New tax measures needed to achieve the Millennium Development Goals

Roehlano Briones, Francis Quimba, Myrna Asuncion, Jonathan Bungcayao, Joseph Paglingayen, and Ivee Libunao

The challenge of achieving the MDGs
The Philippines has been progressing well in many of the Millennium Development Goals (MDGs). However, with barely three years left until the 2015 deadline, the challenges remain formidable: the goals for education as well as for maternal and reproductive health remain elusive. Prospects for significant reduction in moderate poverty have also dimmed over the past decade.

One obvious approach to meeting these challenges would be to increase public spending on programs for improving MDG outcomes.¹ This in turn faces two types of constraints. One is the large debt-to-GDP ratio which imposes stringent fiscal constraints to maintain a sustainable path for public deficit. And two is the political commitment of the new administration to refrain from new taxes, thereby restricting the fiscal space for government programs.

Policy evaluation that can balance human development goals with macroeconomic

¹ Certainly, improvements in service quality should be implemented together with increases in budget allocation. Details are provided in a series of MDG Progress Reports, including the latest (NEDA 2010).
stability constraints, together with economy-wide market interactions, is best supported by the application of quantitative tools. In this regard, the application of one such model, the Maquette for MDG Simulation (MAMS), is being explored. The MAMS is able to generate projections for MDG 2, as gauged by the net completion rate (proportion of potential primary school completers who complete on time); MDG 4 (maternal mortality rate); MDG 5 (under-5 mortality rate); MDG 7a (proportion of households with access to potable water); and MDG 7b (proportion of households with access to sanitary toilet).\(^2\) Using MAMS, a separate microsimulation tool is able to make projections for extreme poverty (measured at the food expenditure threshold) or moderate poverty (measured at the overall income threshold).

The evaluation study finds that, under business-as-usual, one cannot expect to achieve the MDGs by 2015, with the lapses expected for the education MDG. Closing the gap requires additional government consumption spending, in the range of about 2.6 percent of gross domestic product (GDP) on average. The most feasible means for financing this additional spending is by increasing tax effort, by about 3.2 percent of GDP. This is consistent with the findings of other studies (Manasan 2011). The required tax effort level is well within range of past levels, but becomes a tall order given trends over the past decade. The current administration would need to achieve dramatic improvements in tax collection efficiency as well as implement tax reforms to achieve the MDG targets while maintaining fiscal stability.

Trends in MDG progress and public finance

The country expects to meet MDG 1 (halving extreme poverty) although the country has adopted more ambitious income poverty targets for the Philippine Development Plan, namely, halving moderate poverty to 16.1 percent by 2015, down from 33.1 percent in 1991 (based on the new official figures). The country is expected to meet most of the other MDG targets (namely, for the “social” MDGs), except for primary education and maternal health (Table 1). Based on more ambitious targets for poverty reduction adopted by official policy, the gap in income poverty MDG is likewise formidable.

Fiscal balance is precarious. The early 1990s witnessed the rapid escalation of government liabilities, both from external and foreign sources (Figure 1). The fiscal surpluses in the mid-1990s, combined with higher economic growth, led to a lower debt-to-GDP ratio toward the later part of the decade; however, debt reduction foundered after the Asian financial crisis. The debt-to-GDP ratio began to decline again only after the tax reforms of 2005. The level of indebtedness is likewise a

---

\(^2\) Admittedly, the country’s commitment for MDG 2 is universal primary education as gauged by a net enrollment rate approaching 100 percent. The MAMS adopts a more stringent indicator of MDG 2 achievement to emphasize the importance of human capital formation in economic development.
Table 1. Philippines MDG rate of progress at the national level

<table>
<thead>
<tr>
<th>MDG Goals and Targets</th>
<th>Value at 2006 or Nearest Year</th>
<th>Target by 2015</th>
<th>Likelihood of Reaching Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Eradicate extreme poverty and hunger</td>
<td>Subsistence incidence 14.6</td>
<td>12.2</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Prevalence of malnutrition, aged 0–5 26.2</td>
<td>17.2</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Households with inadequate kcal intake (%) 56.9</td>
<td>34.7</td>
<td>High</td>
</tr>
<tr>
<td>2. Achieve universal primary education</td>
<td>Elementary completion rate 73.3</td>
<td>81.0</td>
<td>Low</td>
</tr>
<tr>
<td>3. Promote gender equality</td>
<td>Achieved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Reduce child mortality</td>
<td>Under-5 mortality rate (per 1,000 live births) 34.0</td>
<td>26.7</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Infant mortality rate (per 1,000 live births) 25.0</td>
<td>19.0</td>
<td>High</td>
</tr>
<tr>
<td>5. Improve maternal health</td>
<td>Maternal mortality ratio 162</td>
<td>52.2</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Couples practicing responsible parenthood (%) 51.0</td>
<td>80.0</td>
<td>Low</td>
</tr>
<tr>
<td>6. Combat HIV/AIDS and other diseases</td>
<td>HIV prevalence below 1%</td>
<td>Below 1%</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Malaria morbidity rate (per 100,000 population) 55.0</td>
<td>24.0</td>
<td>High</td>
</tr>
<tr>
<td>7. Ensure environmental sustainability</td>
<td>Households with access to safe drinking water (%) 80.4 (2004)</td>
<td>86.8</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Households with sanitary toilet (%) 86.2 (2004)</td>
<td>83.8</td>
<td>Achieved</td>
</tr>
</tbody>
</table>

Source: National Economic and Development Authority (NEDA), 2010

cause for concern. The rule of thumb is that the debt-to-GDP ratio should not exceed 49.7 percent (Manasse and Roubini 2009). Clearly, the country has breached this benchmark, and in 2009, came into striking distance.

Debt is driven by the past deficit trends. The country commenced the 1990s with a deficit-to-GDP ratio of 3.5 percent (Figure 2). The deficit was then contained by raising revenue effort and reducing the spending-to-GDP ratio. However, these revenue increases were temporary, arising largely from the sale of government assets. After the Asian financial crisis, the deficit worsened as revenue collection deteriorated. The decline in revenue effort has persisted despite subsequent recovery, leading to persistent deficits in the 2000s.

Figure 1. Domestic and foreign debt as a percentage of GDP

Source: Bureau of Treasury (BTr)
Scenarios for achieving the MDGs

Under business-as-usual

Projections for the baseline incorporate the assumption of business-as-usual, to check whether MDG attainment is plausible under the same set of trends and policies as in the recent period. The baseline scenario for the MDGs is shown in Figure 3. By 2015, the target is met for MDG 7, but falls short for MDG 2; MDG 4 (child mortality) is virtually achieved while the gap for MDG 4 appears manageable by 2015.

The MDG 1 target for extreme poverty (based on the subsistence poverty) is 12.2 percent; unfortunately, the projections show subsistence poverty rising slightly to 14.7 percent by 2015, obviously preventing the achievement of this MDG (Figure 4). As with subsistence poverty, moderate poverty is projected to rise slightly over the same period.3

Figure 5 shows growth of GDP and major components over the projection period under the baseline scenario. GDP growth averages 5.0 percent, taking a deep dip in 2009 owing to the global financial crisis, but in robust recovery henceforth. Meanwhile, the domestic debt-to-GDP ratio declines by nearly 8

The fiscal deficit did begin to fall in 2003; this was however accomplished by reducing spending, as revenue effort did not improve substantially and even declined in 2004. In 2005, revenue effort began to improve, continuing until 2007.

Notes: MDG 2 pertains to net primary school enrollment, in percent; MDG 4 pertains to child under-5 deaths per 1,000 live births; MDG 5 pertains to maternal deaths per 100,000 births; MDG 7a pertain to share of households with access to sanitary toilet, in percent; MDG 7b pertains to share of households with access to potable water, in percent.

Source: BTr; National Statistical Coordination Board (NSCB). Available at ADB Key Indicators 2009—Philippines.

3 Poverty is measured using the official thresholds prevailing in 2010, prior to the release of new official lines in February 2011 and applied retroactively to official figures in 2009 until 1991 (with three-year intervals).
percentage points while the foreign debt-to-
GDP ratio rises slightly (Figure 6). This is
consistent with the data which show a shift
from domestic to foreign borrowing as well as
decreasing debt-to-GDP ratio (36 to 32 percent
from 2006 to 2009). Overall, debt-to-GDP
ratio drops slightly from 61.8 to 56.7—still
exceeding the 49.7 percent benchmark—but
at more sustainable debt levels compared to
the present.

**Targeting the MDGs**

In the following section, focus on two sets of
MDG scenarios is made: the first set
hypothetically closes the MDG gap for
education; the second set hypothetically
achieves all relevant social MDGs (namely
MDGs 2, 4, and 5). Within each set, financing
options are presented, namely: foreign
transfers, domestic taxes, domestic borrowing,
and foreign borrowing.

Comparison between baseline growth for
government consumption and GDP (Table 2)
shows only small differences in GDP growth
rate between baseline and MDG scenarios,
with the exception of domestic borrowing. 
GDP growth under this financing option grows
much slower than at the baseline owing to
suppressed capital formation due to crowding
out, whether targeting MDG 2 or all the MDGs
is considered. Differences from the baseline
are much sharper for government consumption
growth, which must grow faster by 1.9 to 2.4
percent when targeting MDG 2, and by 2.5 to
2.9 percent when targeting all the MDGs.
Under debt financing options, the feasibility of the MDG scenarios can be evaluated by the debt-to-GDP ratios by 2015 (Figure 7; tax and transfer options are not shown as the ending debt-to-GDP ratios are virtually identical to the baseline). Consider foreign borrowing: to close the MDG 2 gap, the debt stock has to grow an additional 26 percent of GDP, and up to 29 percent of GDP more to close all the MDG gaps. The overall debt stock climbs up from 83 to 86 percent, higher than the 57 percent projected at the baseline and likely to raise alarms about an impending debt crisis.

The increase in debt is even greater for domestic borrowing, given dynamic interactions between domestic borrowing, interest rates, and accumulation of the debt stock. From 27 percent of GDP at the baseline scenario, the domestic debt stock must rise to 90 percent of GDP to close the MDG 2 gap, and about the size of GDP to close all the gaps (the foreign debt-to-GDP ratio must also rise but at smaller increments). The resulting levels of total debt stock are unsustainable (between 113 and 135% of GDP).

Table 2. Difference in average growth from baseline, for scenarios achieving MDG 2 and all MDGs

<table>
<thead>
<tr>
<th>Growth rate, by target (%)</th>
<th>Difference in Percentage Points</th>
<th>Tax</th>
<th>Transfer</th>
<th>Foreign Borrowing</th>
<th>Domestic Borrowing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving MDG 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government consumption</td>
<td>2.36</td>
<td>2.16</td>
<td>2.16</td>
<td>1.94</td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.10</td>
<td>0.02</td>
<td>0.02</td>
<td>-0.60</td>
<td></td>
</tr>
<tr>
<td>Achieving all MDGs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government consumption</td>
<td>2.51</td>
<td>2.87</td>
<td>2.51</td>
<td>2.74</td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.10</td>
<td>0.02</td>
<td>0.02</td>
<td>-1.6</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 presents simulation results for income poverty. Worsening of poverty (consistent with the baseline scenario) is observed for financing options based on domestic borrowing. The increase in moderate poverty is sharper than for extreme poverty. For the other options, poverty declines. The biggest decline is for moderate poverty under tax financing option, which falls by 2.2 percentage points; there is also a noticeable percentage point drop in extreme poverty.

Table 3. Changes in extreme and moderate poverty by MDG scenario, in percent (achieving social MDGs)

<table>
<thead>
<tr>
<th>Financing Option</th>
<th>Poverty Definition</th>
<th>2006</th>
<th>2010</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax</td>
<td>Extreme</td>
<td>14.4</td>
<td>14.1</td>
<td>13.5</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>31.4</td>
<td>30.3</td>
<td>29.2</td>
</tr>
<tr>
<td>Domestic borrowing</td>
<td>Extreme</td>
<td>14.4</td>
<td>15.1</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>31.4</td>
<td>31.6</td>
<td>33.8</td>
</tr>
<tr>
<td>Foreign transfer</td>
<td>Extreme</td>
<td>14.4</td>
<td>14.1</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>31.4</td>
<td>30.5</td>
<td>29.4</td>
</tr>
<tr>
<td>Foreign borrowing</td>
<td>Extreme</td>
<td>14.4</td>
<td>14.1</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>31.4</td>
<td>30.5</td>
<td>29.4</td>
</tr>
</tbody>
</table>
Lastly, revenue as a share of GDP is shown in Figure 8 (only the baseline and tax financing options are shown; ratios for the other financing options are nearly identical to the baseline).

For the baseline, tax effort rises from about 13 to about 15 percent of GDP over the projection period. However, the increase in tax effort is faster for the MDG 2 target, rising over 18 percent of GDP by 2015; moreover, the projected increase in tax effort up to 2009 is fairly sharp (owing to the weak GDP growth from 2006–2009). As this is nowhere near the actual tax collections over the period 2006–2009, this may be regarded as a missed opportunity for MDG 2 financing. Trends are nearly the same for the target of all the MDGs, except that the required tax effort is slightly higher. On average, the tax effort for the baseline is 14.1 percent of GDP, compared to 16.8 percent for the MDG 2 target, and 17.2 percent for the all-MDGs target.

Strategies for revenue mobilization
Manasan (2011) extensively discusses the strategy for raising revenue effort in the drive to complete the MDGs. In 2009, the country’s revenue effort was 12.8 percent of GDP, down from an average of 14.2 percent in the previous three years. Direct taxes accounted for 44 percent; the VAT contributed 31 percent while import duties provided only 7 percent. The current administration has announced that improvements in revenue effort shall be accomplished solely by improvements in tax administration. There is some basis for this approach: the ratio of actual to potential revenues by tax measure is quite low; for the individual income tax, the ratio is 86 percent while for VAT, it is an abysmal 36 percent. One key administrative reform would be simplification, which entails the consolidation of multitiered rate structure, e.g., for passive income, and reduces or eliminates various tax exemptions.

However, it is doubtful that reforms would take effect fast enough to generate the revenues necessary to achieve the MDGs. The challenge is to identify new tax measures that would raise the required revenues rapidly but with the least distortion. The more likely ones include the following:

- **Sin taxes.** Convert the excise tax schedule for cigarettes and alcoholic beverages (“sin products”) to a single specific excise tax rate, and restore the revenue effort to 1997 levels (the start of validity of the law on sin taxes). The appropriate adjustment may increase
revenue effort from cigarettes by about 0.66 percent of GDP, and from alcoholic products by another PHP 5.5 billion.

- **Fiscal incentives.** A large share of fiscal incentives are redundant, i.e., they are offered to investments that would have been made even without the incentive. Redundant incentives may total as much as 0.6 percent of GDP. Fiscal incentives extended by different agencies should be harmonized, the investment priority list should be carefully reviewed, and the income tax holiday should be replaced by a lower corporate income tax rate of, say, 25 percent.

- **Increase in the road user charge and the excise tax on petroleum products.** Road maintenance costs the country about PHP 20 billion annually, but only PHP 8 billion is collected through the designated share of the Road User’s Charge. Half of the PHP 12 billion gap can be closed by raising road user fees, especially on heavy trucks (that inflict greater wear on roads), and the other half by raising the excise tax in petroleum (corresponding to an increase in PHP 2 per liter of fuel).

**Concluding remarks**
The Philippines has committed itself to a development strategy geared toward attaining the MDGs. However, based on official and largely qualitative assessments, prospects for the achievement of the MDG Philippines are mixed. This study recommends the attempt to close the MDG gaps with the use of tax financing. This financing option is feasible in the sense that the required revenue effort has been achieved before. Admittedly, it would entail a dramatic improvement in revenue effort, compared to most recent trends over the past decade. This underscores the urgent, developmental rationale for raising collection efficiency, reforms in the existing tax structure, in tandem with improvements in service delivery.

**References**