



# PHILIPPINES

## SELECTED ISSUES

September 2015

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# PHILIPPINES

August 12, 2015

## SELECTED ISSUES

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## SUMMARY

*The background chapters for the Philippines' 2015 Article IV consultation focus on two areas: (i) the interaction between real and financial cycles in the Philippines and their relationship to the global financial cycle; and (ii) financing for development and growth inclusiveness.*

### Interaction between Real and Financial Cycles

**1. The Philippine economy, as other emerging market economies, benefited from an expansionary global financial cycle in the wake of the global financial crisis.** Capital inflows to the Philippines surged following the Federal Reserve's quantitative easing and ultra-low interest rate policy, with low global volatility also contributing to the surge. These developments led to compressed domestic yields, asset price inflation, and rapid credit growth. At the same time, economic growth accelerated and corporate leverage increased. However, the global financial cycle has turned since mid-2013 with the taper tantrum talks, and is expected to tighten further as the Federal Reserve starts normalizing its monetary policy.

**2. Chapter 1 looks at how the Philippine economy is influenced by the global financial cycle.** It finds that the surge in capital inflows between 2010 and mid-2013 can largely be explained by global financial factors such as global risk aversion (measured by the VIX), with exchange rate expectations and domestic fundamentals playing a secondary role. Moreover, local bond yields and retail bank rates seem to be driven by the same global factors and the U.S. term premia. Therefore, the quantitative impact of VIX shocks on domestic demand via capital flows and asset repricing and of changes in the U.S. 10-year T-bond yields on bank credit and investment, are significant. The transmission of global shocks through asset repricing and a bank credit channel suggests the potential importance of balance sheet effects and financial cycles in conducting macrofinancial surveillance and policy analysis.

**3. Chapter 2 focuses on the acceleration of credit growth in the Philippines since 2010 and its potential impact on the real economy.** In particular, it studies the interaction between real and financial cycles to assess the current cyclical position. The chapter finds that alternative measures of the real cycle point to an output gap near zero in 2015. Similarly, different measures of the credit cycle show that the credit gap is also near zero in 2015, with credit growth remaining below typical metrics of credit booms since the late 1990s. Finally, allowing for an interaction between real and financial cycles confirms that the cyclical position in the Philippines is broadly neutral in 2015.

**4. Chapter 3 centers on the increase in nonfinancial corporate leverage and potential vulnerabilities.** It analyzes nonfinancial sector firm-level data to assess the resilience to shocks in interest rates, exchange rates, and earnings, and finds that: (i) the distributions of leverage and debt-at-risk have remained stable; (ii) most firms seem resilient to large shocks with risks concentrated in a few sub-sectors; and (iii) the real estate sector seems relatively more vulnerable and should be closely monitored, especially given its involvement in unregulated shadow banking activities.

## Financing for Development and Inclusive Growth

**5. The Philippine economy needs to make progress in key medium-term priority areas to reap the dividends from its young and growing population.** These areas include improving infrastructure, reducing poverty, and financial deepening and inclusion. Indicators of infrastructure quality place the Philippines among the lowest in ASEAN, and inadequate infrastructure is often mentioned as a key impediment to private investment and broad-based economic activity. Although poverty reduction has been slow in the past, it has picked up recently. Still, the Philippines' poverty rate remains high relative to peers and further progress is needed. Alternative forms of financing such as corporate bond and equity markets need to be developed to mitigate concentration risks and to broaden the spectrum of financing vehicles for large Public Private Partnership projects. Developing noncredit related areas of financial inclusion is also important.

**6. Chapter 4 explores the macroeconomic effects of improving public infrastructure in the Philippines.** After benchmarking the Philippines relative to its neighbors in terms of quantity and quality of public infrastructure, and public investment efficiency, it uses model simulations to assess the macroeconomic implications of raising public investment and improving public investment efficiency. The main findings are: (i) rising public infrastructure investment results in sustained gains in output; (ii) the effects of improving public investment efficiency are substantial; and (iii) deficit-financed increases in public investment lead to higher borrowing costs that constrain output increases over time, underscoring the importance of revenue mobilization.

**7. Chapter 5 looks at financial deepening and inclusion, and finds that capital markets could make a significant contribution to addressing the Philippines' key developmental challenges in the years ahead.** Though progress has been made in recent years, there is still much to do. Priorities include strengthening the role of the government bond market as a reliable benchmark for pricing corporate securities, developing private debt markets to help finance infrastructure, and opening up equity markets to small and medium sized enterprises. The enabling environment could be made even more conducive to capital market development in the event that taxation policy incentivized greater activity from both issuers and investors.

**8. Chapter 6 studies the issue of poverty reduction in the Philippines and finds that, after many years of economic growth with very slow poverty reduction, growth appears to have become more inclusive.** Factors underlying the slow poverty reduction in the past include weak employment generation, structurally high underemployment, and slow technical change, caused in turn by low human and physical capital investment, weak competition, complex regulations and insecure property rights. However, recent trends suggest that the Philippines now faces a window of opportunity to create more and better jobs, meet the government's poverty target by 2016, and eradicate extreme poverty within one generation.

# GLOBAL FINANCIAL CYCLES, VOLATILITY AND THE PHILIPPINES<sup>1</sup>

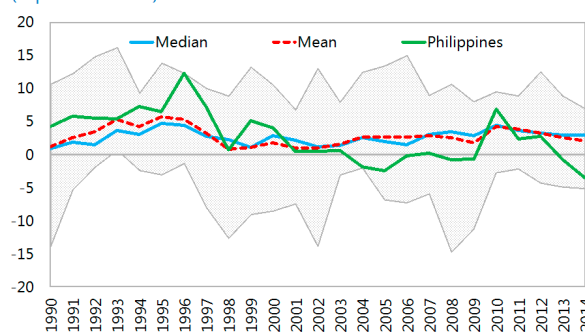
Higher U.S. interest rates and global financial volatility could have significant macrofinancial effects on the Philippines. Staff analysis suggests that the surge in capital inflows between 2010 and mid-2013 can largely be explained by global financial factors such as global risk aversion (measured by the VIX), with exchange rate expectations and domestic fundamentals playing a secondary role. Moreover, local bond yields and retail bank rates seem to be driven by the same global factors and the U.S. term premia. Therefore, the quantitative macrofinancial impact of VIX shocks on domestic demand via capital flows and asset repricing, and of changes in the U.S. 10-year T-bond yields on bank credit and investment, are significant. The transmission of global shocks through asset repricing and a bank credit channel suggests the potential importance of balance sheet effects and financial cycles in conducting macrofinancial surveillance and policy analysis.

## A. Introduction

**1. Global financial cycles and volatility spillovers pose a challenge for emerging market economies (EMEs) such as the Philippines.** Eichengreen and Gupta (2014) argue that a key determinant of the severity of the impact of tapering talks was the volume of prior capital inflows. Rey (2013) argues that there is a global financial cycle in capital flows, asset prices, and credit growth, and that the cycle (proxied by VIX) is mainly driven by U.S. monetary policy—affecting leverage of global banks, and cross-border capital/credit flows. Global financial market turmoil transmitted through capital flows and disruptive asset price shifts is also a particular concern at this juncture, given the asynchronous monetary policies in advanced economies (GFSR 2015, WEO 2015).

**2. Capital inflows to the Philippines had increased in the wake of the global financial crisis (GFC).** They surged following the Federal Reserve’s quantitative easing (QE) and ultra-low interest rate policy. What was striking about that episode is that the surge in capital inflows to the Philippines was predominantly portfolio inflows to peso-denominated securities and other inflows to the nonfinancial private sector. While that has reduced currency mismatches and dollar funding strains (see chapter 3), capital flows have become more volatile reflecting the renewed global financial

**Figure 1. Net Financial Account Flow 1/**  
(In percent of GDP)



Sources: IMF, *Balance of Payments Statistics*; IMF, *World Economic Outlook*.  
1/ TUR, BRA, CHL, COL, MEX, PER, URY, IDN, KOR, MYS, PHL, THA, CHN, CZE, HUN, POL.

<sup>1</sup> Prepared by Shanaka Jayanath Peiris (APD).



turbulence following the “taper tantrum” and shifting market expectations of U.S. monetary policy normalization. Understanding the determinants of capital flows and their macrofinancial linkages is thus particularly important.

**3. The risk of global financial spillovers is heightened by the current low term premia and low financial volatility as well as the asynchronous monetary policies in advanced economies.**

Potential surprises from U.S. interest rate normalization and spikes in global risk aversion could be accompanied with capital outflows and tightening of domestic financial conditions that would have significant macrofinancial impact on the Philippines. The quantification of the impact and the identification of the macrofinancial transmission channels are the focus of this chapter.

## **B. Determinants of Capital Flows to the Philippines**

**4. The literature on capital flows has identified “push” and “pull” factors driving cross-border movements of capital.** Push factors are external conditions that influence the supply of foreign capital to EMEs. Among the major push factors analyzed in existing empirical studies are the rate of return on financial assets in advanced economies, global economic performance and uncertainty, and global liquidity (Ghosh, and others, 2012; Forbes and Warnock, 2012). On the other hand, pull factors reflect the domestic economic environment that affects the demand for foreign capital. Fiscal health, growth performance, exchange rate volatility, and rates of return on investments in the recipient country have been identified as important pull factors (Ghosh and others, 2012, and Nier and others, 2014). In addition to the traditional pull and push factors, Forbes and Warnock (2012) suggest the importance of the contagion effect in light of the increasing interconnectedness of the global economy.

**5. Capital flows to the Philippines can be attributed to both push and pull factors.** In order to assess the role of these factors, we estimate a quarterly time series Exponential Generalized Autoregressive Conditional Heteroskedasticity (EGARCH) model of the gross Financial Account and non-FDI inflows to the Philippines during 2000–14. The results suggest that the most important factors driving gross inflows and non-FDI inflows are:

- The VIX, where an one percentage point rise would lower the gross Financial Account and non-FDI inflows by about one-tenth one percent of GDP;
- A measure of the global financial cycle developed by Adler, Blanchard and de Carvalho Filho (2014) that is a consistently significant driver of gross inflows;
- Interest rate differentials with a greater impact of domestic treasury rates than U.S. rates when included separately;
- Domestic fundamentals such as a lower public debt-to-GDP ratio (as proxy for creditworthiness) and a higher current account balance (as proxy for currency risk) can help attract capital inflows and/or retain them in times of global financial volatility; and

- Exchange rate expectations vis-à-vis the U.S. dollar is the most significant “pull” factor although its impact is less if the current account position is included given their close association.

**6. The outlook for capital flows to the Philippines is strong given expected patterns for the main underlying factors.** As the interest rate differential with the United States is expected to last somewhat longer even as the United States starts normalizing interest rates in 2015, capital inflows to the Philippines could remain strong in 2015–16. However, susceptibility to the VIX and global financial cycle also exposes the Philippines to sudden-stops in capital flows, although its strong fundamentals in terms of declining public debt and current account surplus provide a cushion. The QE policies of the ECB and BOJ could also provide a counterweight to U.S. interest rate normalization, although it is unclear whether there is a quantitatively significant impact, while exchange rate expectations against the U.S. dollar related to asynchronous monetary policies could make the Philippines susceptible to outflows as observed during the “taper tantrum.”<sup>2</sup>

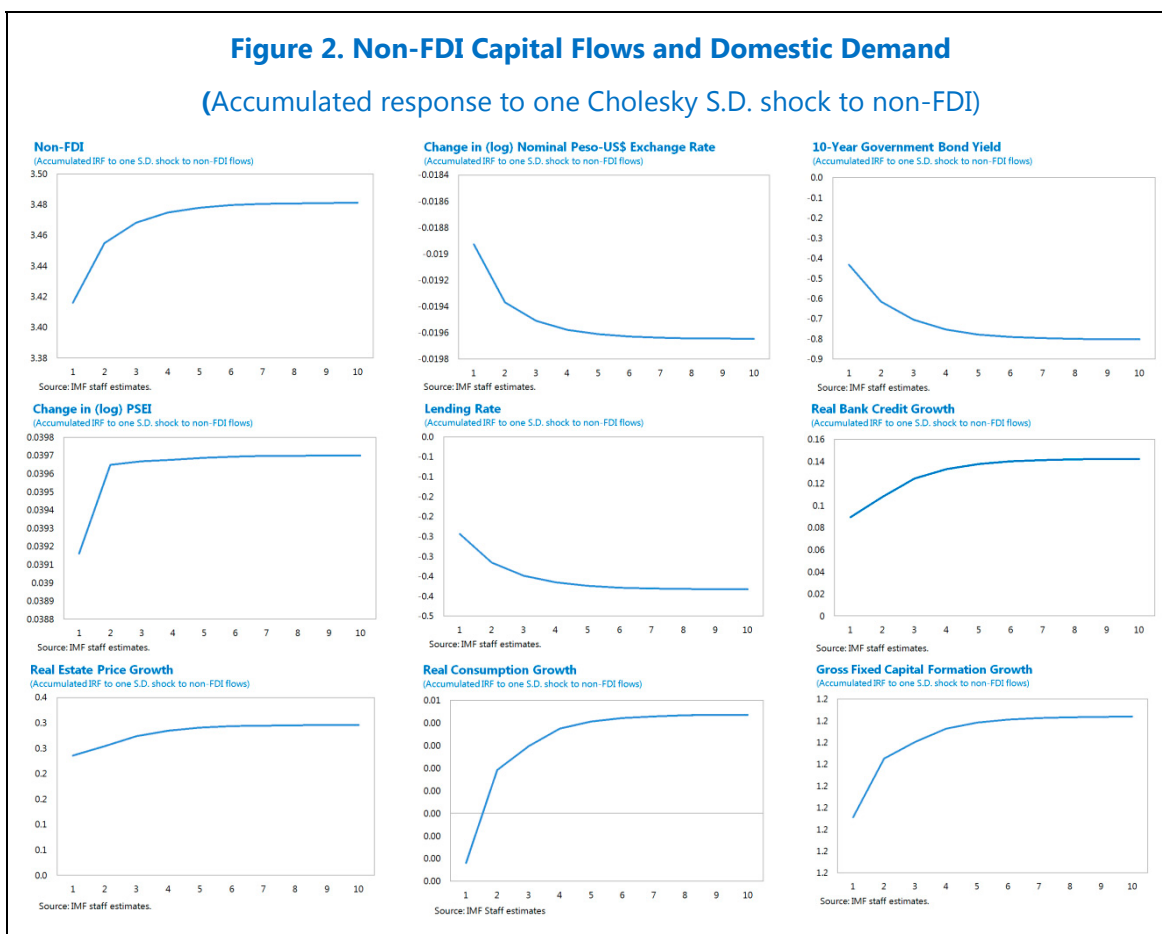
## C. Capital Flows and Financial Cycles

**7. Capital inflows present opportunities, but they can also pose stability risks.** Capital inflows, if channeled effectively, represent an opportunity to address long-standing investment needs, such as in infrastructure. However, capital inflows need to be managed carefully in order to avoid macroeconomic and financial stability risks. For example, capital inflows can increase liquidity and boost domestic demand and asset prices (Gupta, Nabar, and Peiris 2010).

**8. Financial cycles in the Philippines are closely related to non-FDI capital inflows.** The empirical relationship between non-FDI capital inflows and domestic demand is strong (Figure 2). The main channels through which the relationship seems to work is by raising equity prices and expanding bank credit to the nonfinancial private sector. At a time of capital inflows amidst high global liquidity, the relative appeal of capital investment increases as the real cost of equity (i.e., the implied rate of return required by investors) declines, and higher equity prices makes it easier for firms to borrow from banks based on their greater net worth (the so-called “financial accelerator”). Non-FDI inflows also tend to expand bank credit to the private sector by reducing lending rates and providing wholesale funding. The impulse responses of Bayesian VARs show that non-FDI flows expands both private consumption and fixed investment, with a greater response of investment as expected. The latter also seems to be associated with higher real estate prices that probably fuel a private construction boom partly supported by lower bond yields.

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<sup>2</sup> Measures of global liquidity and time dummies for unconventional monetary policy actions did not give significant results although a measure of the effective policy interest rate in Japan taking into account QEE held promise, albeit correlated with other global factors making interpretation difficult.



**9. Capital flows can give rise to financial stability risks through different channels,** including: (i) increases in short-term wholesale funding of the banking system; (ii) increases in foreign currency funding of the financial system; (iii) contributions of capital inflows to local credit booms and asset price appreciation; and (iv) credit risks from foreign currency denominated loans. While wholesale and foreign currency funding in the Philippine banking system is limited with foreign currency lending capped by a stringent net FX exposure rule, financial cycles related to capital inflows can raise risks for asset quality and bank capital, particularly once the credit cycle matures. Asia's past history also suggests that high liquidity growth at a time of large capital inflows increases the risk of asset price boom and bust cycles (APD REO April 2010) that could lead to potential feedback loops between the corporate/household sectors and banks. Episodes of rapid credit growth in Asia have been characterized by a higher incidence of crises relative to other EMEs (APD REO October 2011). Whether the recent wave of capital inflows and financial cycle has raised systemic risks in the Philippines is largely an empirical question and is investigated in Chapter 2.

**10. Managing the impact of the global financial cycle and capital inflows is a challenge.** When facing a surge in capital inflows, a country may experience asset price inflation, credit booms, overheating, and currency appreciation, and financial vulnerabilities may build up. To lean against the wind of capital inflows, policymakers have relied on macroprudential and microprudential measures, regulation/deregulation of capital flows, countercyclical fiscal policy, and foreign

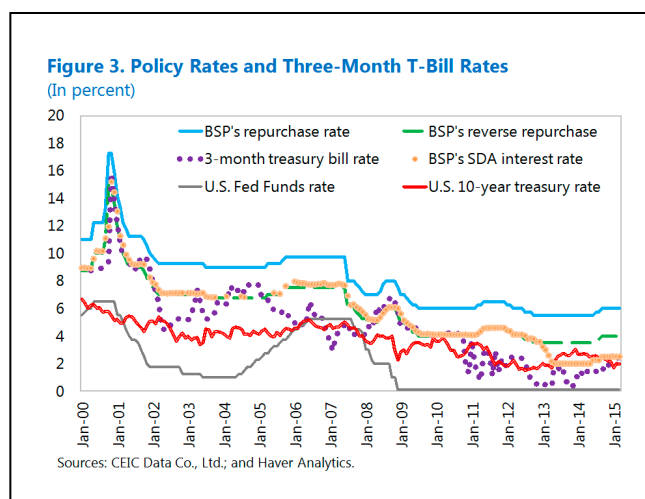
exchange market intervention. The effects of many of these policies—let alone their desirability—remain open to debate (Adler, Blanchard, and de Carvalho Filho 2014). Adler, Blanchard, and de Carvalho Filho (2014) show that foreign exchange intervention can be effective to “lean against the wind” of the global financial cycle in some instances, while IMF (2013, and 2014a and b) have laid out guidelines for the use of macroprudential policies and capital flow management measures.

## D. Interest Rate Spillovers

### 11. The current global financial settings and domestic interest rate environment heighten the susceptibility to global financial volatility through interest rate spillovers.

The decline in global long-term nominal interest rates reflecting primarily a decline in real interest rates, including a compression of term premiums and reductions in the expected short-term neutral rate (see the April 2015 GFSR), implies a potential risk of a sharp increase in long-term rates when rates normalize. Market expectations of the pace of U.S. interest rate increases are slower than

forecast by members of the FOMC, even though the economic forecasts are broadly similar. An abrupt shift in market expectations could expose the Philippines not only to capital outflows, but also to a spike in interest rates with feedback effects on the real economy. This is particularly pronounced due to the domestic interest rate structure, in which market rates (e.g., 91-day treasury bill rates) are below the policy rate and are very sensitive to global factors.



**12. Following Peiris (2013), this chapter estimates an EGARCH (1, 1) model of sovereign bond yields in the ASEAN5 economies during 2000–14 using a comprehensive set of macrofinancial variables including global factors.** The econometric analysis is based on a standard reduced-form specification for an EGARCH model with mean equation:<sup>3</sup>

$$IR_t = \alpha + \beta_1 \pi_t + \beta_2 D_{t-1} + \beta_3 EGD P_t + \beta_4 CA_t + \beta_5 FFR_t + \beta_6 VIX_t + \beta_7 USTERM_t + \varepsilon_t \quad (1)$$

where  $IR$  denotes nominal yields on the benchmark short-term and long-term government bonds at time  $t$  (2000:M1–2014:M6);  $\pi$  is the inflation rate,  $D$  is the level of gross general government debt in percent of GDP,  $EGDP$  is expected real GDP growth from consensus forecasts (to control for the

<sup>3</sup> The inflation rate was included instead of the short-term nominal policy interest rate (to control for the effects of monetary policy on the bond yield term structure) used by Peiris (2013) as it provided a better fit in most countries and the two variables were highly correlated in this inflation-targeting period. In most countries, there was a high degree of multicollinearity between the budget balance and public debt level as expected, therefore, only the public debt level was included in the final results.

country's growth prospects), CA the current account balance as percent of GDP, FFR the U.S. Federal Funds rate, VIX the implied volatility of the U.S. S&P 500 (to control for global risk aversion), and USTERM is the U.S. term spread.

**13. Global factors are key drivers of short and long term interest rates in the ASEAN5 economies, including the Philippines.** The results show that a lower federal funds rate reduces short and long term government bond yields in all of the ASEAN5 economies (Tables 1 and 2). A greater U.S. term premium such as during the “taper tantrum” also results in higher long term bond yields in all ASEAN5 economies. Importantly, the results indicate that a rise in the federal funds rate and U.S. term premium could have a greater impact on Indonesia and the Philippines. Greater global risk aversion proxied by the VIX also tends to raise short-term rates but does not have as large an impact and has a mixed effect on long rates probably reflecting a flight to safety. Strong domestic fundamentals in terms of lower public debt and stronger current account balances also tend to keep bond yields down. Interestingly, better growth expectations often result in lower bond yields than vice versa suggesting that investors may see better growth prospects as a sign of improved credit fundamentals rather than just a cyclical consideration.

**Table 1. ASEAN-5: Determinants of Bond Yields**  
(10-year government bond)

	Domestic Factors				VIX	External Factors	
	Debt to GDP ratio	Expected GDP	Inflation	Current account balance (in percent of GDP)		Federal funds rate	U.S. term premium
Indonesia	0.013865 **	-1.48853200 ***	0.20196100 ***	-0.00002380	0.06931600 ***	1.13614300 ***	1.21815100 ***
Malaysia	-0.037081 ***	-0.09776000 **	0.01910100	-0.00945900	-0.02004500 ***	0.25208800 ***	0.55162300 ***
Philippines	0.054575 ***	-1.15377000 ***	0.27638300 ***	-0.08733800 ***	-0.00371900	1.01884600 ***	0.78955300 ***
Singapore	0.003666	-0.08131900 **	0.03271900 ***	0.00178000	-0.00774500 **	0.69863200 ***	0.78963700 ***
Thailand	-0.003504	-0.03695300	0.09755000 ***	0.00801600 **	-0.01373300 ***	0.54921800 ***	0.55282100 ***

**Table 2. ASEAN-5: Determinants of Bond Yields**

(1-year government bond)

	Domestic Factors				VIX	External Factors	
	Debt to GDP ratio	Expected GDP	Inflation	Current Account Balance		Federal funds rate	U.S. term premium
Indonesia	0.32366 ***	-0.45245700 **	0.16701700 ***	-0.38235100 ***	0.10241700 ***	1.17115300 ***	1.42943900 ***
Malaysia	0.000956	0.04634500 **	0.13752600	-0.02171900 ***	0.00454200 ***	0.10698200 ***	0.08356300 ***
Philippines	-0.033295	-0.83927600 ***	0.31557800 ***	-0.00239300	0.02418600 ***	1.37814900 ***	0.91946000 ***
Singapore	-0.000501	0.01103000	-0.00310700	0.00018400	0.00037400	0.58368400 ***	0.06749400 ***
Thailand	0.100791 ***	-0.26237400 ***	0.14648700 ***	-0.03783300 ***	-0.00519500	0.21312100 ***	-0.47628100

**14. The strong influence of global factors in driving local currency government bond yields in the Philippines could have wide ranging impacts on the real economy,** as government yields are benchmarks for pricing corporate bonds that have seen an issuance boom lately (see chapter 5). The strong influence of global factors on sovereign bond yields also raises the question of whether global financial conditions and risk aversion have a similar impact on domestic retail banking rates, both directly and indirectly through the monetary transmission mechanism as indicated by Ricci and Shi (2014). This is related to the observation of Rey (2013) that independent monetary policies are possible if and only if the capital account is managed, directly or indirectly, via macroprudential policies. Analyses presented in Rey (2013) suggest monetary conditions are transmitted from the U.S. to the rest of the world through gross credit flows and leverage, irrespective of the exchange rate regime. This puts the traditional “trilemma” view of the open economy into question as fluctuating exchange rates cannot insulate economies from the global financial cycle, when capital is mobile.

**15. Retail bank rates and interest rate transmission through the banking system could be susceptible to global financial volatility.** To investigate the spillovers of global factors to retail bank rates in the ASEAN5 countries, we follow the approach of Ricci and Shi (2014) to estimate the domestic and global determinants of both deposit and loan rates. The specification also allows for liquidity effects, rigidities, and interactions of the domestic policy rate with the Federal funds rate. The results show a high degree of sensitivity of retail bank rates to global financial factors in all countries, including the Philippines. Importantly, however, the domestic policy rate and liquidity conditions (measured by the deviation of reserve money from a Hodrik-Presscott trend) also matter, retaining a role for domestic monetary policy and liquidity management operations in influencing the financial cycle.

**Table 3. ASEAN-5: Determinants of Deposit Interest Rate**

	Domestic Factors				VIX	External Factors	
	Policy rate	Policy rate * Federal funds rate	Reserve	Deposit interest rate (-1)		Federal funds rate	U.S. term premium
Indonesia	-0.37828900 ***	1.47649900	0.00000595 ***	0.29818600 ***	0.01806500 ***	-9.50420800	0.36365700 ***
Malaysia	0.09432200 ***	-0.01784000 ***	-0.00000077 ***	0.00000000 ***	-0.00112700 ***	0.06697200 ***	0.01769400 ***
Philippines	0.26063400 ***	-0.04545900 ***	-0.00000153 ***	0.76350100 ***	-0.00240100	0.26513800 ***	0.06715100 *
Singapore	0.00758600 ***	-0.00161900 ***	-0.00000011	0.88733300 ***	0.00005770	0.00422900 ***	0.00130000
Thailand	0.10180000 ***	0.03629500 ***	-0.00038300 ***	0.68774200 ***	-0.00636900 ***	-0.16426200 **	0.01535500

**Table 4. ASEAN-5: Determinants of Lending Interest Rate**

	Domestic Factors				VIX	External Factors	
	Policy rate	Policy rate * Federal funds rate	Reserve money gap	Lending interest rate (-1)		Federal funds rate	U.S. term premium
Indonesia	-0.16783800	1.44254800	0.00000331	0.82619600 ***	0.00774900	-6.91160300	0.14084400
Malaysia	0.17118100 ***	-0.03184200 ***	-0.00000241 ***	0.78711100 ***	0.00053300	0.17184400 ***	0.04442100 ***
Philippines	0.45205200 ***	-0.07990500 ***	-0.00000238 **	0.57965400 ***	0.01246800 **	0.75550000 ***	0.38139900 ***
Singapore	-0.00201000	0.00014000	0.00000005	0.96046800 ***	0.00008730	0.00048000	-0.00090500
Thailand	0.08107400 ***	-0.00522300	0.00028600 **	0.91594500 ***	-0.00040700	0.01871300	0.04693400

## E. Macrofinancial Linkages: Putting It Together

### 16. The sensitivity of capital flows and domestic interest rates to global factors suggests significant macrofinancial spillovers that would be important to identify and quantify.

Following the approach of Miranda-Agrippino and Rey (2012), we estimate a principal component model to identify the underlying global factors that can explain the variability of a comprehensive set of domestic financial indicators.<sup>4</sup> The principal component analysis shows that two common components explain about 65 percent of the variation of domestic financial conditions, with the first component correlated with the 10-year U.S. Treasury bond yield and the second component related to the VIX. Moreover, the first component is also more closely related to domestic bond yields, retail bank interest rates, bank credit, and corporate sector indicators, while the second component is

<sup>4</sup> The domestic financial factors included about 40 variables and/or different types of capital flows that did not significantly affect the results.

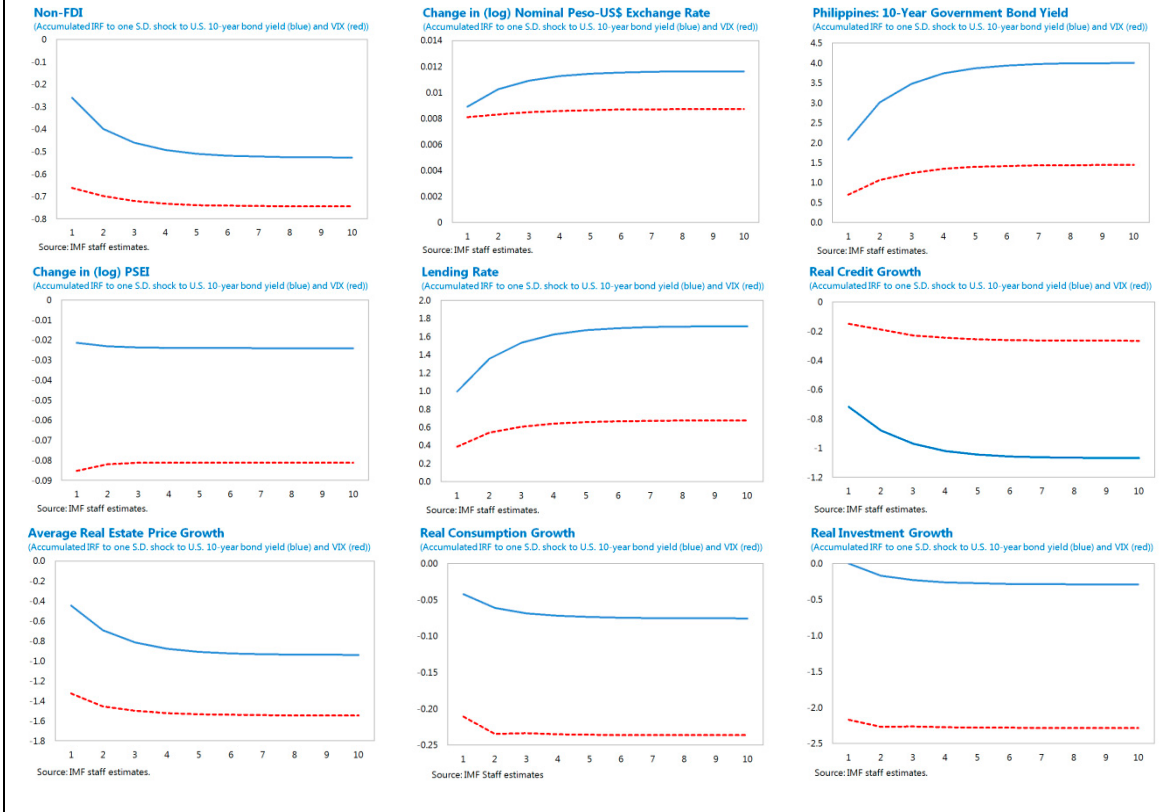
correlated more closely with capital flows and asset prices. With the two key global macrofinancial spillover factors identified, we can estimate the transmission channels and impact.

**17. Global interest rate spillovers have significant macrofinancial effects on the Philippine economy, transmitted through the banking system.** Bayesian VAR estimations of the impact of U.S. long-term interest rate shocks show that higher rates tend to result in capital outflows, real depreciation, increased bank lending rates, and reduced bank credit available to the private sector, that transmits to the real economy via lower private consumption growth and lower gross fixed capital formation growth. Higher government bond yields and the moderate impact on house prices do not appear to have a large impact on investment, probably reflecting the still nascent stage of development of debt capital and mortgage markets. In addition, the transmission of global shocks to changes in lending rates and credit growth exhibit lagged but persistent impacts on the banking system. This could be related to the domestic monetary policy response as well as sticky retail bank rates and financial sector conditions. In such an environment, allowing for interest rate rigidities, credit frictions, and financial accelerator effects may be important. This may provide a rationale for the use of nonmarket monetary policy tools such as reserve requirements and macroprudential tools, in a structural setting, which is the subject of an ongoing joint research project between the BSP and Fund staff (see Anand, Delloro and Peiris, 2014).

**18. Global risks aversion shocks transmitted through capital flows and asset repricing channels, amplified by “financial accelerator” effects, appears to be more dominant.** The impact of VIX shocks on capital flows, equity market, and real estate prices are larger than global interest rates with a greater impact on real gross fixed capital formation probably reflecting the importance of equity finance and private construction in investment. The transmission mechanism through lower net worth of corporates and higher lending rates suggests a potential amplification of asset price shocks through “financial accelerator” effects on the real economy that would be important to take into account. Private consumption is also more susceptible to global risks aversion shocks than global interest rates as the former is a stronger driver of capital flows and wealth (related to asset repricing) in the Philippines. The association of negative global shocks with real exchange rate depreciation and lower domestic demand also highlights the potential importance of balance sheet effects (see Chapter 3).



**Figure 4. Accumulated Response to One Cholesky S.D. Shock to U.S. LT Interest Rate (Blue) and VIX (Red)**



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## PHILIPPINES: REAL AND FINANCIAL CYCLES<sup>1</sup>

*Alternative measures of the real cycle indicate that the output gap in the Philippines is near zero in 2015. Similarly, different measures of the financial cycle show that the credit gap is also near zero in 2015, with credit growth remaining below typical metrics of credit booms since the late 1990s. The interaction between real and financial cycles confirms that the cyclical position in the Philippine is broadly neutral in 2015 even if standard measures of the business cycle are augmented with financial variables.*

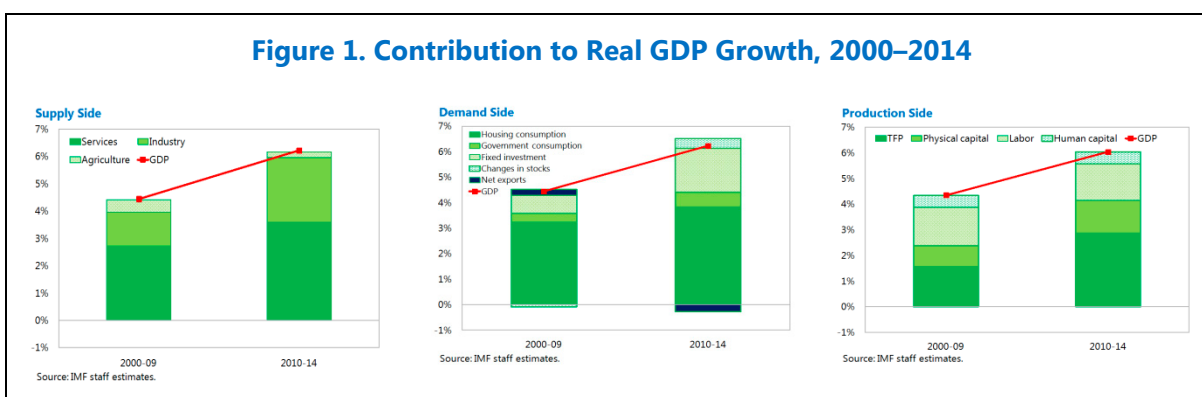
1. **The interaction between real and financial variables is crucial to assess the economy's cyclical position.** Previous studies have found strong linkages between real and financial cycles. For example, Claessens and others (2011) find that recessions associated with financial disruption episodes, notably house price busts, tend to be longer and deeper than other recessions. Conversely, recoveries associated with rapid growth in credit and house prices tend to be stronger. These findings emphasize the importance of developments in credit and housing markets for the real economy.
2. **The linkages between real and financial cycles can be stronger in the presence of credit booms.** Dell'Ariccia and others (2012) note that credit booms buttress investment and consumption and can contribute to long-term financial deepening. However, they often end in costly balance sheet dislocations, and, more often than not, in devastating financial crises whose cost can exceed the benefits associated with the boom. Not all booms are bad. While about a third of boom cases end up in financial crises, others do not lead to busts but are followed by extended periods of below-trend economic growth. Yet many result in permanent financial deepening which, in turn benefit long-term economic growth.
3. **What does the interaction between real and financial variables imply for the current cyclical position in the Philippines?** This is an important question given the acceleration in real GDP and credit growth since 2010 against the backdrop of an expansionary global financial cycle (see chapter 1). In particular, real GDP growth rose from 4.5 percent in 2000–09 to 6.2 percent in 2010–14, raising the question of whether this higher growth was due to an increase in potential growth or to cyclical factors. At the same time, credit growth accelerated from 7 percent in 2001–09 to 16.1 percent in 2010–14, giving rise to questions of whether the economy was experiencing a credit boom which, in turn was contributing to the increase in economic growth.
4. **Analysis of the real and financial cycles indicates that the current cyclical position of the Philippine economy is broadly neutral.** Alternative measures of the business cycle—univariate and multivariate filters and a production function approach—suggest that the output gap is near zero in 2015. Similarly, different measures of the financial cycle—deviations from trend of real credit

<sup>1</sup> Prepared by Jaime Guajardo and Rui Mano (both APD).

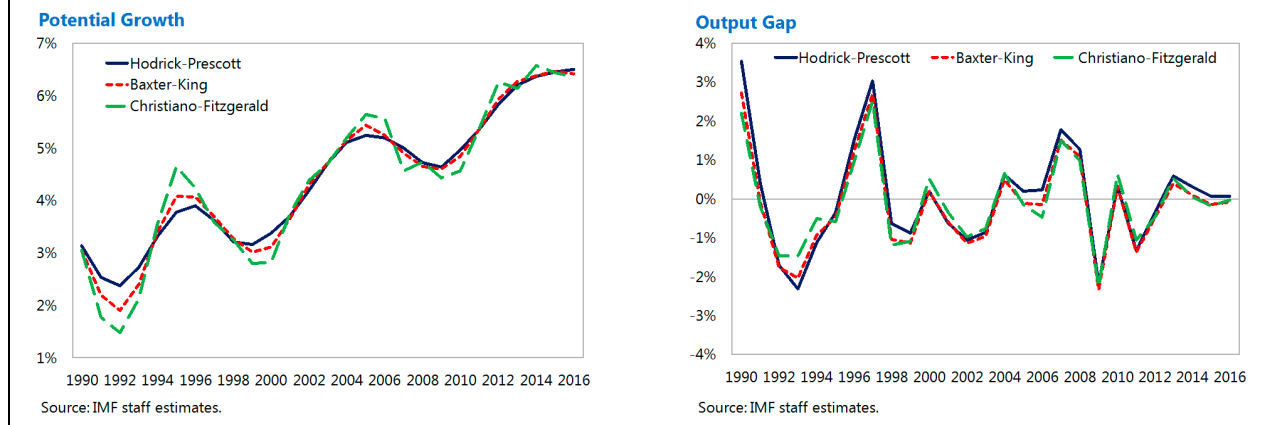
per capita or credit-to-GDP and growth of credit-to-GDP—show that the credit gap is also near zero in 2015, with credit growth remaining below typical metrics of credit booms since the late 1990s. The interaction between real and financial cycles suggests that the cyclical position of the Philippine economy is broadly neutral in 2015, with the output gap near zero even if measures of the real cycle are augmented with financial variables.

## A. Real Cycle

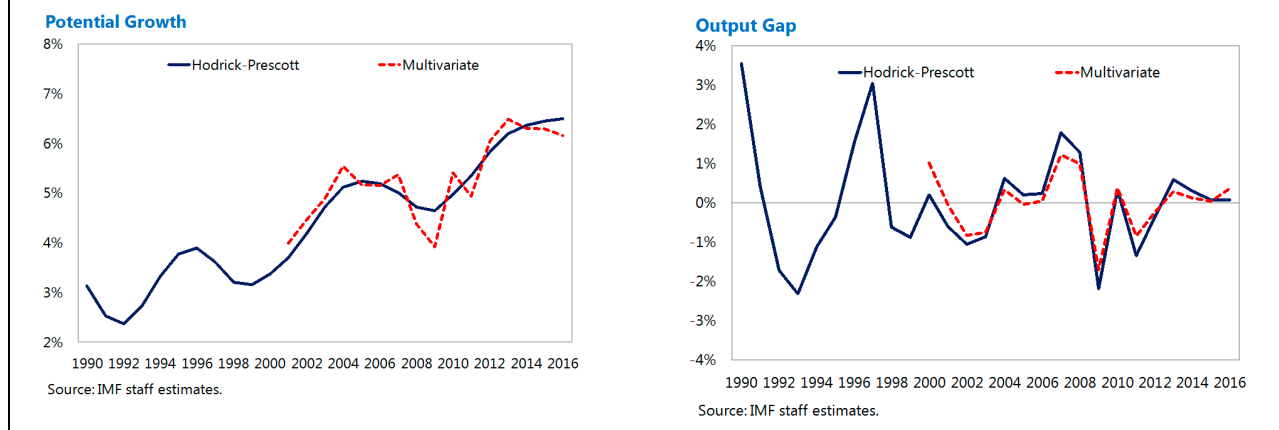
**5. Real GDP growth in the Philippines has accelerated since 2010.** From the supply side, the acceleration has been due to higher growth contributions from services and industry, partly offset by a lower growth contribution from agriculture. From the demand side, the growth pickup has been due to higher growth contributions from household and government consumption, fixed investment (equipment and construction), and changes in stocks, partly offset by a lower growth contribution from net exports of goods and services. Decomposing contributions to growth with a production function suggests that the growth pickup was mainly due to a faster TFP growth, and to a lesser extent, to faster growth of capital. How much of the increase in growth was due to potential growth vis-à-vis cyclical factors?



**6. Univariate filters indicate that most of the recent increase in growth has been due to higher potential growth, with the output gap near zero in 2015–16.** The Hodrick-Prescott filter, the Baxter and King band-pass filter, and the Christiano and Fitzgerald symmetric band-pass filter were used to estimate potential output and the output gap in the Philippines. Actual data up to 2014 and staff projections for 2015–20 were used in the estimation. All three filters yield similar results, with potential growth increasing from about 5 percent in 2000–09 to 6½ percent in 2015–16 and output gap closing in 2015.

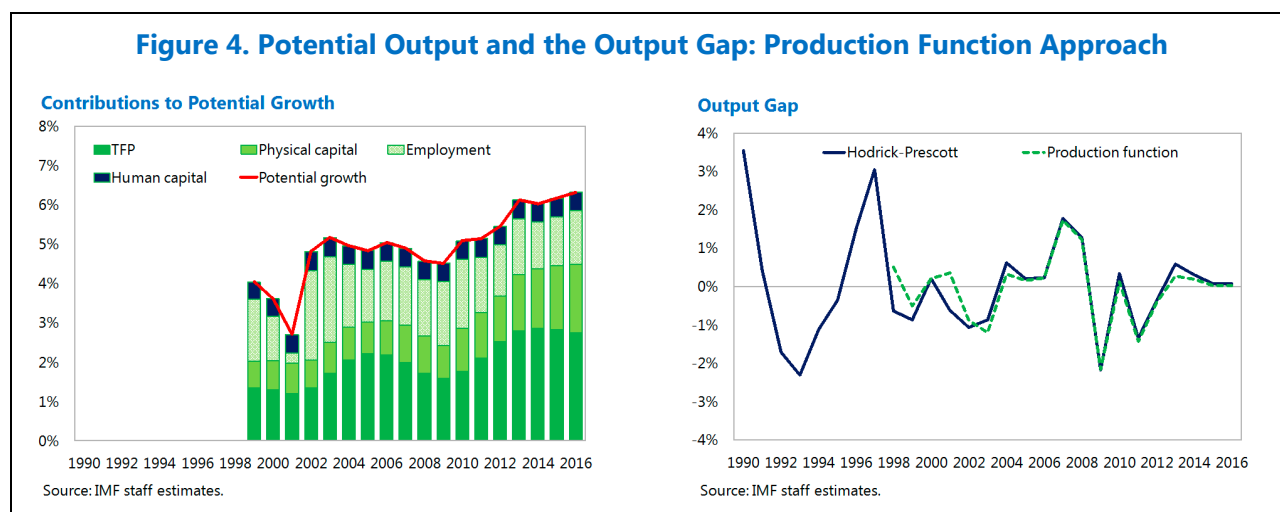
**Figure 2. Potential Output and the Output Gap: Univariate Filters**

**7. A multivariate filter also shows that most of the recent growth pickup has been due to higher potential growth, with the output gap near zero in 2015–16.** The multivariate filter of Blagrave and others (2015) is used to estimate potential output and the output gap in the Philippines. This filter relates the output gap to slack in the labor market and inflation by including a Phillips curve and an Okun law equation into the model. Actual data at annual frequency for real GDP growth, inflation, and unemployment for 2000–14, complemented with staff’s projections for 2015–20, were used. Similar to the univariate filters above, the multivariate filter suggests that most of the recent growth pickup in the Philippines has been due to higher potential growth, which rose from about 5 percent in 2000–09 to 6½ percent in 2015–16, with the output gap around zero in 2015–16.

**Figure 3. Potential Output and the Output Gap: Multivariate Filters**

**8. A production function approach also attributes most of the recent increase in growth to higher potential growth, with the output gap closing in 2015.** This approach uses three factors of production: physical capital, employment, and human capital, with TFP measured as the Solow residual. Physical capital is estimated using the perpetual inventory method, while human capital is estimated interpolating the measure of educational attainment for population aged 15 and

over from Barro and Lee (2013). Employment is derived from the product of working age population, labor participation rate, and employment rate (one minus the unemployment rate). In order to estimate potential output, data for TFP, labor participation, and unemployment are smoothed using the Hodrick and Prescott Filter. Physical capital, human capital, and working age population are not smoothed. The results suggest that most of the recent pickup in growth in the Philippines is explained by an increase in potential growth from below 5 percent in 2000–09 to about 6¼ percent in 2015–16. The rise in potential growth is due mainly to faster TFP growth and, to a lesser extent, to faster physical capital growth. The production function approach also shows an output gap near zero in 2015–16.

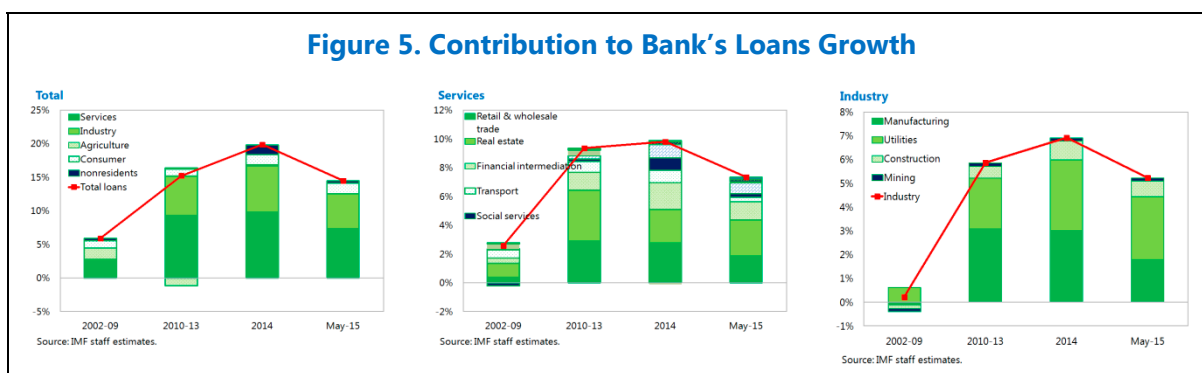


**9. All estimates discussed above suggest that the pickup in growth in the Philippines since 2010 has been due to higher potential growth, with the output gap near zero in 2015–16.** As the production function approach indicates, the acceleration in potential GDP growth has been due to higher growth of TFP and physical capital, with the contribution from labor and human capital remaining broadly stable since the late 1990s. At the same time, the pickup in growth since 2010 has not resulted in higher inflation or in a rapidly declining unemployment rate, thus leading the multivariate filter to associate the increase in growth to higher potential growth, with generally low output gaps since 2010.

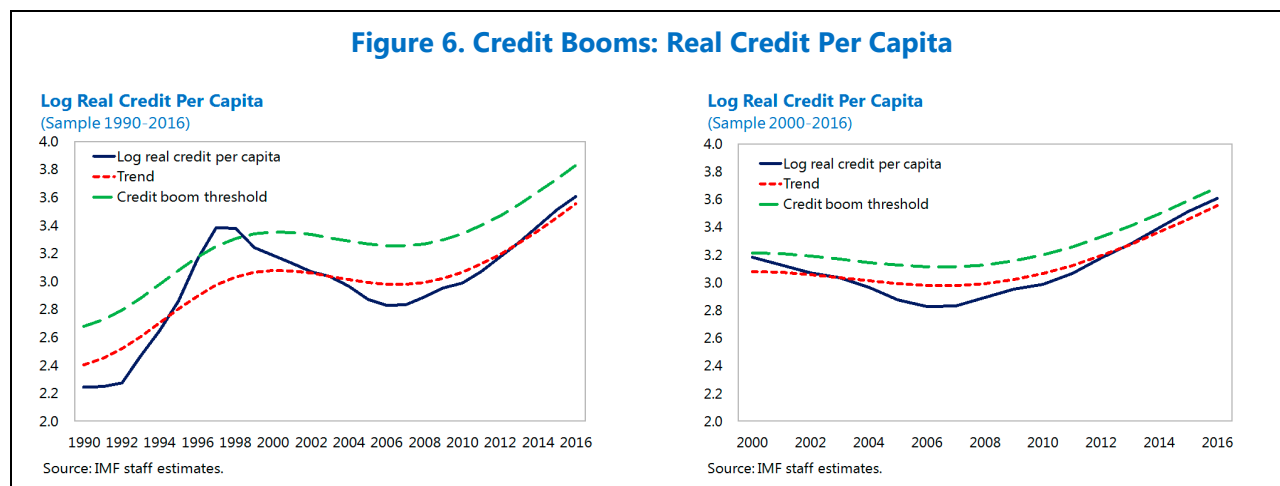
## B. Credit Cycle

**10. Bank credit growth in the Philippines has accelerated since 2010, especially in 2014.** After a long period of deleveraging following the Asian financial crisis, growth of bank loans more than doubled from 5.9 percent in 2002–09 to 15.2 percent in 2010–13 and 19.9 percent in 2014. The increase in loan growth was particularly large for services and industry. Within services, retail and wholesale trade, real estate, and financial intermediation saw the largest increases in loan growth. Within industry, manufacturing, utilities, and construction saw the largest increases. The pickup in credit growth since 2010, combined with a larger share of credit allocated to potentially speculative sectors such as real estate and construction, have raised the questions of whether the Philippines

has experienced a credit boom, whether the composition of credit is a threat to financial stability, and whether the credit cycle has contributed to real sector overheating.



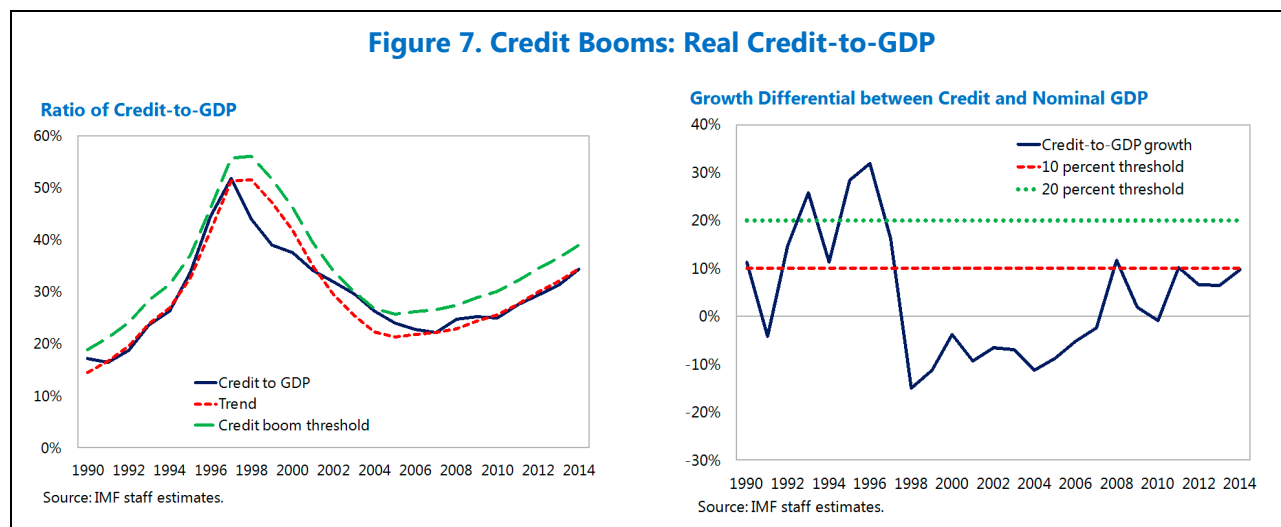
**11. Deviations of real credit per capita from trend indicate that the credit gap is slightly positive in 2015, with no signs of credit booms since the late 1990s.** The approach of Mendoza and Terrones (2008) is used, which looks at deviations of real credit per capita from its Hodrick-Prescott trend, identifying credit booms when the deviation from trend is larger than 1.75 times its standard deviation. Actual data up to 2014 and staff's projections for 2015–16 were used. This approach shows a slightly positive credit gap in 2014–16, but well below the credit boom thresholds. Moreover, this approach identifies a credit boom during 1997–98, but none afterwards regardless of the length of the sample used.



**12. Deviations of credit-to-GDP from trend indicate that the current credit gap is around zero, with no credit booms since the mid 1990s, but with 2014 being a borderline case.** We use the approach of Dell'Aricia and others (2012), which look at deviations of credit-to-GDP from a 10-year rolling backward-looking cubic trend. A credit boom is identified when either of the following two conditions is satisfied: (i) the deviation from trend is greater than 1.5 times its standard deviation and the growth differential between credit and nominal GDP exceeds 10 percent; or (ii) the growth differential between credit and nominal GDP exceeds 20 percent. This approach identifies credit booms in 1993 and 1995–96, when credit growth was more than 20 percentage

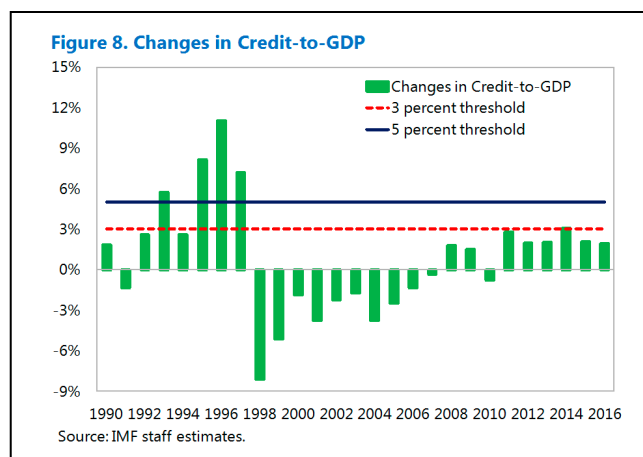


points higher than nominal GDP growth, but finds no credit booms afterwards. It also shows that the deviation of credit-to-GDP from trend was zero in 2014, below the credit boom threshold, but with the growth differential between credit and nominal GDP close to the 10 percent threshold.



**13. Changes in credit-to-GDP indicate there have been no credit booms since the late 1990s, but 2014 was a borderline case.**

Chapter 3 of the IMF's *Global Financial Stability Report* of September 2011 finds that increases in the credit-to-GDP ratio above 3 percent, year-on-year, could serve as early warning of credit booms, with increases above 5 percent indicating more advanced and severe credit booms. For the Philippines, the changes in credit-to-GDP were above the credit boom thresholds in 1993 and 1995–97, but have been below these thresholds since (Figure 8). However, 2014 was a borderline, when the change in credit to GDP was 3.1 percent, just above the 3 percent threshold. In line with current trends, staff expects credit growth to moderate in 2015–16, with credit-to-GDP increasing by 2 percentage points per year, below the credit boom threshold.



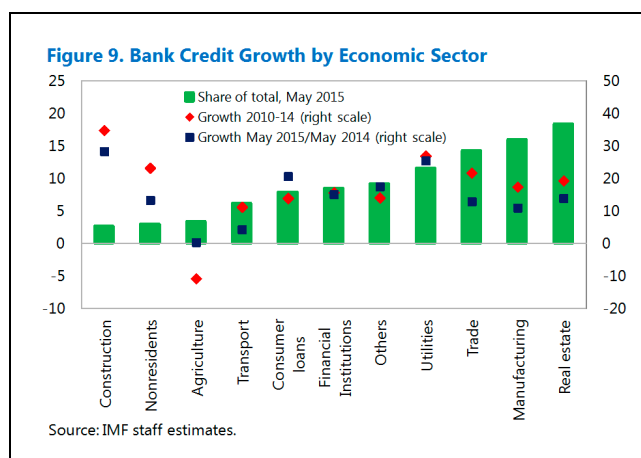
**14. Credit growth has moderated in the first half of 2015, and the allocation of credit has become more balanced.** Bank credit growth fell from 19.9 percent (y/y) in December 2014 to 14.5 percent (y/y) in May 2015. This sharp decline in credit growth was due to a fall in overall credit during the first five months of this year, with credit growing by –0.9 percent (annualized) between December 2014 and May 2015. The slowdown in credit growth has been broad based, with almost all sectors seeing slower credit growth between May 2014 and May 2015 than during 2010–14. The allocation of credit has also become more balanced, with credit growth falling sharply for some of the sectors that saw fast credit growth during 2010–14 (construction, real estate, loans to

nonresidents, wholesale and retail trade, and manufacturing). Credit growth has remained robust for the utilities sector as new power plants are being built, and for consumer loans, particularly auto loans. The recent moderation in credit growth suggests that credit activity should remain below typical metrics of credit booms in 2015–16, with lower risks to financial stability as the allocation of bank credit has become more balanced.

### C. Putting It Together: Credit Neutral Output Gap

#### 15. Financial variables contain useful information concerning the business cycle position.

Expansions that coincide with rapid credit and asset price growth tend to be stronger, while recessions coinciding with credit and asset price busts tend to be longer and deeper. Borio and others (2013) argue that incorporating information about the financial cycle is important to improve measures of potential output and output gaps. Identifying potential output with non-inflationary output is too restrictive as output may be on an unsustainable path even if inflation is low and stable whenever financial imbalances are building up. Within a simple and transparent framework, they show that including information about the financial cycle can yield measures of potential output and output gaps that are not only estimated more accurately, but also more robust in real time.

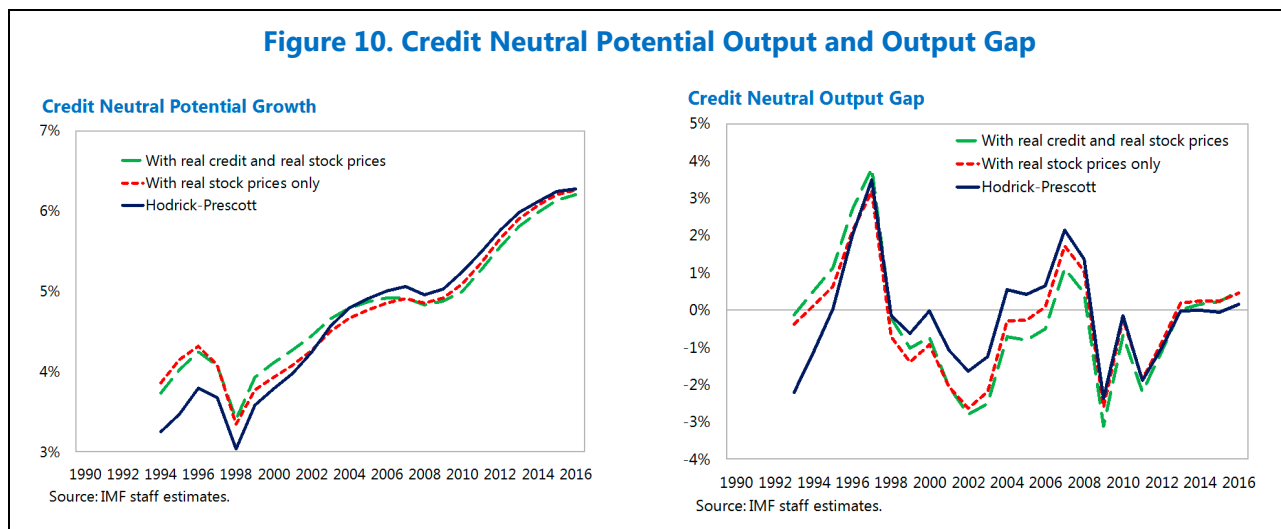


**16. The approach of Borio and others (2013) is used to integrate financial variables into a broader measure of the output gap.** In particular, Borio and others (2013) expand a standard Hodrick-Prescott filter with data on real credit growth, and changes in real house and stock prices. This chapter uses this same set of financial variables for the case of the Philippines, but as official data on house prices does not exist, it relies upon private sector measures of condominium and land prices for the businesses districts of Metro Manila. The estimation results show that residential and land prices are not statistically significant, but growth in real stock prices is always significant. Credit growth is significant when considered alone, but it loses its significance when real stock prices are added to the specification. Thus, two specifications were chosen, one in which only real stock prices are added to the Hodrick-Prescott filter, and another in which both real credit and real stock prices are added.

**17. The results indicate that the Philippine output gap in 2015–16 is slightly larger when financial variables are included, consistent with a slightly positive credit gap.** As with the approaches above, both specifications suggest that potential growth has increased from just below 5 percent in 2000–09 to just above 6 percent in 2015–16. This increase in potential growth is only slightly smaller than the one found using approaches that exclude financial variables, suggesting that most of the gains in potential growth seen in the Philippines have not been due to an overly

expansionary financial cycle, but rather to other structural factors. The credit neutral approach also suggests that the output gap is slightly positive in 2015–16, consistent with a slightly positive credit/asset price gap. However, even in this case, the output gap is very small and there is significant uncertainty around these estimates. Thus, the current cyclical position in the Philippine economy seems to be broadly neutral, with the output gap near zero even if standard estimates of the output gap are augmented with financial variables.

**Figure 10. Credit Neutral Potential Output and Output Gap**



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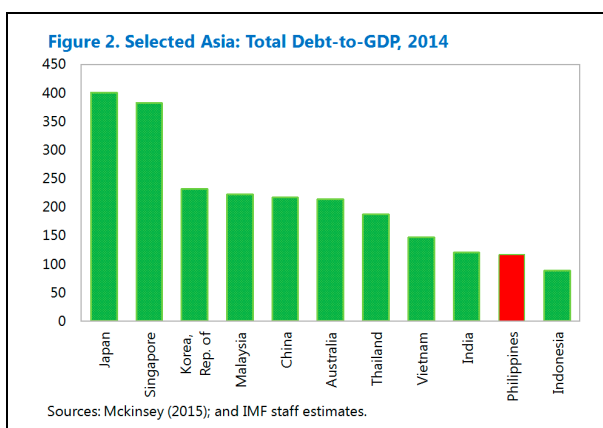
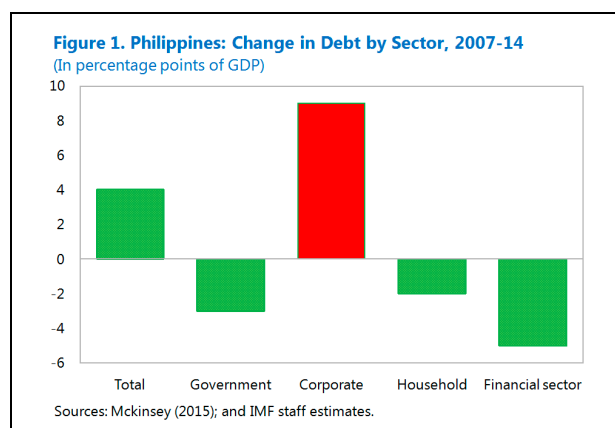
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# ARE PHILIPPINES NONFINANCIAL FIRMS VULNERABLE TO TIGHTER FINANCIAL CONDITIONS?—FIRM-LEVEL ANALYSIS AND STRESS TESTING<sup>1</sup>

The Philippines has been undergoing a period of financial deepening since the mid-2000s (see Chapter 2), with significant debt accumulation concentrated in nonfinancial firms. This benign financial cycle could reverse once the U.S. Federal Reserve starts raising policy rates, given the close link between domestic and global financial conditions (see Chapter 1). This chapter analyzes nonfinancial sector firm-level data in search of signs of vulnerability and finds that: (i) the distribution of leverage and debt-at-risk have remained stable; (ii) most firms seem resilient to large shocks with risks concentrated in a few sub-sectors; (iii) the real estate sector seems relatively more vulnerable and should be closely monitored, especially given its involvement in unregulated shadow banking activities. Data gaps constrain this analysis and should continue to be addressed.

## A. Introduction: Does Indebtedness Lead to Vulnerabilities?

**1. Debt has increased rapidly in the Philippines, driven by nonfinancial corporate (NFC) borrowing during the last several years of easy financial conditions, but total debt-to-GDP is still low when compared to other Asian countries and EMEs.**



**2. Assessing the vulnerability of NFC firms to a possible tightening in financial conditions is an important component of macrofinancial surveillance.** The Philippine corporate sector is highly concentrated, dominated by several large conglomerates spanning banking, real estate, and other major sectors of the economy. Thus, an adverse shock affecting a few highly indebted firms, such as a sudden increase in interest rates, may be transmitted to their holding conglomerate and,

<sup>1</sup> Prepared by Rui C. Mano (APD).

through it, to the rest of the economy posing a risk to macroeconomic or financial stability. This section examines firm-level data to assess the NFC sector's vulnerability to various shocks.

**3. Firm-level data are needed to uncover possible pockets of vulnerability that could otherwise be hidden in aggregate data.** This chapter uses Orbis compiled data on thousands of Philippine firms spanning multiple years<sup>2</sup> and studies both current measures of balance sheet health, as well as the sensitivity of those measures to large shocks to earnings, interest rates, and exchange rates.

**4. The analysis shows that most firms currently have strong balance sheets and appear broadly resilient to shocks.** In particular, leverage has not increased significantly since 2007 and debt-servicing capacity is still high. Firms seem broadly resilient, with the most important vulnerabilities associated with interest rate shocks rather than exchange rate shocks.

**5. However, some sectors appear more vulnerable, particularly real estate.** A few key real estate developers have increased their leverage substantially, while expanding shadow-banking activities through their acceptance of advances from households, as described further below. The BSP is closely monitoring the banking sector's exposure to the real estate developers.

**6. The analysis in this chapter is constrained by important data gaps.** First, spillovers within each conglomerate cannot be analyzed in the absence of information on earnings distributions and within-group lending. Second, detailed firm-level data on foreign currency denominated debt and foreign sales are unavailable. Thus, exposures to FX risk are imperfectly measured and based on aggregate information, either at the sector level in the case of foreign sales, or economy-wide for foreign currency denominated debt.

**7. The chapter is organized as follows.** Section B presents current measures of balance sheet health. Section C conducts a stress testing exercise. Section D explains why the real estate sector should continue to be monitored closely in light of the findings presented in earlier sections.

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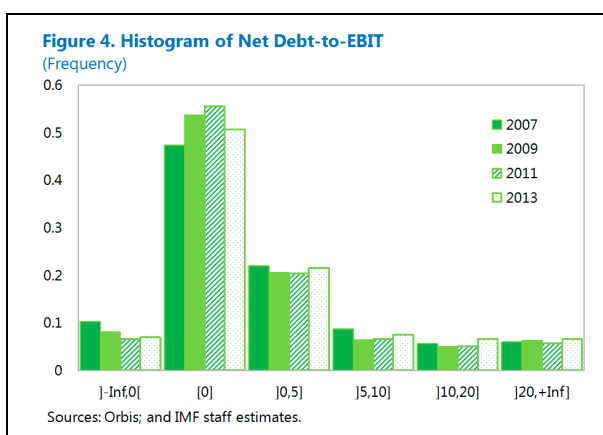
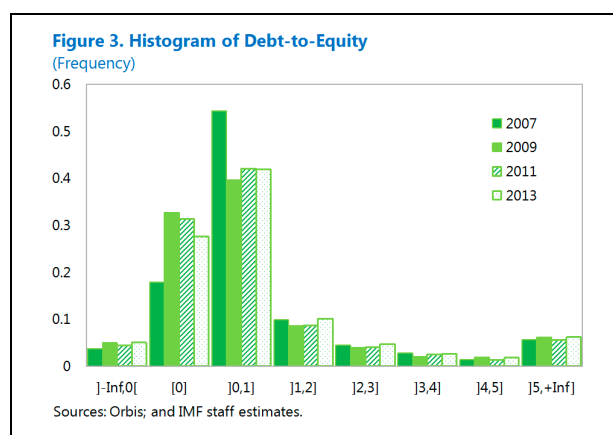
<sup>2</sup> Orbis has data that requires reconciliation (see details in Appendix 1).

## B. Despite Rising Debt, Leverage and Debt-at-Risk Have Remained Stable

**8. The literature assesses the health of balance sheets in the NFC sector by using median or average leverage and debt-at-risk.**<sup>3</sup> Leverage is measured through debt-to-equity or net debt-to-earnings ratios, usually computing a cross-sectional average or median. Debt-at-risk, on the other hand, measures total indebtedness of firms with relatively low debt servicing capacity, with debt servicing capacity measured by the ratio of earnings before interest and taxes (EBIT)-to-interest payments (the so called “Interest Coverage Ratio” or ICR).<sup>4</sup> The IMF’s Corporate Stress-testing Exercise considers debt to be at risk when the ICR is below 1.5.<sup>5</sup>

**9. This chapter, in addition to evaluating debt-at-risk, focuses on changes in the cross-firm distribution of leverage through time, which is preferable to looking only at changes in averages or medians.** Cross-sectional (weighted) averages or medians of firm leverage are sensitive to extreme outliers (in the case of averages) and to the way firms with negative equity or EBIT are treated (both averages and medians).

**10. Leverage for nonfinancial firms does not appear to have increased over time.** Most firms have had reasonable debt-to-equity and debt-to-EBIT ratios. There are, however, two possible sources of concern: (i) the frequency of firms with negative equity has increased slowly over time, although negative EBIT is now less common; and (ii) high levels of leverage have become slightly more common. However, these may reflect the widening of Orbis’ coverage over time.



<sup>3</sup> See Adrian and Shin (2008, 2009, and 2010) and Kalemli-Ozcan and others (2012) for extensive discussions; this chapter follows IMF, *Global Financial Stability Report*, April 2014, Chapter 1, closely. Lindner and Eun Jung (2014) analyze India’s nonfinancial firms in detail whereas Chivakul and Lam (2015) do the same for China. The IMF’s *Asia and Pacific Regional Economic Outlook* of April 2014 and April 2015 show summary statistics for nonfinancial firms across the region based on the same sources used here, and thus provide a good point of comparison.

<sup>4</sup> See Appendix 1 for key terms.

<sup>5</sup> See IMF, *2015 Spillover Report*, Chapter 3, “Spillovers from U.S. Dollar Appreciation.” An ICR threshold of 1.5 does not have any particular theoretical justification, although it is often used in the literature.

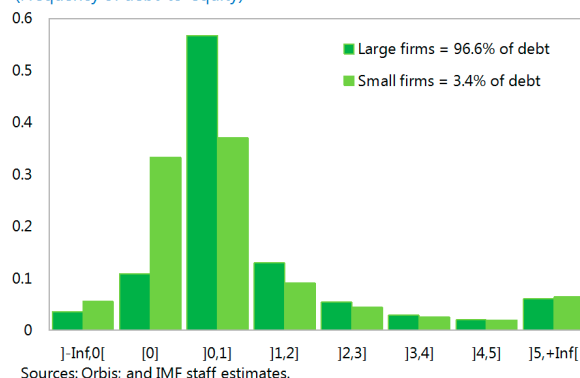
**11. Smaller firms, although more leveraged, should not undermine the stability of the sector given their low share on total debt.** Comparing “Large firms,” defined as those in the top 25th percentile of total assets and the remainder, “Small firms,” we find that both negative equity and very high levels of leverage are slightly more common among small firms. But small firms account for only 3.4 percent of total debt and thus are not systemically important.

**12. While FX exposure appears low, firm-level data for both FX debt shares and natural hedges are not available.** Regarding FX debt shares, an estimate based on aggregate NFC data is applied to all firms. This presumably biases the estimated FX exposures away from large firms, and towards smaller firms without access to international debt markets. Natural hedges are proxied by the share of foreign sales available from Worldscope, and imputed at the sector-level (see Appendix 1 for details).

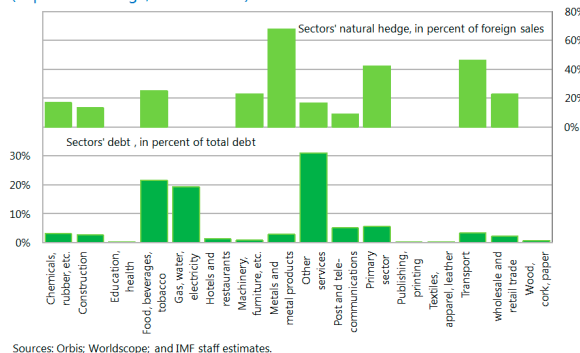
**13. The share of debt for firms with low ability to cover interest payments, or debt-at-risk to total debt, has been declining since 2008.** Debt-at-risk corresponds to total debt owed by firms with an ICR of less than 1.5. Since 2012, small firms have almost no debt-at-risk, reflecting primarily their low level of total indebtedness.

**14. Debt-at-risk is currently largest in the “Other services” sector,** which includes real estate. In absolute terms, “Other services” has the highest debt-at-risk, chiefly due to real

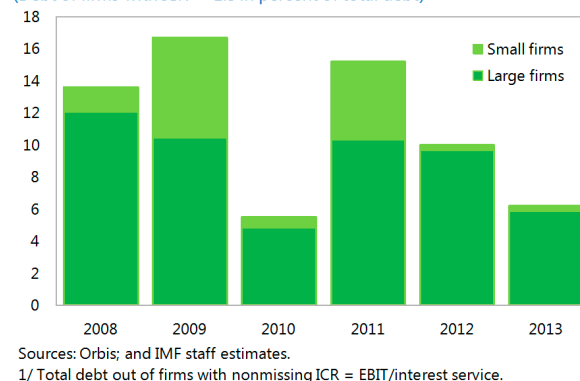
**Figure 5. Leverage Across Firm Size, 2013**  
(Frequency of debt-to-equity)



**Figure 6. Distribution of Natural Hedge and Debt by Sector**  
(Top: natural hedge; bottom: debt)



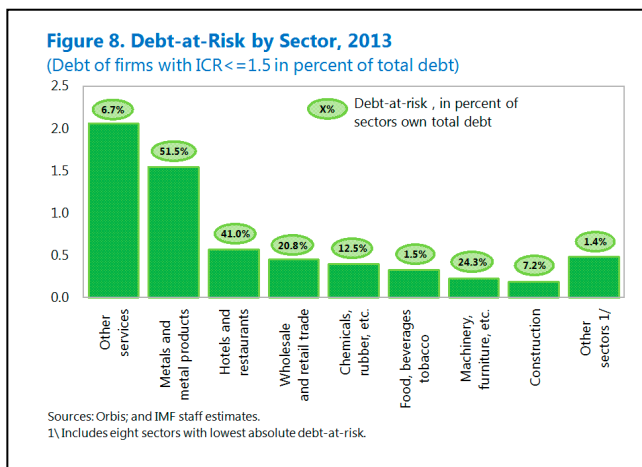
**Figure 7. Debt-at-Risk 1/**  
(Debt of firms with ICR <= 1.5 in percent of total debt)





estate. Sectors vary widely in their total debt outstanding, however, and thus it is also useful to consider relative debt-at-risk, defined as debt-at-risk in percent of each sector’s total debt. Relative debt-at-risk is above 40 percent for several sectors, such as “Metals and metal products” and “Hotels and restaurants,” but total debt is not large in either sector and would not appear to pose systemic risks.

### C. Firms Seem Broadly Resilient to Large Shocks, with Limited Pockets of Risk



**15. Given the close link between domestic and global financial conditions, the prospective rise in U.S. monetary policy rates will likely affect Philippine borrowers** (see Chapter 1)

**16. Following closely the Corporate Stress-testing Toolkit methodology, this section analyzes the sensitivity of NFC firms’ balance sheets to earnings, interest rates and exchange rate shocks.**<sup>6</sup> In particular, the analysis considers how debt-at-risk is affected by shocks through the impact on EBIT and debt (see Appendix 1).

**17. Different combinations of shocks and assumptions on natural hedges are explored in three scenarios.**

Scenario 1 uses the shocks considered in the Corporate Stress-testing Toolkit, which are a 20 percent fall in earnings, a 30 percent increase in interest rate and 30 percent exchange rate depreciation, while using an economy-wide level of natural hedge for all firms.<sup>7</sup> Scenario 2 considers the same shocks but imputes natural hedges at the sector level using Worldscope data, as described in Appendix 1. Scenario 3 considers the same natural hedge and earnings shock than in scenario 2, but looks at a stronger interest rate shock (an increase of 50 percent), and a smaller exchange rate shock (a depreciation of 10 percent), which are informed by the results of Chapter 1 and the mild peso depreciation during the “taper tantrum” episode.

**Table 1. Summary of Scenarios Considered in Stress Tests**

	Natural Hedge	
	Economy-wide	Sector specific
Large FX shock 1/ (30% FX , 30% IR)	Scenario 1	Scenario 2
Large IR shock 1/ (10% FX , 50% IR)		Scenario 3

Source: IMF staff estimates.

1/ Also including 20 percent earnings shock. FX stands for exchange rate shock and IR for interest rate shock.

<sup>6</sup> This methodology builds upon the IMF, *Global Financial Stability Report*, April 2014.

<sup>7</sup> The interest rate shock is in fact a shock to interest payments or equivalently a shock to the average coupon rate.

**18. While debt-at-risk is generally low under all three scenarios, firms appear more vulnerable to interest rate shocks than to exchange rate shocks.** Debt-at-risk reaches at most 25 percent of total debt under Scenario 3, which considers a larger interest rate shock and a smaller exchange rate shock. Since small firms represent a small portion of total debt, see ¶11, they end up accounting for only a small share of total debt-at-risk.

**19. Debt-at-risk is concentrated in a few sectors, most importantly “Other services,” which includes real estate.** This sector has the largest debt-at-risk across all scenarios. The large jump in debt-at-risk from Scenario 1 to 2, or from using economy-wide to sector-wide natural hedges, is explained by the consequent reduction in natural hedges applied to “Other services” from 35 percent to 17 percent. For many firms in that sector, even a natural hedge of 17 percent might be an overestimate, as suggested in ¶22.

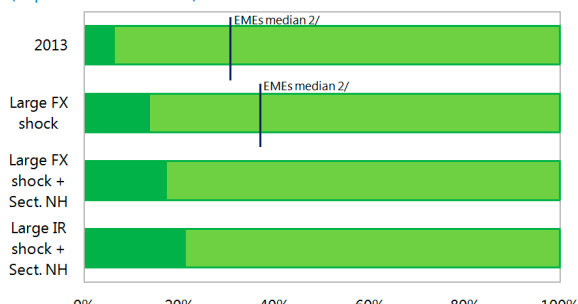
**20. The stress-testing exercise is subject to key caveats related to data gaps that should be addressed before making a definitive assessment of the resilience of NFC balance sheets to shocks (see ¶6).**

### D. Firm-Level Developments in the Real Estate Sector Should be Monitored Closely

**21. The stress test results above indicate that the real estate sector may be more vulnerable to shocks.** Across all scenarios considered, real estate developers comprised at least 12–18 percent of total debt-at-risk, although this share could be larger if we add firms with some real estate activity but not classified as real estate developers.

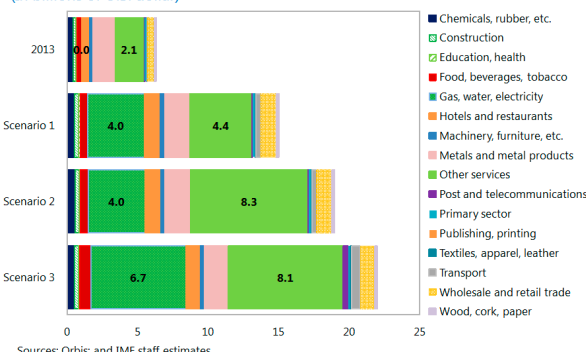
**22. In fact, vulnerabilities in the real estate sector are probably even larger than the stress tests indicate due to favorable assumptions regarding FX exposures.** First, it

**Figure 9. Philippines: Debt-at-Risk Under Different Shocks 1/**  
(In percent of total debt)



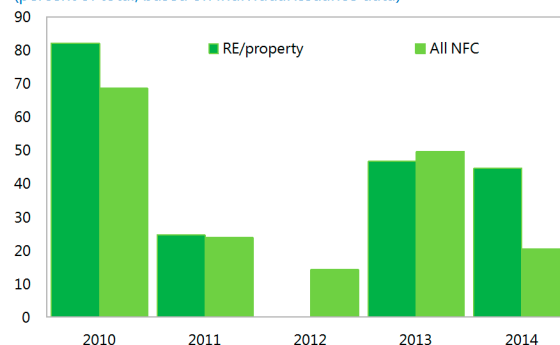
Sources: Orbis; and IMF staff estimates.  
1/ "Large FX shock": 20% earnings, 30% FX and 30% interest payment, economy-wide natural hedge; "Sect. NH": sector-level natural hedge; "Large IR shock": 20% earnings, 10% FX and 50% interest payment  
2/ Median of a group of 16 EMEs, Corporate Vulnerability Exercise, 4/22/15.

**Figure 10. Debt-at-Risk Across Different Shocks by Sector**  
(In billions of U.S. dollar)



Sources: Orbis; and IMF staff estimates.

**Figure 11. Share of Foreign Currency Bonds Issued**  
(percent of total, based on individual issuance data)

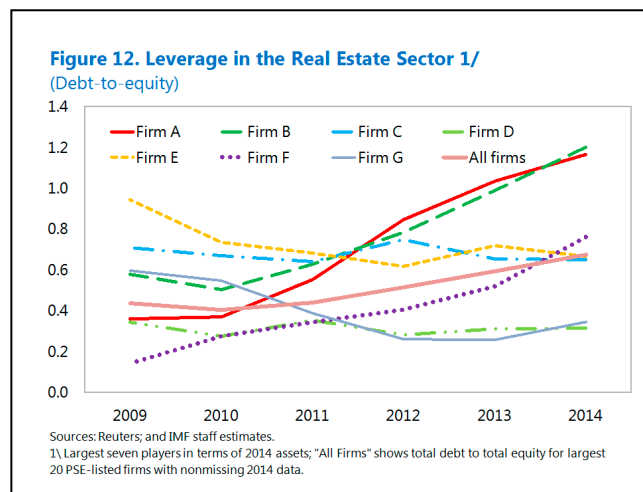


Sources: Dealogic; and IMF staff estimates.

was assumed above that all firms in “Other services” have the same share of foreign sales, including real estate developers, which likely overstates their actual natural hedge. Second, it was assumed that all firms have the same economy-wide share of FX debt because disaggregated data were unavailable. Real estate developers may have higher FX debt shares than the average firm, leading to an underestimation of balance sheet effects stemming from exchange rate shocks.

**23. Another concern for macrofinancial surveillance is the rapidly increasing leverage of some real estate developers.**

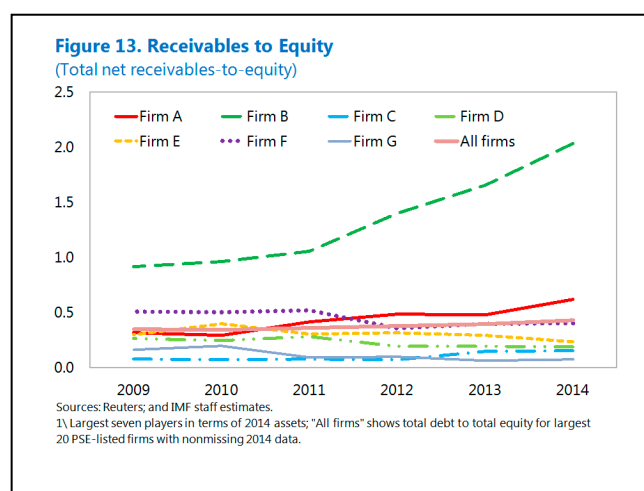
Most developers saw increases in equity commensurate with rising debt but some key players have increased their leverage more aggressively. Leverage ratios in the Philippine real estate sector are nevertheless still considerably below those observed in the U.S. commercial real estate sector in the run-up to the global financial crisis, which rose from 1.9 in 2000 to 3.1 in 2008 (Mckinsey 2010, Exhibit 15).



**24. At the same time, some highly leveraged real estate developers are increasingly involved in shadow banking activities through their acceptance of advances from households.**

Buyers that cannot qualify for bank loans are increasingly encouraged to make advances, carrying high interest rates, for properties still under development. These advances are trade receivables from the perspective of real estate developers, who keep ownership of the property until fully paid. Thus, developers are in a sense extending fully collateralized loans that are exposed to strategic default in a context of expected house price declines or sharp interest rate increases. Despite the rapid increase in non-bank financing, such activities appear still modest, particularly when taking a cross-country perspective.

**25. Thus, the real estate sector should be monitored closely,** with an emphasis on the few developers who expanded significantly their shadow-banking activities and whose leverage increased the most. While the BSP has recently conducted stress tests on banks' exposure to real estate, which contributed to a slowdown of credit growth to that sector, it lacks the regulatory reach to fully monitor these developments, particularly shadow banking activities and intra-group borrowing.



## Appendix 1. Data Construction and Analysis

### Data Construction

This chapter uses data mostly from Orbis, which contains cross-country data on balance sheets and income statements for millions of firms. While two additional data sources were explored, S&P Capital IQ and Worldscope, the study focused on Orbis given its coverage of smaller unlisted firms. Around 135 firms were successfully matched across all three datasets after 2008 (from a minimum of 128 in 2008 to a maximum of 143 in 2012).

	2008	2009	2010	2011	2012	2013
Worldscope	154	156	161	160	153	101
S&P Capital IQ	220	226	229	232	229	213
Orbis	4,113	4,771	4,371	4,891	6,105	209

It is well known that the Orbis dataset contains extensive measurement errors. Consequently, considerable efforts were made to clean the Philippine data sample. Company names were standardized and repeated observations over time were merged. Simple checks for key variables were also undertaken. A few hundred observations were dropped from the original dataset as a result of all these cross checks.

The share of FX denominated debt is not available in Orbis. Instead, the Corporate Stress-testing Exercise estimated share of 31 percent for the whole Philippine NFC sector was used. This figure was obtained using external debt data in the Quarterly External Debt Statistics (QEDS) for the stock of foreign currency debt, data on bank loans from the IMF's "Financial Soundness Indicators," and data on domestic capital markets from Bloomberg for the stock of local currency debt.

The study also considered the extent to which firms have revenues in foreign currency, which provides a natural hedge against movements in the exchange rate and mitigates balance sheet effects. The share of foreign sales was obtained from Worldscope (WS) because Orbis does not contain this information. It should be noted, however, that WS features a much smaller universe of firms compared to Orbis. Hence, after matching firms across the two sources, each sector's share of foreign sales was computed and then applied to all firms in the sector.

### Key Definitions

<b>Debt</b>	Sum of noncurrent liabilities and loans
<b>Net Debt</b>	Debt minus cash and equivalents
<b>EBIT</b>	Earnings Before Interest and Tax
<b>Earnings</b>	when referring to shocks to earnings or net debt-to-earnings we use EBIT
<b>ICR</b>	Interest Coverage Ratio or EBIT to Interest Expense
<b>Debt-at-Risk</b>	Debt of firms with ICR below 1.5
<b>Natural Hedge</b>	Proxied by the share of foreign sales in total sales

When stress testing firms' balance sheets and income, the following formulas were used for scenario X, which assumes the degree of natural hedge ( $NH_X$ ) and a set of shocks on EBIT ( $EBITshock_X$ ), exchange rate ( $FXshock_X$ ) and interest rate ( $IRshock_X$ ):

$$EBIT_X = EBIT_{2013} (1 + EBITshock_X) (1 + NH_X FXshock_X)$$

$$InterestPay_X = InterestPay_X (1 + IRshock_X) + InterestPay_{2013} FXdebtshare_{2013} FXshock_X$$

$$Debt_X = Debt_{2013} + Debt_{2013} FXdebtshare_{2013} FXshock_X$$

Assumptions for each scenario are presented in Table 1.

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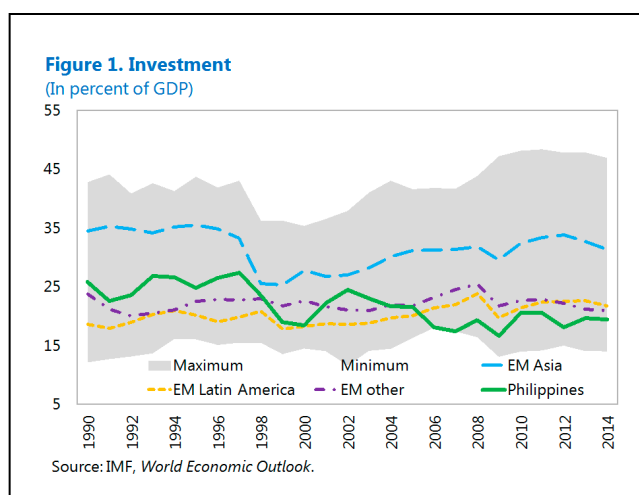
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# IMPROVING PUBLIC INFRASTRUCTURE IN THE PHILIPPINES<sup>1</sup>

*This chapter explores the macroeconomic effects of improving public infrastructure in the Philippines. After benchmarking the Philippines relative to its neighbors in terms of quantity and quality of public infrastructure, and public investment efficiency, it uses model simulations to assess the macroeconomic implications of raising public investment and improving public investment efficiency. The main results are as follows: (i) increasing public infrastructure investment results in sustained gains in output; (ii) the effects of improving public investment efficiency are substantial; and (iii) deficit-financed increases in public investment lead to higher borrowing costs that constrain output increases over time, underscoring the importance of revenue mobilization.*

## A. Introduction

**1. Boosting investment is a major structural challenge in the Philippines.** At 21.8 percent of GDP in 2014, the investment rate in the Philippines is well below regional peers, as reflected in its low capital stock and infrastructure quality. The main impediments to private investment are inadequate infrastructure, a weak investment climate, and restrictions on foreign direct investment. Regarding public investment, the low revenue base and fiscal consolidation have prevented sufficient resource allocation in the past, while weak implementation capacity has led to budget under-execution more recently, especially in 2013–14. Raising investment, particularly in infrastructure, would allow the country to reap the dividends of its young and growing population.



**2. To address this issue, the government plans to increase infrastructure spending from 3 percent of GDP in 2014 to 5 percent by 2016, while also facilitating Public Private Partnership (PPP) projects.** Immediate priorities include implementation of the transport system in Manila (Manila Dream Plan approved by NEDA) and improvements in airports, road connectivity, and seaports across the country. Although there is a consensus that public infrastructure needs to be improved, the macroeconomic effects of doing so may differ depending on how this is done.

<sup>1</sup> Prepared by Takuji Komatsuzaki (FAD).

- 3. This chapter explores the macroeconomic implications of improving public infrastructure.** First, it benchmarks the Philippines relative to its neighbors in terms of the size of public investment and capital stock; the quality of public infrastructure; and public investment efficiency. It confirms that the level of public capital and the quality of public infrastructure are low in the Philippines, and that there is room for improvement in public investment efficiency. Subsequently, the paper simulates alternative ways to enhance public infrastructure and their macroeconomic effects using the IMF's Global Integrated Monetary and Fiscal (GIMF) model.
- 4. Model simulations suggest that improving public infrastructure would result in a sustained output increase.** Two types of scenarios are considered: (i) a permanent increase in public investment from 3 percent to 5 percent of GDP, financed by borrowing, (ii) the same increase in public investment, financed by higher consumption taxes. Then, each scenario is divided into sub-scenarios with and without gradual improvements in public investment efficiency. All scenarios exhibit sustained gains in output because improving public infrastructure leads to permanent gains in productivity, which crowds in private investment.
- 5. Alternative financing scenarios affect the economy differently.** The debt-financed scenario results in a substantial increase in the public debt-to-GDP ratio, increasing the borrowing cost and constraining investment. In contrast, consumption is initially subdued in the tax-financed scenario because of lower disposal income. While the output gains are initially higher in the deficit-financed scenarios, these gains are larger in the tax-financed scenarios over time, with the increase in the government's borrowing cost in the deficit-financed scenarios playing a key role.<sup>2</sup> Both scenarios show substantial benefits from increased public investment efficiency.
- 6. Public infrastructure improvement influences the external current account and inflation.** It leads to a worsening current account, thereby facilitating external rebalancing. It also generates additional domestic demand initially and thus inflationary pressures. Over time, the increase in supply capacity alleviates the inflationary pressures.
- 7. With a low capital stock and a fast growing young population, addressing the large infrastructure gap is needed to raise potential growth and reduce poverty and external imbalances.** This chapter shows that improving public infrastructure can generate sustained output growth, and improving public investment efficiency is helpful in addition to a spending increase. Given the need to ensure debt sustainability amid the large spending needs in other priority spending areas for inclusive growth, continued efforts mobilize revenue will be critical, including by enacting measures to offset any revenue eroding policy changes and preferably through a comprehensive tax reform that focuses on broadening the tax base.

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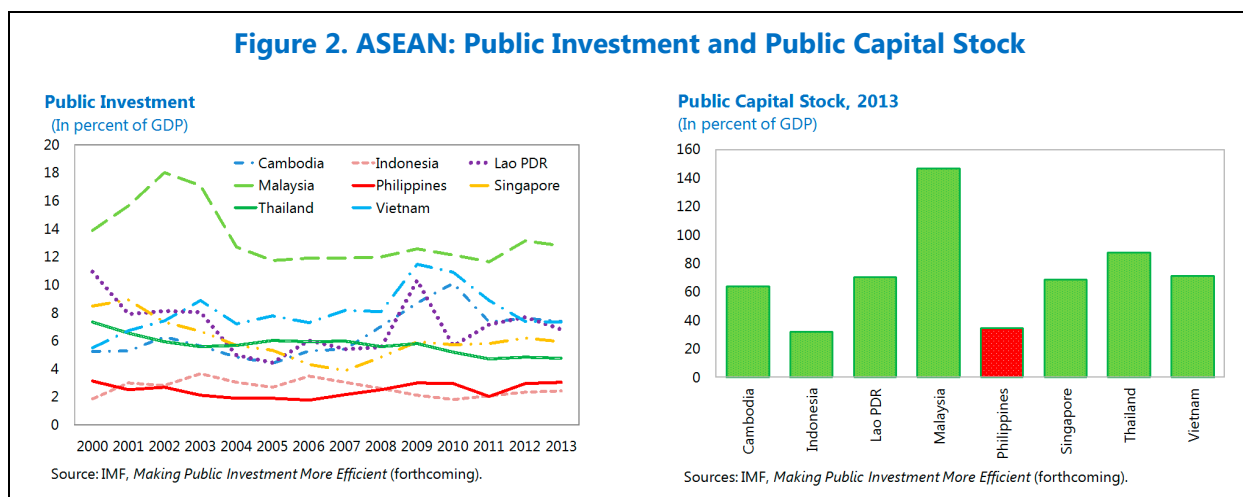
<sup>2</sup> A potential downside to the tax-financed scenario is the increased cost of tax collection and the risk of tax evasion. We have abstracted from these in this chapter.



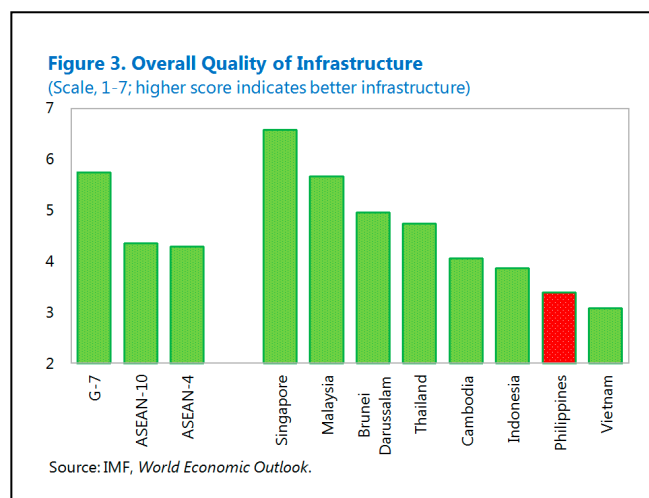
## B. The State of Public Infrastructure in the Philippines

### Quantity and Quality of Public Infrastructure

**8. Persistently low public investment has resulted in a low public capital stock relative to its neighbors.** IMF (2015) measures public investment and the stock of public capital for a large sample of countries, finding that the Philippines consistently had lower public investment than other ASEAN countries in the recent past, averaging 2.5 percent of GDP in 2000–14. As a result, the public capital stock is also one of the lowest among ASEAN countries, at around 35 percent of GDP in 2013 compared to an average of 72 percent of GDP.



**9. Survey-based indicators also paint an unfavorable picture for the current state of public infrastructure in the Philippines.** The World Economic Forum's global competitiveness report surveys business leaders' impressions on a wide-range of topics in the business environment on a 1–7 point scale. Regarding key infrastructure services, it places the Philippines as the second lowest among the ASEAN countries and substantially lower than the ASEAN average.



### Public Investment Efficiency

**10. The Philippines has made steady progress in governance and fiscal transparency.** Its relative ranking in the World Bank's World Governance Indicators has improved every year since 2010. The improvement has been especially sharp in the control of corruption. This reflects the high priority that the current administration has given to governance reform. Regarding fiscal

transparency, IMF (2015b) assessed the Philippines' Public Financial Management (PFM) practices against the draft Fiscal Transparency Code covering the three pillars of fiscal reporting, fiscal forecasting, and fiscal analysis and management. It acknowledged the authorities' reform efforts and reached broadly favorable conclusions. The progress in recent years has resulted in significant improvements in the investment climate, and together with increased fiscal space, translated into higher private sector confidence.

#### **11. However, there is still much room for improvement in public investment efficiency.**

- Assessments of public investment processes identify room for improving efficiency. The Public Investment Management Index (PIMI), developed by Dabla-Norris and others (2012), evaluates the strength of public financial management institutions across four stages of public investment processes: project appraisal, selection, implementation, and evaluation, and assigns a score between 0 and 4 for 71 developing countries, including 40 low income. The Philippines' score (1.85) is significantly lower than the best performer in the sample (South Africa, 3.53) or the best performer in ASEAN (Thailand, 2.87). Among the sub-indexes, the Philippines' scores are relatively favorable for strategic guidance and project appraisal but relatively weak for project selection. Consistent with this, a 2014 IMF technical assistance project on the medium term budget framework reports that a medium-term planning system has been established in Philippines Development Plan (PDP) and the Public Investment Program (PIP), but the link between planning and budgeting should be strengthened. Priorities include: undertaking a critical review of the stock of development projects to eliminate duplications, unnecessary projects, and those that are no longer priorities; anchoring planning within an overall medium term resource framework and improving high level coordination; strengthening the gate-keeping role played by budget agencies to choose projects appropriately for inclusion in the budget from the long list of candidates; improving departments' appraisal, prioritization, and selection of projects, including multiyear budget preparation at spending agencies. More generally, the new PFM bill would be helpful by institutionalizing the reform efforts and establishing and clarifying fundamental elements of PFM framework.
- An outcome-based estimation of public investment efficiency also suggests substantial room for improvement. IMF (2015a) develops the Public Investment Efficiency indicator (PIE-X). It first estimates the relationship between the public capital stock (input) and indicators of access to, and the quality of, infrastructure assets (output) for over 100 countries. Then the frontier on potential output for a given level of inputs is estimated separately for advanced, emerging market, and low income economies, as there is a large divergence in income per capita, and the relationship between input and output is likely non-linear as income per capita increases. Finally, the efficiency score is derived for each country as a distance from the frontier. It is higher if a given level of public capital stock is associated with a higher access and quality of infrastructure assets. The estimation results show that the efficiency gap is 27 percent for EMEs on average, but substantially larger for the Philippines.

## C. GIMF Simulations

### Model and Calibration

**12. This section simulates the macroeconomic effects of public infrastructure improvement using the GIMF model.** The GIMF is a multi-region general equilibrium macroeconomic model developed by the IMF's Research Department. It has optimizing firms and households, frictions in the form of sticky prices and wages and real adjustment costs, a financial accelerator mechanism, monetary policy that follows inflation forecast targeting, and fiscal policy that ensures debt sustainability in the long run. The model includes a detailed description of fiscal policy that allows for the choice of seven different fiscal policy instruments for fiscal adjustment, encompassing both revenue and expenditure measures. Moreover, the finite lifetime of households, some of whom are liquidity constrained, generates strong macroeconomic responses to a fiscal shock. Kumhof and others (2010) and Anderson and others (2013) elaborate further on the theoretical structure and main simulation properties of the GIMF model.

**13. This chapter departs from the standard calibration by assuming that not all public investment spending contributes to the formation of public capital, but is partly wasted in the form of public consumption.**<sup>3</sup> It is assumed in the baseline that 40 percent of public investment does not lead to public capital formation but is instead wasted.<sup>4</sup> Reflecting this assumption, steady state government investment is assumed to be 2 percent of GDP although officially it has been 3.3 percent of GDP on average since 2011 at the general government level.

**14. Two scenarios are considered:** (i) a permanent increase in public investment from 3 percent to 5 percent of GDP, financed by borrowing; (ii) the same increase in public investment, financed by higher consumption taxes. Sub-scenarios with and without gradual improvements in public investment efficiency are considered in each scenario. In (i), an increase in the debt-to-GDP ratio is accompanied by an increase in the borrowing interest rate of 4 basis points per unit increase in the debt-to-GDP ratio.<sup>5</sup> In (ii), consumption tax increases are chosen over labor and capital taxes in line with the Fund's recommendations. Expenditure reallocation is not considered as a tool to finance public investment given the small size of total government expenditure in the Philippines and the

<sup>3</sup> This specification follows a similar exercise in IMF (2014).

<sup>4</sup> This is broadly in line with the Philippines' PIE-X and PIMI scores relative to best performers.

<sup>5</sup> Borrowing costs are affected by various factors, including both global and local ones. Chapter 1 estimates determinants of 10-year government bond yields in the Philippines while controlling for a comprehensive list of variables, and finds the marginal effect of a unit increase in the debt-to-GDP ratio to be 5-6 basis points. This chapter assumes that there have been structural changes in the Philippines' fiscal management as reflected in credit rating upgrades in recent years, and adopted a borrowing cost response somewhat lower. If the estimate from chapter 1 was used, output from the deficit-financed scenario would be overtaken by the tax-financed scenario earlier. Regarding international evidence, Baldacci and Kumar (2010), and the review therein, estimate the response of the borrowing cost to range from 3-7 basis points per unit increase in the debt-to-GDP ratio.

existence of other spending priorities that makes it difficult to reallocate expenditure at a large scale. In the efficiency-improvement scenarios, public investment efficiency gradually improves to the level of Thailand over a period of five years.

## Results

**15. Both the deficit-financed and tax-financed public investment increases lead to sustained gains in real GDP.** Even without an improvement in public investment efficiency, the increase in public investment results in a 5–6 percent cumulative increase in real GDP relative to the steady state after 15 years. Public investment increases have sustained output effects beyond the direct demand effect of the spending increase because of the productivity-enhancing impact of public infrastructure. As public capital is an input to the aggregate production function of the economy, the improved public infrastructure raises the overall productivity, akin to an increase in total factor productivity from the perspective of the private sector. The resulting increase in marginal productivity of capital and labor crowd in the private investment and increase demand for labor, which induce a higher consumption due to higher household income.

**16. While the output gains are initially higher in the deficit-financed scenarios, these gains are larger in the tax-financed scenarios over time, with the increase in the government's borrowing cost in the deficit-financed scenarios playing a key role.**<sup>6</sup> The tax-financed scenario results in smaller output gains in the short-to-medium term because the tax increase reduces consumption, partially offsetting the demand increase from higher public investment. Over time, however, the continuous increase in the debt-to-GDP ratio in the deficit-financed scenario increases domestic interest rates, with negative effects on private investment and consumption, and leading to decelerating output growth.

**17. The increasing influence of the government's borrowing cost over time can be seen by comparing the paths of long-term real interest rates, the interest rate most relevant for investment decisions of the private sector.** In the GIMF model, an increase in the government's borrowing cost due to an increase in the risk premium leads to a parallel increase in all domestic interest rates. Additionally, domestic interest rates are also affected by monetary policy. The long-term real interest rates reflect both of these factors, and increase on impact for both deficit-financed and tax-financed scenarios. However, the increase is larger for the former partly due to the stronger demand effect but also in anticipation of the future increase in the risk premium. The paths further diverge from each other over time, driven by the increasing risk premium in the deficit-financed scenario.

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<sup>6</sup> Given the key role of the borrowing interest rates, the output effects are sensitive to assumptions on the borrowing cost increase. A higher increase would favor tax-financed scenarios more, while the opposite holds for a lower borrowing cost increase.

**18. Improving public investment efficiency generates a significant additional impact.**

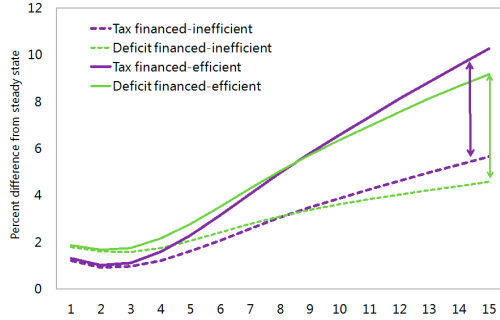
Raising public investment efficiency to the level of Thailand increases output by 5 percent after 15 years compared with the unchanged efficiency scenarios, for both tax-financed and deficit-financed scenarios. The difference in public infrastructure contribution is sizable because of the large efficiency gap. For example, given the 40 percent assumed inefficiency, the 5 percent of GDP public investment results in only about 3 percent of GDP contributing to public infrastructure without the efficiency improvement. When public investment efficiency is improved to the level of Thailand, the same 5 percent of GDP public investment results in over 4 percent of GDP contribution to public infrastructure and a cumulative increase in GDP of 9-10 percent after 15 years. This improvement in efficiency generates balanced effects, increasing consumption and investment and decreasing the debt-to-GDP ratio relative to the scenarios without improvements in public investment efficiency.

**19. Additional demand from higher public infrastructure gives rise to inflationary pressures and a positive output gap, inducing an increase in the policy interest rate.** Over time, the increase in supply capacity alleviates the inflationary pressures and the policy rate increase is gradually reversed.

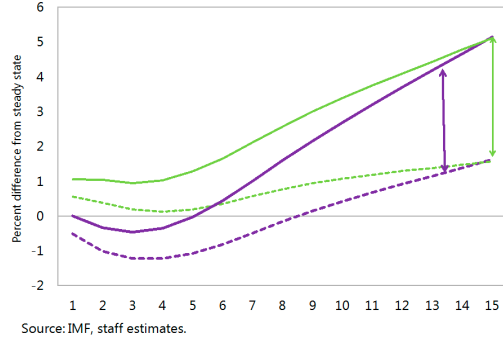
**20. The current account exhibits a sustained deterioration, mostly because of higher imports.** Exports also decline initially due to the initial real appreciation associated with the policy interest rate increase. Subsequently, exports increase as investment stimulates production and the initial real appreciation is reversed in line with the reversal of initial monetary tightening, which partially offsets the reduction of the current account. The size of the current account deficit increase is roughly proportional to the output increase and reaches 0.9–1.4 percent of GDP in two years.

Figure 4. Main Simulation Results

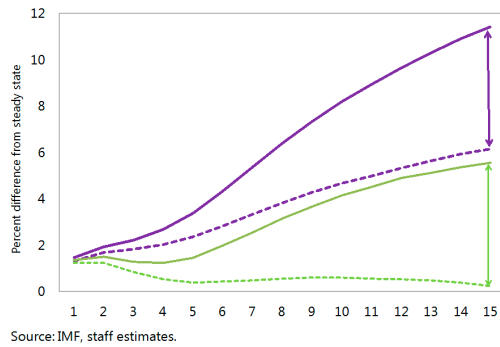
Real GDP



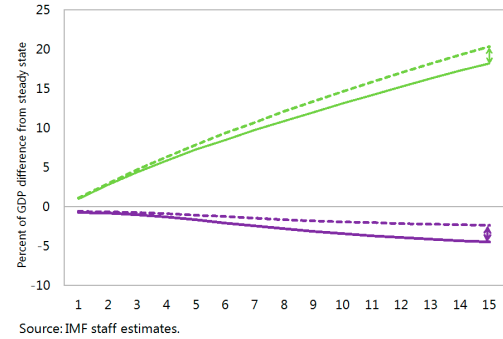
Real Consumption



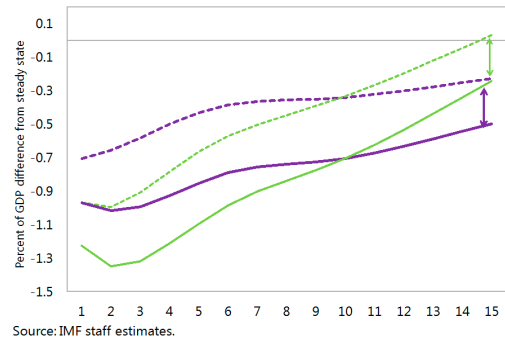
Real Investment



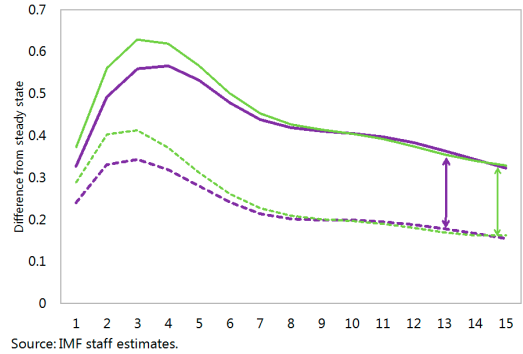
Government Debt



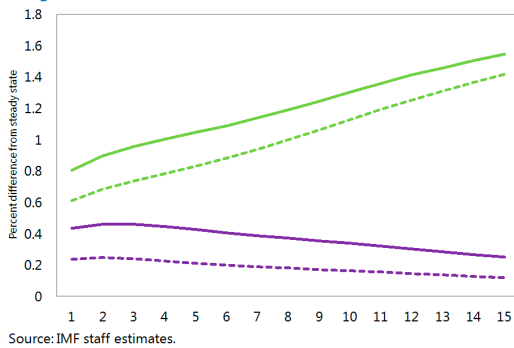
Current Account



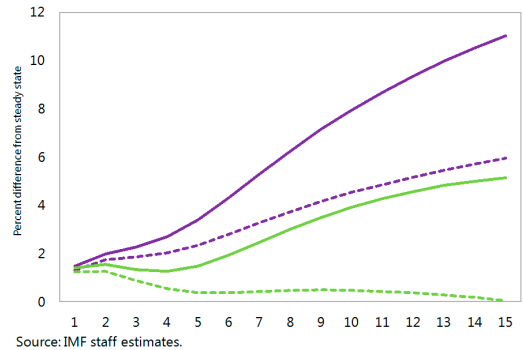
Inflation



Long Run Real Interest Rates



Private Investment



## References

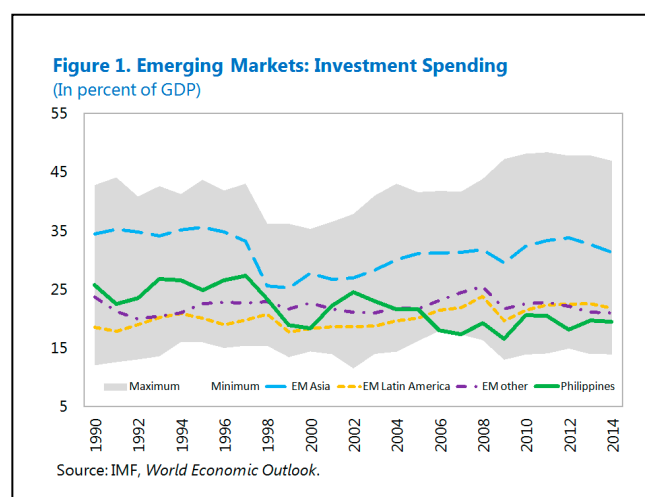
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# CAPITAL MARKET DEVELOPMENT IN THE PHILIPPINES: BOOSTING INVESTMENT AND GROWTH<sup>1</sup>

Capital markets could make a significant contribution to addressing the Philippines' key developmental challenges in the years ahead. Though progress has been made in recent years, there is still much to do. Priorities include strengthening the role of the government bond market as a reliable benchmark for pricing corporate securities, developing private debt markets to help finance infrastructure, and opening up equity markets to small and medium sized enterprises (SMEs). The enabling environment could be made even more conducive to capital market development in the event that taxation policy incentivized greater activity from both issuers and investors.

## A. The Case for Capital Market Deepening in the Philippines

**1. With the appropriate supervisory and regulatory frameworks in place, capital market deepening could strengthen the resilience and growth of the Philippines economy.** Well functioning capital markets could enhance resource allocation, by aiding in the management of risk for both borrowers and lenders, and by opening up new avenues of financing for capital formation and SMEs. Mobilizing market-based financing of the capital stock is especially relevant at present given the country's low level of investment (Figure 1), coupled with constraints on the ability of the banking sector to finance long-term projects such as 'greenfield' infrastructure which may require many years to generate positive cash flows.<sup>2</sup> Governance standards could be further strengthened if the corporate sector were to be more exposed to market discipline and international norms of best practice. In time, debt capital markets could also pool and distribute natural disaster risk originated by insurers, creating additional space for the insurance industry to expand coverage, which is unusually low in the Philippines.



<sup>1</sup> Prepared by Brad Jones (MCM).

<sup>2</sup> These constraints pertain to asset-liability mismatches, and the more exacting liquidity and capital charges under Basel III.



**2. More generally, capital markets could facilitate diversification for both borrowers and lenders, allowing for more effective management of single-name or project-specific risk.<sup>3</sup>**

Deep and liquid capital markets also promote financial stability by dampening the impact of shocks. A greater array of investment opportunities (including asset backed securities with flexible cash flow tranching and credit enhancement features) would allow investors to better meet their return and risk objectives. Importantly for a country like the Philippines, cross-country analysis suggests the growth and financial stability benefits from financial deepening tend to be largest for countries at low levels of financial development, assuming the process is well sequenced and paced (Sahay and others, 2015; Dabla-Norris and Srivisal, 2013; Arcand and others, 2012; see Box 1 for a related discussion of financial inclusion).

## B. Taking Stock of Recent Progress

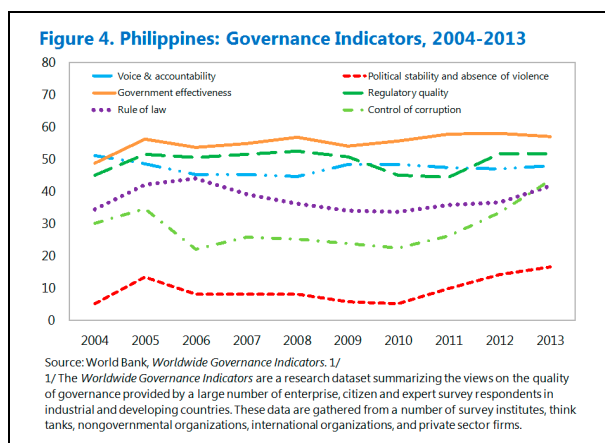
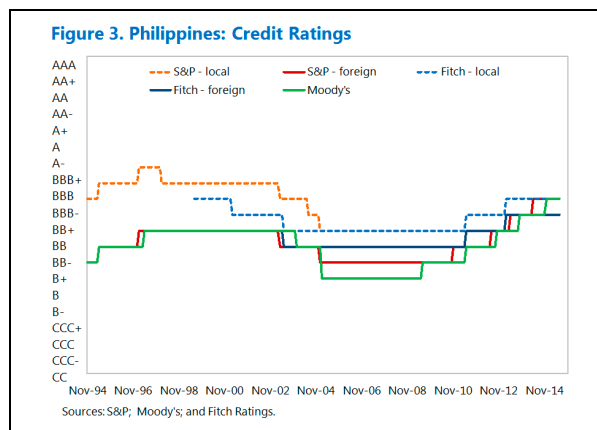
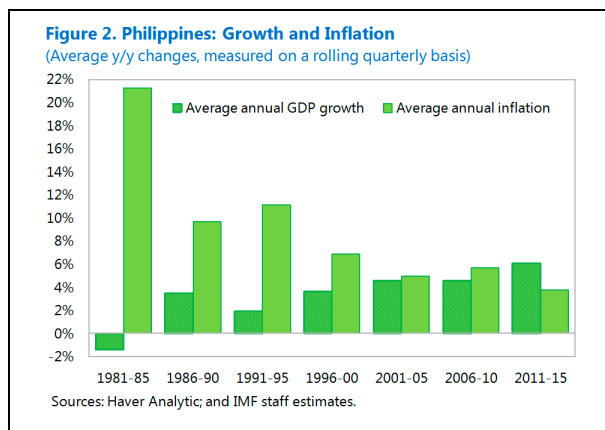
### Constructive Recent Developments

**3. The development of domestic capital markets has been assisted by a more favorable enabling environment, an outcome of various policy initiatives over recent years.** Notable elements include:

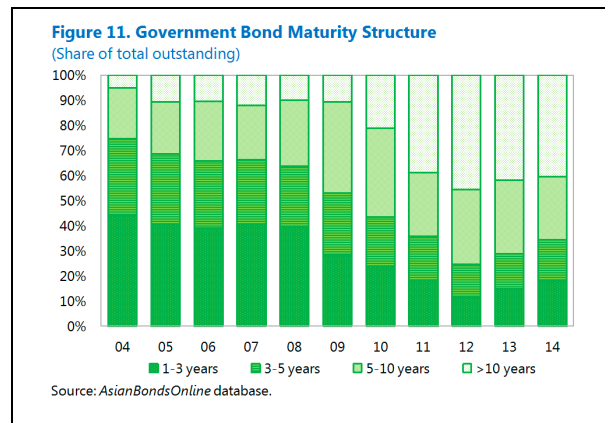
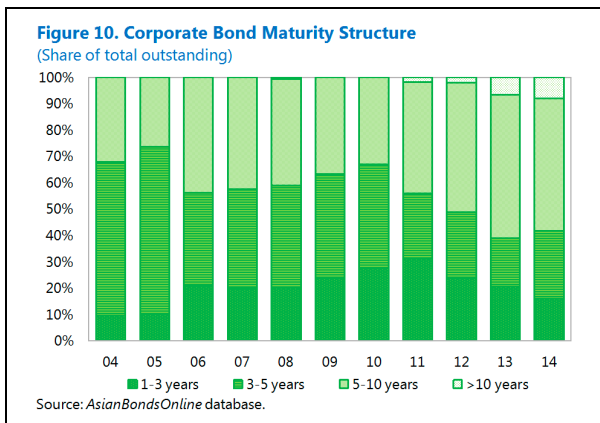
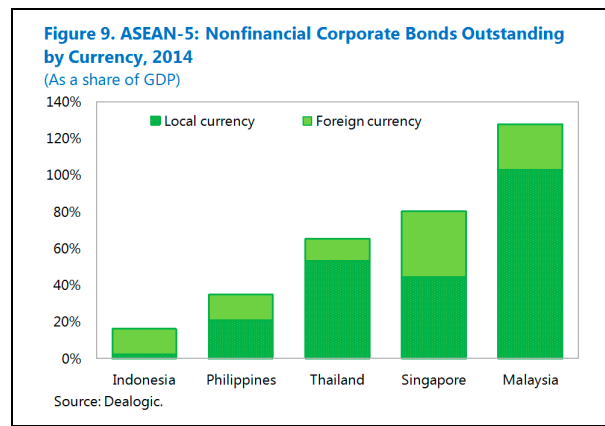
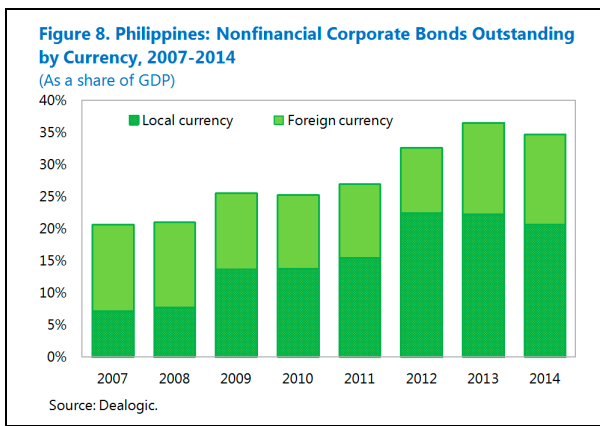
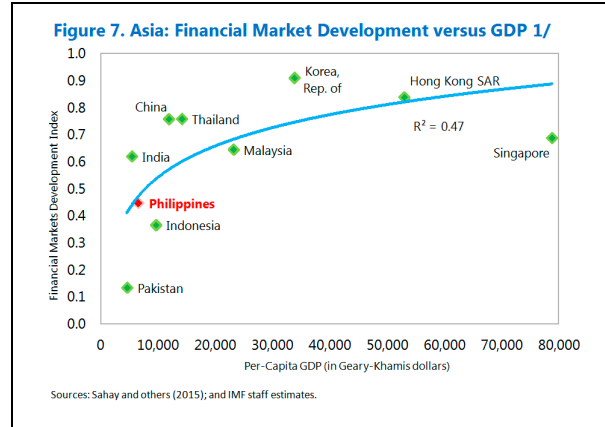
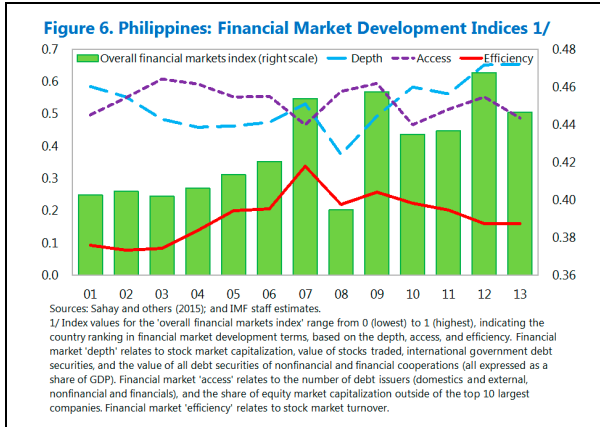
- The most favorable mix of economic growth and inflation seen in decades (Figure 2);
- The awarding of investment grade status for local and foreign currency debt by each of the major international credit rating agencies (Figure 3);
- A broad based improvement in indicators of governance quality (Figures 4 and 5);
- The publication of, and general adherence to, the Capital Market Blueprint Development Plan (initially for the 2011–16 period, and subsequently revised for 2013–17);
- Greater regulatory clarity associated with the restructuring of the Securities and Exchange Commission (SEC) and strengthening of its monitoring and enforcement capacity;
- Reforms to promote neutrality in taxation across different classes of investors, as a means of creating a more level playing field and reducing market segmentation;
- Participation in regional fora, such as the ASEAN Capital Markets Forum, designed to strengthen regional capital market development and integration; and
- The establishment of the Financial Stability Coordination Council, an interagency initiative aimed at fostering a strong, resilient and innovative financial system.

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<sup>3</sup> Single borrower limits are set at 25 percent of capital in the Philippines, and PPP-related exemptions are due to expire in 2016.



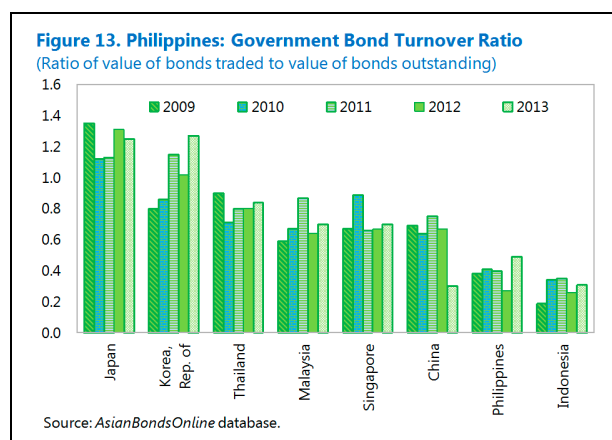
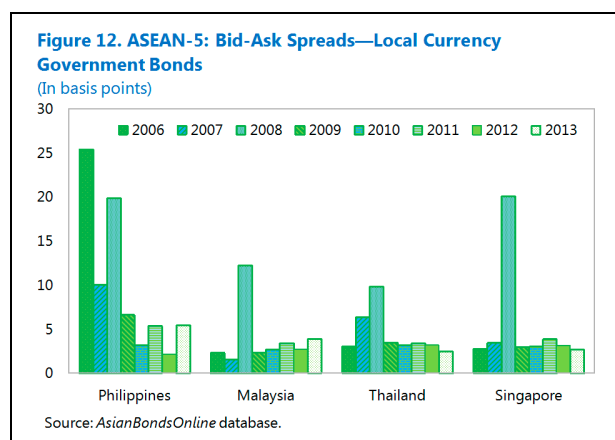
**4. In response, the Philippine capital markets have begun to increase in scale and scope, albeit from a low base.** Based on an index of financial market development indicators introduced by Sahay and others (2015), the country ranking for the Philippines has risen noticeably over the past decade (Figure 6). Financial market development in the Philippines now stands at levels that are broadly consistent with those seen elsewhere in Emerging Asia, after adjusting for differences in per capita income (Figure 7). Progress in bond market development has been particularly notable. The value of corporate bonds outstanding (relative to GDP) has risen strongly since 2007, with the local currency share increasing from one-third to 60 percent (Figure 8). While the local currency share is still lower than in Malaysia and Thailand, it now compares favorably to Singapore and Indonesia (Figure 9). The maturity structure of both corporate and government debt has also lengthened, thus reducing refinancing risk (Figures 10 and 11).



## Remaining Challenges

### 5. Despite considerable progress in recent years, a number of remaining challenges must be addressed if the capital markets are to play a larger role in enhancing growth and stability in the Philippines:

- Government securities markets**—irregular liquidity across the yield curve plagues the market for government securities. By regional standards, the Philippines bond market is characterized by wide bid-ask spreads and low turnover (Figures 12 and 13). Illiquidity reflects numerous factors: the absence of an inter-dealer repo market; an ineffective primary dealer system; the absence of inventory management instruments necessary for dealers to make two-way prices in size (such as organized markets for repo and interest rate derivatives); and the inability of dealers to short bonds. As a result, the bond market is essentially a one-way, buy-and-hold market. Taxable and tax-exempt entities have also been precluded from transacting freely with one another until recently, a distortion which has exacerbated illiquidity. Additionally, supply side issues have posed challenges to the efficient functioning of the money and bond markets, namely a critical shortage of short-term securities, a fragmented schedule of bond issuance (i.e., a large number of small issues), illiquidity at key benchmark maturities, and a low and declining stock of debt (of which, a legally mandated bond sinking fund holds around 20 percent).

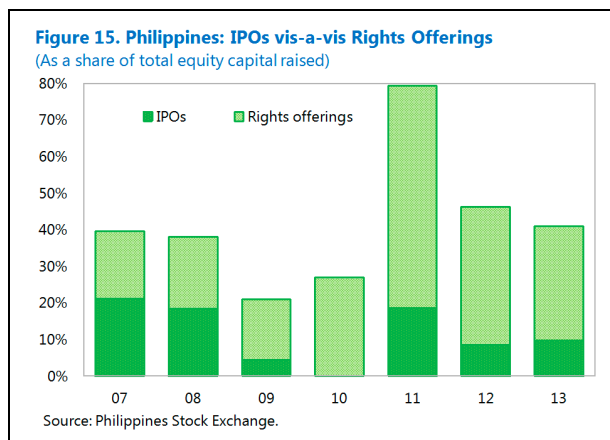
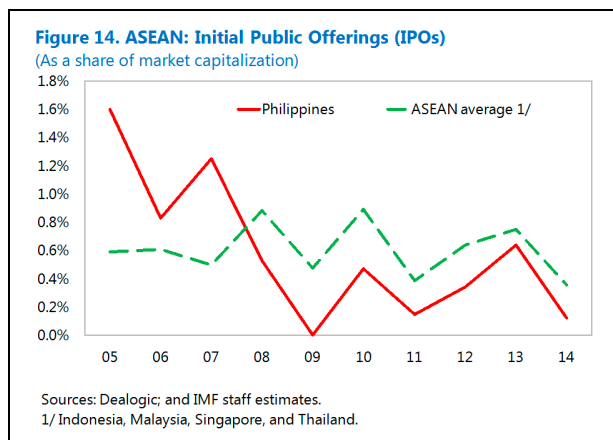


- Private debt markets**—although corporate bond issuance has picked up in recent years, private debt markets continue to play a marginal role in corporate financing. Surveys of market makers do not point to any material improvement in secondary market liquidity,<sup>4</sup> and there have been few securitization issuances of note despite a decade having passed since regulations governing securitizations were first passed into law. The development of private debt markets, including

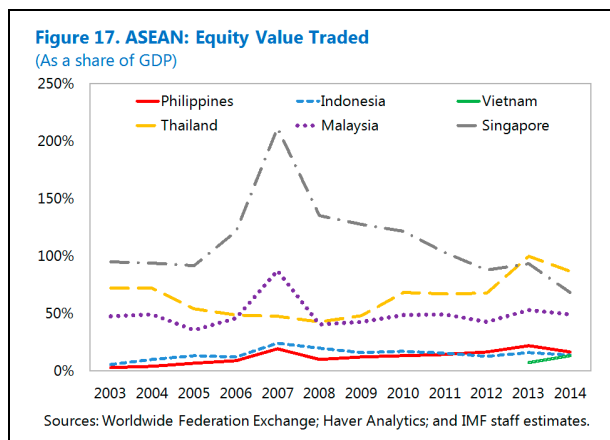
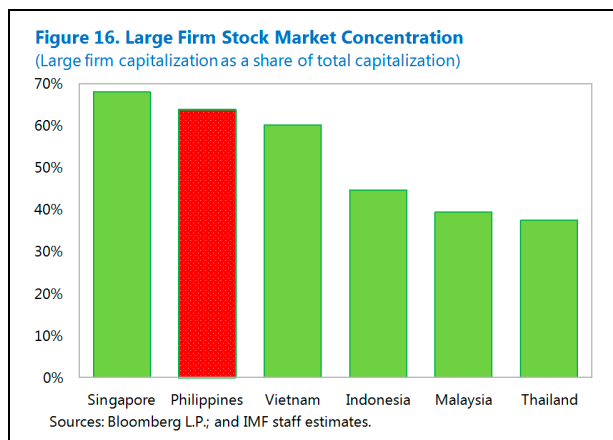
<sup>4</sup> Objective time series data on trading volume and turnover for corporate debt securities in the Philippines are not available. However, corporate bonds on the Philippine Dealing & Exchange Corp (PDEX) accounted for less than 1 percent of the value traded of all fixed income securities in the Philippines as of 2012 (Securities and Exchange Commission, 2013, "Capital Market Development Plan Blueprint, 2013–17," page 11).

corporate bonds, project (infrastructure) bonds, and securitization markets, has been stymied by a range of common factors: the impediments to pricing credit risk when illiquidity in the government yield curve at key maturities prevents it from serving as a reliable reference point; the lack of risk management instruments enabling investors to disentangle different sources of risk; the absence of reliable national credit rating agencies; and frictional costs such as high listing fees and regulatory burdens (including the maintenance of a registry of ultimate beneficial owners following secondary market transactions) which can encourage corporates to default back to tapping bank credit lines.

- *Equity markets*—against the backdrop of a fast growing economy, the Philippine stock market has seen surprisingly modest activity in the form of new capital raisings. Initial public offerings (IPO's) have declined sharply in absolute and relative terms in recent years, from an annual average of 1.1 percent of market capitalization from 2005—2008, to just 0.3 percent over the 2009–14 period. This is just one half of the average for other ASEAN markets (Figure 14). Equity capital raisings have increasingly taken the form of rights offerings by established firms, rather than IPO's (Figure 15), and the stock market remains dominated by large firms—around two-thirds of market capitalization is accounted for by the ten largest firms, second only to Singapore in ASEAN (Figure 16). The Philippines is the only country in ASEAN to levy an IPO tax, ranging from 1 percent to 4 percent of the value of the capital raising. More generally, secondary market turnover has been constrained by a range of factors (Figure 17): relatively high frictional costs (among the highest across 12 bourses in Asia);<sup>5</sup> the absence of market-traded risk management instruments (futures and options); and low investor confidence.

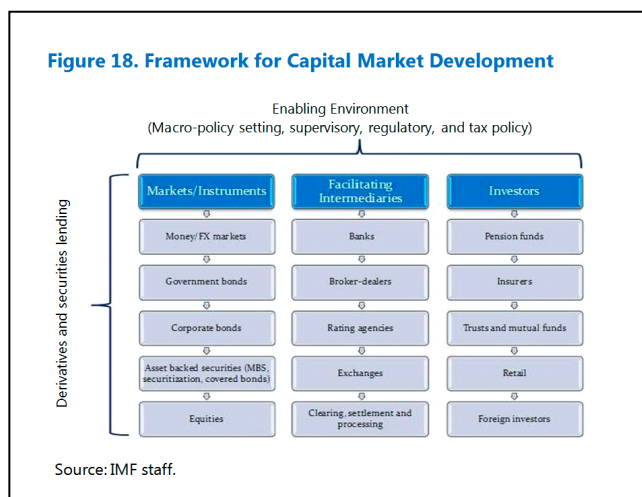


<sup>5</sup> Securities and Exchange Commission, 2013, "Capital Market Development Plan Blueprint, 2013–17," page 7.



### C. Policy Responses

**6. As the development of financial markets is typically hierarchical, sequencing matters** (Karacadag and others, 2003; Sahay and others, 2015). A conducive enabling environment—based on favorable macroeconomic policies, and reinforced by sound supervisory, regulatory and tax policies—is a necessary but not sufficient catalyst for capital market development. The Philippine capital markets remain underdeveloped and exhibit a limited ability to intermediate borrowing and lending effectively. For capital markets to reduce the dependence of the economy on bank-based financing and better align long-term financing needs with long-term funding, a range of additional measures will likely be required (Figure 18).<sup>6</sup>



#### Enabling Environment

**7. Despite a material improvement in the broad-based enabling environment, additional regulatory and taxation measures would be helpful in facilitating capital market development.** On the regulatory side, reform of Bank Secrecy Laws could pave the way for the Philippines to join other ASEAN countries in becoming a signatory to the International Organization of Securities Commissions (IOSCO) Multilateral Memorandum of Understanding (MMoU). This initiative sets an international benchmark for cross-border cooperation by providing securities

<sup>6</sup> The following discussion pertains largely to the development of the 'markets and instruments' pillars, as issues related to intermediaries and developing the investor base will be addressed in forthcoming IMF and Asian Development Bank technical assistance programs.

regulators with the tools for combating the cross-border fraud and misconduct that can weaken global markets and undermine investor confidence. On the taxation side, increasing the ability of investors that differ in tax status' to trade among each other, carefully calibrating concessionary tax treatment to transform short-term savers into long-term investors, streamlining the withholding tax registration process, and reducing or eliminating taxes on initial public offerings, could all be useful measures to help deepen the capital markets.

## Money and Government Bond Markets

**8. A liquid and reliable yield curve for public securities is essential to provide a benchmark for pricing credit risk—without which a derivatives, corporate bond, and structured finance market cannot develop.** Yet the Philippine money and government bond markets exhibit a structural lack of liquidity that inhibits this core developmental role. Recent initiatives aimed at addressing the remaining inefficiencies in core fixed income markets are to be encouraged. These include:

- Improvements in cash management and forecasting at the Bureau of the Treasury;
- The increased ability of tax-exempt and taxable investors to transact freely with one another, thus reducing market bifurcation;
- A further reduction in the fragmentation of bond issuance to ensure that trading activity is not spread thinly among individual issues;
- The introduction of an organized inter-dealer repo market (assisted by the removal of the documentary stamp tax from repo transactions) and securities lending framework to aid in dealer inventory management; and
- A clearer set of obligations and incentives for primary dealers.

**9. Two remaining priorities are as follows:** (i) ensuring an adequate level of issuance and trading activity is concentrated at key benchmark maturities, consistent with the existing mandate of the Bureau of Treasury which includes facilitating capital market development; and (ii) developing an organized (exchange-traded) market for interest rate derivatives (with a more conducive tax policy having a role to play), which would facilitate two-way market making by dealers and thus assist financial market participants and other economic agents to manage duration risk.

## Private Debt Markets

**10. Private debt markets have a key role to play in opening up new avenues for long-term financing,** particularly where bank financing is constrained by single borrower limits or asset-liability mismatches. Initiatives must address both supply- and demand-side impediments in corporate debt, project bond and securitization markets. In some cases, these impediments have common roots—a government yield curve that does not provide a reliable reference point for pricing credit risk; a paucity of interest rate risk management instruments; the absence of reliable national credit rating

agencies; high frictional costs for issuers; and corporate governance requirements that differ from those of other ASEAN jurisdictions. In other cases, more specific remedial measures may be required.

### ***Corporate Bonds***

**11. The authorities have made facilitating a more conducive environment for corporate bond investors and issuers a priority.** On the demand side, the SEC has approved PDEX rules to expand the list of eligible trading participants to include investment houses, and clarified the tax treatment of corporate bonds. The process for the insurance sector to undertake new investments, including corporate credit, has been streamlined. On the supply side, the issuance of corporate debt will be further encouraged by initiatives to streamline the registration process. Remaining priorities specific to the development of corporate bond markets include the introduction of exchange-based trading in the Qualified Notes Market (aimed at increasing transparency and price discovery), and clarifying the regulatory framework for perpetual debt.

### ***Infrastructure Bonds and Project Financing***

**12. Insufficient infrastructure has been a major constraint on investment, productivity and inclusive growth in the Philippines** (Nakao, 2014). From a peak of 6 percent of GDP in 1998, private infrastructure investments have declined to below 1 percent over the past decade. The Global Competitiveness Report 2013—2014 has identified the inadequate supply of infrastructure as among most problematic factors in doing business in the Philippines and assigned the country a ranking of 98 (out of 144 countries) for quality of infrastructure—the second lowest rating within ASEAN. The Philippine Development Plan (2011–2016) has described the state of domestic infrastructure as inadequate, and the level of access as inequitable.

**13. Against this backdrop, the Philippines has undertaken a concerted effort to catalyze infrastructure investment through Public Private Partnerships (PPPs).** The government's PPP Center has identified 56 potential PPPs with nine—valued at nearly US\$3 billion, or 1 percent of GDP—already awarded.<sup>7</sup> In order to crowd in more private domestic capital, an Investment Advisory Council is also set to be established by the Insurance Commission to explore ways for insurance companies to channel funds directly to PPP projects. The newly created Philippine Investment Alliance for Infrastructure (PINAI) Fund, a US\$625 million private equity fund co-funded by pension funds and the ADB (with the Government Service and Insurance System contributing the largest equity share at 64 percent), is another source of private financing for Philippine infrastructure projects (Navarro and Llanto, 2014).

**14. Removing administrative hurdles, ensuring policy consistency and clarity, streamlining project clearances and easing foreign ownership restrictions, remain key priorities in making**

<sup>7</sup> See [ADB to Help Philippines Prepare its Largest-Ever PPP Project](#).



**PPP financing an attractive proposition for private capital.** The authorities have also recognized that parallel efforts are needed to channel more private savings into infrastructure investments through the domestic financial markets, particularly the bond market.<sup>8</sup> Project bonds are now permissible under the revised Insurance Code. The government should carefully weigh the benefits and costs of credit enhancements for infrastructure bonds, drawing on cross-country experiences with similar structures—infrastructure projects that are likely to generate higher social returns than investment returns are best financed by government (subject to fiscal constraints), and vice versa. Related to this, authorities should avail themselves of the financial capacity building and knowledge-sharing network (including the dissemination of best practice financing approaches) arising from the Global Infrastructure Hub initiative recently established by the G-20 in Sydney.

### **Securitization**

**15. When operating efficiently, securitization supports economic growth and financial stability by enabling issuers and investors to diversify risk.** Securitization can also free up bank capital and liquidity by transforming a pool of illiquid assets into tradable securities and offloading them to investors, thereby allowing banks to extend new credit to the real economy. Over time, the structured finance market could also play a role in pooling and distributing natural disaster risk originated by insurers (i.e., through catastrophe bonds), which would create additional space for the insurance industry to increase coverage (insurance penetration is unusually low in the Philippines, see Box 1). However the asset-backed securitization market in the Philippines remains underdeveloped.<sup>9</sup> Activity has generally been muted, although private transactions have been conducted involving receivables from leases, residential mortgages,<sup>10</sup> and credit cards, and the Metro Rail Transit Corporation completed the largest securitization in the Philippines through the issuance of receivable-backed notes to local institutional investors.

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<sup>8</sup> Having the capital markets finance infrastructure projects will also increase fiscal space, paving the way for more expenditure on human capital, especially in education, health, and other basic social services.

<sup>9</sup> There are general principles that can guide the development and efficient operation of securitization markets, spanning the entire chain of financial intermediation (Segoviano and others, 2015). Recommendations across the four-stage financial intermediation chain can be summarized as follows. First, underlying loan origination practices must be robust so as to both guard against the typical late-cycle deterioration in underwriting quality, and to reduce the risk that unregulated entities come to dominate origination (as occurred in the United States during the housing bubble). Second, securitization intermediaries must be encouraged to develop structures that are transparent, straightforward to value, and primarily designed to finance the real economy (i.e. no re-securitizations). Legal ambiguities related to the rights and obligations of servicers, trustees, and investors should be avoided. Establishing the secure, transparent, and cost-effective transfer of claims on collateral is paramount. Third, standardized definitions of securitization characteristics and full disclosure of the credit rating process would increase transparency and confidence. The practice of ‘rating shopping’ by issuers should also be disclosed. Fourth, greater participation in securitization markets by long-term institutional investors can be galvanized by ensuring the consistent application of capital charges across asset classes and borders, and by avoiding large step-changes in charges (so-called “cliff effects”) between classes of securitized assets that only marginally differ in terms of underlying risk characteristics.

<sup>10</sup> Given the low level of mortgage penetration in the Philippines, there is no near-term impetus for banks to engage in widespread mortgage loan sales—a process that would be needed to stimulate a mortgage backed securities market.

**16. In anticipation of the growth of the domestic securitization market with the enactment of the Securitization Law in 2004, the BSP issued in 2005 guidance on the risk-based capital treatment of banks' exposures to structured products and securitization structures.** It has since issued procedural guidelines for investment in credit-linked notes, structured products and related securities. The BSP requires issuers of securitizations (along with commercial paper and corporate bonds) to obtain credit ratings from either the Philippine Rating Service Corporation (PhilRatings), or from any internationally-accepted credit rating agency with a representative office in the Philippines.

**17. However a lack of subsequent activity has prompted the authorities to examine amendments to the current legislation governing securitization, based on industry feedback.** There is a generally recognized need to level the playing field between banks and nonbanks insofar as taxes and related issues are concerned. The development of a vibrant 'plain vanilla' corporate bond market would also provide a firmer platform for more complex forms of financing, including securitization.

## Equity Markets

**18. A number of initiatives have been introduced in recent years to enhance the role of equity financing in the Philippines, and more are under consideration.** The remaining priorities are to build confidence and participation among domestic investors, strengthen global and regional integration, and make initial public offerings a more attractive proposition, particularly for SMEs.

- *Building domestic investor confidence and participation:* the SEC has created a corporate governance and finance department to issue guidelines mandating that all publicly listed companies publish an annual corporate governance report. It has also recently promulgated a revised code of corporate governance, completed the ASEAN corporate governance scorecard assessment, and will issue a corporate governance roadmap. The aim of increasing investor confidence has also motivated enhanced market surveillance through the introduction of an automated surveillance system. Additional measures to strengthen investor confidence and participation include reducing frictional costs incurred in secondary market trading (direct market access for authorized investors would be helpful), expanding outreach programs to increase financial literacy among the public, and tax incentives that could encourage channeling surplus bank deposits toward long-term equity investment.<sup>11</sup>
- *Strengthening global and regional integration:* better integrating the Philippine stock market, both regionally and globally, remains a priority. The SEC has prescribed the adoption of International Financial Reporting Standards in order to raise levels of corporate transparency and accountability. Signing the IOSCO MMOU (likely requiring reforms to Bank Secrecy laws)

<sup>11</sup> These could include applying relatively lower rates of taxation on dividends and capital gains on equity securities (or investment vehicles holding equity securities) where such securities are held in excess of minimum holding periods. However such measures need to be carefully crafted to ensure their fiscal sustainability.

would help ensure the full participation of the Philippines in the cross-border investment initiatives of the ASEAN Capital Markets Forum (including collective investment schemes and cross-border public offerings). In the meantime, harmonization of other corporate documentation and procedures (i.e., investor prospectus and listing/delisting rules) with regional norms would likely stimulate foreign investor interest. Foreign investors would also view a streamlining of the registration process regarding withholding tax favorably.<sup>12</sup> Moreover, subject to appropriate oversight of governance and financial stability considerations, the proposed consolidation of the equities and fixed income exchanges, aimed at achieving significant cost savings, should help to enhance the financial market architecture and hasten the Philippines' participation in the regional market.

- *IPOs*: a reduction or elimination of the tax on primary issuances, and harmonization of listing criteria with regional norms, would be viewed favorably by issuers and international investors respectively. Given the critical role of SMEs in supporting inclusive growth, measures aimed at revitalizing the board for SMEs should be a priority. The recent signing of a memorandum of understanding between the Capital Market Development Committee and the Philippine Chamber of Commerce to promote the SME Board is a welcome step in this regard, as is the recent streamlining in SME listing requirements announced by the Philippines Stock Exchange (PSE). The PSE has also engaged more closely with the Development Bank of the Philippines to encourage SME listings. Initiatives to promote the SME board could also draw on relevant cross-country experiences (see Shinozaki, 2014). In the People's Republic of China (PRC), the Shenzhen Stock Exchange (SZSE) has developed a three-tier market venue comprising the Main Board, SME Board (May 2004), and ChiNext (October 2009; high-tech venture board), in line with national economic development strategies. Hong Kong, China's Growth Enterprise Market (GEM) is an alternative stock market for high-growth enterprises. India has recently developed dedicated stock exchanges for SMEs (via the Bombay and National Exchanges) following the recommendation of the Prime Minister's Task Force in June 2010. The KONEX launched in July 2013 has emerged as the key market for SME listings in the Republic of Korea. MESDAQ under Bursa Malaysia was re-launched as the ACE (Access, Certainty, Efficiency) market in August 2009, a sponsor-driven alternative market. Catalist in Singapore is a Singapore Exchange (SGX)-regulated but sponsor-supervised market for rapidly growing enterprises established in December 2007. The Securities Exchange of Thailand (SET) has operated the market for alternative investment (mai) since June 1999, targeting SMEs as potential issuers. Further afield, the London Stock Exchange has also developed considerable expertise in fostering SME listings, with over 3000 companies having joined the Alternative Investment Market (AIM) platform in the past two decades.

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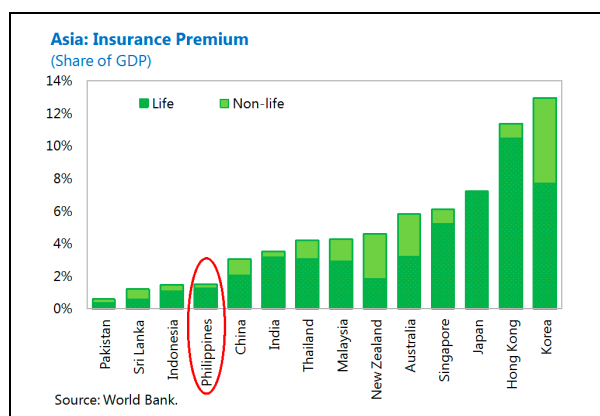
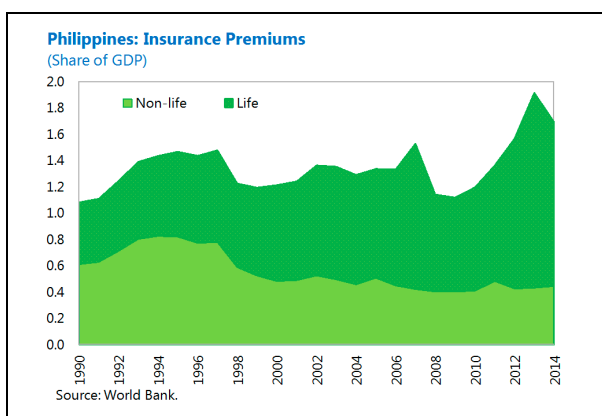
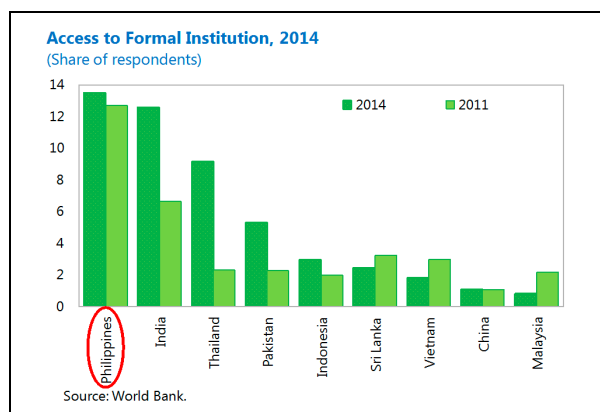
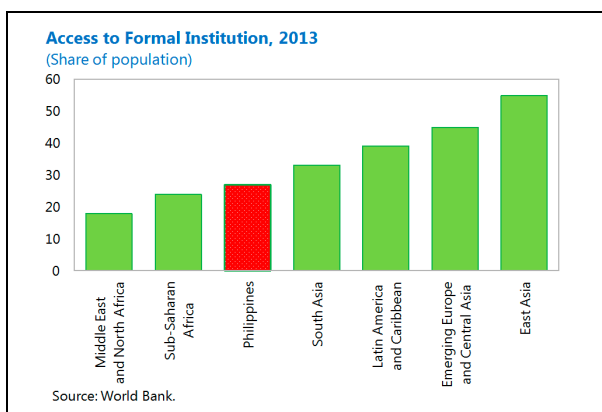
<sup>12</sup> Investors from countries with mutual tax treaty agreements with the Philippines are required to obtain a Bureau of Internal Revenue tax clearance for every withholding event (e.g., for every dividend or coupon payment). This could be simplified by adopting a one-time registration process, through accredited intermediaries to establish the tax regime applicable to a particular investor which would prevail until changed or revoked (SEC, 2013).

### Box 1. Philippines: Financial Inclusion

Financial inclusion can reduce poverty and support broad-based growth in various ways. It can facilitate consumption smoothing in response to shocks, encourage investment and entrepreneurship by micro SMEs, and reduce the incidence of informal lending at punitively high interest rates. These are highly relevant issues for the Philippines.

Financial inclusion has been a key policy focus in the Philippines in recent years.<sup>1/</sup> To tackle geographical dispersion and widen access to basic financial services, the BSP has encouraged the establishment of micro-banking offices and offsite ATMs, as well as alternative financial service providers (credit cooperatives, pawnshops, remittance agents, and e-money agents). Innovative delivery channels have been promoted, such as correspondent banking by post offices, grocery stores, pharmacies, and gasoline stations, in addition to mobile banking. More efficient systems for remittance repatriation have also been approved, helping to lower transactions costs and reduce delivery times. Minimum targeted bank lending quotas have been implemented in order to increase the availability of credit for micro SMEs and agribusiness. The Agrarian Production Credit Program (APCP) has been introduced to expand credit and capacity development in the agrarian sector, while the Credit Surety Fund (CSF) Program aims to increase the credit worthiness of micro SMEs and SMEs that are experiencing difficulty in obtaining loans from banks due to a lack of acceptable collateral, credit knowledge and credit track records. To help increase access to finance for low income households and SMEs, the BSP has also issued new guidelines on sound credit risk management practices for BSP-supervised institutions, with an emphasis on the shift from collateral-based credit risk assessment to one based on ability-to-pay and cash flow of the borrower. Furthermore, a credit bureau has been established to set up the necessary infrastructure to facilitate the country-wide dissemination of borrower information.

Although financial inclusion initiatives have achieved good progress in recent years, there is strong need for the momentum to continue. Given that around 70 percent of the population are without a bank account, extending the reach of banking and payment services remains a top priority (notwithstanding the limited pool of domestic savings, and geographic challenges associated with servicing an archipelago with a relatively low urbanization rate). The adoption of micro-lending initiatives designed to increase access to credit for micro SMEs—including the expansion of credit information bureaus to reduce informational asymmetries—should also be encouraged, though regulatory supervision and consumer protection safeguards will need to keep pace as credit becomes more accessible. Greater flexibility in designating eligible collateral may also be required to ensure the granting of collective rather than individual land ownership titles does not lock creditworthy borrowers out of the intermediation process. The increase in insurance coverage in recent years, especially among low income earners (i.e., farmers) who are especially susceptible to natural disasters, is welcome and could be supported by basic levels of public sector coverage given that the absolute level of insurance (particularly non-life) coverage in the Philippines remains low by regional standards. A new National Strategy for Financial Inclusion (NSFI) was launched in July 2015, with the objective of aligning the development-oriented financial inclusion initiatives of various stakeholders with the Philippines Development Plan. The major elements of the NSFI are: (i) policy and regulation, (ii) financial education and consumer protection, (iii) advocacy programs, and (iv) strengthening data and measurement capabilities.<sup>2/</sup> If successful, the NSFI may also serve as a blueprint for other countries in the region facing obstacles to financial inclusion.



1/ For a broad overview, see "Financial Inclusion in the Philippines," 2014 IMF Selected Issues Paper.  
2/ <http://www.bsp.gov.ph/downloads/publications/2015/PhilippinesNSFIBooklet.pdf>

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# INCLUSIVE GROWTH AND POVERTY REDUCTION IN THE PHILIPPINES<sup>1</sup>

*After many years of economic growth with very slow poverty reduction, growth in the Philippines appears to have become more inclusive. Factors underlying the slow rate of poverty reduction in the past include weak employment generation, structurally high underemployment, and slow technical change, caused in turn by low human and physical capital investment, weak competition, complex regulations and insecure property rights. However, recent trends suggest that the Philippines now faces a window of opportunity to create more and better jobs, meet the government's poverty target by 2016, and eradicate extreme poverty within one generation.*

## A. Introduction

**1. Poverty reduction has generally been slow in the Philippines** (Figure 1).<sup>2</sup> Within comparable periods,<sup>3</sup> poverty declined by an annual average of only 0.05 percentage points between 2000 and 2009, and 0.37 percentage points, between 2009 and 2012. However, between 2012 and 2013, poverty fell by 3 percentage points in just one year.<sup>4</sup> Unfortunately, between 2013 and 2014, poverty rose by around 1 percentage point, attributed to Typhoon Yolanda and high rice prices due to importation lags by the government's management of international rice trade.<sup>5</sup>

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<sup>1</sup> Prepared by the World Bank.

<sup>2</sup> National estimates for poverty incidence are used throughout this annex. In cases where the national estimate is not available due to data limitations (i.e., 2014—when surveys were not held in the provinces of Batanes and Leyte, due to the effects of Super Typhoon Haiyan), the next best estimate for the national poverty incidence is used.

<sup>3</sup> Between 2000 and 2014, the official poverty estimation methodology was revised four times. However, not all years were adjusted to take into account the new methodology, thus different periods are considered.

<sup>4</sup> In 2013, the government announced a policy to release poverty estimates annually. The source data of the 2013 poverty incidence is the Annual Poverty Indicators Survey (APIS), while the source data of the 2012 poverty incidence is the Family Income and Expenditure Survey (FIES). Both surveys share the same income module. The FIES is conducted every three years, while the APIS is conducted in between FIES years. However, there are some limitations when comparing results from the two surveys. First, poverty incidence is only available for the first semester of the year and is therefore not comparable to the earlier series. Second, the sample size of the APIS is only a fourth of the sample size of the FIES. This means that poverty incidence is only available at the national level. Third, differences in the position of the income modules in the survey questionnaires, which are of unequal length, could be a source of non-sampling error, due to, for instance, "survey fatigue." At the national level, however, the error is manageable.

<sup>5</sup> Rice inflation peaked in mid-2014, despite falling international rice prices. This was mainly due to the government's rice self-sufficiency objective, which puts quantitative restrictions on the importation of rice. As a response to high rice prices, the government imported 1.8 million metric tons of rice over the year following peak price inflation. This brought some stability in the price of rice in the domestic market. In 2015, the government plans to import an additional 500 thousand metric tons of rice to supplement local production.

**2. Underlying slow poverty reduction is weak employment generation and structurally high underemployment.** First, long-run average per capita economic growth is only 1.4 percent in the Philippines, compared to above 3 percent in the East Asia region over the period 1980 to 2014. During this period, there was only one 3-year period when average annual employment creation surpassed 1 million, while 1.15 million people were entering the job market every year. Second, underemployment—when people who are already employed would still want to work more—stands at around 20 percent. More than a third of the country's jobs are in the low wage and low skill services sector. Finally, informality is very high: over 75 percent of workers have at least one attribute of informality. The overall lack of more and better jobs is the result of relatively slow economic growth and the country's incomplete structural transformation, characterized by stunted agriculture and manufacturing—two sectors which typically create substantial number of jobs, in particular for the poor and less-skilled. As discussed in the World Bank's Philippine Development Report (2013), the underlying policy reasons for weak economic growth and the lack of structural transformation are: (i) lack of investment; (ii) weak competition; (iii) complex regulations; and (iv) insecure property rights.

**3. For decades, lack of investment, technical change and lack of competition caused wage trends to stagnate, while migration provided an exit option.** Within the region, the Philippines has historically had the lowest growth in labor productivity as measured by output per worker, physical capital contribution to growth, and total factor productivity. And while labor productivity accelerated in the 2000s, both real minimum and average wages did not increase significantly, indicating lack of competition among firms, high incidence of informality and weak bargaining power of labor (Figure 2).<sup>6</sup> The stagnation in real wages makes it difficult for the poor to take advantage of their most valuable asset, their labor, as a means to get out of poverty. As a result, out of the 1.15 million annual labor market entrants, as many as 200,000 find a job overseas.

## B. Projecting Poverty Incidence Through 2016

**4. The drop in poverty between 2012 and 2013 reflected a higher growth elasticity of poverty.**<sup>7</sup> The growth elasticity of poverty refers to the percent change in poverty incidence for every percent change in GDP per capita. This elasticity was estimated at only -0.24 between 2006 and 2012. During this period, growth was evidently not pro-poor. However, it reached a high of -2.02 between 2012 and 2013. The last period during which the country had recorded such a high elasticity was between 1985 and 2000, when it rebounded from a macroeconomic crisis and implemented strong economic reforms, including in agriculture. Despite the setback in poverty

<sup>6</sup> Real output per worker is computed as real GDP divided by the number of employed workers. Meanwhile, real wages were computed by getting data from the PSA (for average wage) and the NWPC (for minimum wage), and deflating them by the CPI.

<sup>7</sup> The reference period used in computing the growth elasticity of poverty from 1985 to 2012 and all periods in between was the full year poverty estimates. Meanwhile, due to data limitations, the reference period used in computing the growth elasticity of poverty for 2012 to 2013, and 2012 to 2014 was the first half poverty estimates.



reduction between 2013 and 2014 mentioned earlier, the growth elasticity of poverty still comes in at a strong -0.9 between 2012 and 2014.

**5. If the current trend of high growth and poverty reduction continues, the government's poverty target of 18 percent to 20 percent by 2016 would be attainable and poverty could be eradicated within one generation.** In the Philippine Development Plan (Midterm Update), the government targets to reduce official poverty incidence to 18 percent to 20 percent by the time its term ends in 2016. For instance, 4.2 percent per capita growth (equivalent to 6 percent GDP growth) coupled with an elasticity of at least -1.50 would allow the target to be achieved. Conversely, higher growth, say at around 5.7 percent (equivalent to 7.5 percent GDP growth), coupled with an elasticity of -0.9 (the current elasticity from 2012 to 2014), would put the target within reach. Sustaining these trends over, say, 30 years, would eradicate poverty completely. Based on international experience, this is ambitious, but not unrealistic.

**6. The government has appropriately focused on programs with a strong poverty focus.** In the last five years, it has more than doubled social services spending, with significant allocations going to health care and poverty alleviation through the CCT program. The coverage by fully (national) government-subsidized health insurance was expanded to bottom 40% of the population. The generosity of the health insurance outpatient and inpatient benefit packages was increased as well. The government has also significantly ramped up the conditional cash transfer (CCT) program, which provides incentives for poor households to invest in their children's education and health. Since 2010, the CCT program expanded to cover an additional 3.2 million households. The program now covers 4.4 million poor households with children 0–18 years old.

**7. As a result, growth is becoming more inclusive.** In 2013, corresponding to the significant decrease in poverty, the bottom 20 percent of the population saw a larger increase in their income, compared to the rest of the population. Part of what explains this is the massive growth of the domestic transfers component (which includes CCT) of their total income, which increased by almost 30 percent, compared to only 4 percent for the rest of the population (Figure 4). However, poverty could have decreased even further. If, for example, domestic rice prices were closer to international rice prices, poor households could have saved up to ₱16,000 (US\$360), or almost a fifth of their budget, annually (Figure 5).

**8. However, the current growth and poverty trends can only be sustained if reforms are sustained.** Achieving the poverty targets by 2016 would require sustained economic growth at above 6 percent, while further scaling up and improving poverty-focused programs. Economic growth and employment creation can be sustained by accelerating reforms to raise investment, promote more competition, simplify regulations, and secure property rights. On social services, the rapid expansion of health insurance is a promising reform, if accompanied by targeted communication to the poor and improvements in local health care clinics and hospitals. The



government could also consider adjusting the amount of grants under the conditional cash transfer program for inflation, as it has not been increased since 2008, when the program was introduced.<sup>8</sup>

**9. A window of opportunity towards inclusive growth exists.** Today, the country benefits from strong macroeconomic fundamentals, political stability, and a popular government which many continue to see as committed to improving the lives of the people. In addition, sectors that have previously been dominated by monopolies, such as telecommunication and air transport, are now demonstrably benefiting from past reform efforts that opened them up to competition. It also stands to benefit from the global and regional economic rebalancing and the strong growth prospects of a dynamic East Asia region. With stronger, more broad-based coalitions supporting reforms, especially on economic and social sectors that have direct impact on the lives of the poor, the Philippines has a unique window of opportunity to put itself on an irreversible path of inclusive growth, creating more and better jobs and eradicating poverty.

**10. Broad-based coalitions supporting reforms are key, given the political economy of the country.** First, coalitions increase the likelihood that reforms are sustained since the presence of a broad coalition makes it difficult for one sub-group (e.g., vested interests) to block the reforms. And without a broad coalition, reforms made under a strong president can be reversed, as the country's history shows. Second, coalitions must adopt strategies which appeal to a wide segment of society, which increases the chances that the reforms will focus on inclusive growth. Third, negotiating a package of reforms can facilitate give-and-take negotiations resulting in compromise solutions, as opposed to tackling reforms one by one, which can generate powerful opposition from vested interests and quickly drain the energy out of the reform momentum.

**11. In the context of the Philippines today, what would be an example of a package of reforms which would support inclusive growth?** The reform package could contain the following: the government could prioritize programs and reform measures to help reduce food prices (e.g., liberalize food imports and remove the quantitative restrictions on rice). At the same time, government could ramp up investments in rural infrastructure and support services so that food prices could fall without farm profits falling. Government could commit to providing universal health insurance, while ensuring that good quality health services are available to all Filipinos. It could commit to delivering education in a way which would ensure that all children have access to good quality Kindergarten to 12<sup>th</sup> grade education. In addition, training and skill development programs need to be ramped up and apprenticeships programs for the youth need to be expanded. Finally, it could simplify the tax code and business regulations, in particular for small businesses, promote competition and encourage the growth of entrepreneurship. In return, the private sector could support reforms which promote competition to level the playing field and make fiscal incentives transparent, results-based and temporary. Businesses also could support freedom of association and

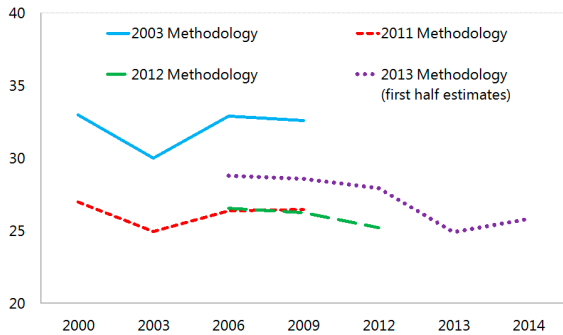
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<sup>8</sup> Even after its rapid recent expansion, the budget to finance the program is now equivalent to 0.5 percent of GDP, suggesting that adjusting the grants for inflation could be implemented in a fiscally sustainable manner.

collective bargaining, commit to offering more training opportunities for workers, and improve the link between wages and productivity. And, as more and better jobs are created and as food prices fall, labor could agree to recognize valid forms of flexible contracts in order to reduce informality in the labor market. Civil society as a whole could intensify efforts to promote good governance in the public and private sector and boost support for reforms, both locally and nationally.

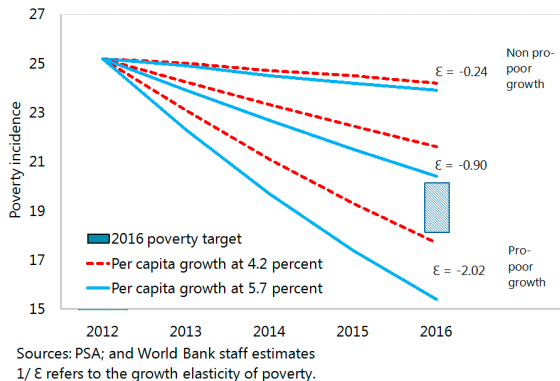
Poverty incidence was stagnant in the 2000s, but significantly improved in recent years.

**Figure 1. Official Poverty Incidence Rates of the Population**  
(In percent)



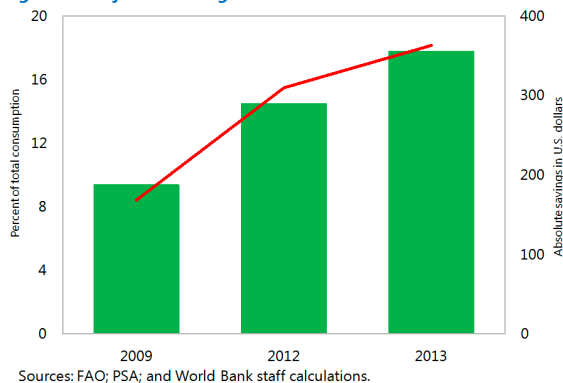
Poverty targets can be achieved through a combination of high growth and high growth elasticity of poverty (i.e., pro-poor growth).

**Figure 3. Poverty Projections Through 2016 1/**



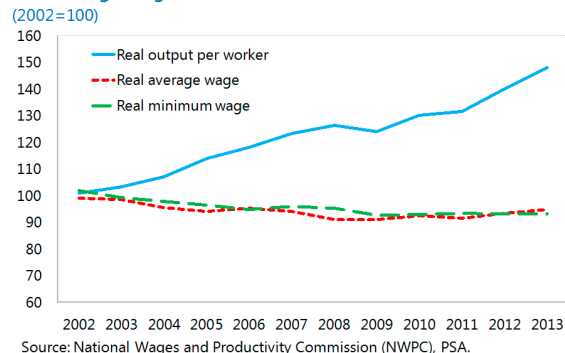
If domestic rice prices had been equal to world rice prices, each poor household would have been able to save up to ₱15,000 annually.

**Figure 5. Projected Savings Per Poor Household**



Labor productivity growth outpaced the growth of real wages.

**Figure 2. Indices of Real Output Per Worker and Real Minimum and Average Wages**  
(2002=100)



More inclusive growth could be attributed to the higher growth of real income for the bottom 20 percent.

**Figure 4. Percent Change in First Half Household Income, 2012-2013 1/**  
(In percent)

