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Introduction

The progressivity of tax regimes and their possible implications on policy objectives such as societal welfare and economic growth are among the most widely studied aspects of public finance policy. Essentially, progressive taxation reduces the tax incidence of people with a lower ability to pay, and instead shifts this to those with a higher ability to pay. Hence, there is a possible tradeoff between increased equity (by applying higher marginal tax rates for higher-income individuals) and economic growth (by discouraging work and encouraging a stronger labor-leisure substitution for individuals who may prefer to work less). Nevertheless, more recent empirical work also acknowledges that for much higher levels of inequality, this tradeoff could disappear, and inequality itself could be a factor behind stunted growth.[1] In this case, at least for a certain level of inequality, redistribution could have a pro-growth effect. Balancing the objectives of equity and efficiency are among the key goals of reform efforts in this area.

With the higher savings rates of relatively wealthier individuals, consumption taxes are often thought to be regressive. On the other hand, income taxes could be designed with stronger progressivity by allowing for higher marginal tax rates for individuals with higher incomes. The overall progressivity of the entire tax regime is often examined based on a combination of these different tax instruments and their incidence on different individuals or households.[2]

[1] See Ostry, Berg, and Tsangarides (2014).
[2] The interested reader may wish to consult Slemrod (1996) and more recent work by Kakinaka and Pereira (2006). Earlier seminal work in this area could be traced back to Musgrave and Thin (1948). Kakwani (1977), and Suits (1977), among others.

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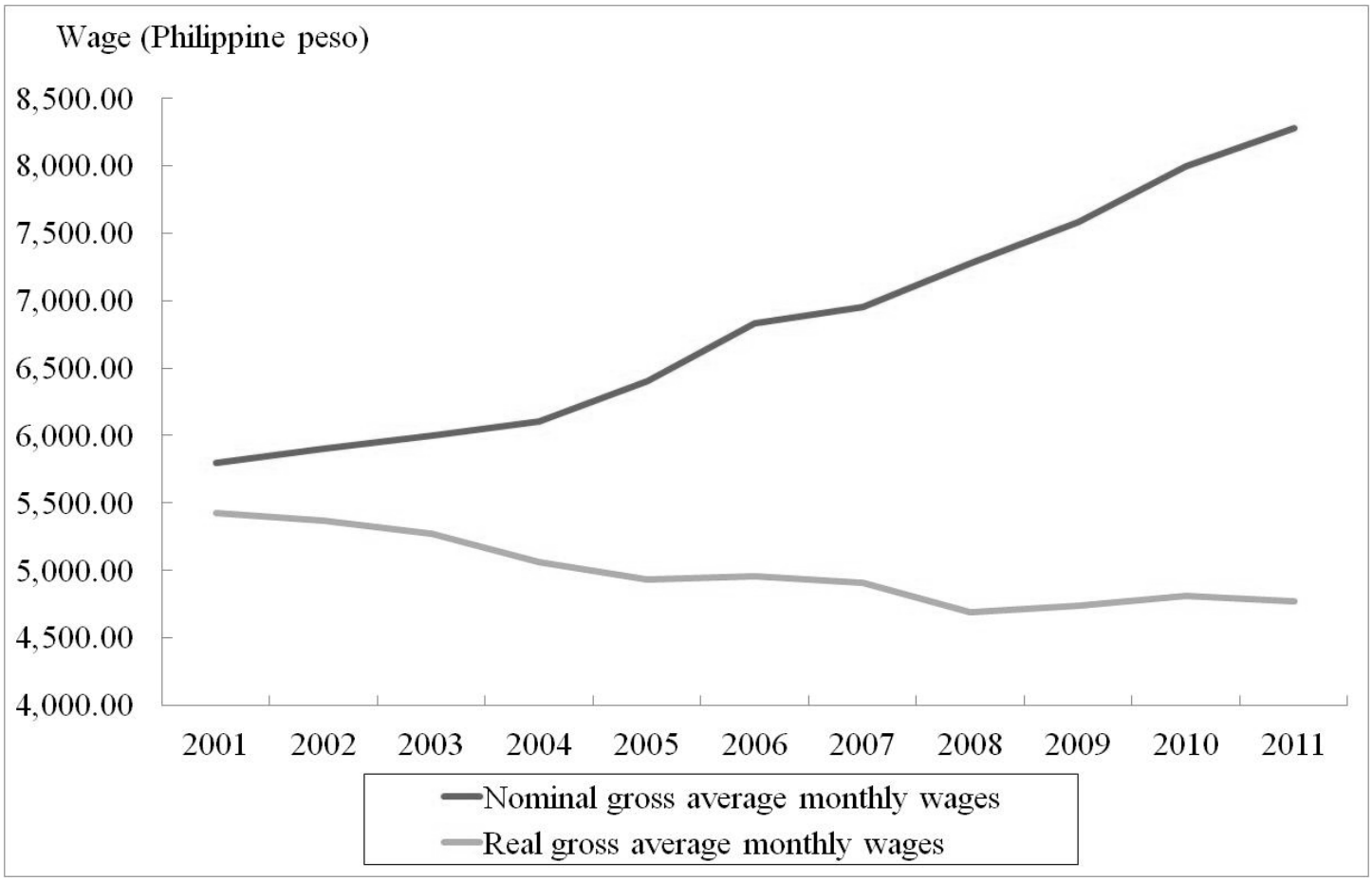
This paper examines possible reforms in the income tax regime of the Philippines, highlighting income tax reform proposals recently discussed in the Philippine legislature. Because it will focus only on income taxes, it will stop short of assessing what might be considered an optimal tax structure. The analysis herein will illustrate some of the policy issues germane to tax progressivity and its contribution to inclusive growth and development in the Philippines.

I. Impetus for Tax Reform

Recent income tax reform proposals in the Philippines have been partly motivated by the need to adjust the tax brackets in order to better reflect changes in incomes that have taken place since 1997, when the present system was introduced. According to the tax literature, most income tax systems in the world are not automatically inflation-adjusted. Over time, and if left uncorrected, this has the likely result that rising nominal incomes may push a growing number of income taxpayers into much higher tax brackets, even as their real incomes have not increased. In turn, this "bracket creep" could contribute to "fiscal drag"—a weakening of aggregate demand due to excess taxation of a growing number of taxpayers. In addition, and perhaps more important for the present case, the progressivity of the income tax regime could be diminished over time, as more individual taxpayers—notably on the higher end of the income spectrum—are pushed to the same bracket as the richest taxpayers in the country.

Indeed, there are signs of possible "bracket creep" based on a casual review of recent labor statistics. Data from the International Labour Organization (ILO) show that average nominal wages in the Philippines have been increasing from 2001 to 2011, but average real wages have been declining over the same span of time.

Figure 1: Nominal and Real Gross Average Monthly Wages, 2001-2011



Note: Real wages are computed by dividing nominal wages by the consumer price index (CPI). The base year of the CPI is 2000. The Labor Force Survey (LFS) from which the ILO dataset was compiled collects basic pay only. Data exclude pay of workers paid on commission basis, honorarium, and boundary (as in the case of jeepney/bus/tricycle drivers). While basic pay reported by respondents in the LFS may be monthly or hourly, these are translated to a daily basis in the data processing by the National Statistics Office. Data on average daily basic pay are computed by the Bureau of Labor and Employment Statistics (BLES) from the LFS-Public Use Files. The data are released through BLES regular publications/website.
Source: ILO Global Wage Database 2012.

Meanwhile, our analysis of data from the Bureau of Labor and Employment Statistics (BLES) reveal another interesting trend. In a sample of 362 occupations spanning 41 industries, we compare average gross annual wages for 2008 and 2012. The comparison also takes note of the change in the applicable marginal tax rate for each occupation. Of the 362 occupations, 299 (83 percent) show higher gross annual incomes (in nominal terms). 101 occupations (28 percent)

show higher applicable marginal tax rates in 2012, implying that more taxpayers may have shifted to higher income tax brackets since 2008.[3]

Table 1: Changes in Annual Nominal Gross Incomes and Marginal Tax Rates from 2008 to 2012

Status	Number of Occupations	Share in Total Number of Occupations (%)
Annual Nominal Gross Incomes		
No change	0	0
Increase	299	83
Decrease	63	17
TOTAL	362	100
Marginal Tax Rates		
No change	244	67
Increase	101	28
Decrease	17	5
TOTAL	362	100

Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

It should be noted that in 2012, 361 of the 362 occupations included in the sample belong to the middle-income class as defined by Virola et al. (2013). In order to be considered part of the middle-income class, one's annual gross income should range from P64,317.00 to P787,572.00. In the sample, the occupation with the lowest annual gross income for 2012 (P72,202.11) is that of "Wood Processing Plant Operator" (under the industry group "Manufacture of Wood, Wood Products Except Furniture"). Clearly, its gross annual income falls within the middle-income class range. On the other hand, the occupation with the highest annual gross income for 2012 (P899,872.73) is "Aircraft Pilot, Navigator and Flight Engineer" (under the industry group "Air Transport"). In fact, its gross annual income is the only one in the sample that belongs to the high-income class. What this analysis implies is that "bracket creep" is already becoming evident among many occupations in the middle-income class (as identified by Virola and colleagues).

There are seven occupations whose marginal tax rates have increased to 32 percent, which is the highest applicable rate right now. They are featured in Table 2. (The rest of the information for other occupations is reported in Annex Tables 1-8, for the interested reader.)

[3] The interested reader may wish to read the annex providing details of these 101 occupations whose incomes and marginal tax rates have increased from 2008 to 2012.

Table 2: Occupations Whose Marginal Tax Rates Have Increased to the Highest Rate

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Art Directors	Animated Films and Cartoons Production	410,532.00	557,502.60	30	32
Electronics and Telecommunications Engineers	Computer and Related Activities	321,456.00	663,172.87	30	32
Systems Analysts and Designers	Computer and Related Activities	272,004.00	600,324.52	30	32
Actuaries	Insurance and Pension Funding Except Compulsory Social Security	427,500.00	574,515.11	30	32
Mechanical Engineers	Manufacture of Plastic Products	158,520.00	521,757.48	25	32
Mining Engineers and Metallurgists	Metallic Ore Mining	287,580.00	540,060.88	30	32
Geologists	Non-Metallic Mining and Quarrying	240,000.00	570,936.55	25	32

Source: AIM Policy Center calculations using data from the BLES.

II. Reform Proposals by Angara, Aquino and Recto

In response to the issues of "bracket creep", "fiscal drag", and declining tax progressivity, tax reform proposals have been put forward by Senator Juan Edgardo M. Angara (Senate Bill 2149), Senator Paolo Benigno A. Aquino IV (Senate Bill 1942), and Senator Ralph G. Recto (Senate Bill 716). In order to analyze these, copies of the pertinent bills have been obtained from the official website of the Senate of the Philippines (http://www.senate.gov.ph), and the following datasets have been obtained from the Bureau of Internal Revenue (BIR): 1) number of taxpayers per income bracket for 2012[4], 2) Data on Compensation Income and Tax Filers by Gross Taxable Income for CY 2012, 3) Distribution of Individuals Engaged in Business, Professionals and Self-

[4] The first BIR dataset covers BIR Form Nos. 1700 and 1701 filers. It comes from the Information Systems Development and Operations Service, BIR-ISG. As of 29 August 2014, two new datasets were obtained from the BIR and these were included in our analyses to improve on the paper. The results arising from the analyses of these three datasets are all presented in this paper. The two new datasets were also obtained from the Information Systems Development and Operations Service, BIR-ISG. All BIR datasets are included in the Annex of this paper.

Employed Income Tax Filers by Gross Income Bracket and by Status and no. of Dependents for CY 2012, and 4) top 500 taxpayers of 2012. It should be noted that Sen. Angara's proposal is designed to unfold over a three-year period (i.e., 2015 to 2017); thus, there are three tax columns under his plan, with the last representing the permanent adjusted tax plan. Tables 3 to 6 summarize the details of the tax proposals from the three senators.

Table 3: Existing Tax Regime

Taxable Income (in Philippine peso)	Rule
0 to 10,000.00	5%
10,000.01 to 30,000.00	P500.00 + 10% of the excess over P10,000.00
30,000.01 to 70,000.00	P2,500.00 + 15% of the excess over P30,000.00
70,000.01 to 140,000.00	P8,500.00 + 20% of the excess over P70,000.00
140,000.01 to 250,000.00	P22,500.00 + 25% of the excess over P140,000.00
250,000.01 to 500,000.00	P50,000.00 + 30% of the excess over P250,000.00
500,000.01 and above	P125,000.00 + 32% of the excess over P500,000.00

Source: BIR website.

Table 4: Sen. Angara's Tax Proposal

Taxable Income (in Philippine peso)	Rule (Beginning January 1, 2015)	Rule (Beginning January 1, 2016)	Rule (Beginning January 1, 2017)
0 to 20,000.00	TAX EXEMPTED		
20,000.01 to 70,000.00	15%	13%	10%
70,000.01 to 200,000.00	P10,500.00 + 20% of the excess over P70,000.00	P9,100.00 + 18% of the excess over P70,000.00	P7,000.00 + 15% of the excess over P70,000.00
200,000.01 to 500,000.00	P36,500.00 + 25% of the excess over P200,000.00	P32,500.00 +23% of the excess over P200,000.00	P26,500.00 + 20% of the excess over P200,000.00
500,000.01 to 1,000,000.00	P111,500.00 + 30% of the excess over P500,00.00	P101,500.00 + 25% of the excess over P500,000.00	P86,500.00 + 22% of the excess over P500,000.00
1,000,000.01 and above	P261,500.00 + 32% of the excess over P1,000,000.00	P226,500.00 + 28% of the excess over P1,000,000.00	P196,500.00 + 25% of the excess over P1,000,000.00

Source: Senate of the Philippines website.

Table 5: Sen. Aquino's Tax Proposal

Taxable Income (in Philippine peso)	Rule
0 to 60,000.00	TAX EXEMPTED
60,000.01 to 140,000.00	P5,000.00 + 15% of the excess over P60,000.00
140,000.01 to 250,000.00	P17,000.00 + 20% of the excess over P140,000.00
250,000.01 to 500,000.00	P45,000.00 + 25% of the excess over P250,000.00
500,000.01 to 1,000,000.00	P100,000.00 + 30% of the excess over P500,000.00
1,000,000.01 to 12,000,000.00	P250,000.00 + 32% of the excess over P1,000,000.00
12,000,000.01 and above	P4,000,000.00 + 35% of the excess over P12,000,000.00

Source: Senate of the Philippines website.

Table 6: Sen. Recto's Tax Proposal

Taxable Income (in Philippine peso)	Rule
0 to 20,000.00	5%
20,000.01 to 60,000.00	P1,000.00 + 10% of the excess over P20,000.00
60,000.01 to 140,000.00	P5,000.00 + 15% of the excess over P60,000.00
140,000.01 to 280,000.00	P17,000.00 + 20% of the excess over P140,000.00
280,000.01 to 500,000.00	P45,000.00 + 25% of the excess over P280,000.00
500,000.01 to 1,000,000.00	P100,000.00 + 30% of the excess over P500,000.00
1,000,000.01 and above	P250,000.00 + 32% of the excess over P1,000,000.00

Source: Senate of the Philippines website.

The objective of the analysis here is to illustrate the possible impact on tax revenues if the tax brackets are adjusted according to the three separate proposals. The new brackets will simply be applied to the three different grouped datasets obtained from the BIR while assuming a static condition for all the income taxpayers. Employing different datasets obtained from the BIR will further validate the results of our analysis. While a more sophisticated analysis incorporating possible behavioral responses should probably follow this study, the first pass estimate on tax revenues and disposable incomes should serve as a useful barometer of the different proposals.

II.1 Possible Revenue Implications

Three BIR grouped datasets were obtained from the BIR. The first BIR dataset obtained considerably differ from the two other datasets in terms of its dimensions.

The first BIR dataset simply illustrates the number of taxpayers per income bracket, filing under BIR forms 1700 and 1701. It consists of two columns and 106 rows (with the first row containing the headings "Income Bracket" and "Number of Taxpayers"). The lowest income bracket has a lower class limit of 0, and the lower class limits of the succeeding brackets increase by an increment of P10,000.00. This continues up to P1,000,000.00 (the lower class limit of the 101st income bracket). The lower class limits from the 102nd income bracket to the 105th (last) income bracket are P5,000,000.00, P10,000,000.00, P15,000,000.00, and P20,000,000.00, respectively. The total number of taxpayers is 314,101.[5]

The second and third BIR datasets on the other hand consists of five columns and 19 rows. They are similar in dimensions but different in terms of the type of tax filers enlisted. The second BIR dataset groups 5,336,390 compensation income tax filers while the third groups 364,855 self-employed individuals and professionals. These datasets are combined to represent the total number of tax filers in the country for 2012. The total number of tax filers for this combined dataset is 5,701,245. The rows of gross income brackets are classified in terms of the taxpayer's status as either Single or Married, which are further disaggregated based on the number of dependents. And since gross income brackets were used in grouping the tax filers, exemptions and monthly contributions were included in the analysis to reflect taxable incomes. Classifications were also made for those having zero exemptions and undefined exemptions.[6] The lowest income bracket has a lower class limit of zero. Succeeding brackets increase by an increment of P60,000 until the last income bracket.

The last income brackets for the BIR datasets appears to be treated as an "open class" (i.e., one that is not broken down into smaller income brackets, so there is no maximum value identified in the dataset shared by the BIR). The difficulty lies in finding the average value of these income brackets, since, unlike the other (lower) brackets, there are outliers in the last brackets of the BIR datasets. . Since mean values will be used to calculate the estimated taxes

[5] Nevertheless, this will need to be verified with BIR as the total number seems small.

[6] Undefined exemptions are those who have blank exemption type codes. Since the type of exemption to be imputed cannot be defined for this group, tax filers under this category were not included in the analysis.

paid per income bracket (as will be explained later), there is a need to derive the mean value for the last brackets. To do this, and purely for purposes of illustration, the list of top 500 taxpayers for 2012 is invoked in order to estimate the income of the top income taxpayer in 2012.

Let T = amount of tax paid, F = fixed amount of tax, R = tax rate, E = reference amount in excess of which the tax rate is applied, and I = income. The formula is as follows:

$$T = F + R(I - E)$$

Income can be algebraically derived as follows:

$$I = \frac{T - F}{R} + E$$

The highest amount of tax paid in 2012 was P131,434,036.34. From Table 3 above, the following values can be obtained: F = 125,000.00, R = 0.32, and E = 500,000.00. The computation for the highest income is as follows:

$$I = \frac{T - F}{R} + E = \frac{131{,}434{,}036.34 - 125{,}000.00}{0.32} + 500{,}000.00 = 410{,}840{,}738.56 \approx 411{,}000{,}000.00$$

The upper bound for the last income brackets of the BIR datasets is estimated to be about P411,000,000.00.[7] Thus, it becomes possible to compute for the mean of each income bracket, which could then be used to estimate the total income and tax revenue per bracket.[8] The objective is to assess the possible change in revenue for each of the proposals, by comparing this to the baseline 2012 revenues (i.e., the existing tax brackets applied to the 2012 income tax data). Tables 7.1 and 7.2 summarize the tax revenues under the existing tax regime (i.e., the baseline)

[7] This was estimated based on the top taxpayers for 2012 by BIR. It was simply assumed that the reported taxes paid are likely to be about 32% of the total taxable income for the top taxpayer.

[8] Some discrepancies between the frequency table of the first BIR dataset and the list of top 500 taxpayers are noted. For the income bracket 15,000,000.00 to 19,999,999.99, there are supposedly 139 taxpayers, but only 75 names appear in the top 500 list. For the income bracket 20,000,000.00 and above, there are supposedly 236 taxpayers, but 425 names appear in the top 500 list.

and the senators' proposals. For purposes of comparison, the relative change from the baseline revenue is also reported for each of the proposals.

Table 7.1 : Estimated Tax Revenues from Existing Tax Regime and Tax Proposals (Using the first BIR dataset showing the number of taxpayers per income bracket)

Tax Regime	Estimated Total Revenue	Estimated Revenue Loss (Compared to the Baseline Revenue)	Estimated Revenue Loss as % of Estimated Total Revenue Under Existing Tax Regime (Baseline 2012)
Existing Tax Regime (Baseline 2012)	35,446,924,895.91	NA	NA
Sen. Angara's Proposal (2015)	34,539,425,850.18	907,499,045.73	3
Sen. Angara's Proposal (2016)	30,039,217,117.84	5,407,707,778.07	15
Sen. Angara's Proposal (2017)	26,432,913,989.35	9,014,010.906.56	25
Sen. Aquino's Proposal	35,065,249,890.99	381,675,004.92	1
Sen. Recto's Proposal	33,595,897,578.69	1,851,027,317.22	5

Note: NA = not applicable. Estimated revenue loss is the difference between the estimated total revenue under the existing tax regime and the estimated total revenue under each proposal. For example, under Sen. Aquino's tax proposal, the estimated total revenue is 35,065,249,890.99, so the estimated revenue loss is P381,675,004.92, which is equal to 35,446,924,895.91 less 35,065,249,890.99, or 1 percent of 35,446,924,895.91. It should be noted that Senator Angara's proposal accommodates a three-year adjustment period to the new tax regime (reflected by the 2017 calculations).

Source: AIM Policy Center calculations using BIR data.

Table 7.2: Estimated Tax Revenues from Existing Tax Regime and Tax Proposals (Using the combined dataset of Compensation Income Earners, Self-Employed, and Professionals)

Tax Regime	Estimated Total Revenue	Estimated Revenue Loss (Compared to the Baseline Revenue)	Estimated Revenue Loss as % of Estimated Total Revenue Under Existing Tax Regime (Baseline 2012)
Existing Tax Regime (Baseline 2012)	740,892,777,500.00	NA	NA
Sen. Angara's Proposal (2015)	738,659,050,500.00	2,233,727,000.00	0.3
Sen. Angara's Proposal (2016)	646,538,338,250.00	94,354,439,250.00	13
Sen. Angara's Proposal (2017)	575,397,218,750.00	165,495,558,750.00	22
Sen. Aquino's	792,870,608,750.00	-51,977,831,250.00	-7

Proposal			
Sen. Recto's Proposal	732,809,024,000.00	8,083,753,500.00	1

Source: AIM Policy Center calculations using BIR data.

Despite using two different BIR datasets in the analysis, the rankings of proposals in terms of their respective revenue losses are fairly similar. The difference lies in the changes in the amount of revenues per proposal once estimated total revenues are compared to existing revenues. Drawing on these calculations, Sen. Aquino's proposal could have the lowest revenue loss as reflected in the analysis of the different BIR datasets (1 percent loss of the estimated total for the first BIR dataset, and a 7 percent revenue gain for the combined dataset). This is followed by Sen. Recto's proposal (at 5 percent of the total revenue under the existing tax regime for the first BIR dataset, and at 1 percent for the combined dataset). Initially, Sen. Angara's proposal could decrease total revenue by only 3 percent for the first dataset or 0.3% for the combined dataset. In 2016, the decrease could rise to about 15 percent or 13 percent for the combined dataset. In 2017 (and onwards, once the new regime is made permanent), the decrease in revenues compared to the baseline (2012) revenues, could increase to 25 percent or 22 percent for the combined dataset. Once again, all these figures are based on comparative static calculations that do not accommodate behavioral responses or adjustments by taxpayers. They are merely illustrative, given the information on income taxpayers that are currently publicly accessible.

II. 2 Illustrations of Possible Impact on Progressivity

While the existing literature on tax progressivity suggests that there is no generally accepted method of showing how progressive a tax structure is, the bulk of the work in this area is underpinned by seminal contributions by Musgrave and Thin (1948) and Kakwani (1977). Musgrave and Thin (1948) developed the tax progressivity index, which is a function of the equality coefficients before and after tax. The so-called Effective Progression (EP) coefficient shows the ratio of before-tax and after-tax Gini coefficients[9] where, in this case, a coefficient equal to 1 would mean proportionality, a coefficient greater than 1 would mean progressivity,

[9] The Gini coefficient is often used as a measure of income equality given the relationship between cumulative population and cumulative income. It is a number between 0 and 1, where a value of 0 means perfect equality, and a value of 1 means perfect inequality.

and a coefficient less than 1 would mean the opposite. The formula for the Gini coefficient is thus:

$$G = \left| 1 - \sum_{k=1}^{n} \left[(X_k - X_{k-1})(Y_k + Y_{k-1}) \right] \right|$$

G is the Gini coefficient. X_k is the cumulative proportion of the population variable (i.e., the number of taxpayers) for k = 0,…,n. X_0 equals 0, and X_n equals 1. Y_k is the cumulative proportion of the income variable for k = 0,…,n. Likewise, Y_0 equals 0, and Y_n equals 1.

It should be noted that the Gini coefficients computed for the tax proposals consider information only on income taxpayers. Clearly, this is only a partial snapshot of the country's equity issues, since income tax revenues only account for about 16.4% of the total tax revenues of the government in any given year. Hence, these Gini coefficients DO NOT reflect the degree of income inequality in the entire country, and given the small share of income taxes in total tax revenues, the analysis herein is more illustrative rather than definitive of the country's equity landscape.[10] At any rate, the Gini coefficients will allow the calculation of the EP coefficient of each proposal. Table 8 summarizes the results.

Table 8: Computed Gini Coefficients and Effective Progression Coefficients for Existing Tax Regime and Tax Proposals

	first BIR dataset (number of taxpayers per income bracket)		Combined dataset (Compensation Income tax filers + self-employed individuals and professionals)	
Scenario	Gini Coefficient	Effective Progression Index	Gini Coefficient	Effective Progression Index
Gross Income	0.951	1.000	0.929	
Income After Taxes (Current Tax Regime)	0.943	1.008	0.906	1.025
Sen. Angara's Tax Proposal (2015)	0.943	1.008	0.906	1.025
Sen. Angara's Tax Proposal (2016)	0.945	1.006	0.910	1.021
Sen. Angara's Tax	0.945	1.006	0.913	1.018

[10] In 2012, the Gini coefficient of the Philippines was 0.4605, according to the Philippine Statistics Authority (http://www.census.gov.ph/content/filipino-families-poorest-decile-earn-six-thousand-pesos-monthly-average-2012-results-2012).

Proposal (2017)				
Sen. Aquino's Tax Proposal	0.940	1.012	0.902	1.030
Sen. Recto's Tax Proposal	0.942	1.010	0.903	1.029

Source: AIM Policy Center calculations using BIR data.

Before taxes, the Gini coefficient implied by the 2012 BIR dataset and the combined dataset is 0.951 and 0.929 respectively. This already implies that in the absence of a progressive tax system, and when considering only gross incomes from wages, there is considerable income inequality in this sub-group of taxpayers. Once the existing tax regime is applied, the Gini coefficient experiences a very mild decrease to 0.943 for the first dataset, and 0.906 for the combined dataset. This suggests that the progressivity in the present income tax system may have been eroded for the reasons noted earlier in this study.

While the EP coefficient seems to be appealing due to its simplicity, it has its fair share of criticism, which necessitates the development of other measures. Kakwani (1977) argues that tax progressivity should be measured based on the deviation of a given tax structure from proportionality.[11] This essentially makes the measure of progressivity a function of not only income distribution but also applicable tax rates that cause a tax structure to deviate from proportionality. The formula for Kakwani's progressivity index is computed as follows:

$$P = \frac{(G - G^*)(1 - t)}{t}$$

G and G* are the before-tax and after-tax Gini coefficients, respectively; t is the average tax rate. A positive value of P implies a progressive tax structure. A negative value implies the opposite. Zero simply means proportionality. Tables 9.1 and 9.2 summarize the results after applying Kakwani's formula.

Table 9.1: Kakwani Progressivity Coefficients for Existing Tax Regime and Tax Proposals

Scenario	Average Tax Rate	Gini Before Tax	Gini After Tax	Progressivity Index
Existing System	0.29	0.951	0.943	0.020

[11] As explained in Kakwani (1977), the concept of tax progressivity is related to the concept of tax elasticity (elasticity of tax function T(x) with respect to income). Tax elasticity is always unity for a proportional tax structure, so proportionality depends on the magnitude of the difference of tax elasticity from 1.

Angara (2015)	0.28	0.951	0.943	0.021
Angara (2016)	0.25	0.951	0.945	0.018
Angara (2017)	0.22	0.951	0.945	0.021
Aquino	0.29	0.951	0.940	0.027
Recto	0.28	0.951	0.942	0.023

Source: AIM Policy Center calculations using BIR data.

Table 9.2: Kakwani Progressivity Coefficients for Existing Tax Regime and Tax Proposals

Scenario	Average Tax Rate	Gini Before Tax	Gini After Tax	Progressivity Index
Existing System	0.29	0.929	0.906	0.057
Angara (2015)	0.29	0.929	0.906	0.057
Angara (2016)	0.25	0.929	0.910	0.056
Angara (2017)	0.22	0.929	0.913	0.055
Aquino	0.31	0.929	0.902	0.060
Recto	0.29	0.929	0.903	0.065

Source: AIM Policy Center calculations using BIR data.

For now, it suffices to say that the three income tax reform proposals could have different consequences on inequality. But these all appear quite marginal.

Compared with the existing tax regime, Sen. Angara's tax proposal implies a slightly larger Gini coefficient, yet it indicates little if any impact on inequality. Part of the reason for this is because Sen. Angara envisions a reduction in the marginal tax rate of the top income bracket of the country. Partly, this is possibly motivated by an attempt to reduce fiscal drag, by increasing the disposable income of the "middle class". Nevertheless, the range of the "middle class" is quite large, as noted earlier. And it appears that the Angara proposal provides relief to both middle- and higher-income taxpayers.

There are, to be sure, many conceptions of the middle class. For illustrative purposes, we will turn to the estimates developed by Virola et al. (2013), who identified the middle-income class in the Philippines as those individuals with annual incomes between P64,317.00 and P787,572.00.[12] The Angara proposal is designed to provide relief for this group; but it also does not distinguish this group from the top taxpayers in the country that earn significantly more than

[12] Given the purpose of this paper, it is beyond its scope to discuss in detail the various possible definitions of the middle class. The interested reader may wish to turn to Virola et al (2013) for a fuller discussion of the various approaches, as well as their methodology. We simply turn to that study as a benchmark, from which we can derive insights on our tax calculations.

P787,572.00 annually. Under the proposal, the second top tax bracket (500,000.01-1,000,000.00) is given a reduction of 10 percentage points in their marginal tax, thus providing relief to: 1) part of the middle class, and 2) taxpayers with much higher annual incomes. Also, the top tax bracket of the proposal (1,000,000.01 and above) is given a reduction of 7 percentage points in their marginal tax, thus also providing some tax relief to high income earners. The motivations for providing this relief could be linked to the possible behavioral response of middle-income and high-income individuals who could choose to work more or invest, among other behavioral responses that could contribute to stronger economic growth. Such a response (while not calculated here in the analysis) could, in fact, result in higher revenues if the tax base expands with increasing economic activity.

In contrast, the tax proposals by Sen. Aquino and Sen. Recto imply smaller Gini coefficients when compared to the existing tax regime. Nevertheless, when compared to the existing tax regime, the change in the Gini coefficient is likely trivial.

Regrouping the data into deciles paves the way for a more visual examination of the potential results across different income groups. Annex 2 in this paper elaborates on the steps to arrive at this calculation. Tables 10.1 and 10.2 summarizes the results and illustrates how the different tax proposals can be compared with the existing tax regime in terms of possible impact on different income groups.

When comparing senator Angara's proposal with the existing tax regime (column highlighted in yellow) under the first BIR dataset, one can see that in 2015, the shares of the bottom classes, together with that of the top-most class, will increase further; and the shares of those in the middle will decrease further. The combined dataset, on the other hand, can only make conclusions based on the first, eight, ninth, and tenth deciles, given that most observations would lump at these categories. In this dataset, one can see a constant increase in the share of the top most class while a constant decrease can be observed with those at the lowest and those at the upper middle (eighth and ninth deciles).

Taken together, this helps to explain why the impact of this proposal on tax progressivity is ambiguous.

Under Aquino's proposal using the first BIR dataset, the shares of the middle classes will increase while the share of the top most class decreases. Except for the first bracket where they saw their shares rise as well, the upper middle and the top most class will also see a decrease in

their shares under the combined dataset. Finally, comparing Sen. Recto's tax proposal with the existing tax regime, one can see that it is only the highest class whose share will decrease further under the first BIR dataset. This is the opposite under the combined dataset where only those at the first decile will see their shares decrease.

In addition, Figure 2 shows the changes in disposable income per bracket (compared with the disposable income per bracket under the existing tax regime). Using the first BIR dataset, the average change in disposable income under Sen. Angara's tax proposal compared with the existing tax regime is 5.43 percent, with those at the top bracket benefiting the most. Still under the same BIR dataset, Sen. Aquino's tax proposal will increase disposable income per bracket by about 1.85 percent on average, which is the lowest among the three tax proposals. Moreover, Sen. Recto's tax proposal will increase disposable income per bracket by about 5.44 percent on average, which is the largest among the three tax proposals.

Under the combined dataset, the changes in the average disposable incomes are marginal. Using Angara's tax proposal would translate to an average 1% change in the disposable incomes of all classes. Sen. Aquino's tax proposal on the other hand would not change disposable incomes on average while that of Sen. Recto's would only increase it by .15%.

Table 10.2: Shares in Total Income (Using the combined dataset of Compensation Income Earners, Self-Employed, and Professionals)

Income Bracket	Number of Taxpayers	Share in Total Number of Taxpayers (2012)	Share in Gross Income (2012)	Share in Total Disposable Income Under Existing Tax Regime	Share in Total Disposable Income Under Angara's Proposal (2015)	Share in Total Disposable Income Under Angara's Proposal (2016)	Share in Total Disposable Income Under Angara's Proposal (2017)	Share in Total Disposable Income Under Aquino's Proposal	Share in Total Disposable Income Under Recto's Proposal
0 to 2,579.01	121,767	39%	0.50%	0.67%	0.70%	0.66%	0.64%	0.66%	0.70%
2,579.02 to 5,158.53	0	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5,158.54 to 7,738.06	0	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7,738.07 to 10,257.33	28,456	9%	0.35%	0.47%	0.49%	0.47%	0.45%	0.46%	0.49%
10,257.34 to 20,400.05	20,224	6%	0.42%	0.54%	0.58%	0.55%	0.53%	0.54%	0.58%
20,400.06 to 40,123.52	26,244	8%	0.84%	1.08%	1.00%	0.97%	0.97%	1.08%	1.18%
40,123.53 to 80,072.9	26,952	9%	1.51%	1.87%	1.79%	1.75%	1.74%	1.90%	2.02%
80,072.91 to 150,048.81	29,349	9%	2.92%	3.48%	3.38%	3.29%	3.28%	3.56%	3.62%
150,048.82 to 360,013.94	30,042	10%	6.05%	6.79%	6.79%	6.61%	6.60%	7.04%	7.06%
360,013.95 and above	31,067	10%	87.41%	85.10%	85.27%	85.70%	85.80%	84.77%	84.35%
TOTAL	314,101	100%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Note: Green means increase from baseline highlighted in yellow. Orange means decrease from baseline. No highlight means no change from baseline. Source: AIM Policy Center calculations using BIR data.

Table 10.1: Shares in Total Income (Using the first BIR dataset showing the number of taxpayers per income bracket).

Income Bracket	Number of Taxpayers	Share in Total Number of Taxpayers (2012)	Share in Gross Income (2012)	Share in Total Disposable Income Under Existing Tax Regime	Share in Total Disposable Income Under Angara's Proposal (2015)	Share in Total Disposable Income Under Angara's Proposal (2016)	Share in Total Disposable Income Under Angara's Proposal (2017)	Share in Total Disposable Income Under Aquino's Proposal	Share in Total Disposable Income Under Recto's Proposal
0 to 7500.1	4,072,153	39%	5%	6.70%	6.68%	6.36%	6.14%	6.91%	6.67%
7500.2 to 15000.7	0	0%	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15000.8 to 22501.29	0	0%	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
22501.30 to 30001.89	0	9%	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30000.90 to 37502.49	0	6%	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
37502.50 to 45003.09	0	8%	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
45003.10 to 52503.68	0	9%	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
52503.69 to 60003.48	290,659	9%	1%	1.25%	1.23%	1.18%	1.14%	1.31%	1.25%
60003.49 to 102387.39	218,900	10%	1%	1.42%	1.40%	1.35%	1.32%	1.50%	1.44%
102387.40 and above	508,885	10%	93%	90.63%	90.69%	91.11%	91.40%	90.29%	90.64%
TOTAL	5,090,597	100%	100%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Figure 2.1 : Changes in Disposable Income per Income Bracket: Sen. Angara (2017), Sen. Aquino, and Sen. Recto (Using the first BIR dataset showing the number of taxpayers per income bracket)

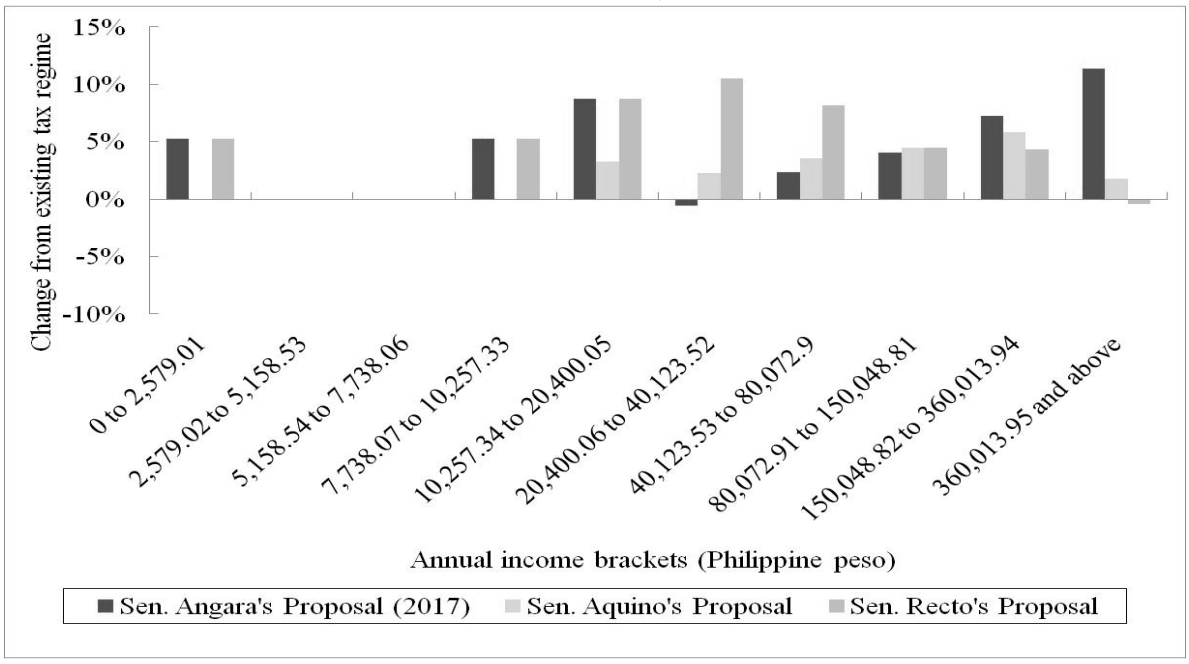
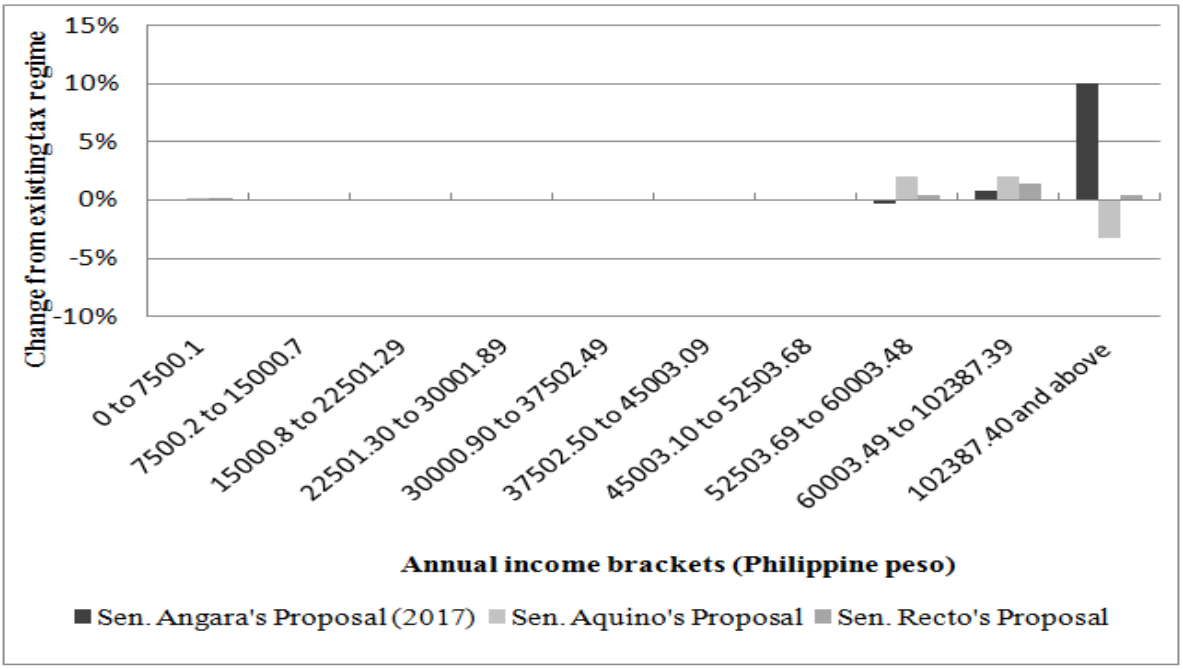


Figure 2.2: Changes in Disposable Income per Income Bracket: Sen. Angara (2017), Sen. Aquino, and Sen. Recto (Using the combined dataset of Compensation Income Earners, Self-Employed, and Professionals)



Note: The comparison focuses on Sen. Angara's tax policy for 2017, for this is the permanent plan. The plans for 2015 and 2016 are merely transitional. However, they are featured in the annex to this report.
Source: AIM Policy Center calculations using BIR data

III. Areas for Future Research

The preceding analysis is illustrative and should not be considered as a final assessment of the three different income tax proposals being deliberated in the Philippine Senate. These proposals have helped to elevate the awareness of the public as to the need to revisit issues such as tax progressivity and equity for the country's income tax regime. The evidence suggests that there are different tradeoffs being made between equity and efficiency, across the three proposals. Depending on the policy objectives and the relative contribution of the income tax regime (which is not large when compared to the total tax revenues, as noted earlier), one could begin to inform the policy discussions with further evidence on how these different options advance or retard the goals of equity and efficiency.

In further expanding the analysis herein, there are several areas one could consider. First, the calculations herein are based on a static analysis of the three different tax reform proposals. It is likely that applying these reforms will trigger a behavioral response among taxpayers, including, for instance: 1) boosting consumption and investments by some taxpayers that experience an increase in disposable income; 2) reducing labor by some taxpayers that might face higher marginal tax rates (e.g., the Aquino proposal); and 3) reallocating asset portfolios towards stock option plans that would reduce effective tax rates (in the case of the highest-income earners whose marginal tax rates might be increased). These changes could, on the net, either increase or decrease overall income tax revenues (and the total revenues of the public sector) depending on how large these effects are. In the literature, one way to consider these different aspects would be to use a general equilibrium approach in the analysis.[13] This could be a fruitful avenue to explore in developing more sophisticated simulations of revenue and growth impacts of these reforms.

Second, it would be ideal to consider an analysis that is slightly more comprehensive so that other tax instruments are also part of the simulation. That could include, notably, the country's value added tax (VAT) system which accounts for 15 percent of total government revenues. As noted earlier, income taxes account for 16.4 percent of the total tax revenues, suggesting that a more comprehensive tax reform effort could be much more effective if focused also on other tax policy levers. In fact, with the expected decline of tax progressivity in the

[13] See Habito (1987).

country's income tax regime (due in part to "bracket creep"), and given the introduction of the VAT in 1988 (as well as its growing share of the total tax revenues), it is more likely that the two have combined to weaken the impact of tax policy on the country's equity objectives. It is time for this to be assessed through a rigorous empirical analysis, so as to map out possible policy adjustments to counter its unequalizing impact.[14]

Third, it is also critical to assess the contribution of the expenditure side of public finance, when considering equity and efficiency objectives. The combined effects of public finance policies on the revenue and expenditure sides could provide a much more holistic basis for examining the government's equity and efficiency objectives.

Lastly, one could also more closely examine where top income earners get their income. It is likely that in the Philippine context, most of them receive a considerable amount of their total incomes from family corporations. Thus, it becomes quite reasonable to assume that family members are currently receiving their funds not as salaries, but as dividends.

[14] For a detailed elaboration of optimal tax modeling, see for example, Salanie (2011).

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ANNEX

Annex 1. Tables and Figures

Annex Table 1: Details of the 101 Occupations Whose Incomes and Marginal Tax Rates Have Increased from 2008 to 2012 (part 1 of 8)

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Art Directors	Animated Films and Cartoons Production	410,532.00	557,502.60	30	32
Electronics and Telecommunications Engineers	Computer and Related Activities	321,456.00	663,172.87	30	32
Systems Analysts and Designers	Computer and Related Activities	272,004.00	600,324.52	30	32
Actuaries	Insurance and Pension Funding Except Compulsory Social Security	427,500.00	574,515.11	30	32
Mechanical Engineers	Manufacture of Plastic Products	158,520.00	521,757.48	25	32
Mining Engineers and Metallurgists	Metallic Ore Mining	287,580.00	540,060.88	30	32
Geologists	Non-Metallic Mining and Quarrying	240,000.00	570,936.55	25	32
Aircraft Engine Mechanics and Fitters	Air Transport	205,056.00	342,528.03	25	30
Architects	Architectural, Engineering and Related Technical Consultancy	170,136.00	301,539.34	25	30
Draftsmen	Architectural, Engineering and Related Technical Consultancy	225,000.00	257,967.63	25	30
Electrical Engineers	Architectural, Engineering and Related Technical Consultancy	232,884.00	417,060.00	25	30
Computer Assistants	Call Center Activities	177,792.00	261,863.72	25	30
Civil Engineers	Collection, Purification and Distribution of Water	235,896.00	331,973.45	25	30
Production Supervisors and General Foremen	Collection, Purification and Distribution of Water	242,628.00	348,918.79	25	30
Quality Inspectors	Collection, Purification and Distribution of Water	190,560.00	253,751.68	25	30

Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

Annex Table 2: Details of the 101 Occupations Whose Incomes and Marginal Tax Rates Have Increased from 2008 to 2012 (part 2 of 8)

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Computer Assistants	Computer and Related Activities	188,388.00	276,851.45	25	30
Customer Service Representatives/Associates (In Call Centers)	Electricity, Gas, Steam and Hot Water Supply	179,904.00	253,685.18	25	30
Power-Production Plant Operators	Electricity, Gas, Steam and Hot Water Supply	238,080.00	300,432.79	25	30
Appraisers and Valuers	Insurance and Pension Funding Except Compulsory Social Security	181,164.00	260,594.00	25	30
Production Supervisors and General Foremen	Manufacture of Basic Metals	186,516.00	258,364.18	25	30
Production Supervisors and General Foremen	Manufacture of Chemicals and Chemical Products	230,940.00	313,003.13	25	30
Mechanical Engineers	Manufacture of Paper and Paper Products	236,832.00	256,332.34	25	30
Chemical Engineers	Manufacture of Plastic Products	149,184.00	251,781.62	25	30
Chemical Engineers	Manufacture of Rubber Products	160,512.00	384,515.66	25	30
Mechanical Engineers	Manufacture of Rubber Products	175,740.00	279,732.00	25	30
Computer Assistants	Medical Transcription and Related Outsourcing Activities	153,972.00	258,180.71	25	30
Computer Engineers	Medical Transcription and Related Outsourcing Activities	244,956.00	325,137.43	25	30
Computer Programmers	Medical Transcription and Related Outsourcing Activities	138,996.00	390,960.00	20	30
Production Supervisors and General Foremen	Metallic Ore Mining	236,592.00	294,363.27	25	30
Road Transport Service Supervisors	Other Land Transport Except Busline Operation; Transport Via Pipelines	174,144.00	295,406.78	25	30

Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

Annex Table 3: Details of the 101 Occupations Whose Incomes and Marginal Tax Rates Have Increased from 2008 to 2012 (part 3 of 8)

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Medical Doctors	Private Medical, Dental and Other Health Activities	241,620.00	274,434.48	25	30
Printing Engravers and Etchers	Publishing and Printing Except Reproduction of Recorded Media	147,744.00	316,896.00	25	30
Production Supervisors and General Foremen	Publishing and Printing Except Reproduction of Recorded Media	208,836.00	277,794.43	25	30
Accountants and Auditors	Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles	246,144.00	336,257.36	25	30
Sales Supervisors	Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles	243,444.00	368,283.03	25	30
Electrical Engineering Technicians	Architectural, Engineering and Related Technical Consultancy	122,424.00	166,296.00	20	25
Unskilled Workers Except Janitors, Messengers and Freight Handlers	Architectural, Engineering and Related Technical Consultancy	95,472.00	157,119.67	20	25
Accounting and Bookkeeping Clerks	Building and Repairing of Ships and Boats	122,808.00	190,069.14	20	25
Marine Crafts Mechanics	Building and Repairing of Ships and Boats	111,624.00	188,424.00	20	25
Production Clerks	Building and Repairing of Ships and Boats	101,964.00	206,116.93	20	25
Road Transport Service Supervisors	Bus Line Operation	123,636.00	159,973.57	20	25
Plumbers, Pipe Fitters and Other Related Workers	Collection, Purification and Distribution of Water	137,952.00	171,808.10	20	25
Computer Equipment Operators	Computer and Related Activities	95,748.00	149,915.51	20	25
Accounting and Bookkeeping Clerks	Construction	127,812.00	149,997.92	20	25
Building and Related Electricians	Construction	120,720.00	140,030.18	20	25

Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

Annex Table 4: Details of the 101 Occupations Whose Incomes and Marginal Tax Rates Have Increased from 2008 to 2012 (part 4 of 8)

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Heavy Equipment Mechanics	Construction	107,016.00	151,995.34	20	25
Insulation Workers	Construction	118,524.00	147,324.53	20	25
Unskilled Workers Except Janitors, Messengers and Freight Handlers	Electricity, Gas, Steam and Hot Water Supply	113,928.00	150,417.80	20	25
Helpers and Cleaners	Hotels and Restaurants	101,928.00	147,624.35	20	25
Production Clerks	Manufacture and Repair of Furniture	106,716.00	145,039.08	20	25
Accounting and Bookkeeping Clerks	Manufacture of Basic Metals	126,864.00	175,375.10	20	25
Metal Drawers and Extruders	Manufacture of Basic Metals	108,240.00	156,154.38	20	25
Metal Melters, Casters and Rolling-Mill Operators	Manufacture of Basic Metals	112,032.00	172,465.52	20	25
Ore and Metal Furnace Operators	Manufacture of Basic Metals	117,708.00	182,616.97	20	25
Chemical Heat-Treating Plant Operators	Manufacture of Chemicals and Chemical Products	119,064.00	189,704.80	20	25
Crushing, Grinding and Chemical-Mixing Machinery Operators	Manufacture of Chemicals and Chemical Products	138,024.00	187,085.93	20	25
Accounting and Bookkeeping Clerks	Manufacture of Fabricated Metal Products, Except Machinery Equipment	134,964.00	173,918.62	20	25
Machine-Tool Setters and Setter-Operators	Manufacture of Fabricated Metal Products, Except Machinery Equipment	130,416.00	141,626.30	20	25
Food and Related Products Machine Operators	Manufacture of Food Products and Beverages	121,140.00	145,012.28	20	25
Production Clerks	Manufacture of Food Products and Beverages	121,272.00	152,895.37	20	25

Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

Annex Table 5: Details of the 101 Occupations Whose Incomes and Marginal Tax Rates Have Increased from 2008 to 2012 (part 5 of 8)

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Quality Inspectors	Manufacture of Food Products and Beverages	137,088.00	152,637.77	20	25
Agricultural or Industrial Machinery Mechanics and Fitters	Manufacture of Machinery and Equipment, N.E.C.	110,688.00	140,638.98	20	25
Quality Inspectors	Manufacture of Machinery and Equipment, N.E.C.	131,160.00	143,874.72	20	25
Motor Vehicle Mechanics and Related Trades Workers	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	114,660.00	209,076.01	20	25
Quality Inspectors	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	134,112.00	194,423.30	20	25
Sheet-Metal Workers	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	109,524.00	151,946.80	20	25
Cement and Other Mineral Products Machine Operators	Manufacture of Other Non-Metallic Mineral Products	131,256.00	238,160.19	20	25
Glass, Ceramics and Related Plant Operators	Manufacture of Other Non-Metallic Mineral Products	110,940.00	154,857.30	20	25
Accounting and Bookkeeping Clerks	Manufacture of Paper and Paper Products	135,780.00	166,709.30	20	25
Paper Pulp Plant Operators	Manufacture of Paper and Paper Products	113,676.00	156,151.77	20	25
Papermaking Plant Operators	Manufacture of Paper and Paper Products	124,032.00	142,705.06	20	25
Unskilled Workers Except Janitors, Messengers and Freight Handlers	Manufacture of Paper and Paper Products	100,788.00	141,005.11	20	25
Chemical Engineering Technicians	Manufacture of Plastic Products	129,828.00	152,490.00	20	25
Accounting and Bookkeeping Clerks	Manufacture of Rubber Products	130,236.00	166,562.86	20	25
Weaving and Knitting Machine Operators	Manufacture of Textiles	107,712.00	148,742.55	20	25

Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

Annex Table 6: Details of the 101 Occupations Whose Incomes and Marginal Tax Rates Have Increased from 2008 to 2012 (part 6 of 8)

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Accounting and Bookkeeping Clerks	Manufacture of Wearing Apparel	132,996.00	141,984.00	20	25
Medical Transcriptionists	Medical Transcription and Related Outsourcing Activities	128,028.00	153,566.74	20	25
Accounting and Bookkeeping Clerks	Metallic Ore Mining	130,848.00	192,853.31	20	25
Accounting and Bookkeeping Clerks	Other Land Transport Except Busline Operation; Transport Via Pipelines	126,012.00	149,719.18	20	25
Transport Clerks	Other Land Transport Except Busline Operation; Transport Via Pipelines	133,740.00	145,788.67	20	25
Unskilled Workers Except Janitors, Messengers and Freight Handlers	Other Land Transport Except Busline Operation; Transport Via Pipelines	113,940.00	145,550.11	20	25
Medical Technologists	Private Medical, Dental and Other Health Activities	125,508.00	142,823.49	20	25
Nutritionists-Dietitians	Private Medical, Dental and Other Health Activities	117,948.00	148,398.57	20	25
Bookbinders and Related Workers	Publishing and Printing Except Reproduction of Recorded Media	127,788.00	160,871.19	20	25
Compositors, Typesetters and Related Workers	Publishing and Printing Except Reproduction of Recorded Media	126,300.00	188,407.06	20	25
Pressman Letterpress and Related Workers	Publishing and Printing Except Reproduction of Recorded Media	107,316.00	182,567.82	20	25

Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

Annex Table 7: Details of the 101 Occupations Whose Incomes and Marginal Tax Rates Have Increased from 2008 to 2012 (part 7 of 8)

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Accounting and Bookkeeping Clerks	Retail Trade, Except of Motor Vehicles and Motorcycles and Repair of Personal and Household Goods	111,096.00	153,348.00	20	25
Telemarketers	Retail Trade, Except of Motor Vehicles and Motorcycles and Repair of Personal and Household Goods	124,440.00	153,088.40	20	25
Accounting and Bookkeeping Clerks	Sale, Maintenance and Repair of Motor Vehicles and Motorcycles Except Retail Sale of Automotive Fuel	120,576.00	140,555.50	20	25
Cashiers	Sale, Maintenance and Repair of Motor Vehicles and Motorcycles Except Retail Sale of Automotive Fuel	123,540.00	140,783.04	20	25
Technical and Commercial Sales Representatives	Sale, Maintenance and Repair of Motor Vehicles and Motorcycles Except Retail Sale of Automotive Fuel	137,556.00	141,318.58	20	25
Unskilled Workers Except Janitors, Messengers and Freight Handlers	Supporting and Auxiliary Transport Activities; Activities of Travel Agencies	112,548.00	192,804.00	20	25
Accounting and Bookkeeping Clerks	Water Transport	135,024.00	176,844.39	20	25
Freight Handlers	Water Transport	128,292.00	144,904.51	20	25
Transport Clerks	Water Transport	130,476.00	175,223.23	20	25
Unskilled Workers Except Janitors, Messengers and Freight Handlers	Water Transport	115,932.00	150,723.07	20	25

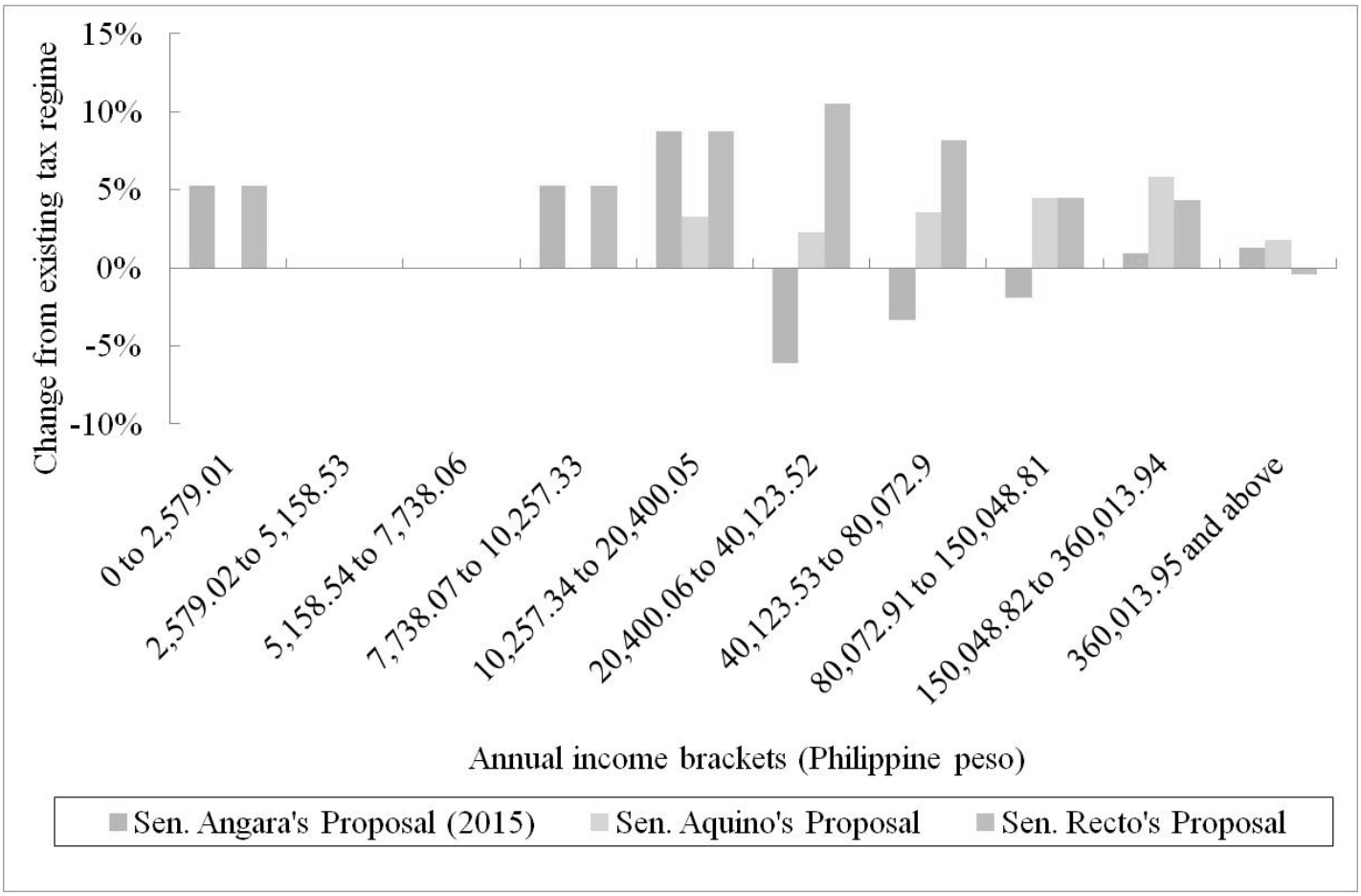
Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

Annex Table 8: Details of the 101 Occupations Whose Incomes and Marginal Tax Rates Have Increased from 2008 to 2012 (part 8 of 8)

Occupation	Industry Group	2008 Gross Annual Income (Philippine peso)	2012 Gross Annual Income (Philippine peso)	2008 Marginal Tax Rate (%)	2012 Marginal Tax Rate (%)
Accounting and Bookkeeping Clerks	Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles	129,576.00	165,816.00	20	25
Cashiers	Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles	129,420.00	166,935.27	20	25
Shop Salespersons and Demonstrators	Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles	112,272.00	146,022.91	20	25
Telemarketers	Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles	131,076.00	157,846.72	20	25
Unskilled Workers Except Janitors, Messengers and Freight Handlers	Collection, Purification and Distribution of Water	67,044.00	111,769.78	15	20

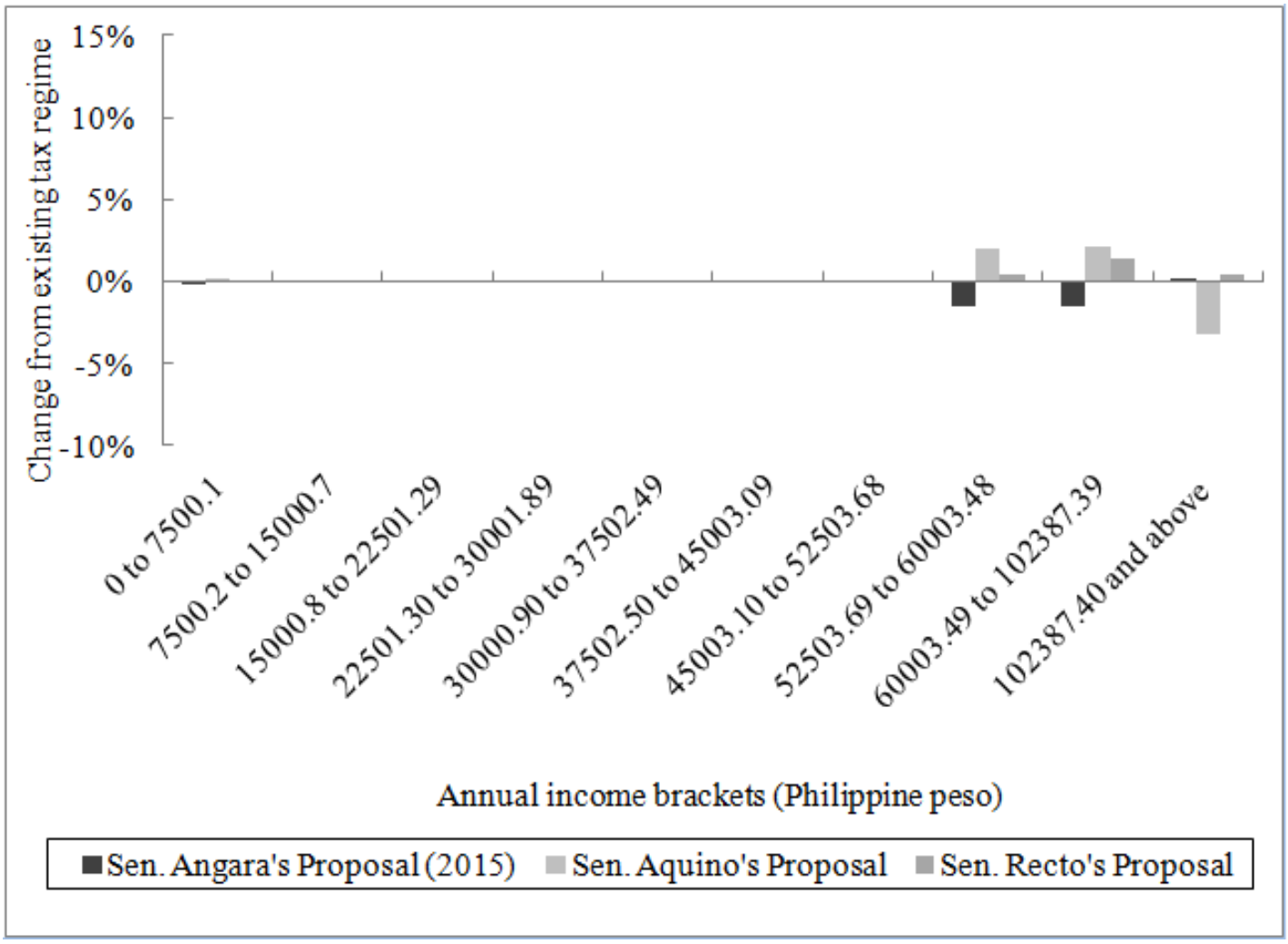
Source: Asian Institute of Management (AIM) Policy Center calculations using data from the BLES.

Annex Figure 1.1: Changes in Disposable Income per Income Bracket: Sen. Angara (2015), Sen. Aquino, and Sen. Recto (Using the first BIR dataset showing the number of taxpayers per income bracket)



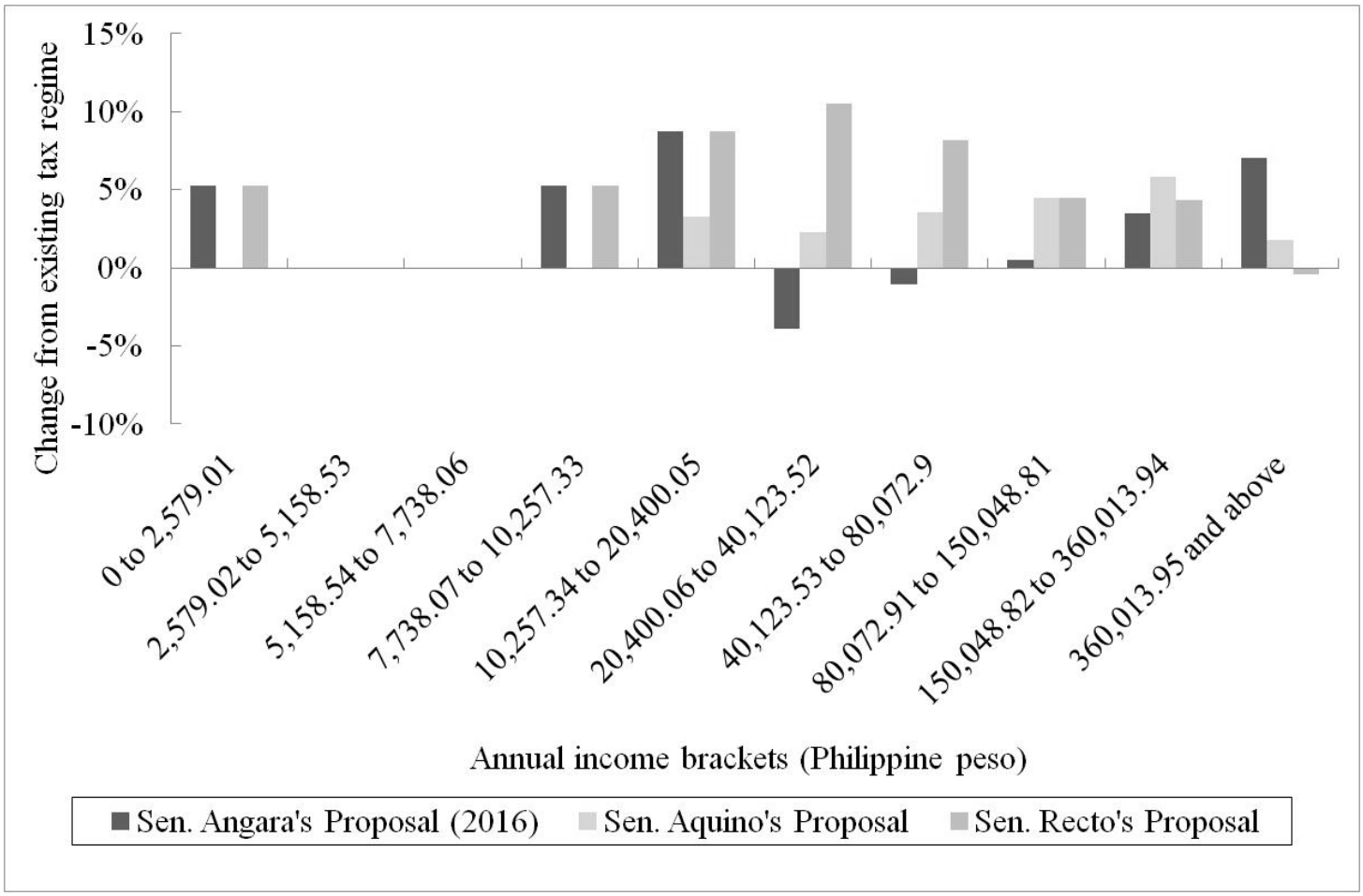
Source: AIM Policy Center calculations using BIR data.

Annex Figure 1.2: Changes in Disposable Income per Income Bracket: Sen. Angara (2015), Sen. Aquino, and Sen. Recto (Using the combined dataset of Compensation Income Earners, Self-Employed, and Professionals)



Source: AIM Policy Center calculations using BIR data.

Annex Figure 2.1: Changes in Disposable Income per Income Bracket: Sen. Angara (2016), Sen. Aquino, and Sen. Recto (Using the first BIR dataset showing the number of taxpayers per income bracket)



Source: AIM Policy Center calculations using BIR data.

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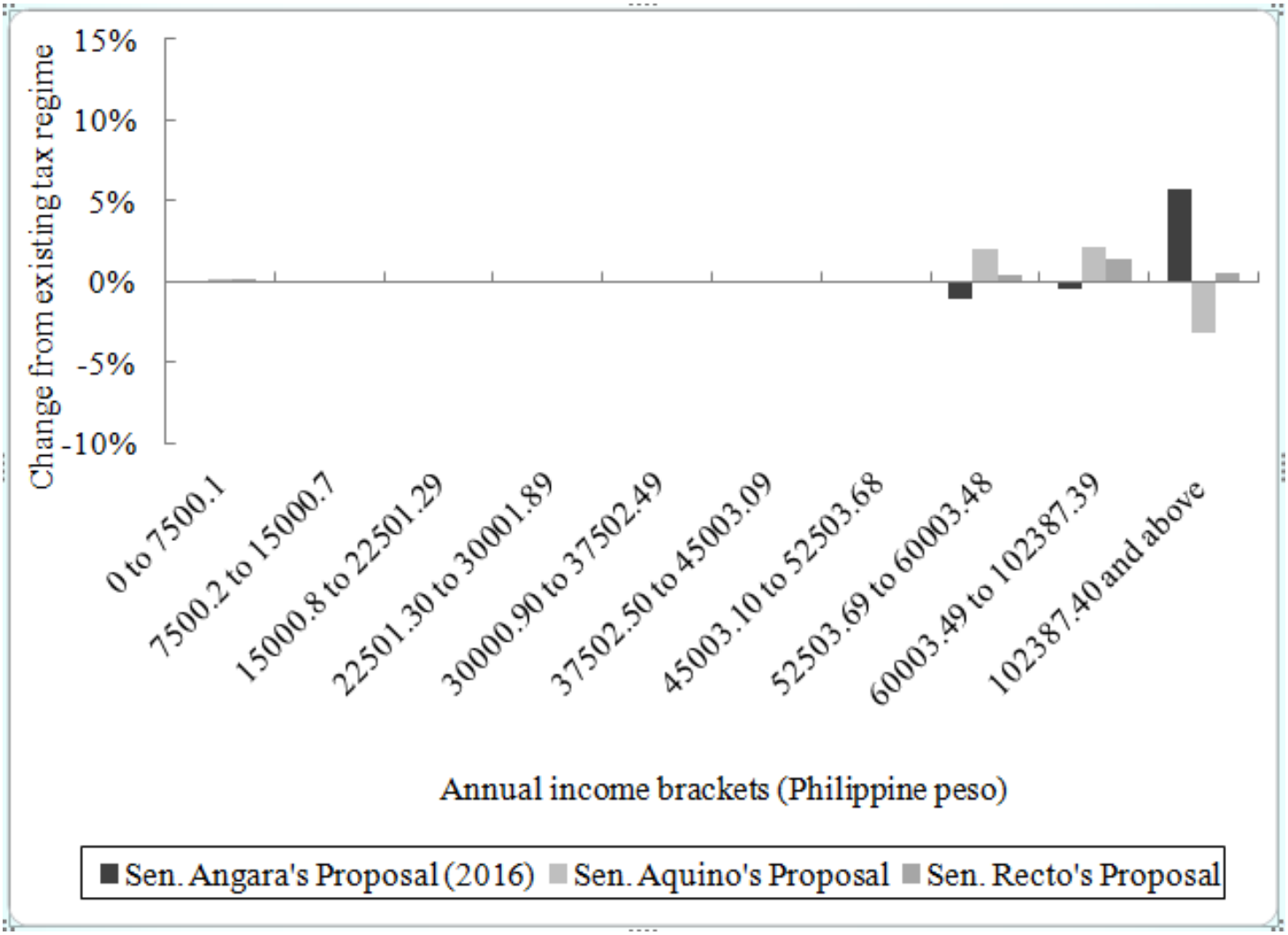
Annex Figure 2.2: Changes in Disposable Income per Income Bracket: Sen. Angara (2016), Sen. Aquino, and Sen. Recto (Using the combined dataset of Compensation Income Earners, Self-Employed, and Professionals)



Source: AIM Policy Center calculations using BIR data.

Annex 2. Computing Income Deciles

From the BIR dataset on the number of taxpayers per income bracket for 2012, one can compute for the deciles by applying the following formula:

$$D_i = L_i + c\left(\frac{i\frac{n}{10} - F_{i-1}}{f_i}\right)$$

where D_i = decile

L_i = lower class boundary of the i^{th} decile interval

c = class width or class interval

n = number of observations (i.e., taxpayers) = 314,101

F_{i-1} = cumulative frequency before decile class

f_i = frequency of decile interval

i = decile number.

Let A_p refer to the location of a desired percentile. The location formula is:

$$A_p = (n+1)\frac{P}{100}$$

Applying the location formula, one can determine the decile locations, as presented in Table 10. The computed decile values are presented in Table 11.

Annex Table 9.1: Decile Locations (For the first BIR dataset simply showing the number of taxpayers per income bracket)

Decile Number	Location	Interpretation
1	$A_{10} = (314{,}101+1)\frac{10}{100} = 31{,}410.2$	The first decile can be found between observation numbers 31,410 and 31,411 (observations arranged in ascending order of annual income).
2	$A_{20} = (314{,}101+1)\frac{20}{100} = 62{,}820.4$	The second decile can be found between observation numbers 62,820 and 62,821.
3	$A_{30} = (314{,}101+1)\frac{30}{100} = 94{,}230.6$	The third decile can be found between observation numbers 94,230 and 94,231.
4	$A_{40} = (314{,}101+1)\frac{40}{100} = 125{,}640.8$	The fourth decile can be found between observation numbers 125,640 and 125,641.
5	$A_{50} = (314{,}101+1)\frac{50}{100} = 157{,}051.0$	The fifth decile can be found at observation number 157,051.
6	$A_{60} = (314{,}101+1)\frac{60}{100} = 188{,}461.2$	The sixth decile can be found between observation numbers 188,461 and 188,462.
7	$A_{70} = (314{,}101+1)\frac{70}{100} = 219{,}871.4$	The seventh decile can be found between observation numbers 219,871 and 219,872.
8	$A_{80} = (314{,}101+1)\frac{80}{100} = 251{,}281.6$	The eighth decile can be found between observation numbers 251,281 and 251,282.
9	$A_{90} = (314{,}101+1)\frac{90}{100} = 282{,}691.8$	The ninth decile can be found between observation numbers 282,691 and 282,692.

Source: AIM Policy Center calculations using BIR data.

Annex Table 9.2: Decile Locations (For the combined dataset of Compensation Income Earners, Self-Employed, and Professionals)

Decile Number	Location	Interpretation
1	$A_{10} = (5{,}090{,}597 + 1)\frac{10}{100} = 509{,}059.8$	The first decile can be found between observation numbers 509,059 and 509,060 (observations arranged in ascending order of annual income).
2	$A_{20} = (5{,}090{,}597 + 1)\frac{20}{100} = 1{,}018{,}119.6$	The second decile can be found between observation numbers 1,018,119 and 1,018,120.
3	$A_{30} = (5{,}090{,}597 + 1)\frac{30}{100} = 1{,}527{,}179.4$	The third decile can be found between observation numbers 1,527,179and 1,527,180
4	$A_{40} = (5{,}090{,}597 + 1)\frac{40}{100} = 2{,}036{,}239.2$	The fourth decile can be found between observation numbers 2,036,239 and 2,036,240.
5	$A_{50} = (5{,}090{,}597 + 1)\frac{50}{100} = 2{,}545{,}299$	The fifth decile can be found at observation number 2,545,299 and 2,545,300
6	$A_{60} = (5{,}090{,}597 + 1)\frac{60}{100} = 3{,}054{,}358.8$	The sixth decile can be found between observation numbers 3,054,358 and 3,054,359.
7	$A_{70} = (5{,}090{,}597 + 1)\frac{70}{100} = 3{,}563{,}418.6$	The seventh decile can be found between observation numbers 3,563,418 and 3,563,419.
8	$A_{80} = (5{,}090{,}597 + 1)\frac{80}{100} = 4{,}072{,}478.4$	The eighth decile can be found between observation numbers 4,072,478 and 4,072,479.
9	$A_{90} = (5{,}090{,}597 + 1)\frac{90}{100} = 4{,}581{,}538.2$	The ninth decile can be found between observation numbers 4,581,538 and 4,581,539.

Source: AIM Policy Center calculations using BIR data.

Annex Table 10.1: Decile Values (For the first BIR dataset simply showing the number of taxpayers per income bracket)

Decile Number	Value	Interpretation
1	$D_1 = -0.50 + 9{,}999.99\left(\frac{(1)\frac{314{,}101}{10} - 0}{121{,}767}\right) = 2{,}579.02$	10 percent of the 2012 personal income tax filers earned less than P2,579.02 annual income.
2	$D_2 = -0.50 + 9{,}999.99\left(\frac{(2)\frac{314{,}101}{10} - 0}{121{,}767}\right) = 5{,}158.54$	20 percent of the 2012 personal income tax filers earned less than P5,158.54 annual income.
3	$D_3 = -0.50 + 9{,}999.99\left(\frac{(3)\frac{314{,}101}{10} - 0}{121{,}767}\right) = 7{,}738.07$	30 percent of the 2012 personal income tax filers earned less than P7,738.07 annual income.
4	$D_4 = 9{,}999.5 + 9{,}999.99\left(\frac{(4)\frac{314{,}101}{10} - 121{,}767}{150{,}223}\right) = 10{,}257.34$	40 percent of the 2012 personal income tax filers earned less than P10,257.34 annual income.
5	$D_5 = 19{,}999.5 + 9{,}999.99\left(\frac{(5)\frac{314{,}101}{10} - 150{,}223}{170{,}447}\right) = 20{,}400.06$	50 percent of the 2012 personal income tax filers earned less than P20,400.06 annual income.
6	$D_6 = 39{,}999.5 + 9{,}999.99\left(\frac{(6)\frac{314{,}101}{10} - 186{,}021}{196{,}691}\right) = 40{,}123.53$	60 percent of the 2012 personal income tax filers earned less than P40,123.53 annual income.
7	$D_7 = 79{,}999.5 + 9{,}999.99\left(\frac{(7)\frac{314{,}101}{10} - 218{,}229}{223{,}643}\right) = 80{,}072.91$	70 percent of the 2012 personal income tax filers earned less than P80,072.91 annual income.
8	$D_8 = 149{,}999.5 + 9{,}999.99\left(\frac{(8)\frac{314{,}101}{10} - 250{,}033}{252{,}992}\right) = 150{,}048.82$	80 percent of the 2012 personal income tax filers earned less than P150,048.82 annual income.
9	$D_9 = 359{,}999.5 + 9{,}999.99\left(\frac{(9)\frac{314{,}101}{10} - 282{,}282}{283{,}034}\right) = 360{,}013.95$	90 percent of the 2012 personal income tax filers earned less than P360,013.95 annual income.

Source: AIM Policy Center calculations using BIR data.

Annex Table 10.2: Decile Values (For the combined dataset of Compensation Income Earners, Self-Employed, and Professionals)

Decile Number	Value	Interpretation
1	$D_1 = -0.50 + 60{,}000\left(\frac{(1)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 7{,}500.10$	10 percent of the 2012 personal income tax filers earned less than P7,500.10 annual income.
2	$D_2 = -0.50 + 60{,}000\left(\frac{(2)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 15{,}000.70$	20 percent of the 2012 personal income tax filers earned less than P15,000.70 annual income.
3	$D_3 = -.50 + 60{,}000\left(\frac{(3)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 22{,}501.29$	30 percent of the 2012 personal income tax filers earned less than P22,501.29 annual income.
4	$D_4 = -0.50 + 60{,}000\left(\frac{(4)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 30{,}001.89$	40 percent of the 2012 personal income tax filers earned less than P30,001.89 annual income.
5	$D_5 = -0.50 + 60{,}000\left(\frac{(5)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 37{,}502.49$	50 percent of the 2012 personal income tax filers earned less than P37,502.49 annual income.
6	$D_6 = -0.50 + 60{,}000\left(\frac{(6)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 45{,}003.09$	60 percent of the 2012 personal income tax filers earned less than P45,003.09 annual income.
7	$D_7 = -0.50 + 60{,}000\left(\frac{(7)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 52{,}503.68$	70 percent of the 2012 personal income tax filers earned less than P52,503.68 annual income.
8	$D_8 = 60{,}000.50 + 60{,}000\left(\frac{(8)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 60{,}003.48$	80 percent of the 2012 personal income tax filers earned less than P60,003.48 annual income.
9	$D_9 = 100{,}000.50 + 60{,}000\left(\frac{(9)\frac{5{,}090{,}597}{10}}{4{,}072{,}153}\right) = 102{,}387.39$	90 percent of the 2012 personal income tax filers earned less than P102,387.39 annual income.

Source: AIM Policy Center calculations using BIR data.

Annex Dataset 1: Number of Taxpayers per Income Bracket (2008-2012)

NUMBER OF INDIVIDUAL TAXPAYERS PER TAXABLE INCOME
CY 2008-2012

Taxable Income		Number of Taxpayers				
		2008	2009	2010	2011	2012
NULL VALUE		365,816	58,510	63,279	44,650	25,502
BELOW 10,000.00		43,565	199,535	192,790	119,495	121,767
10,000.00	19,999.00	14,365	44,302	42,568	31,619	28,456
20,000.00	29,999.00	8,110	28,495	28,987	21,038	20,224
30,000.00	39,999.00	7,550	22,109	23,850	15,762	15,574
40,000.00	49,999.00	8,402	19,322	16,450	12,998	10,670
50,000.00	59,999.00	7,268	15,333	14,134	10,174	8,062
60,000.00	69,999.00	7,945	14,159	12,686	7,787	7,005
70,000.00	79,999.00	7,649	11,293	13,027	11,555	6,471
80,000.00	89,999.00	5,135	9,144	13,064	6,407	5,414
90,000.00	99,999.00	5,134	8,512	8,597	8,388	5,590
100,000.00	109,999.00	4,137	7,470	7,940	9,420	4,300
110,000.00	119,999.00	2,971	6,099	6,037	5,066	5,534
120,000.00	129,999.00	2,635	5,100	6,176	6,317	3,886
130,000.00	139,999.00	2,149	4,854	5,804	4,569	3,362
140,000.00	149,999.00	2,323	4,028	5,042	4,277	3,718
150,000.00	159,999.00	1,783	3,866	4,173	3,895	2,959
160,000.00	169,999.00	1,716	3,433	3,751	3,128	2,583
170,000.00	179,999.00	1,422	3,277	3,667	2,941	2,464
180,000.00	189,999.00	1,022	3,221	3,223	2,334	2,059
190,000.00	199,999.00	892	2,671	2,965	2,463	1,932
200,000.00	209,999.00	766	2,316	2,900	2,154	1,789
210,000.00	219,999.00	618	1,975	2,500	1,837	1,631
220,000.00	229,999.00	533	1,900	2,688	2,191	1,490
230,000.00	239,999.00	502	1,778	2,335	1,547	1,589
240,000.00	249,999.00	446	1,626	2,094	2,080	1,357
250,000.00	259,999.00	415	1,736	2,024	1,736	1,510
260,000.00	269,999.00	374	1,501	1,738	1,712	1,327
270,000.00	279,999.00	341	1,412	1,600	1,880	1,235
280,000.00	289,999.00	290	1,333	1,493	1,229	1,216
290,000.00	299,999.00	269	1,206	1,346	1,493	1,235
300,000.00	309,999.00	270	1,160	1,379	1,129	1,083
310,000.00	319,999.00	251	1,184	1,299	1,196	1,152
320,000.00	329,999.00	236	1,006	1,106	974	1,044
330,000.00	339,999.00	199	924	1,046	885	868
340,000.00	349,999.00	201	858	991	904	883
350,000.00	359,999.00	184	812	933	877	843
360,000.00	369,999.00	196	797	845	666	752
370,000.00	379,999.00	183	739	841	716	796
380,000.00	389,999.00	154	740	815	689	751
390,000.00	399,999.00	140	675	756	659	673
400,000.00	409,999.00	153	648	771	658	645
410,000.00	419,999.00	142	661	677	565	677
420,000.00	429,999.00	143	595	682	539	618
430,000.00	439,999.00	140	560	643	536	575
440,000.00	449,999.00	115	551	632	505	570
450,000.00	459,999.00	125	528	632	495	532
460,000.00	469,999.00	146	485	538	499	463
470,000.00	479,999.00	117	456	532	422	460
480,000.00	489,999.00	134	433	546	445	465
490,000.00	499,999.00	120	476	503	425	490
500,000.00	509,999.00	116	467	481	425	452
510,000.00	519,999.00	106	399	474	406	449
520,000.00	529,999.00	120	425	462	419	419
530,000.00	539,999.00	84	394	435	386	386
540,000.00	549,999.00	72	365	383	358	424
550,000.00	559,999.00	112	365	426	366	386
560,000.00	569,999.00	86	399	384	337	395
570,000.00	579,999.00	75	365	379	341	360
580,000.00	589,999.00	69	361	412	326	318
590,000.00	599,999.00	97	327	356	305	335
600,000.00	609,999.00	74	275	359	261	301
610,000.00	619,999.00	65	330	368	278	294
620,000.00	629,999.00	70	256	370	313	299
630,000.00	639,999.00	65	299	334	258	270
640,000.00	649,999.00	59	270	318	278	279
650,000.00	659,999.00	76	287	298	237	278
660,000.00	669,999.00	67	244	284	227	279
670,000.00	679,999.00	63	287	289	290	274
680,000.00	689,999.00	54	238	282	206	255
690,000.00	699,999.00	51	223	240	231	256
700,000.00	709,999.00	72	234	243	229	278
710,000.00	719,999.00	50	225	258	242	226
720,000.00	729,999.00	64	228	262	223	196
730,000.00	739,999.00	48	228	250	217	261
740,000.00	749,999.00	55	224	260	173	225
750,000.00	759,999.00	51	229	233	222	240
760,000.00	769,999.00	51	196	198	184	200
770,000.00	779,999.00	37	185	212	202	210
780,000.00	789,999.00	51	170	204	161	201
790,000.00	799,999.00	40	178	208	171	205
800,000.00	809,999.00	34	162	189	166	210
810,000.00	819,999.00	42	170	197	187	171
820,000.00	829,999.00	43	154	201	149	203
830,000.00	839,999.00	59	176	176	169	173
840,000.00	849,999.00	47	169	194	144	180
850,000.00	859,999.00	36	131	187	184	187
860,000.00	869,999.00	43	154	179	144	183
870,000.00	879,999.00	36	143	144	138	131
880,000.00	889,999.00	43	158	148	146	142
890,000.00	899,999.00	53	132	169	153	148
900,000.00	909,999.00	24	153	150	127	129
910,000.00	919,999.00	41	138	148	140	151
920,000.00	929,999.00	42	158	152	138	157
930,000.00	939,999.00	41	132	145	122	147
940,000.00	949,999.00	41	146	137	129	166
950,000.00	959,999.00	36	139	138	115	134
960,000.00	969,999.00	39	113	125	119	145
970,000.00	979,999.00	38	100	131	127	134
980,000.00	989,999.00	28	107	119	114	135
990,000.00	999,999.00	36	118	124	88	114
1,000,000.00	4,999,999.00	2,846	8,052	9,472	8,728	9,355
5,000,000.00	9,999,999.00	565	1,089	1,275	1,199	1,162
10,000,000.00	14,999,999.00	181	383	384	394	369
15,000,000.00	19,999,999.00	69	139	195	134	139
20,000,000.00	ABOVE	73	180	203	205	236
	TOTAL	516,528	527,173	539,439	387,657	339,603

Note: Includes BIR Forms Nos. 1700 & 1701 Filers

Source : Information Systems Development and Operations Service, BIR-ISG

Annex Dataset 2: Number of Compensation Income Tax Filers (2012)

Data on Compensation Income Tax Filers by Gross Taxable Income for CY 2012

source: DWH - 2012 1604CF Alphalist

rundate: February 21, 2014

Gross Income Bracket	ZERO EXEMPTION	SINGLE					MARRIED					UNDEFINED	Total No. of Taxfilers
		0 DPND	1 DPND	2 DPND	3 DPND	4 DPND	0 DPND	1 DPND	2 DPND	3 DPND	4 DPND		
Not over 60,000	73,949	2,135,925	107,568	37,402	11,032	4,933	513,071	402,624	379,567	210,543	128,672	564,292	4,569,578
over 60,001 to 100,000	1,439	118,368	9,855	3,493	1,040	423	34,840	33,060	31,446	16,596	8,713	1	259,274
over 100,001 to 150,000	918	73,922	6,774	2,658	699	259	27,141	25,444	26,502	15,344	8,278	1	187,940
over 150,001 to 200,000	519	34,785	2,675	1,205	311	110	17,106	15,544	16,493	9,628	5,167	0	103,543
over 200,001 to 300,000	499	27,484	2,083	917	247	122	19,738	16,316	19,054	11,583	6,179	0	104,222
over 300,001 to 400,000	200	10,731	814	341	101	25	8,542	6,876	7,675	4,720	2,274	0	42,299
over 400,001 to 500,000	120	5,223	415	149	50	19	4,779	3,803	3,870	2,400	1,088	0	21,916
over 500,001 to 600,000	78	2,776	200	62	26	7	2,845	2,111	2,172	1,540	669	0	12,486
over 600,001 to 700,000	48	1,666	127	40	18	6	1,999	1,291	1,374	948	448	0	7,965
over 700,001 to 800,000	54	1,173	77	26	10	1	1,308	821	968	550	266	0	5,254
over 800,001 to 900,000	27	775	56	29	11	2	1,014	573	668	447	185	0	3,787
over 900,001 to 1,000,000	26	584	46	22	6	3	848	491	583	383	180	0	3,172
over 1,000,001 to 2,000,000	99	1,772	118	65	27	10	2,612	1,718	2,247	1,435	597	0	10,700
over 2,000,001 to 4,000,000	39	462	37	19	7	5	738	459	599	375	130	0	2,870
over 4,000,001 to 6,000,000	14	103	6	4	0	0	146	79	118	57	29	0	556
over 6,000,001 to 8,000,000	6	53	4	0	0	1	57	33	55	24	10	0	243
over 8,000,001 to 10,000,000	2	17	3	0	1	0	44	15	37	17	3	0	139
over 10,000,001 to 12,000,000	5	8	0	0	0	0	23	12	14	7	3	0	72
over 12,000,000	7	64	3	2	0	0	96	64	78	48	12	0	374
TOTAL	**78,049**	**2,415,891**	**130,861**	**46,434**	**13,586**	**5,926**	**636,947**	**511,334**	**493,520**	**276,645**	**162,903**	**564,294**	**5,336,390**
Source: ISG, BIR, February 24, 2014		**88,327**	**357**	**202**	**74**	**46**	**132,076**	**32,285**	**35,032.00**	**20,753**	**9,349**		

Note:

a. additional columns for **Zero** & **Undefined Exemptions** are included in this report

Undefined Exemptions means exemption amounts that do not fall on the exemption matrix

b. Gross Income Bracket = Gross Taxable Income (GTI)

Gross Taxable Income = sum(13th Month & other Benefits + Salaries & Other Forms of Compensation)

Annex Dataset 3: Number of Compensation Income Tax Filers (2012)

Distribution of Individuals Engaged in Business, Professionals and Self-Employed Income Tax Filers by Gross Income Bracket and by Status and No. of Dependents for CY 2012

source: RPS 2012

rundate: February 21, 2014

Gross Income Bracket	SINGLE					MARRIED					UNDEFINED	Total No. of Taxpayers
	0 DPND	1 DPND	2 DPND	3 DPND	4 DPND	0 DPND	1 DPND	2 DPND	3 DPND	4 DPND		
Not over 60,000	20,026	64	45	12	10	30,659	5,170	5,745	3,428	1,708	14,667	81,534
over 60,001 to 100,000	8,604	41	16	11	4	13,680	3,269	3,177	1,745	839	4,756	36,142
over 100,001 to 150,000	9,073	44	15	6	3	13,066	3,379	3,113	1,597	665	4,237	35,198
over 150,001 to 200,000	6,452	23	12	4	1	8,655	2,547	2,811	1,242	564	2,783	25,094
over 200,001 to 300,000	8,817	35	17	16	4	11,699	3,248	3,676	2,282	939	3,917	34,650
over 300,001 to 400,000	5,868	26	10	0	4	7,893	2,188	2,345	1,379	643	2,553	22,909
over 400,001 to 500,000	4,539	17	9	3	3	5,989	1,569	1,772	1,040	467	1,725	17,133
over 500,001 to 600,000	3,370	8	11	2	1	4,608	1,246	1,326	852	356	1,393	13,173
over 600,001 to 700,000	2,312	6	6	0	2	3,233	912	1,001	630	271	1,006	9,379
over 700,001 to 800,000	1,899	6	5	1	0	2,775	765	815	499	216	828	7,809
over 800,001 to 900,000	1,550	4	7	0	1	2,297	609	663	459	171	680	6,441
over 900,001 to 1,000,000	1,372	5	6	0	2	1,915	539	608	383	156	599	5,585
over 1,000,001 to 2,000,000	6,479	24	16	4	3	10,109	2,806	3,134	1,915	862	2,929	28,281
over 2,000,001 to 4,000,000	3,424	20	6	2	2	6,309	1,602	1,940	1,308	557	1,787	16,957
over 4,000,001 to 6,000,000	1,318	5	2	2	0	2,459	636	814	484	234	671	6,625
over 6,000,001 to 8,000,000	706	3	3	2	4	1,316	368	451	289	137	395	3,674
over 8,000,001 to 10,000,000	424	5	2	1	0	898	241	284	208	81	217	2,361
over 10,000,001 to 12,000,000	293	0	5	1	0	590	152	189	127	54	163	1,574
over 12,000,000	1,801	21	9	7	2	3,926	1,039	1,168	886	429	1,048	10,336
TOTAL	**88,327**	**357**	**202**	**74**	**46**	**132,076**	**32,285**	**35,032.00**	**20,753**	**9,349**	**46,354**	**364,855**
Source: ISG, BIR, February 24, 2014												

Note:

a. An additional column for **Undefined Exemptions** are included in this report. 5,701,245

These are taxpayers with blank Extype code and Num of Dependents or those having blank Extype code and non-blank Number of dependents

b. Gross Income Bracket (Total Gross Income is equal sum of Taxable, Non-Taxable and Other Taxable Income), *where*:

b.1 Taxable = sum of COMPN_INCOME ,GROSS_SALES ,SPS_COMPN_INCOME ,SPS_GROSS_SALES

b.2 Non-taxable = sum of COMPN_EXMTN ,SPS_COMPN_EXMTN

b.3 Other Taxable Income = sum of OTHER_TXBLE_INC1 ,OTHER_TXBLE_INC2 ,SPS_OTHER_TXBLE_INC1 ,SPS_OTHER_TXBLE_INC2

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