary policy.** A simple recursive Vector Autoregression (VAR) analysis of the interest rate transmission mechanism controlling for external factors (10-year treasury bond rates) shows that the treasury bill rate has a larger (nearly double the magnitude) and more statistically significant impact on lending rates than policy rates (Figure II.3).⁸ Therefore, the impaired influence of policy rates on T-bill rates is costly in terms of weakening the effectiveness of monetary policy transmission to lending

⁶ Following Panigirtzoglou and others, 2000, the divergence (d): market interest rate – policy rates is modeled as: $d_t - d_{t-1} = \alpha_1 + \alpha_2 d_{t-1} + \varepsilon_t$, $E(\varepsilon_t^2 | \psi_{t-1}) = \sigma_t^2 = \beta_1 + \beta_2 \varepsilon_{t-1}^2 + \beta_3 \sigma_{t-1}^2$ with the long run mean of divergence = $-\alpha_1/\alpha_2$; the speed of reversion = $-\alpha_2$; and the variance = $\beta_2 + \beta_3$, where the variance is explosive if the value is greater than one.

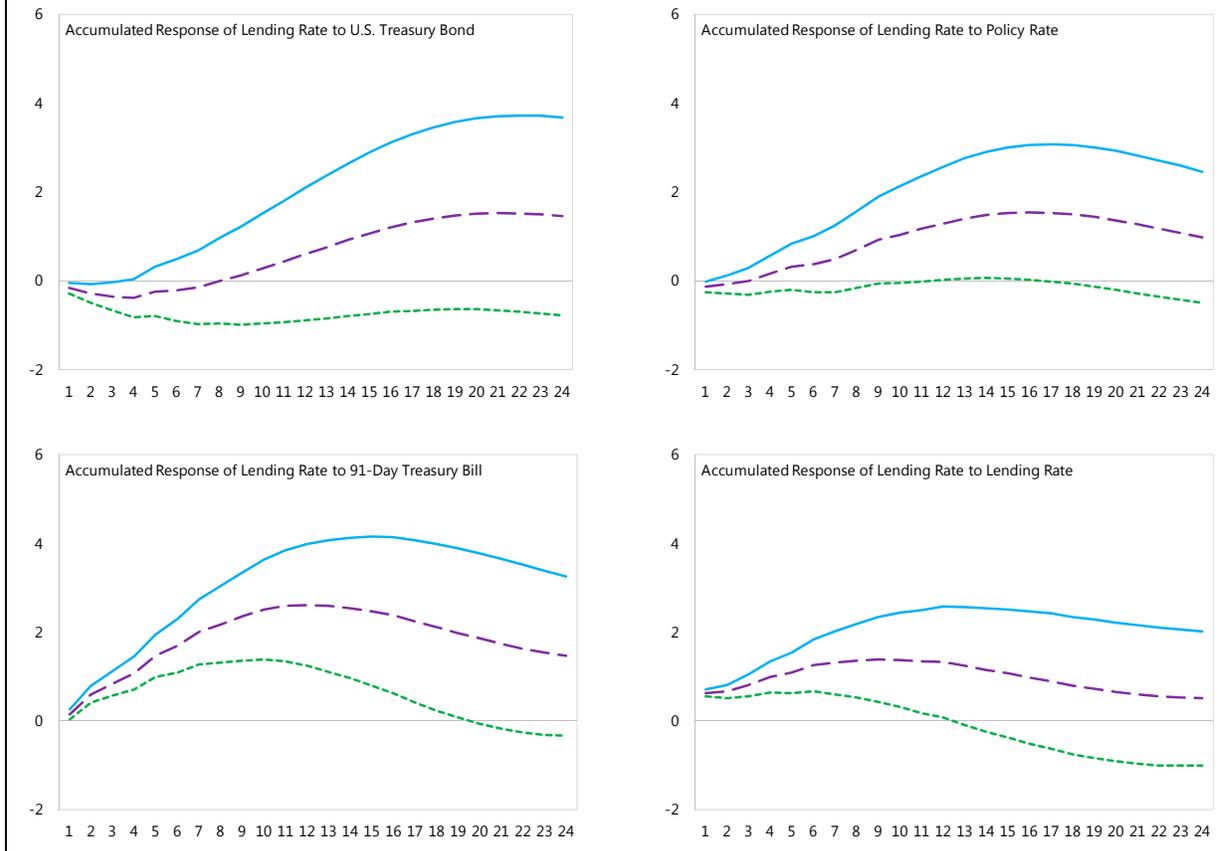
⁷ Fermo (BSP, 2009) also recognized this deviation, saying, “there appears to be some divergence between the two rates, as the global financial crisis has weakened to a certain extent the traditional transmission mechanism of the interest rate channel to the real economy.”

⁸ The impact on deposit rates shows a similar pattern but this paper focuses solely on the transmission to lending rates given the greater importance of the credit channel of monetary policy in the Philippines (see IMF, 2011).

rates (or the credit channel of monetary policy).⁹ The impact of interbank rates on retail bank rates is less significant than T-bill rates and more comparable to the role of the policy rate.¹⁰ Guinigundo (2010) also noted that the pass-through from the policy rate to the T-bill rate is quite limited in the Philippines, particularly under the inflation targeting regime.

Figure II.3. Interest Rate Transmission and Lending Rate

(Accumulated response to Cholesky one S.D. innovations ± 2 S.E.)



9. **Structural factors and changing patterns of demand and supply conditions for treasury securities could explain the spread between T-bill rates and policy rates. In particular:**

- **Liquidity.** There are currently “excess” reserves in the domestic money market (measured by RRP and Special Deposit Accounts, SDAs), mainly as a result of the

⁹ Also, the impact of policy rates on the lending rate is similar to its impact on the T-bill rates, indicating that policy rates influence lending rates to the extent that it affects the T-bill rate.

¹⁰ Thus, the following sections focus exclusively on the spread between the T-bill rate and policy rate.

external inflows into the economy. As in other countries facing a similar policy dilemma, the BSP has tried to ensure that the liquidity is adequately sterilized to reduce risks to inflation. The BSP in the past relied heavily on reverse repos to mop up liquidity, but it has nearly exhausted its own holdings of securities for use as collateral in repo transactions. The current BSP charter constrains the ability of the central bank to issue its own securities.¹¹ The BSP has, therefore, had to rely heavily on other instruments, notably SDAs that have reached P 1.7 trillion as of December 2011.¹² SDAs are available for 7-days to 1-month with a small term premium over RRP's but are not tradable and usable as collateral for repos. As a result, SDAs do not act as an overnight standing facility and provide a floor to domestic short-term interest rates. Liquidity preferences or market imperfections could therefore lead to a spread between the market and policy rate;

- **Portfolio flows.** Surges in portfolio inflows (PF) to the local currency bond market could drive down treasury yields due to market segmentation as RRP's and SDA are only accessible by banks, corporates, and trust institutions;
- **Fiscal factors.** The supply of government securities issued by the Department of Treasury and cut-offs (rejections) at primary auctions may also have a bearing on T-bill yields; and
- **Global factors.** Finally, external factors such as monetary policy in advanced economies and global liquidity may also have an impact.¹³

¹¹ Although the BSP has the legal authority to issue its own bills in the current BSP charter, it is highly constrained by the clause: “provided that issuance of such certificates of indebtedness can be made only in cases of extraordinary movement in price levels.” A bill currently being considered within Congress would have the effect of deleting this clause.

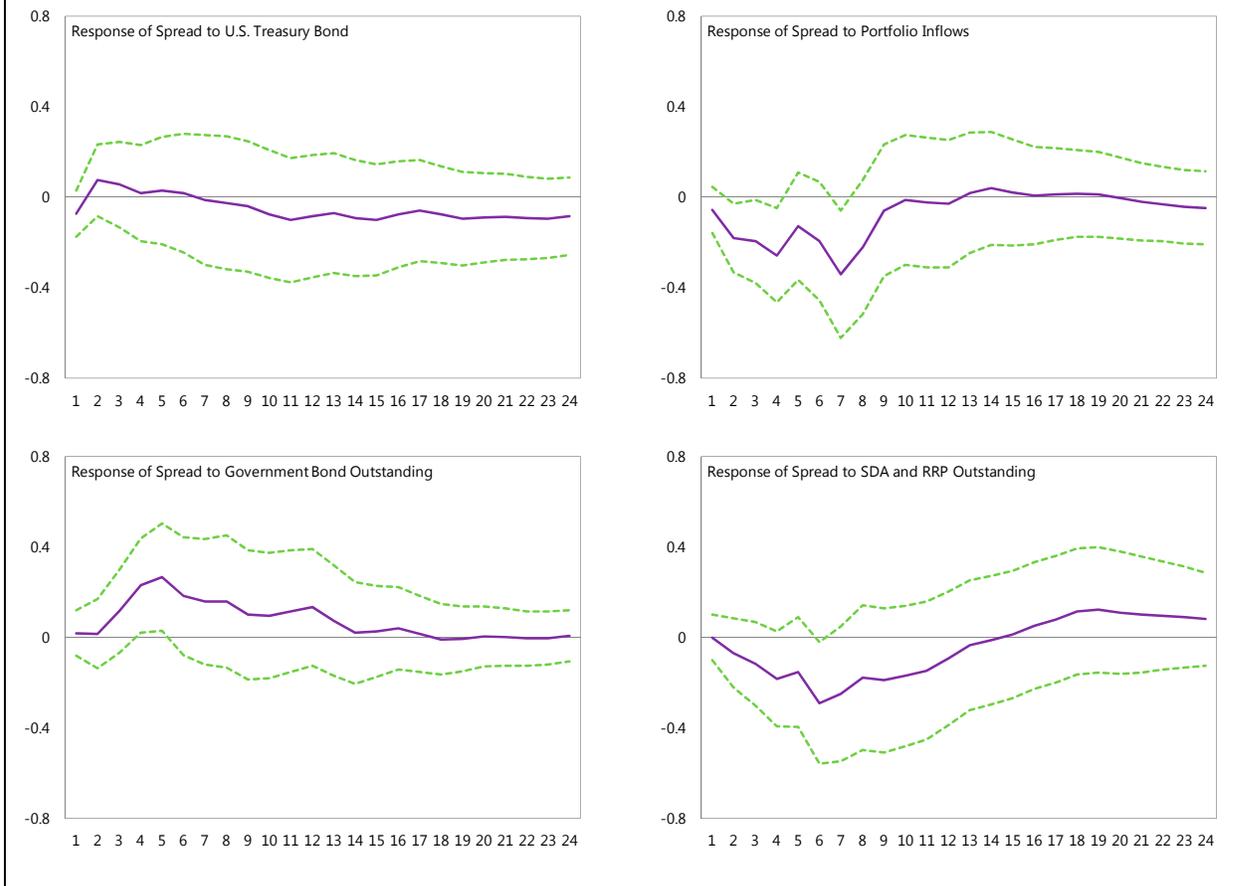
¹² SDAs were introduced in November 1998 to widen the BSP’s toolkit for liquidity management.

¹³ Global interest rates are often viewed as a key driver of long-term bond yields in emerging Asia. See, for example, *Regional Economic Outlook: Asia and Pacific*, April 2011, Chapter 1.

10. **The spread is determined by portfolio inflows, liquidity and supply of government securities** (Figure II.4). Both the impulse responses and variance decompositions of a simple recursive VAR confirm the significant influence of foreign portfolio inflows and liquidity on the spread.¹⁴ The supply of T-bills at primary auctions also has an impact, albeit to a lesser extent. On the other hand, the role of cut-offs by the Department of Treasury at primary auctions was difficult to quantify and not accounted for in the analysis.

Figure II.4. Determinants of Spread Between T-Bill and Policy Rate

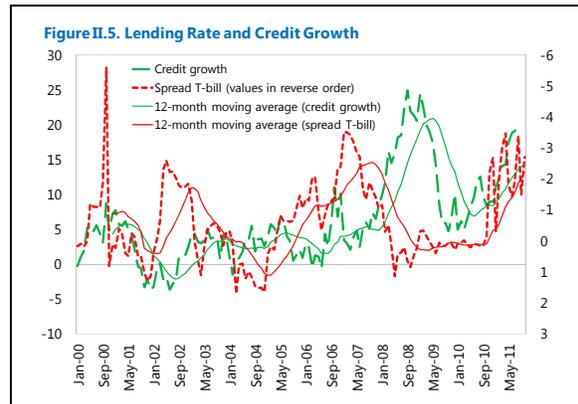
(Response to Cholesky one S.D. innovations ± 2 S.E.)



¹⁴ The ordering of the VAR is: U.S. T-Bond, portfolio flows, government bond issuances, excess reserves (SDA+RRP), and the spread (91-day T-Bill-RRP).

11. **The spread between the T-bill and policy rate is closely associated with credit growth and thus appears to be a good proxy for lending conditions.** The strong

influence of T-bill rates on lending rates indicates that the spread could affect lending conditions and private credit growth through a marginal cost of finance channel. In fact, the spread appears to lead private credit growth over the last decade, particularly when it is persistent (Figure II.5). Previous empirical analyses



have suggested that private credit has a significant impact on domestic demand in the Philippines due to the importance of banks as a source of financing for the large corporate sector and, more recently, consumer credit (IMF, 2011; and Guinigundo, 2010).

C. GPM Model with Commodity Prices and Lending Conditions

12. **The monetary policy analysis is conducted by extending to better capture the role of global commodity prices and lending conditions the GPM model of Berg, Karam, and Laxton (2006).** Global commodity prices and lending conditions are incorporated similar to Carabenciov and others (2008). The model is estimated using Bayesian techniques based on prior distributions for the parameters from cross-country work and assumptions about the Philippine economy. Details of the GPM model specification and results are described in IMF (2011). The results of the extended GPM model highlighting the impact of lending conditions (proxied by the spread between the T-bill rate and policy rate, in basis points) on the aggregate demand or output gap equation and the degree of second-round effects of headline inflation on core inflation are discussed below.

13. **Lending conditions have a larger impact than policy rates on the output gap and thus headline inflation.** The estimate of the impact of lending conditions on the output gap is 0.12 (1 percentage point change in the spread raises the output gap by 0.12 percent) compared to a coefficient of 0.06 for the policy rate.

14. **Global commodity prices have a strong influence on inflation dynamics in the Philippines.** Global fuel and food prices have a significant impact on headline inflation and, in addition, second-round effects appear also to be significant as the coefficient on the deviation of headline inflation from core inflation is high (0.67). The high degree of the second-round effects is likely to be related to the country's centralized wage bargaining framework that explicitly references headline inflation.

D. Policy Implications

15. **The weak interest rate transmission suggests a need to take into account lending conditions when evaluating the monetary stance.** The persistence and volatility of the negative spread between the T-bill and policy rate lessens the strength of the interest rate and credit channel of monetary policy because the T-bill rate has a stronger influence than the policy rate on deposit and lending rates. The negative spread (a measure of lending conditions) affects the real economy. In this context, monetary conditions as of December 2011 are more supportive of growth than implied by the policy rate alone. Lending conditions should be taken into account when evaluating the monetary stance and inflation forecast, particularly capital inflows and the associated foreign exchange intervention and liquidity injections. Coordination of monetary and fiscal policies also has a role to play in strengthening monetary policy effectiveness. The high degree of second-round effects of headline inflation on core inflation suggests a need to take account of the impact of volatile commodity prices when evaluating the inflation forecast and the monetary stance.

References

- Bangko Sentral ng Pilipinas, 2011, “Inflation Report—Third Quarter 2011” (Manila).
- Berg, A., P. Karam, and D. Laxton, 2006, “A Practical Model-Based Approach to Monetary Policy Analysis: Overview,” IMF Working Paper No. 06/80 (Washington: International Monetary Fund).
- Carabenciov, I., I. Ermolaev, C. Freedman, M. Juillard, O. Kamenik, D. Korsunmov, and D. Laxton, 2008, “A Small Multi-Country Global Projection Model with Financial-Real Linkages and Oil Prices,” IMF Working Paper No. 08/280 (Washington: International Monetary Fund).
- Fermo, Laura B., 2009, “What is the Equilibrium Real Interest Rate for the Philippines?,” Bangko Sentral ng Pilipinas (BSP) Economic Newsletter No. 09–07, November (Manila: Bangko Sentral ng Pilipinas).
- Guinigundo, Diwa C., 2010 “Measurement of Inflation and the Philippine Monetary Policy Framework” in *Monetary Policy and the Measurement of Inflation: Prices, Wages and Expectations*, BIS Papers No. 49, pp. 285–295 (Basel: Bank for International Settlements).
- , 2008, “Transmission Mechanism of Monetary Policy in the Philippines” in *Transmission Mechanism for Monetary Policy in Emerging Market Economies*, BIS Papers No 35, pp. 413–425 (Basel: Bank for International Settlements).
- International Monetary Fund, 2011, *Philippines—Selected Issues*, IMF Country Report No. 11/58 (Washington).
- Laxton, Douglas, David Rose, and Alasdair M. Scott, 2009, “Developing a Structured Forecasting and Policy Analysis System to Support Inflation-Forecast Targeting (IFT),” IMF Working Papers No. 09/65 (Washington: International Monetary Fund).
- Mishkin, Frederic, 1996, “The Channels of Monetary Transmission: Lessons for Monetary Policy,” NBER Working Papers No. 5464 (Boston: National Bureau of Economic Research).
- Panigirtzoglou, Nikolaos, James Proudman, and John Spicer, 2000, “Persistence and Volatility in Short-Term Interest Rates,” Bank of England Working Paper No. 116. Available via the Internet:
<http://www.bankofengland.co.uk/publications/workingpapers/wp116.pdf>

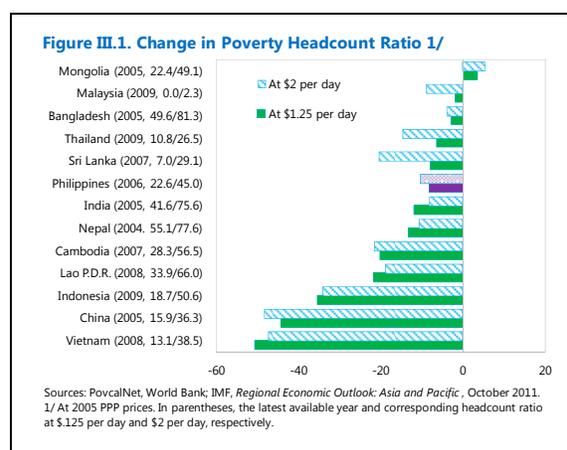
III. BUILDING INCLUSIVE GROWTH IN THE PHILIPPINES¹

A. Introduction

1. **This paper argues that in order to raise living standards across the board, a set of mutually reinforcing policies will be needed both to strengthen potential growth and to make growth more inclusive.** Strengthening potential growth will require measures to build investment, total factor productivity, and job creation. Inclusive growth calls for additional considerations. A panel cross-country analysis shows that high inflation hurts the poor the most, and financial deepening needs to be accompanied by broader access to finance by the poor if it is to enhance inclusiveness. Greater productivity in agriculture, possibly through better rural infrastructure and extension services, and a shift in labor toward services, such as business process outsourcing and tourism, could help to reduce inequality. The relatively low shares of education, health, and pension spending in GDP in the Philippines also points to an important role for fiscal policy in strengthening inclusiveness.

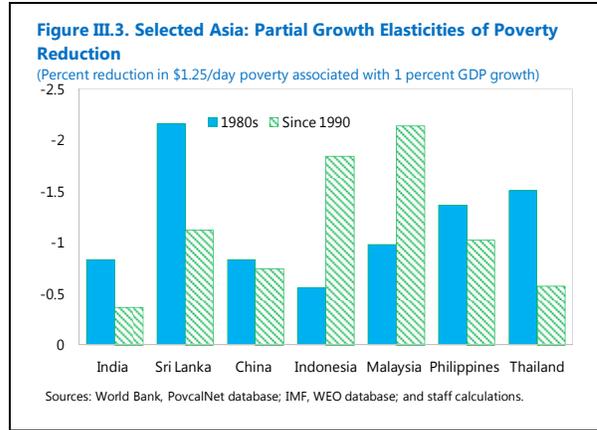
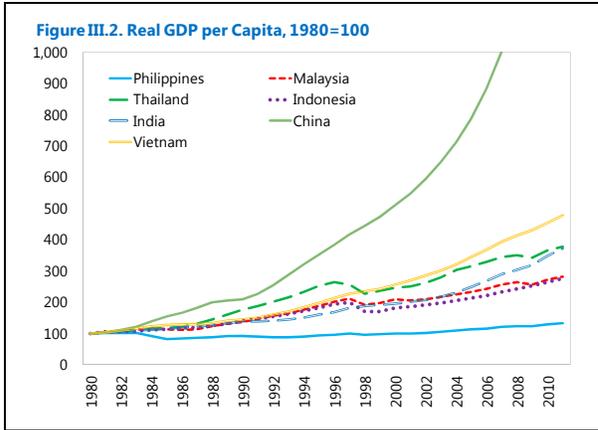
2. **The Philippines has made progress with poverty reduction in recent decades, although the progress has been smaller than in regional peers.** The share of people who live on less than \$1.25 per day declined from 30.7 percent in 1991 to 22.6 percent in 2006, which was a moderate reduction relative to other Asian countries (Figure III.1).

Moreover, poverty has likely increased since the global financial crisis as a significant number of people live close to the poverty line.² The relatively slow pace of poverty reduction in the Philippines owes to both relatively slow economic growth and a low elasticity of poverty reduction with respect to growth. During 1980–2010, real per capita GDP averaged 0.9 percent annually in the Philippines, compared with 5.1 percent in emerging Asia as a whole (Figure III.2). During 1991–2006, the poverty headcount ratio in the Philippines fell by 1.02 percent for every one percent change in GDP growth, compared with an elasticity of 1.12 percent in comparator Asian countries. The 1.02 percent elasticity was, in addition, somewhat lower than the level of the 1980s (Figure III.3).

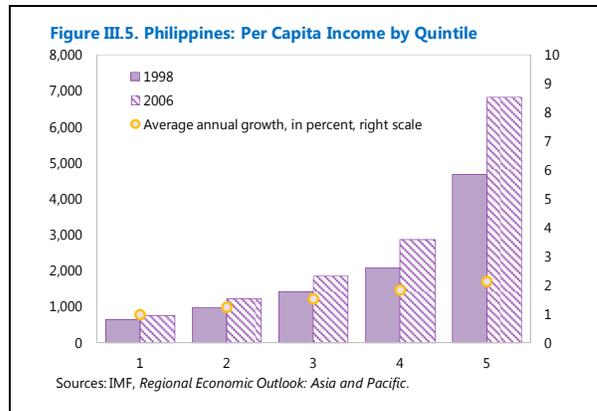
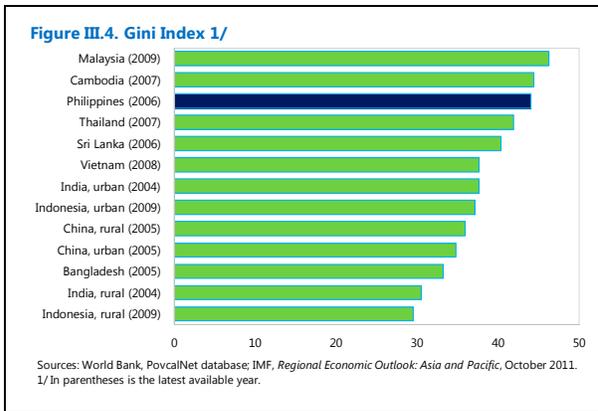


¹ Prepared by Yoga Affandi and Shanaka J. Peiris.

² Based on the World Bank, PovCalNet data, the share of the population that live on less than \$2 per day was 45 percent (as of 2006).



3. **The impact of growth on poverty reduction may be blunted by high and rising income inequality.** Income inequality in the Philippines is among the highest in the region, with the Gini coefficient having risen from 40 in 1988 to 44 in 2006 (Asian Development Bank, 2009) (Figure III.4). During this period, the income of poor families (defined as the income in bottom quintile) grew only half as much as that of rich families (defined as the income in top quintile) (Figure III.5). Several factors have contributed to rising income inequality, including unequal distribution of growth and regional development, rapid population growth, declines in relative price of labor provided by the poor, and unequal access to social and financial services (World Bank, 2010).



B. Strengthening Inclusive Growth

4. **In order for growth to be sustainable and effective in reducing poverty, it needs to be both faster and more inclusive.**³ These two aspects of the challenge are taken up below.

³ This point was reinforced in the findings of the Commission on Growth and Development (2008), see also World Bank (2010).

Raising Potential Growth

5. **Rapid and sustained growth requires strengthening all three pillars of potential growth.** Addressing the relatively low level of investment in the Philippines would be critical for raising potential growth (Figure III.6). The ratio of public investment to GDP declined from 5 percent in the 1990s to 3 percent in the 2000s while that of private investment declined from 19 percent to 17 percent. Raising investment would help to create more job opportunities and reduce the high prevailing rates of unemployment and underemployment, and it would also go hand in hand with structural reforms to raise total factor productivity (TFP) (Table III.1). Raising investment requires, in turn, greater fiscal revenue to support higher public investment and improvements in infrastructure, the business climate, and power supply to support private investment. Structural factors also play a role. Improving human capital and institutional quality, moving up the value chain from agriculture to industry and services, addressing inequitable access to development opportunities and inadequate social safety nets, and improving the domestic rates of return to labor can all be potentially important for strengthening growth.⁴

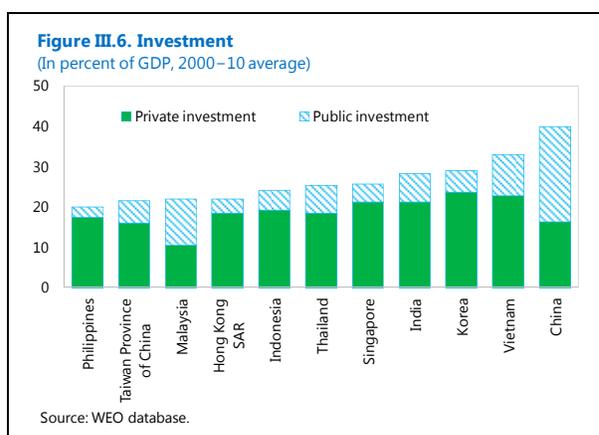


Table III.1. Growth Contribution Under a Reform Scenario

	2000–10 Average	2016 Reform
Potential growth (percent)	4.5	7.0
Contribution of TFP (percent)	1.9	3.0
Contribution of capital (percent)	1.2	2.0
Contribution of labor (percent)	1.4	2.0

Sources: Ide (2011); and IMF Staff calculation.

Poverty Reduction

6. **International experience suggests that achieving a high pace of growth over extended periods of time is key for poverty reduction.** Kraay (2004) shows for a large panel of developing countries that growth in average incomes explains 70 percent of the variation in poverty reduction in the short run, and as much as 97 percent in the long run.⁵ Lopez and Servén (2004) suggest that for a given inequality level, the poorer the country is, the more important is the growth component in explaining poverty reduction.⁶ IMF (2011)

⁴ See, for example, Ide (2011), Asian Development Bank (2007), and World Bank (2010).

⁵ Most of the remainder of the variation in poverty reduction is accounted for by changes in income distribution.

⁶ Raising growth will not only benefit for poverty reduction but also improve social indicators such as life expectancy, infant mortality and adult literacy (ADB, 2002).

shows that growth is in general pro-poor, with growth leading to significant declines in poverty across economies and time periods. Specifically, a 1 percent increase in real per capita income leads to about a 2 percent decline in the poverty headcount ratio. However, a 1 percent increase in the Gini coefficient more or less directly offsets the beneficial impact on poverty reduction of the same increase in income.

7. **Staff estimates based on fixed effects regression using a panel dataset of 42 emerging economies confirm the importance of growth in reducing poverty but detrimental impact of inequality.** The results are as follows:

Estimation results:

$$\text{Log(Headcount ratio)} = 1.79 - 0.48 * \text{Log(Mean per capita income)} + 1.23 * \text{Log (Gini coefficient)}$$

(1.30) (-6.65) (3.62)

Notes: Fixed effects panel regressions are conducted using data from a sample of 42 countries during 1979–2009, with 265 observations. R^2 (adjusted) = 0.79. t-statistics are in parentheses.

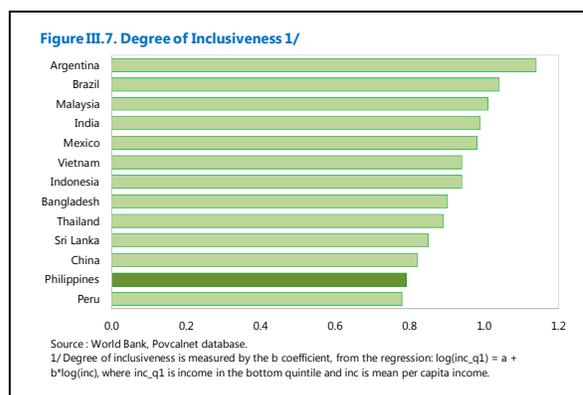
The estimation results suggest that a 1 percent increase in per capita income leads to about a ½ percent decline in the poverty headcount ratio. However, rising inequality offsets the decline in poverty associated with higher income growth, as a 1 percent increase in the Gini coefficient leads to about a 1¼ percent increase in the poverty headcount ratio.

Building Inclusive Growth

8. **The authorities’ medium-term development plan (“Philippines Development Plan, 2011–2016”) places inclusive growth at the center of the agenda** (NEDA, 2011). The Plan notes that three key reasons why growth has not been inclusive in the past are: growth has been slow in comparison with other Asian countries, the benefits of economic and social progress have been shared only narrowly, and issues of corruption and governance have at times undermined the public’s sense of ownership and control over public policy.

9. **The degree of inclusiveness in the Philippines is estimated to be one of the lowest among 42 emerging markets (Figure III.7).**

“Inclusiveness” is measured here by the ratio of the bottom quintile of the income distribution and mean per capita income. The data indicate that the income of the bottom quintile has increased significantly less than proportionately with average income. In contrast, the income of the top quintile has risen more than proportionately with average income.



10. **The chapter uses a macro panel data approach to identify a number of determinants of inclusive growth.** Using the above definition of inclusiveness, a panel of 42 countries is analyzed to identify a set of economic and social indicators that explain the degree of inclusiveness in emerging markets. The results are shown in Table III.2, and the main conclusions are as follows:

- A higher level of mean income (represented by the constant term) leads to greater inclusiveness. The importance of higher economic growth for raising inclusiveness highlights the importance of policies to raise investment, factor productivity, and employment;
- Higher inflation is associated with less inclusiveness. Higher inflation is often driven by food prices, which represent a greater share of the consumption basket of the poor;
- Greater health spending is associated with greater inclusiveness;
- Higher productivity in agriculture is associated with greater inclusiveness. Higher agricultural productivity could increase the returns to economic activity in rural areas, as well as reduce the number of workers required to sustain rural living standard and allow migration to higher-value-added sectors;
- Indeed, a greater share of employment in services is associated with greater inclusiveness. In this context, greater labor market flexibility could facilitate a move away from low-return occupations to those where opportunities are better (Table III.3 and WEF, 2011). Measures to increase labor market flexibility and active labor market measures, such as job training and search assistance, would facilitate job creation and transition to higher paying jobs in the BPO and tourism sectors. A shift toward the BPO and tourism sectors would also require broader access to education and improved infrastructure; and
- Financial deepening, measured by the credit-to-GDP ratio, has a negative relationship with inclusiveness. This conclusion may reflect the fact that financial deepening, if it

does not entail improving access to finance by the poor, may benefit relatively richer groups.⁷ In the Philippines, the poor have relatively little access to the financial sector (Table III.4). The authorities' ongoing efforts to promote financial inclusion, including rural finance and microfinance, can play a helpful role in improving access and building inclusiveness.

Table III.2. Estimation of the Model, Full Sample 1/

(Dependent variable: Ratio of the income in the bottom quintile to mean per capita income)

	1	2	3	4	5	6	7	8	9	10	11	12
Constant	26.4 *** (43.3)	21.7 *** (45.1)	20.4 *** (24.4)	26.5 *** (30.9)	100.3 *** (28.3)	30.4 *** (10.55)	26.2 *** (45.9)	24.4 *** (18.8)	21.8 *** (10.6)	25.1 *** (77.3)	17.3 *** (5.88)	19.97 *** (4.77)
Log (consumer price index)	-0.40 ** (-2.58)										-0.39 * (-1.67)	
Health expenditure per capita (US\$)		0.009 *** (4.29)										0.009 *** (3.19)
Log (total population)					-4.44 *** (-2.67)							
Population ages 65 and above (percent of total)						-3.49 ** (-2.00)						-0.95 (-1.56)
Export to GDP (percent of GDP)				-0.05 ** (-1.98)								0.07 ** (2.02)
Agriculture's value added (percent of GDP)			0.30 *** (5.43)								0.29 *** (3.81)	0.20 ** (2.41)
Manufacturing's value added (percent of GDP)							0.03 (0.41)					
Foreign direct investment (percent of GDP)										-0.13 (-1.34)		
Credit to GDP (in percent)							-0.04 *** (-2.91)					
Employment in services (percent of total)									0.05 (1.16)		0.12 ** (2.37)	0.09 * (1.89)
Observations	279	206	291	298	308	308	306	294	216	301	185	141
Adjusted R-squared	0.92	0.92	0.91	0.91	0.90	0.90	0.90	0.90	0.94	0.91	0.95	0.98

Source: IMF staff calculations.

1/ t statistics are in parentheses. The asterisks *, **, *** denote significant at the 10 percent, 5 percent and 1 percent level, respectively. All data is from World Bank, World Development Indicator (WDI), EDSS-IMF, except for the share of lowest 20 percent income in China, India, and Indonesia. Due to limited sample in WDI, we use the simple average of rural and urban data in those three countries from the World Bank, PovcalNet.

Table III.3. Labor Market Efficiency

	Redundancy Cost (weeks of salary)	Hiring and Firing Practices (score) 1/	Flexibility of Wage Determination 2/
Indonesia	108	4.2	4.3
Malaysia	75	4.5	5.5
Philippines	91	3.3	4.5
Singapore	4	5.8	6.0
Thailand	54	4.4	4.7

Source: World Economic Forum, *Global Competitiveness Report 2011–2012*.

1/ 1=impeded by regulation, 7=flexibly determined by employers.
2/ Scores on a 1–7 scale, with 7 being the most desirable outcome.

Table III.4. Distribution of Poor and Non-Poor Households by Access to Financial Market 1/

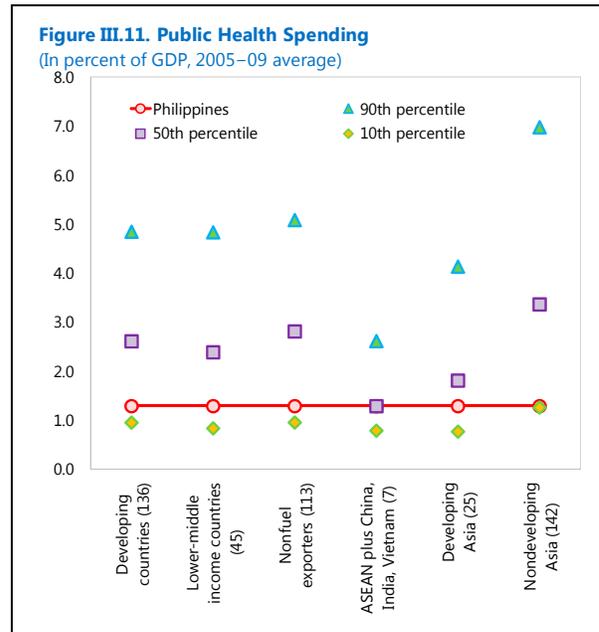
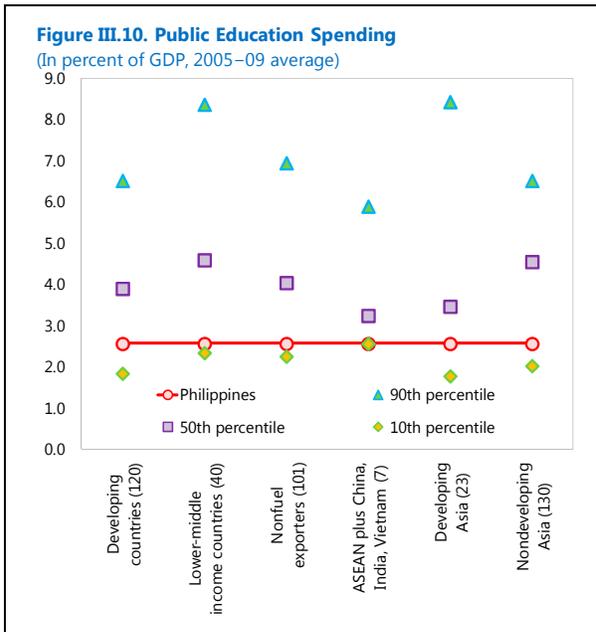
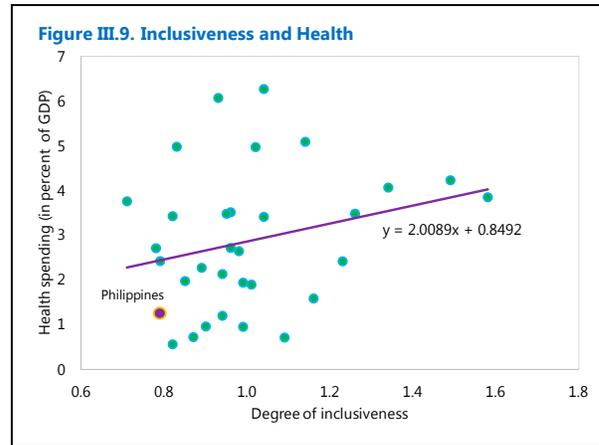
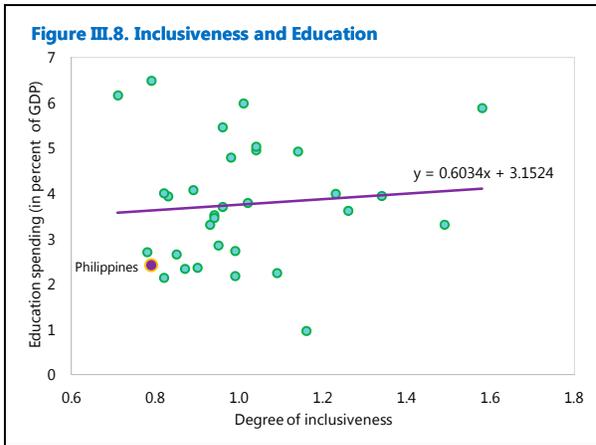
Access to Financial Markets	Frequency		Percentage			
	Poor	Non-poor	Total	Poor/Non-poor	Total	
With access	150,098	2,099,602	2,249,700	3.31	16.49	13.03
No access	4,379,489	10,635,906	15,015,395	96.69	83.51	86.97
Total	4,529,587	12,735,508	17,265,095	100.00	100.00	100.00

Source: ABD (2009), NSO Family Income and Expenditure Survey

1/ Financial markets comprise loans, savings and investments

⁷ NEDA (2011) reports that the current geographical distribution of financial service providers shows a growing concentration in high income and urbanized areas.

11. **The relatively low share of education, health and pension spending to GDP in the Philippines points to an important potential role for fiscal policy in strengthening inclusiveness** (Figures III.8–III.11). A World Bank (2011) study found that the level, rather than the efficiency, of spending is a key constraint to achieving better health and education outcomes in the Philippines. Cross-country experience suggests that countries with relatively higher spending on human capital, health care, pensions, and other aspects of the social safety net tend to have more inclusive growth.



12. **Against this background, the ongoing reorientation of fiscal expenditure toward social priorities, as well as the emphasis in the Philippines Development Plan on strengthening infrastructure, governance, human capital, and social safety nets, are well focused and appropriate.** Their implementation will be important for raising the pace of growth in the Philippines as well as for ensuring that the benefits of higher growth are shared widely across the population.

References

- Ali, I., and H. H. Son, 2007, "Measuring Inclusive Growth," *Asian Development Review*, Vol. 24, No. 1, pp. 11–31 (Manila: Asian Development Bank).
- Asian Development Bank, 2009, *Poverty in Philippines: Causes, Concerns and Opportunities*.
- , 2002, "Growth and Poverty: Lessons from the East Asian Miracle Revisited," ADB Institute Research Paper No. 33 (Manila).
- , 2007, "Philippines: Critical Development Constraints," Country Diagnostics Studies, Economics and Research Department (Manila).
- Commission on Growth and Development, 2008, *Growth Report: Strategies for Sustained Growth and Inclusive Development* (Washington: World Bank).
- Dollar, D., and A. Kraay, 2002, "Growth is Good for the Poor," *Journal of Economic Growth*, Vol. 7, No. 3, pages 195–225.
- Ide, J., 2011, "Potential Growth and Prospects," Chapter I in *Selected Issues*, IMF Country Report No. 11/58 (Washington: International Monetary Fund).
- International Monetary Fund, 2011, *Regional Economic Outlook: Asia and Pacific*, October (Washington).
- Kraay, A., 2004, "When is Growth Pro-Poor? Cross-Country Evidence," IMF Working Paper No. 04/47 (Washington: International Monetary Fund).
- Lopez, H., and L. Servén, 2004, "The Mechanics of Growth-Poverty-Inequality Relationship," mimeo. (Washington: World Bank).
- National Economic and Development Authority (NEDA), 2011, *Philippine Development Plan 2011–2016* (Manila).
- Ravallion, M., and S. Chen, 2003, "Measuring Pro-Poor Growth," *Economics Letters*, Vol. 78, pp. 93–99.
- World Bank, 2011, *Philippines: Public Expenditure Review, Strengthening Public Finances for More Inclusive Growth* (Washington).
- , 2010, *Philippines: Fostering More Inclusive Growth* (Washington).
- World Economic Forum, 2011, *Global Competitiveness Report 2011–2012* (Geneva).