FINANCING POST-2015 DEVELOPMENT CHALLENGES: WHO ARE THE FRONT-RUNNERS IN THE ASIA AND PACIFIC REGION?

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NO. 402

October 2014

ADB ECONOMICS WORKING PAPER SERIES

ASIAN DEVELOPMENT BANK

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ADB Economics Working Paper Series

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Hiranya Mukhopadhyay (hmukhopadhyay@adb.org) is Senior Public Management Economist and Rosa Mia Arao (twinklearao@yahoo.com) was a Research Associate at the South Asia Public Management, Financial Sector and Trade Division of the Asian Development Bank.

ASIAN DEVELOPMENT BANK

Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
www.adb.org

October 2014
ISSN 2313-6537 (Print), 2313-6545 (e-ISSN)
Publication Stock No. WPS146881-3

Note: In this publication, "$" refers to US dollars.

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ABSTRACT

Adequate fiscal flexibility is a prerequisite for meeting the post-2015 development challenges. This paper proposes a composite fiscal flexibility index. Based on several important fiscal parameters, the index will identify countries in the Asia and Pacific region that are well-poised to meet the enhanced development financing requirements.

Keywords: post-2015 development agenda, development financing, fiscal flexibility, Asia and the Pacific

JEL Classification: H51, H52, H53, H61

I. INTRODUCTION

As the deadline for achieving the Millennium Development Goals (MDGs) gets nearer, it is apparent that the Asia and Pacific region still has considerable *unfinished agenda* despite many achievements. Indeed, the region has made significant progress in reducing poverty levels. However, hunger and food insecurity remain prevalent. Maternal mortality is still high along with child malnutrition. Gender inequality still persists. Thus, post-2015, the region still faces many development challenges, including rising inequality, unplanned urbanization, climate change, and environmental pressures. The following discusses briefly the Asia and Pacific region's unfinished agenda.[1]

Poverty and inequality. About 743 million people in the region still live on less than $1.25 a day.[2] Between the 1990s and the latest available year, the population-weighted mean Gini coefficient for the region rose from 33.5 to 37.5. Income inequalities are evident between urban and rural areas, between women and men, and among different caste, ethnicity and language groups. Inequality also emerges in education, food consumption, housing, and access to safe drinking water.

Lack of productive jobs. The Asia and Pacific region continues to experience high levels of poverty and rising inequality because economic growth is unable to generate sufficient decent jobs. Thus, about 60% of the region's workers are in vulnerable employment. Without a system of social protection in place, many are forced to take jobs with poor compensation and in unsafe environments.

Continuing hunger and food insecurity. The region accounts for more than 60% of the world's hungry people. In South Asia, the situation is more serious where 18% of the population is undernourished.

An abiding bias against women. Women are still less likely than men to own assets or participate in non-agricultural wage employment. They also tend to be informal workers due to their limited skills, restricted mobility, and existing gender norms.

Limited achievements in health. The Asia and Pacific region is off-track in the area of health, particularly on maternal mortality, universal access to reproductive health, and child health goals. The region, however, has seen more success in preventing the spread of communicable diseases, like tuberculosis, and in its efforts to control HIV.

Low quality education. Eighteen million children in primary school age are out of school. Even for those in school, the quality of education received remains to be a major concern, and dropout rates after primary school continues to be high. Low educational attainment is partly the result of low public expenditure on education. Spending on education, relative to other sectors, is lower in the Asia and Pacific countries than in the world's low-income and lower-middle income countries.

Heightened vulnerability and economic insecurity. Household-related risks, such as death, disability or loss of employment of the breadwinner, or high expenditures resulting from the illness of a family member, heightens vulnerability. Furthermore, with aging populations, there are now more elderly people unable to cope with the rising costs of living and health care. Households also face risks associated with economic crises, such as the Asian financial crisis in 1997–1998 and the global financial crisis since 2008. Families across the region also face rising food prices. There are also external risks to

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[1] ESCAP/ADB/UNDP. 2013. *Asia-Pacific Aspirations: Perspectives for a Post-2015 Development Agenda.* Bangkok.

[2] If we increase the benchmark to $2 a day, the number rises to 1.64 billion.

health, such as that experienced by the region with the Severe Acute Respiratory Syndrome (SARS) in 2003. Economic insecurity is heightened in the absence of decent and comprehensive social protection systems, with more than 60% of the population having no social protection coverage.

Rapid demographic change. Several economies in the Asia and Pacific region will deal with higher dependency ratios of the elderly and at the same time high youth unemployment. With people now living longer, elderly people's lifetime savings are unable to cover the rising costs of living and health care. Youth unemployment is also an emerging issue with one in around six young people unemployed in Hong Kong, China; the Philippines; New Zealand; and Taipei,China.

Unplanned urbanization. Every day an estimated 120,000 people are migrating to cities in the Asia and Pacific region and between 2010 and 2050, the proportion of people living in urban areas is likely to grow from 42% to 63%. This is the result of urban-biased development driven by globalization and the consequent lack of adequate opportunities in rural areas.

Pressure on natural resources. Growth in the region is driven largely by exploitation of natural resources. Consumption and production patterns are becoming unsustainable and are taking a severe toll on the environment, posing a real threat to the planet—with heightened levels of air and water pollution. Water supply issues are also becoming more complex and difficult.

Exposure to disasters. Between 1970 and 2010, the average number of people in the region exposed to yearly flooding increased from 30 million to 64 million, and the population living in cyclone-prone areas grew from 72 million to 121 million. There are also huge economic costs associated with disasters. In 2011 alone, the estimated cost of the Japan earthquake and tsunami, and the Southeast Asia floods amounted to $294 billion. Furthermore, as the Asia and Pacific becomes increasingly interlinked through regional value chains, a catastrophe in one economy can have significant spillover effects in another economy.

The rising threat of climate change. The Asia and Pacific region could be the hardest hit with the changing climate, particularly the small island states that face rising sea levels. Climate change undermines food security and livelihoods by weakening agricultural productivity. While most of the accumulated carbon dioxide has come from the developed economies, the region's emissions increasingly contribute to current levels.

Moving forward, countries in the Asia and Pacific region have already identified critical action areas encompassing the three pillars of sustainable development: economic, social, and environmental. Key development challenges facing economies in the region are as follows:[3]

Central and East Asia

- Timely and prudent investment in basic infrastructure, such as rural roads, electricity, rural schools, and clinics
- Need for efficient institutions, skills, and knowledge to implement new goals, such as food security

[3] ESCAP/ADB/UNDP. 2013. Sub-regional Workshops on Millennium Development Goals and the Post-2015 Development Agenda for Asia-Pacific, 9–11 February.

The Pacific

- Better access to markets for countries' exports
- Need to improve service delivery particularly for the most vulnerable groups within society, including the elderly, persons with disabilities, minorities, and youth

Southeast Asia

- Social protection will remain a critical issue given the structural demographic changes, with a growing proportion of the population aging.
- Several countries in the region face challenges related to migration, urbanization, skills development, youth employment as well as natural disasters.

South Asia

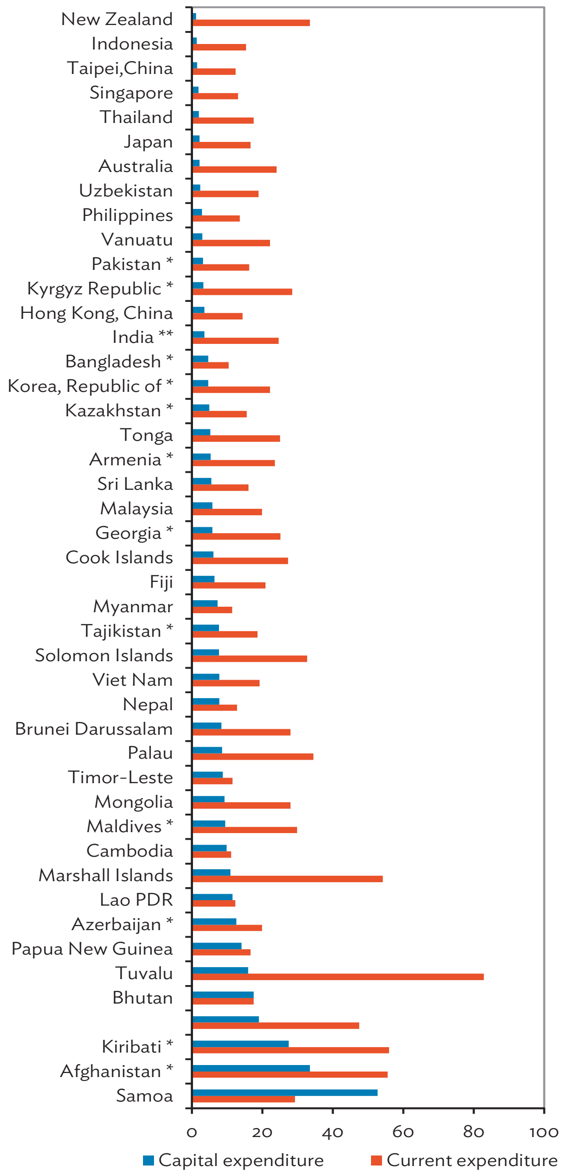
- Inclusive growth and poverty reduction will be the central focus of the post-2015 development agenda.
- Infrastructure development for creating a good business environment and employment creation will stay as the main priority.

However, for the Asia and Pacific region to meet its post-2015 development goals and accomplish its so-called unfinished agenda, governments need to be committed to creating a fiscal space for capital investments (or development financing) without jeopardizing the stability of the economy. Looking at the composition of government spending in Asia, there are considerable variations in the level of spending relative to gross domestic product (GDP), but what holds true in the region is that capital spending remains low compared to current expenditures (Figure 1). Furthermore, although some countries in developing Asia are in deficit, developing Asia is in a relatively better fiscal position compared to other regions in the world (Figure 2).[4]

In this paper we attempt to create a composite index that captures the fiscal capacity of economies in the Asia and Pacific region to augment development financing. In the next section, we look at the factors that influence development financing. In Section III, we propose a measure of fiscal flexibility to meet additional financing requirements using an index called the Fiscal Flexibility Index (FFI) and then close the section with a ranking of the Asia and Pacific economies based on their FFI scores. Finally, Section IV recommends ways by which countries in the region can finance development goals.

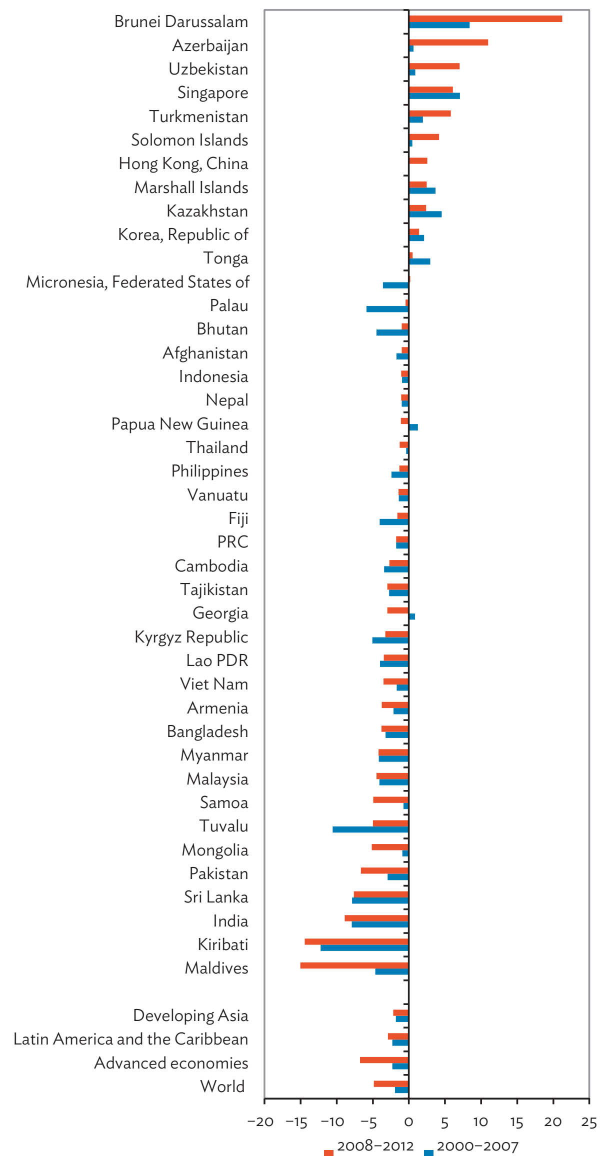
[4] However, ADB (2014) warns that current fiscal space is not a guarantee of future fiscal space since the size and composition of government spending evolves over time.

Figure 1: Composition of Government Spending (% of GDP)



Lao PDR = Lao People's Democratic Republic.
Notes: Data points refer to the average values of capital and current expenditure for 2010–2011. Data refer to central government except for countries marked with (*) which refer to general government.
**India data come from RBI database and refer to consolidated general government.
Sources: ADB Key Indicators database. http://www.adb.org/data/statistics (accessed 24 February 2014), IMF GFS database. http://elibrary-data.imf.org/ (accessed 24 February 2014), IMF World Economic Outlook database. http://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx (accessed 25 February 2014), IMF Article IV Staff Reports (various years), and RBI database. http://dbie.rbi.org.in/DBIE/dbie.rbi?site=home (accessed 25 February 2014).

Figure 2: Fiscal Balance (% of GDP)



Lao PDR = Lao People's Democratic Republic.
Source: ADB (2014).

II. WHAT MATTERS FOR HIGHER DEVELOPMENT FINANCING?

We first look at some fiscal identities to motivate the discussion on the factors that influence the ability of governments to create budgetary head-room for increased capital outlays (Box 1). Without the loss of generality, the two important components of fiscal deficit are current deficit and capital outlays (equation 1). Thus, given a ceiling on fiscal deficit, a higher current deficit is expected to have a negative impact on capital outlays (equation 2).[5] Current deficit, in turn, depends on current expenditures and total revenues (equation 3). Plugging this into equation (2) yields capital outlays as a function of fiscal deficit, current expenditure, and total revenue (see equation 4). Therefore, given a pre-determined ceiling on fiscal deficit, increases in current spending reduce the available resources for capital outlays, while improvements in the government's tax effort translate to higher capital outlays (equation 4).

Box 1: Some Fiscal Identities

$$\text{Fiscal deficit} = \text{Current deficit} + \text{Capital outlay} \quad (1)$$
$$\text{Capital outlay} = \text{Fiscal deficit} - \text{Current deficit} \quad (2)$$
$$\text{Current deficit} = \text{Current expenditure} - \text{Total revenue} \quad (3)$$
$$\text{Capital outlay} = \text{Fiscal deficit} - \text{Current expenditure} + \text{Total revenue} \quad (4)$$

The scatterplots of capital expenditure on current expenditure, current deficit, and tax revenue confirm these relationships. However, such scatterplots only illustrate bivariate relationships (Figure 3). But, what if there is no ceiling on fiscal deficit? And the government can borrow more to accommodate higher current expenditure. What happens to the relationship between capital expenditure and current expenditure if the government could generate higher revenues? Testing these hypotheses through a fixed effect regression reveals that capital outlays and current deficits are indeed negatively related, but the relationship gets weaker if it is possible to borrow more to accommodate a higher current deficit (Model 1 of Table 1). Furthermore, capital outlays and current expenditure are also negatively related, but the relationship gets weaker if the tax effort is stronger (Model 2 of Table 1). These results highlight the fact that in order to assess an economy's fiscal capacity to meet additional financing requirements correctly, a multivariate index will need to be developed to capture the factors that simultaneously affect fiscal flexibility.

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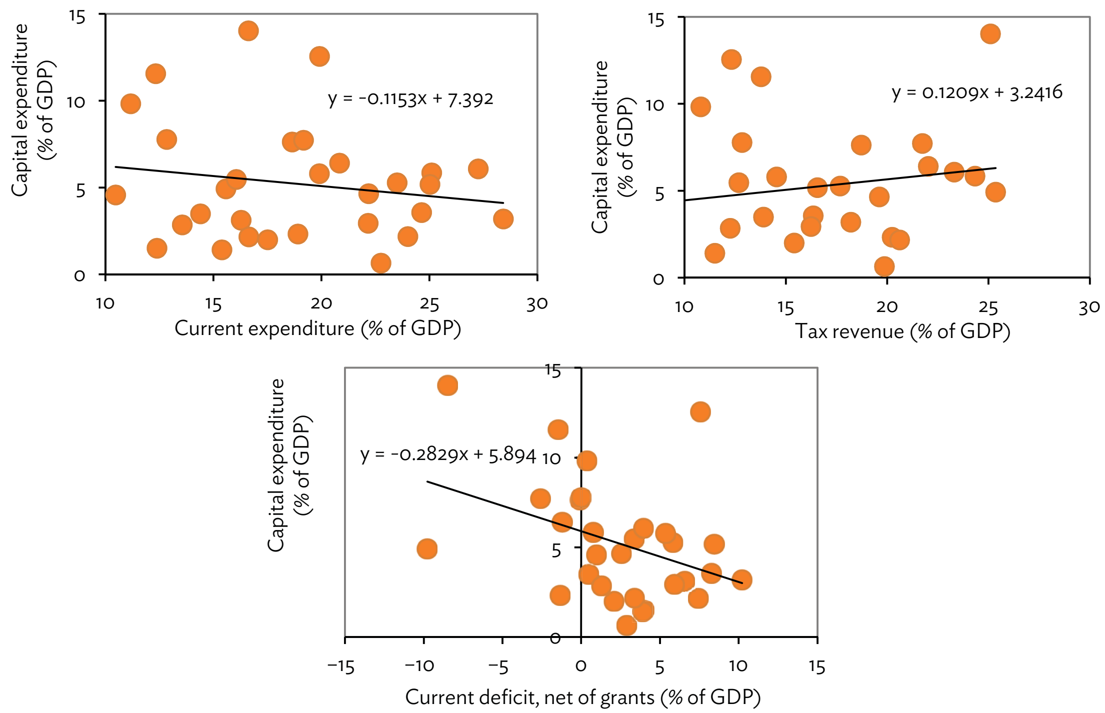
5 A cap on fiscal deficit occurs when a country, such as that in India, implements a Fiscal Responsibility and Budget Management Act stipulating a ceiling on fiscal deficit of 3% of GDP.

Figure 3: Fiscal Space of the Asia and Pacific Economies: Some Facts



Notes: Negative values for the variable fiscal/current deficit indicate a surplus, while positive values indicate a deficit. Current deficit, net of grants is defined as the difference between current expenditure and tax revenues. Data points refer to the average values of capital expenditure and fiscal deficit for 2010–2011.
Sources: ADB Key Indicators database. http://www.adb.org/data/statistics (accessed 24 February 2014), IMF GFS database. http://elibrary-data.imf.org/ (accessed 24 February 2014), IMF World Economic Outlook database. http://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx (accessed 25 February 2014), IMF Article IV Staff Reports (various years), and RBI database. http://dbie.rbi.org.in/DBIE/dbie.rbi?site=home (accessed 25 February 2014).

Table 1: Fixed Effect Regression Results

Dependent Variable: Capital Expenditure		
Method: Fixed Effects		
	Coefficients	
Variables	Model 1	Model 2
Current deficit	-0.2865***	
	(-3.69)	
Current deficit * Fiscal deficit	0.007	
	(1.62)	
Current expenditure		-0.4251***
		(-3.19)
Current expenditure * Tax effort		0.0086
		(1.45)
Constant	6.8726***	11.1519***
	(18.58)	(4.47)

Notes: All variables are in percent of GDP. Data spanning 2009–2011. t-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
Source: Staff estimates based on data from ADB Key Indicators and IMF GFS.

III. FISCAL FLEXIBILITY INDEX (FFI): A MEASURE OF FISCAL SPACE

We propose an index called the Fiscal Flexibility Index (FFI) consisting of four indicators namely fiscal deficit, current deficit,[6] tax effort, and government debt to assess the capacity of the Asia and Pacific economies to step up development financing.[7] The FFI is derived using two methodologies. The first method called the average of the sum of ranks is based on a variant of the Borda count method that derives its name from the 18th century French mathematician and political scientist Jean Charles de Borda. Each unit in the sample is ranked based on their relative position. Thus, we give *N* points to the unit ranked first for a particular indicator, *N* being the sample size. The second rank holder receives *N-1* point and so on. The worst performer gets 1 point. The points received by the sample units under each indicator are then added and divided by four (given four indicators) to derive the FFI. However, one shortcoming of this method is that it gives equal weights or importance across indicators. Thus, we overcome this issue by using the Principal Component Analysis (PCA) to derive the FFI. Under this method, the FFI is obtained by linearly combining the ranks obtained in the first method, while the weights of the indicators are generated endogenously.

Before presenting the results of these two methodologies, we first mention the difficulty of creating a comparable cross-country data on government fiscal statistics. Faced with incomplete data at the general government level for all the Asia and Pacific countries, we decided to separate the FFI ranking results by the level of government, i.e., central and general government, since some countries have huge local governments, and failing to take this into account can make the estimates of the indicators inconsistent.[8]

Table 2 presents the FFI rankings using all four indicators while Table 3 shows the rankings using only three indicators, without the debt indicator. The debt indicator was omitted in Table 3 because the IMF WEO only reports government debt at the general government level excluding some countries in this region. Thus, we omitted the debt indicator so as not to combine data for different levels of government in an index.[9] The People's Republic of China (PRC) does not report the breakdown of its government expenditure by current and capital expenditure. Thus, Table 4 omits the current deficit indicator in order to include the PRC in the FFI ranking results. From Tables 2–4, we can see that the rankings derived from the two methodologies are fairly similar.

[6] Current deficit here is net of grants, i.e., $\text{current deficit} = \text{current expenditure} - \text{tax revenue}$. Grant is excluded because this is a very short-term and volatile item.

[7] For a detailed description of variables used in the index, refer to Appendix Tables A.2 and A.3.

[8] We use fiscal data at the general government level whenever it is available; otherwise we use central government data. Refer to Appendix Table A.1 for data availability by level of government.

[9] Note that the IMF WEO reports general government debt except for Armenia; Azerbaijan; Brunei Darussalam; Fiji; Hong Kong, China; Lao People's Democratic Republic; Maldives; Nepal; New Zealand; Singapore; Solomon Islands; Tuvalu; and Vanuatu.

Table 2: FFI Ranking Using Four Indicators
(% of GDP)

Central Government

East Asia		
Rank	Average of the sum of ranks	PCA
1	Mongolia	Hong Kong, China
2	Hong Kong, China	Korea, Republic of
3	Korea, Republic of	Mongolia
4	Taipei,China	Taipei,China
5	Japan	Japan
South Asia		
Rank	Average of the sum of ranks	PCA
1	Nepal	Nepal
2	Bhutan	Bhutan
3	Bangladesh	Bangladesh
4	Sri Lanka	India
5	India	Sri Lanka
Southeast Asia		
Rank	Average of the sum of ranks	PCA
1	Viet Nam	Brunei Darussalam
2	Indonesia	Indonesia
3	Thailand	Viet Nam
4	Brunei Darussalam	Thailand
5	Lao PDR	Cambodia
6	Cambodia	Lao PDR
7	Philippines	Philippines
8	Malaysia	Malaysia
9	Myanmar	Myanmar
The Pacific		
Rank	Average of the sum of ranks	PCA
1	Solomon Islands	Solomon Islands
2	Papua New Guinea	Papua New Guinea
3	New Zealand	New Zealand
4	Australia	Vanuatu
5	Fiji	Australia
6	Vanuatu	Timor-Leste
7	Palau	Palau
8	Timor-Leste	Fiji
9	Micronesia, Federated States of	Micronesia, Federated States of
10	Marshall Islands	Marshall Islands
11	Samoa	Tonga
12	Tonga	Samoa
13	Tuvalu	Tuvalu

General Government

Central and West Asia		
Rank	Average of the sum of ranks	PCA
1	Kazakhstan	Kazakhstan
2	Georgia	Azerbaijan
3	Azerbaijan	Georgia
4	Tajikistan	Armenia
5	Armenia	Afghanistan
6	Afghanistan	Tajikistan
7	Kyrgyz Republic	Kyrgyz Republic
8	Pakistan	Pakistan
South Asia		
Rank	Average of the sum of ranks	PCA
1	Bangladesh	Bangladesh
2	India	India
3	Maldives	Maldives

FFI = Fiscal Flexibility Index, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PCA = Principal Component Analysis.

Notes:

1. FFI is composed of four indicators: fiscal deficit, current deficit, tax effort, and government debt.
2. Data for the four indicators refer to average values for 2010–2011.
3. Data for government debt is from the IMF WEO database and refer to general government except Armenia; Azerbaijan; Brunei Darussalam; Fiji; Hong Kong, China; Lao People's Democratic Republic; Maldives; Nepal; New Zealand; Singapore; Solomon Islands; Tuvalu; and Vanuatu.

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Table 3: FFI Ranking without the Debt Indicator
(% of GDP)

Central Government

Rank	Average of the sum of ranks	PCA
East Asia		
1	Mongolia	Mongolia
2	Hong Kong, China	Hong Kong, China
3	Korea, Republic of	Korea, Republic of
4	Taipei,China	Taipei,China
5	Japan	Japan
South Asia		
1	Bhutan	Nepal
2	Nepal	Bhutan
3	Bangladesh	Sri Lanka
4	Sri Lanka	Bangladesh
5	India	India
Southeast Asia		
1	Viet Nam	Viet Nam
2	Lao PDR	Lao PDR
3	Thailand	Thailand
4	Indonesia	Philippines
5	Philippines	Cambodia
6	Cambodia	Indonesia
7	Brunei Darussalam	Malaysia
8	Malaysia	Brunei Darussalam
9	Myanmar	Myanmar
The Pacific		
1	Solomon Islands	Solomon Islands
2	Papua New Guinea	Papua New Guinea
3	Fiji	Fiji
4	New Zealand	New Zealand
5	Australia	Australia
6	Marshall Islands	Samoa
7	Palau	Vanuatu
8	Vanuatu	Palau
9	Samoa	Tonga
10	Micronesia, Federated States of	Marshall Islands
11	Tonga	Tuvalu
12	Timor-Leste	Micronesia, Federated States of
13	Tuvalu	Timor-Leste

General Government

Rank	Average of the sum of ranks	PCA
Central and West Asia		
1	Kazakhstan	Kazakhstan
2	Georgia	Georgia
3	Tajikistan	Tajikistan
4	Azerbaijan	Armenia
5	Armenia	Azerbaijan
6	Kyrgyz Republic	Kyrgyz Republic
7	Pakistan	Pakistan
8	Afghanistan	Afghanistan
South Asia		
1	Bangladesh	Bangladesh
2	India	India
3	Maldives	Maldives

FFI = Fiscal Flexibility Index, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PCA = Principal Component Analysis.

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Table 4: FFI Ranking without the Current Deficit Indicator
(% of GDP)

Central Government

East Asia		
Rank	Average of the sum of ranks	PCA
1	Hong Kong, China	Hong Kong, China
2	Mongolia	Mongolia
3	Taipei,China	Taipei,China
4	Japan	Japan
South Asia		
Rank	Average of the sum of ranks	PCA
1	Bhutan	Bhutan
2	Nepal	Nepal
3	Bangladesh	Bangladesh
4	India	India
5	Sri Lanka	Sri Lanka
Southeast Asia		
Rank	Average of the sum of ranks	PCA
1	Brunei Darussalam	Brunei Darussalam
2	Indonesia	Indonesia
3	Viet Nam	Thailand
4	Thailand	Cambodia
5	Cambodia	Viet Nam
6	Lao PDR	Philippines
7	Philippines	Lao PDR
8	Malaysia	Myanmar
9	Myanmar	Malaysia
The Pacific		
Rank	Average of the sum of ranks	PCA
1	Solomon Islands	Solomon Islands
2	Papua New Guinea	Timor-Leste
3	New Zealand	Papua New Guinea
4	Palau	Micronesia, Federated States of
5	Vanuatu	Palau
6	Australia	Vanuatu
7	Micronesia, Federated States of	New Zealand
8	Timor-Leste	Australia
9	Fiji	Marshall Islands
10	Marshall Islands	Fiji
11	Tonga	Tonga
12	Tuvalu	Tuvalu
13	Samoa	Samoa

General Government

Central and West Asia		
Rank	Average of the sum of ranks	PCA
1	Kazakhstan	Kazakhstan
2	Azerbaijan	Azerbaijan
3	Georgia	Afghanistan
4	Afghanistan	Georgia
5	Armenia	Armenia
6	Tajikistan	Tajikistan
7	Kyrgyz Republic	Kyrgyz Republic
8	Pakistan	Pakistan
East Asia		
Rank	Average of the sum of ranks	PCA
1	Korea, Republic of	Korea, Republic. of
2	China, People's Republic of	China, People's Republic of
South Asia		
Rank	Average of the sum of ranks	PCA
1	Bangladesh	Bangladesh
2	India	India
3	Maldives	Maldives

FFI = Fiscal Flexibility Index, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PCA = Principal Component Analysis.

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IV. HOW TO FINANCE POST-2015 DEVELOPMENT GOALS?[10]

As we move toward achieving a more inclusive and sustainable development path, sources of funds to finance post-2015 commitments become critical. Official development assistance (ODA) remains relevant and needed. However, with the likelihood of ODA declining post-2015, governments need to generate fiscal space and mobilize additional funding from innovative sources. Pension funds, mutual funds, sovereign wealth funds, private corporations, development banks, and other investors from middle-income countries could be tapped into as additional sources of finance.[11] In this section, we propose a three-pronged approach to finance post-2015 development goals: (i) revenue mobilization, (ii) expenditure rationalization, and (ii) private sector participation.

The capacity of governments to augment development financing is significantly determined by the level of governments' own revenues. Hence, emphasis should be on increasing revenues to meet post-2015 commitments. Several economies in Asia still do not impose the value-added tax (VAT), which is among the least distortionary tax; these economies should explore this option as a way to mobilize higher revenues. On the other hand, economies with VAT already in place should look into raising the VAT threshold because the administrative cost of taxing small taxpayers is often higher per unit of revenue.[12] Another way to boost revenue is to enlarge corrective taxes, or "sin taxes," levied on activities that are considered socially undesirable, such as taxes on alcohol and cigarettes. For instance, the Philippines recently imposed higher sin taxes on alcohol and cigarette in January 2013, which generated around P91.6 billion in revenues 11 months after implementation.[13] Corrective taxes generate revenues for the government, which in the case of the Philippines were earmarked for the health care sector, while simultaneously making vice more expensive. Another option for revenue mobilization is to enlarge the scope of naturally progressive taxes, such as property tax, inheritance tax, and capital gains tax. These are more equitable options for raising revenues with a relatively low economic cost.

An equally important aspect of revenue mobilization is to strengthen tax administration which tends to be weak in many developing economies in Asia. The innovative use of information and communication technology (ICT) can help reduce tax leakages and improve the efficiency of tax administration, which ultimately increases the accountability of governments in the management of their resources. The use of ICT reduces taxpayers' compliance costs by making the process of filling returns and paying taxes simpler, faster and easier to understand (OECD 2012). Complex and tedious rules are often cited as reasons why taxpayers delay, or do not file or pay. Likewise, governments stand to gain from ICT through quicker collection and processing of information and data, thereby reducing operating and collection costs. ICT also increases transparency and thus, limit opportunities for revenue leakages. The Tax Information Management System (TIMS) implemented in Assam, India simplified procedures and provided convenience for tax players to comply with their obligations, which resulted in enhanced revenues through effective monitoring of collections and auditing of tax files.[14] Thus, reducing discretionary powers of tax officials, increasing individual accountability, and reducing direct contact with taxpayers will certainly help in reducing leakages.

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[10] This section draws on the proposals presented in ADB (2014).

[11] ESCAP/ADB/UNDP. 2013. *Asia-Pacific Aspirations: Perspectives for a Post-2015 Development Agenda.* Bangkok.

[12] See Das-Gupta (2014) and ADB (2014).

[13] dela Peña, Zinnia B. 2013. Cigarette, alcohol taxes up 81.5%. *The Philippine Star*. 21 December. http://www.philstar.com/business/2013/12/21/1270420/cigarette-alcohol-taxes-81.5.

[14] Carrasco et al. 2014. A Review of Governance e-Solutions Investments, 2004-12. *ADB South Asia Operational Knowledge Working Paper Series* No. 4.

Another way to finance development goals is to improve targeting and rationalize expenditure by designing innovative and cost-effective schemes for public service delivery. The Mizoram State Health Care Scheme (MSHCS), designed and supported by the Asian Development Bank (ADB), improved access to effective health care services and reduced expenditures on public hospitals, which helped create fiscal space for development financing in the state (Box 2).

Box 2: Mizoram State Health Care Scheme (MSHCS), India

The Mizoram State Health Care Scheme (MSHCS) was aimed at improving access of families to quality medical care for the treatment of diseases involving hospitalization and surgery through an empanelled network of healthcare providers. Any person who is a bonafide citizen of India and residing in Mizoram, with the head of his family being in the voters list, is eligible to be covered under MSHCS, irrespective of age.

This scheme serves two purposes. First is the effective delivery of healthcare services. Second, by reducing the expenditures on public hospitals, the state government can create fiscal space for development financing.

The Asian Development Bank (ADB) approved a program loan of $94 million on 18 August 2009 to the Government of Mizoram for the Public Resource Management Program. The loan had earmarked $25 million to create a corpus fund to introduce a Universal Health Insurance Scheme in the state. It was agreed between the Government of Mizoram and ADB that the fund will be invested and the interest income from the fund would be used to pay the insurance premium.

Source: ADB. 2009. Report and Recommendation of the President to the Board of Directors: Proposed Loans India: Mizoram Public Resource Management Program. Manila.

Finally, private sector participation is also crucial in supporting the huge investment requirements of the region, especially when the fiscal space is constrained. The social sector should leverage on the success of public-private partnerships (PPPs) in financing physical infrastructure deficits of countries by building roads, bridges, and power plants. Governments need to encourage PPPs to enhance investment in the social sector, particularly education and heath, by developing innovative financing and PPP projects with steady revenue streams. In the Republic of Korea, the government has partnered with the private sector to construct and upgrade school buildings. While in Bangladesh, PPP has improved the delivery of health care by contracting non-governmental organizations to deliver health care services to the poor, particularly women and children.

The post-2015 development agenda strives for an inclusive and sustainable future. Achieving this, however, will require governments' commitment to fiscal prudence in allocating resources for financing development goals without compromising macroeconomic stability.

V. CONCLUSION

In this paper we have attempted to measure the fiscal flexibility of the economies in the Asia and Pacific region. The concept of fiscal flexibility is based on fiscal variables that are critical in deciding a country's capability of financing developmental projects. Each dimension of fiscal performance has been measured using indicators that are all based exclusively on factual data not perceptions. These multiple indicators have then been aggregated into a comprehensive index.

We have also tested the sensitivity of the results to the aggregation procedure by applying two alternative aggregation procedures: Borda Score (average of the sum of ranks) and Principal Component Analysis. The results appear to be very robust.

APPENDIX

Table A.1: Data Availability by Level of Government

Central Government		General Government
Australia	New Zealand	Afghanistan
Bhutan	Palau	Armenia
Brunei Darussalam	Papua New Guinea	Azerbaijan
Cambodia	Philippines	Bangladesh
Cook Islands	Samoa	China, People's Rep. of
Fiji	Solomon Islands	Georgia
Hong Kong, China	Sri Lanka	India
Indonesia	Taipei,China	Kazakhstan
Japan	Thailand	Kiribati
Lao People's Democratic Republic	Timor-Leste	Korea, Rep. of
Malaysia	Tonga	Kyrgyz Republic
Marshall Islands	Turkmenistan	Maldives
Micronesia, Federated States of	Tuvalu	Pakistan
Mongolia	Uzbekistan	Singapore
Myanmar	Vanuatu	Tajikistan
Nauru	Viet Nam	
Nepal		

Table A.2: Data Definition

Variable Name	Definition
Fiscal deficit	Difference between total expenditure (including net lending) and total revenue (including grants). When the difference is positive, then the fiscal position is in deficit otherwise, it is in surplus.
Total expenditure	Sum of current and capital expenditures
Current expenditure	Cash payments for operating activities of the government in providing goods and services. It includes compensation of employees (wages and salaries), interest and subsidies, grants, social benefits, and other expenses, such as rent and dividends.
Capital expenditure	Comprises outlays for the acquisition or construction of capital assets and for the purchase of intangible assets as well as capital transfers to domestic and foreign recipients. Loans and advances for capital purposes are also included.
Total revenue	Includes current and capital revenues. Current revenue is the revenue accruing from taxes as well as all current nontax revenues except transfers received from foreign governments and international institutions. Major items of nontax revenue include receipts from government enterprises, rents and royalties, fees and fines, forfeits, private donations, and repayments of loans properly defined as components of net lending. Capital revenue constitutes the proceeds from the sale of nonfinancial capital assets.
Tax revenue	Composed of compulsory transfers to the government for public purposes. Certain compulsory transfers, such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue.
Gross debt	Consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of special drawing rights, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes, and other accounts payables.

Table A.3: Data Sources

Indicator Name	Central Government	General Government
Fiscal deficit	ADB Key Indicators and ADB Statistical Database System.	International Monetary Fund, Government Finance Statistics (IMF GFS).
Current expenditure		
Capital expenditure		
Tax revenue		
Gross debt		International Monetary Fund, World Economic Outlook (IMF WEO).

Note: Data for India come from the RBI database and gaps in the dataset were supplemented by the IMF Article IV Staff Reports and government websites of countries.

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Financing Post-2015 Development Challenges

Who are the Front-runners in the Asia and Pacific Region?

Adequate fiscal flexibility is a prerequisite for meeting the post-2015 development challenges. This paper proposes a composite fiscal flexibility index. Based on several important fiscal parameters, the index will identify countries in the Asia and Pacific region that are well-poised to meet the enhanced development financing requirements.

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ASIAN DEVELOPMENT BANK
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
www.adb.org