

Final Tax Regression

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ABSTRACT

The urgency of this research lies in the pressing need to address regressiveness in Indonesia's taxation system, particularly concerning the Final Income Tax. As such, this study aims to examine the implications of Final Income Tax on taxpayers, especially high-income individuals, and propose potential reforms to ensure fairness and progressivity in the tax regime. To achieve this objective, the research employs a combination of quantitative analysis and theoretical frameworks. Income data from High-Wealth Individuals (HWIs) is analyzed to assess the regressiveness of the Effective Tax Rate (ETR), with a specific focus on income components subject to Final Income Tax. Additionally, the study reviews existing literature on tax reform and draws insights from international best practices to formulate recommendations for policy improvements. By combining empirical analysis with theoretical insights, this research contributes to a deeper understanding of the challenges within Indonesia's taxation system and offers actionable recommendations for policymakers and Directorate General of Taxes as Indonesian tax authorities.

Keywords: final income tax, progressivity, regressive, income distribution, inequality, tax rates

1. INTRODUCTION

The Income Tax Law (UU PPh)¹ emphasizes that the tax system for personal income tax (PPh OP) in Indonesia is a progressive tax system. It is shown by incremental tax rates ranging from 5 to 30 percent. Even in the Law on Harmonization of Tax Regulations (UU HPP), the highest rate was increased to 35 percent.

For most people, this progressive tax system is claimed to be the fairest system (compared to regressive, flat, and proportional

systems) because it is considered capable of easing the tax burden of those with low income. Wealthy people with higher incomes are considered to have the extra financial power to pay higher taxes. Whereas for those with mediocre income, most of the income received is generally spent on basic needs and survival.

Even so, some think that the progressive tax system is unfair because it treats the rich and the poor differently. Moreover, this system is also

¹ The Income Tax Law (UU PPh) that applies to this study is the Republic Indonesia Law Number 36 of 2008 concerning the Fourth Amendment to the Republic Indonesia Law Number 7 of 1983 concerning Income Tax.

proven to influence tax evasion² behavior in Indonesia as evidenced in the research of Estri & Djamaluddin (2019).

Aside from these pros and cons, the authors want to highlight the critical need to address the current regressive nature of the PPh OP tax system practice in Indonesia. Ensuring that the tax system progresses rather than regresses is of utmost importance, considering the disproportionate burden placed on certain segments of the population. Through this research, the author aims to conduct a comprehensive analysis of the implementation of the PPh OP tax system, particularly its effects on taxpayers with high incomes. Additionally, the author seeks to uncover the underlying factors contributing to the system's regressive tendencies. By shedding light on these challenges, the research aims to raise awareness among policymakers and stakeholders, advocating for reform to establish a more equitable tax framework. It can be seen by examining the individual taxpayers' reported income structure and the amount of tax paid on their Annual Income Tax Return (SPT Tahunan). The initial assumption is that those incomes and taxes have been fully reported.

A survey conducted by Forbes magazine in 2021 (table attached) ranks the 50 richest people in Indonesia. The survey results revealed that the 50 wealthiest people have net worth or net assets of around IDR 9.45 trillion to IDR 610.89 trillion (Forbes, 2021). Being taxpayers with the top income among the population of individual taxpayers (WP OP), the assumption that they are also supposed to pay taxes with the highest rate needs further analysis. Apart from that, their income structure also needs to be analyzed to see the alignment between the taxes paid and the level of income earned for both income subject to final and non-final income tax.

2. LITERATURE REVIEW

Kristiaji and Awwaliatul (2020) in one of their writings, have stated that the application of final income tax is one of the solutions for applying presumptive tax³. In addition, the tax mechanism is also considered simple and easy to implement by taxpayers and tax officers. In his writings, James Alm (2004) stated that this presumptive tax is generally applied so that the tax authorities can deal with hard-to-tax problems.

The study by Bucci (2020) mentioned that presumptive taxation methods can improve tax compliance and increase revenues, while on the other hand she noticed that their effectiveness is largely contingent on the use of comprehensive third-party reporting information and further empirical research is needed to better understand their impact and refine their application.

In the case of the informal sector, Duve and Schutte (2021) analyze how various features of presumptive tax systems impact tax compliance among small businesses in developing countries, highlighting the role of targeted taxpayers, thresholds, and timeframes and concluding that integrating information technology with these systems can enhance formalization.

However, despite the series of benefits stated above, there are potential problems arising. One of them is related to the administrative burden, which is when the taxpayer has high turnover, whether this benefit still relevant and fair if the tax rate charged is a flat rate? Furthermore, when the effective tax ratio for taxpayers subject to final income tax is lower than non-final income tax, will this provide incentives for taxpayers to commit tax avoidance by opting for income subject to final income tax? According to Allingham-Sandmo-Model (1972), Keen and Slemrod (2017), and Slemrod (2019), the tax rate is one of the most influencing factors for non-compliant taxpayer behavior.

It should be remembered that the spirit of the PPh OP tax system is related to the budgetary

² Tax evasion is an effort to reduce taxes by violating tax regulations (Suandy, 2014)

³ Final tax or presumptive tax is a tax calculation method using the indirect estimation method to calculate the amount of the taxpayer's tax liability (IMF, 1996)

function to finance national development and the redistribution of income, the ultimate goal of which is to reduce social inequality. Therefore, Article 17 of UU PPh states that the PPh OP rate was set to be progressive. Moreover, the UU HPP emphasizes the progressive nature of PPh OP taxation by expanding the coverage of the lowest bracket to IDR 60 million and increasing the top marginal tax rate by 5 percent to 35 percent.

In terms of taxing the capital income, Bastani and Waldenstrom (2020) argue that while traditional models have downplayed the role of capital taxes, recent perspectives show that taxing them can promote both equity and efficiency, although practical challenges remain, and optimal taxation requires balancing progressivity with the risk of tax avoidance and political pressures.

Meanwhile, the application of the final tax rate in Indonesia is regulated and reported separately from the taxpayer's income, which is subject to the general rate. For example, dividends received or earned by individual domestic taxpayers are subject to an income tax of 10 percent and are final. This rate does not differentiate the income earners, nor does it consider the size of the dividends received. For example, the final income tax rate for renting land and/or buildings, for both individuals and corporate taxpayers, is set at the same rate, 10 percent of the gross amount of the rental value. Since the range of the rates is small or tends to be fixed, it is causing the application of the final rate to somewhat deviate from the spirit of progressive PPh OP taxation.

It is also suspected to cause the gap in socio-economic inequality in society to widen. The rich can use this regulation as a loophole to reduce their tax burden by increasing income proportions subject to the final rate. Thus, they can avoid the maximum progressive rate of 35%. Meanwhile, those who only earn income from their employers are busy being taxed with progressive income rates.

3. RESEARCH METHODOLOGY

This study was conducted in 2022 and examines the structure of income and taxes paid by

individual taxpayers using data from the 2018-2020 SPT Tahunan PPh OP filings obtained from DGT. The population consists of all WP OPs who filed their annual tax returns during this period. This multi-year data set ensures the consistency and reliability of the research findings by capturing long-term trends and reducing the impact of year-specific anomalies. Specifically, for the 2020 SPT Tahunan database, there were 12,193,963 WP OPs. From this population, 19,052 entries were excluded due to Effective Tax Rates (ETRs) below 0 or above 1, indicating possible data errors or anomalies.

Additionally, to identify outliers, the 3x Standard Deviation method was applied. This method flagged any WP OPs reporting total annual income exceeding three times the standard deviation as outliers. Consequently, 33 entries with incomes over IDR 7.8 trillion were removed. The primary variables studied include Effective Tax Rate (ETR), the percentage of total income paid in taxes, which is calculated by dividing the total tax paid by the total income reported. ETRs for both final and non-final taxes are computed for each taxpayer. Income Levels, categorized into "super-rich" and "rich" based on total reported income.

Data were analyzed using the STATA software application to test the ETR values across different income levels. The analysis aimed to analyze income distribution among WP OPs to identify patterns and disparities. This investigates whether taxpayers adopt specific strategies to minimize their tax burden and how these strategies vary between the "super-rich" and "rich" WP OPs. During the analysis, potential miscalculations in reported taxes were identified. For example, 57,223 WP OPs reported final taxes with rates exceeding 20%, and 151 WP OPs reported non-final taxes with rates above 30%, both of which are unusually high and suggest possible reporting errors. These anomalies were considered during the data cleaning process to ensure the accuracy and validity of the analysis.

4. RESULTS AND DISCUSSION

4.1 Income Layer Distribution

In delving into the layers of income as outlined in the Income Tax Law, Table 1 serves as a valuable

Table 1 The Layer of Income⁴ based on the Income Tax Law
Source: Article 17 UU PPh

Layer #	Range of Taxable Income	Rates
1	0 s.d. Rp50 million	5%
2	>Rp50 million s.d. Rp250 million	15%
3	>Rp250 million s.d. Rp500 million	25%
4	>Rp500 million	30%

reference point, illustrating the various ranges of taxable income and their corresponding tax rates. As long as the effective date of the UU HPP has yet to come into effect, the provisions as stipulated in the UU PPh above are still effective in reporting 2021 SPT Tahunan. In the UU PPh, there are four layers of the PPh OP's tax rate which we can see in table 1, ranging from 5 to 30 percent. This layer only applies to non-final income received by taxpayers, not including final income. The population distribution of taxpayers based on the provisions above is shown in figure 1.

Looking at figure 1, the distribution of the number of WP OP reported in the 2020 SPT Tahunan, the population based on the PPh OP's tax rate layers tends to be skewed to the right. This means that the distribution of taxpayers is leaning towards higher tax rates. It can happen if the WP's average income is greater than the middle income (median) and the median is greater than the most frequently occurring income (modes) gathered at the first layer or the taxable income layer of up to IDR 50 million.

The amount of income tax payable indicates the opposite phenomenon and the pareto principle applied. WP OP contribution by income layer tends to be skewed to the left. It means that the smallest number of taxpayers gives the contribution of income tax owed in the population on the right of the figure 1. However, remember that income tax is still tax payable by taxpayers from non-final sources. To see the shape of the distribution as a whole will be discussed in the next section.

To provide an overview of the income layers subject to Final Income Tax rates, a rate classification is carried out based on four layers (can be seen in table 2), namely 0 – 1% (layer 1), >1% – 5% (layer 2), >5% – 10% (layer 3), >10% – 20% (layer 4). Based on this classification, an analysis of the distribution of taxpayers who have income subject to final income tax is carried out. The results of the analysis can be seen in the figure 2.

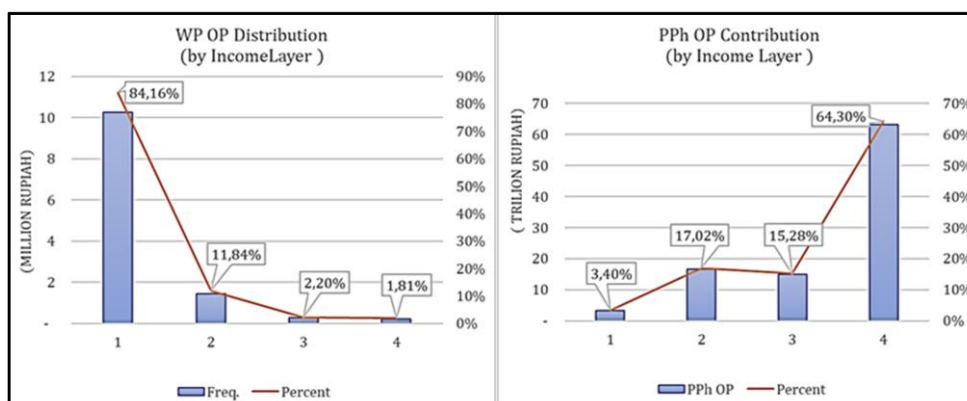


Figure 1 Distribution and Contribution of Non-Final Income Tax
Source: Processed from SPT Tahunan WP OP 2020

⁴ based on tax law which applies to taxpayers in the relevant tax year

Table 2 Types of Final Income Tax Rates Based on the Income Tax Law
Source: UU PPh

Rates	Final Income
0-1%	MSMEs, Stock Transactions
>1 s.d. 5%	Derivative Transactions, Construction, Income Tax on the Transfer of Rights on Land and Buildings
>5 s.d. 10%	Rentals, Construction, Dividends, Savings, Cooperative Interest
>10 s.d. 20% ⁵	Deposits, SBI Discounts, Current Account Services, Deposit Interest

In line with the pattern of non-final income, a similar thing also occurs in the distribution of income that is subject to final income tax with certain layers. The striking difference between the nonfinal income tax contribution graph and final income tax is the contribution of tax revenue at the highest rate layer. Non final income tax is the income layer with a contribution value of around IDR 60 trillion with a rate of 30%, while final income tax contributes around IDR 20 trillion with a rate layer >10% - 20%. This can provide an indication that in the upper income layer there is a regressiveness of tax imposition at the upper percentile layer when taxpayers have both non-final income and final income.

4.2 ETR by Income Percentile

In figure 3, the average ETR per percentile of non-final income increases as the total income of the

taxpayer increases. The ETR itself is obtained by dividing the tax that has been owed by the income received by each taxpayer for a year. For the below case, ETR is obtained by dividing non-final tax by non-final income. From the graph, for the non-final tax itself, our tax system is indeed progressive, provided that the taxpayer has no other income besides the non-final income itself.

Furthermore, Figure 4 displays the average ETR for each percentile of taxpayers who have income subject to final income tax. The graph shows that as much as 80% of taxpayers have no income subject to final income tax. In addition, it can also be concluded that there is no ETR progressivity toward higher-income taxpayers. Thus, when taxpayers have income subject to final income tax, they tend to benefit from the final income tax rate compared to taxpayers who do not have final income.

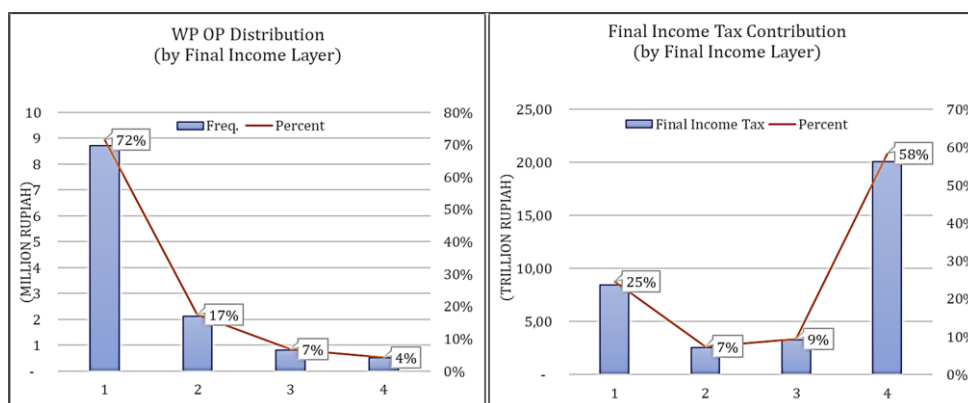


Figure 2 Distribution and Contribution of Final Income Tax
Source: Processed from SPT Tahunan WP OP 2020

⁵ There is also a final income tax rate that is more than 20%, namely final income tax on income originating from prizes or sweepstakes. The rate is charged at 25%. However, it is not included in the analysis considering it is a casuistic income.

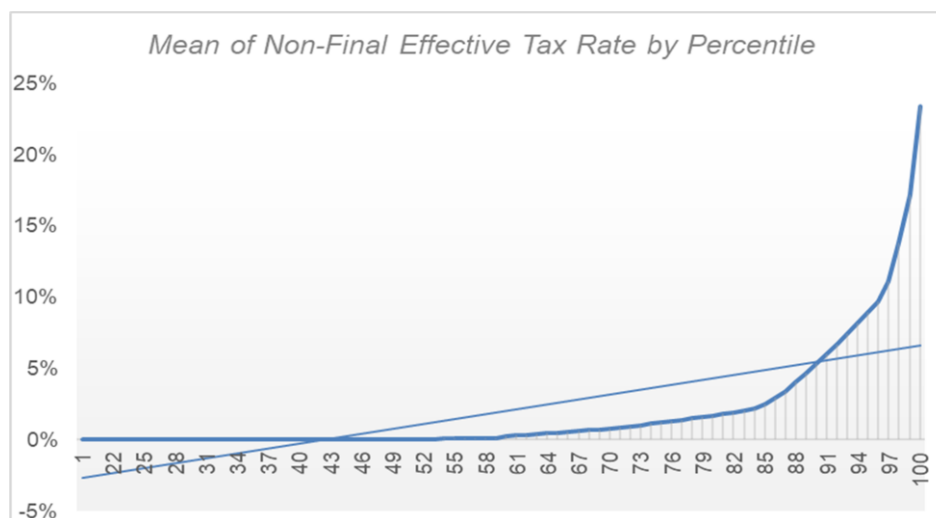


Figure 3 Average of Non-Final ETR based on Non-Final Income Percentile
Source: Processed from SPT Tahunan WP OP 2020

The income structure of taxpayers comes not only from labor income⁶ typically taxed or capital income⁷ generally subject to a final tax system but a combination of the two. Therefore, the income percentile must be based on the total income received by each taxpayer during the year, regardless of whether it comes from labor or capital income. Thus, this time the ETR is obtained by dividing all taxes payable (final and non-final) by all income received (labor and capital).

So, after conducting a two-sided test (final plus non-final), these analysis results show that Indonesia's taxation system is not fully progressive. For the lower percentile, the ETR is higher than some of the percentiles above it, shown in figure 5. On the other hand, the top-three percentile has a lower ETR than the several percentiles below them. The question is, why is the percentile distribution this time different from the previous percentile? It can happen because, in total, the percentile group

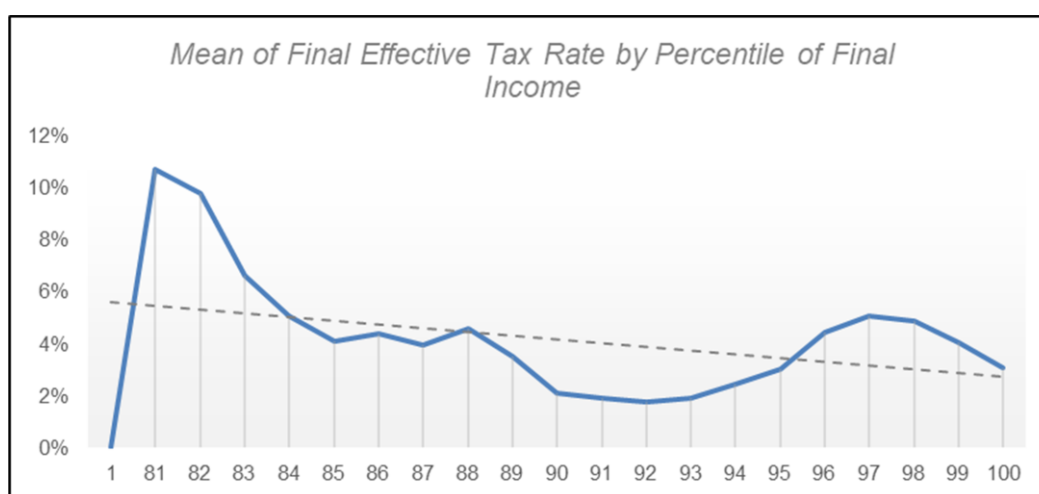


Figure 4 Average Final Effective Tax Rate by Final Income Percentile
Source: 2020 SPT Tahunan WP OP, processed

⁶ Revenue from work

⁷ Passive income that comes from investment or placement of other funds outside of employment

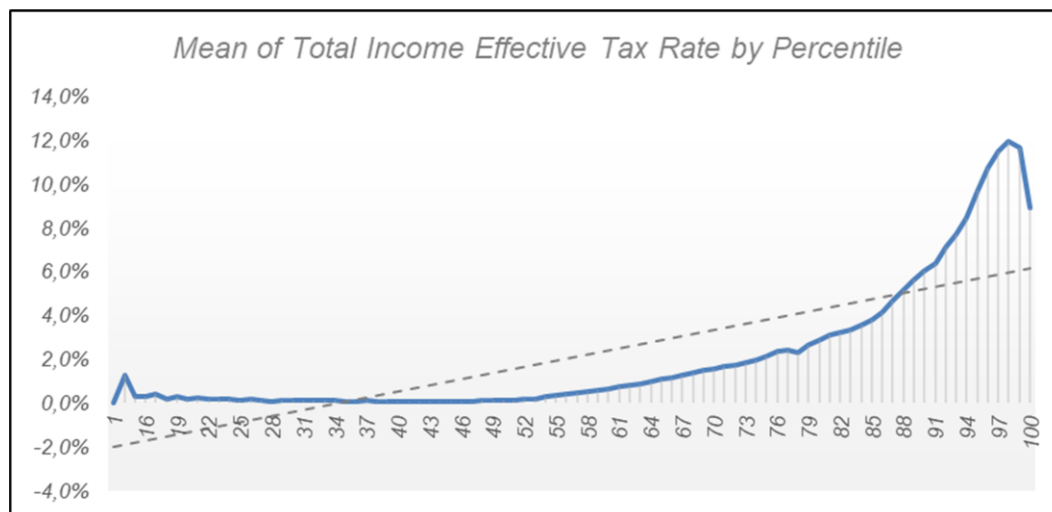


Figure 5 Average Non-Final Effective Tax Rate based on Total Income Percentile

Source: 2020 SPT Tahunan WP OP, processed

members may differ due to differences in income structure. Thus, taxpayers can move with an income structure with a more significant proportion of their final income than their non-final income to move up to the percentile class.

Likewise, from the calculation of the average rate in table 3, it can be seen that the average ETR of final income is greater than the ETR of non-final income. This can be interpreted that in general, taxpayers who have income subject to final income tax have a higher ETR when compared to taxpayers who are subject to non-final income tax. However, from the previous figure and the final income tax distribution figure, it is known that there is no progression in the final income tax rate. Thus, when taxpayers with very large or super-rich incomes have income that is dominated by income

subject to final income tax, they will benefit because their ETR will tend to be lower.

Let us look at the income composition in figure 6 and compare it to figure 7. Starting from the 79th percentile and above, final income holdings are steadily increasing. It even outnumbered his non-final earnings in the 99th and 100th percentile. However, compared to the ETR in that group, it is declining. Its role is fragile to be able to increase the total ETR amount. This pattern has been consistent for the last three years (2018-2020). Based on this insight, the nature of final taxation is regressive for the upper class (especially the highest three percentiles), and it is not even an exaggeration to say that it can create a super-rich class of society.

Table 3 Mean Differences of Final and Non-Final Income

Source: Processed from SPT Tahunan WP OP 2020

```
. sum etrfinal if etrfinal > 0
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Variable	Obs	Mean	Std. Dev.	Min	Max
etrfinal	2,025,504	.0520462	.0801626	8.99e-12	.9999999

```
. sum etrnonfinal if etrnonfinal > 0
```

Variable	Obs	Mean	Std. Dev.	Min	Max
etrnonfinal	4,885,381	.0402573	.0512528	7.94e-08	.9999992

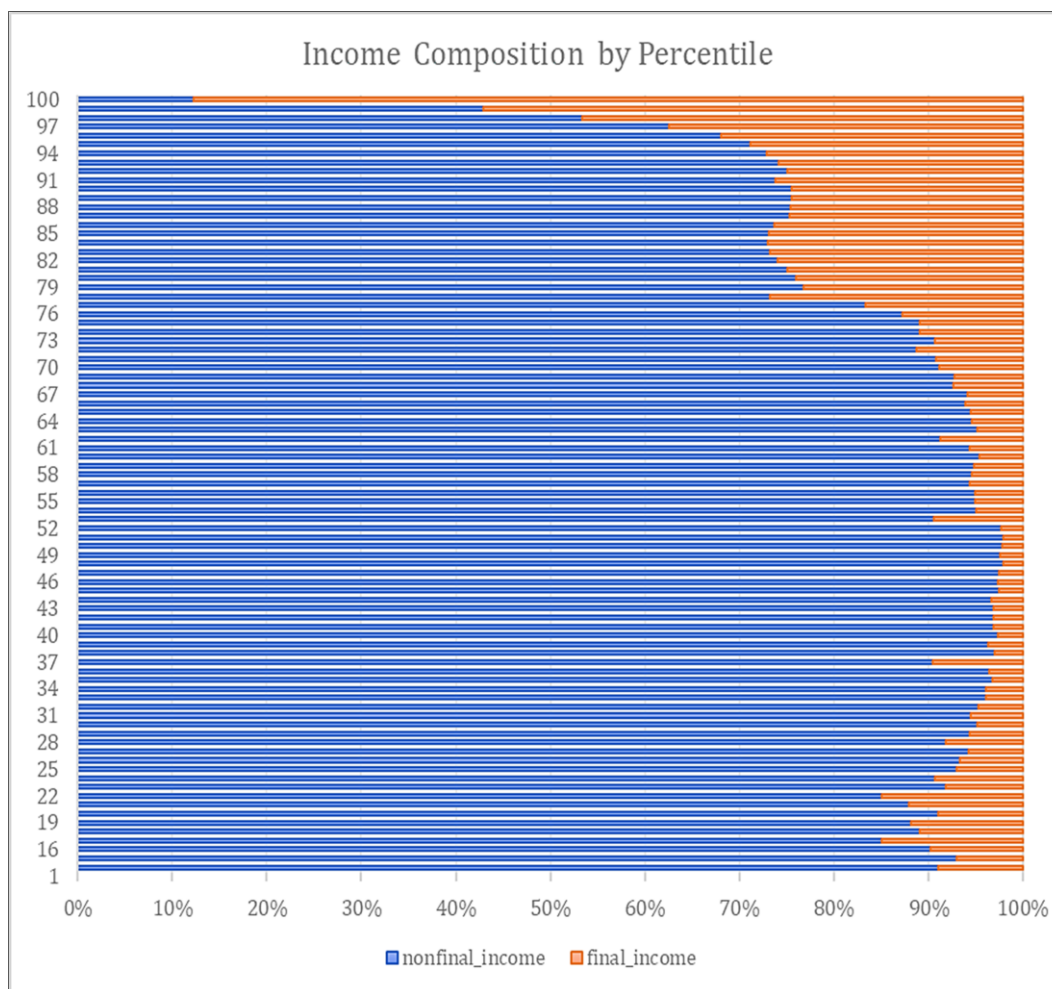


Figure 6 WP Income Structure based on Total Income Percentile
Source: Processed from SPT Tahunan WP OP 2020

The next question is, what kind of capital income makes the top-ten percentile very rich? In Figure 8, In the 100th percentile, the income from the sale of shares is the primary source of their wealth. However, what is intriguing is the composition of the other final gross income, which is consistently in all percentile layers. It was initially used for MSME reporting. Therefore, in this regard, further research is needed to determine whether formally the taxpayer has been correct and/or honest in his reporting.

4.3 Tax Administration for High-Wealth Taxpayers

Currently, WP OPs with certain incomes are monitored by three KPP types: KPP HWI, KPP

Middle throughout Indonesia, and KPP Entities and Foreign Individuals. Based on the aggregate data for the three types of KPP in 2020, apart from Badora KPP, the income structure of WP OP, as described by figure 9 is generally dominated by income subject to final rates. In contrast, as illustrated by figure 10, the PPh WP OP structure at the KPP is generally supported by non-final PPh. It is in line with the research results in the previous subheading on the WP OP population throughout Indonesia.

Table 4 shows that the WP OP ETR at KPP Badora, HWI, and Madya are 24.8%, 11%, and 9.5%. This ETR is much lower than the highest Article 17 income tax rate in 2020, which is 30%. This discrepancy arises because the final income

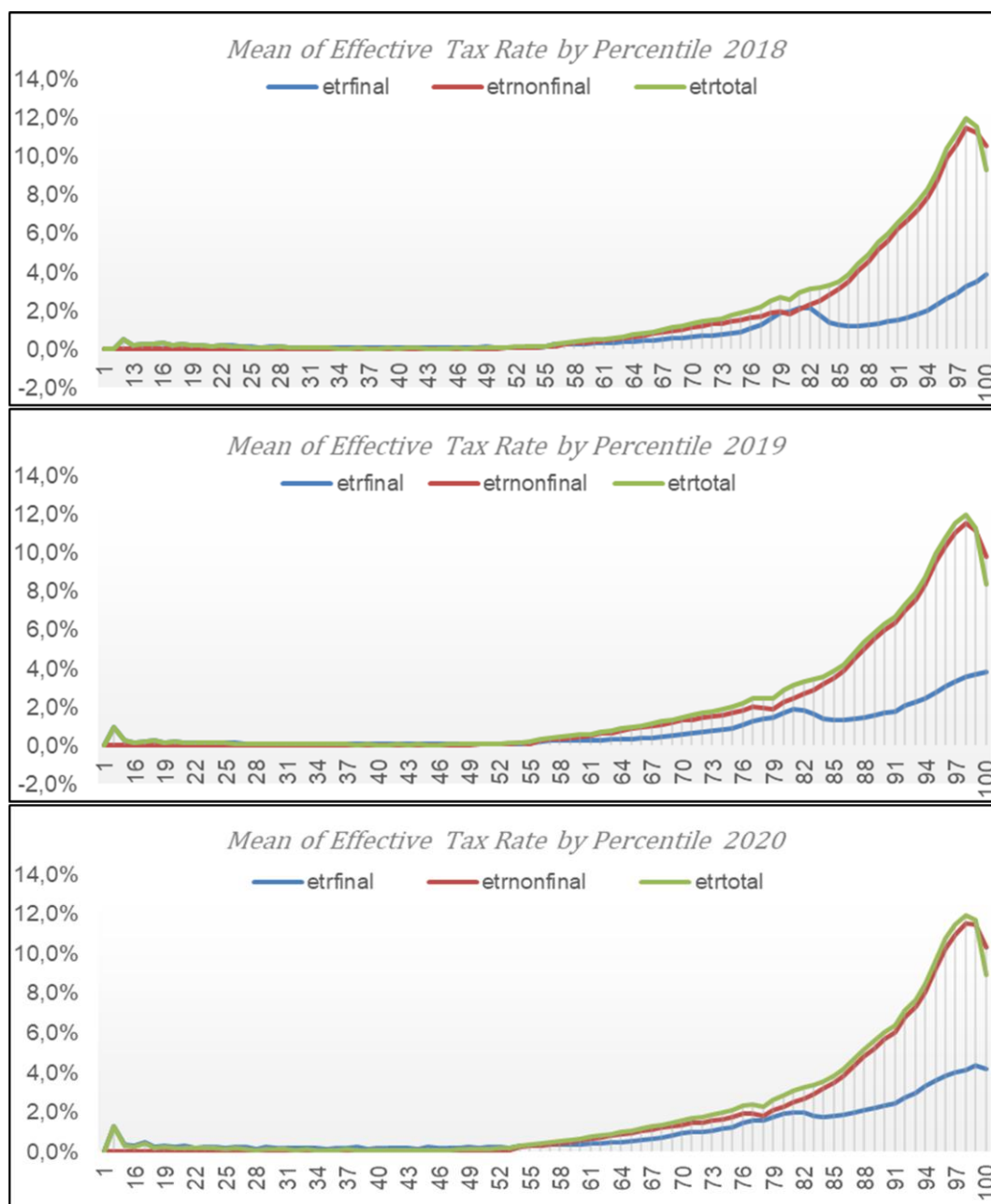


Figure 7 Mean of Effective Tax Rate based on Total Income Percentile

Source: Source: 2020 SPT Tahunan WP OP, processed

tax rates, particularly those applied to income sources other than deposits, are generally lower than the rates under the standard tax regime.

Compared to the average national non-final ETR of 4.03%, the non-final ETR in this selected KPP is much higher (see table 5). Likewise, with the final taxation, the ETR of this selected KPP is still much higher than the average national final ETR of 5.2% (see table 5). It may be because high-wealth individuals from all over Indonesia are gathered in this KPP category. However, this also

means that the existence of the HWI, Badora, and Middle KPP types is administratively appropriate to handle wealthy WP OPs in Indonesia.

4.4 Final Tax Treatment

In the United States, the tax rate paid on capital income or realized capital gains depends on the taxpayer's total income and the duration of asset ownership before sale. For assets held less than a year, gains are taxed as ordinary income based on

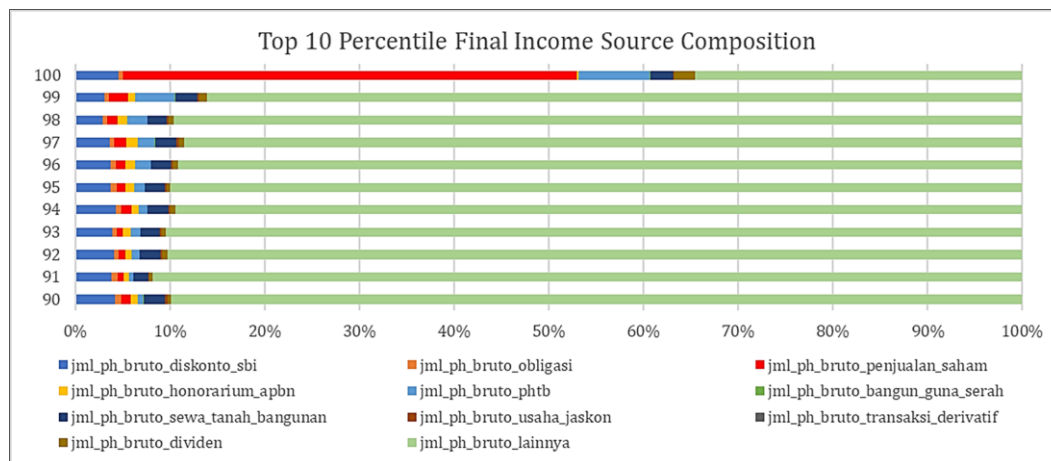


Figure 8 Composition of Final Income in the 10 Highest Percentiles
Source: Processed from SPT Tahunan WP OP 2020

a progressive rate structure. For longer-held assets, the gains are considered long-term and taxed at lower rates. This system ensures that both horizontal and vertical equity are maintained, as taxpayers with greater capacity to pay are taxed accordingly.

In contrast, the final income tax system in Indonesia does not distinguish between different levels of income or the nature of the income, such as active or passive. Many types of income subject to final income tax, like construction services or income from small and medium-sized enterprises (MSMEs), would be better taxed under a non-final regime. This would prevent high-income earners from benefiting disproportionately from flat rates, a problem highlighted by Bucci (2020) in her review of presumptive taxation methods.

Bucci (2020) emphasizes that while presumptive taxes can simplify tax collection and reduce compliance costs, they also pose significant risks if not carefully designed. A "too preferential" presumptive tax regime can distort economic behavior, encouraging taxpayers to alter their activities or income reporting to minimize tax liabilities rather than improve efficiency. This is particularly relevant in Indonesia's context, where high-income taxpayers may opt for income categories subject to Final Income Tax to lower their overall tax burden.

The classic reason raised for final taxation on construction services should be corrected by eradicating corruption or by using the services of an independent third party, for example, to assess the operating margin of this business activity. In

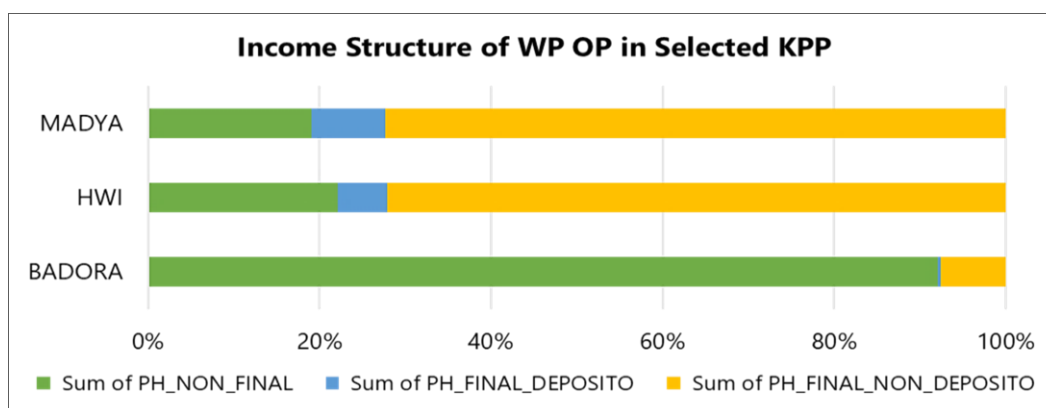


Figure 9 Income structure of WP OP in the selected KPP
Source: Processed from SPT Tahunan WP OP 2020

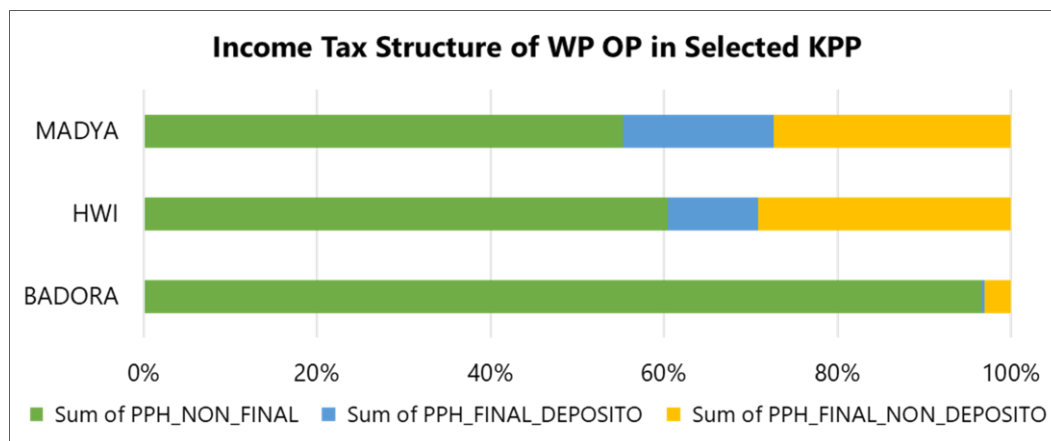


Figure 10 PPh OP structure in the selected KPP

Source: 2020 SPT Tahunan WP OP, processed

this modern and open era, it is fitting for the public to see how the actual condition of construction service business kitchens is operating in Indonesia.

At least the authors formulate two kinds of approaches that can be taken to gradually remove the final taxation system, especially for WP OPs. We consider that the imposition of final tax is a form of special provision that is different from general provisions, and therefore it can be regarded as a tax expenditure⁸. How we can handle the revenue forgone method, first, by equating the Final Income Tax rate with the ETR value of the taxpayer that has been reported in the SPT Tahunan for the previous Tax Year (n-1). For example, in 2020, a person reports his income with a ratio of "PPh: Net Income" alias ETR of 17%. Every final income he received in 2021 is subject to Final Income Tax, equivalent to his non-final income, which is 17%. This technique can eliminate final taxation distortions so that individual income tax remains progressive. In addition, the state will undoubtedly enjoy positive externalities in the form of increased tax revenues.

The second approach that can be taken if the previous approach has worked well is annualizing every income received, both final and non-final. This method will tax each person according to his income during the year. There is no longer a gap between passive income and active income. To realize this method requires technological readiness and transparent law enforcement. It is because there is a lag between the income received and when he reports his income. The number of stock transactions, for example, must be able to be recorded neatly and in detail. Additionally, introducing third-party reporting and enhancing the use of technology for pre-populated tax returns, could improve compliance and ensure that final tax treatments remain progressive and fair.

Furthermore, the AR function, as stipulated in PMK 45/2021 in carrying out supervision of taxpayer compliance, is very vital. He must be able to oversee taxpayer as a whole and detect transactions that are not only carried out physically or in cyberspace.

Table 4 Mean Effective Tax Rate of PPh OP at Selected KPP

Source: 2020 SPT Tahunan WP OP, processed

	STRUKTUR_PH_NON_FINAL	ETR_NON_FINAL	ETR_TOTAL	ETR_DEPOSITO	ETR_FINAL_NON_DEPOSITO
BADORA	92,1%	26,0%	24,8%	20,9%	9,9%
HWI	22,1%	30,2%	11,0%	19,7%	4,5%
MADYA	19,0%	27,7%	9,5%	19,2%	3,6%

⁸ Tax expenditures are defined as tax receipts that are not collected or are reduced due to specific provisions that differ from the general tax system (benchmark tax system), which apply only to certain taxpayers and tax objects under specific conditions.

Table 5 Mean Difference between Final and Non-Final Income
Source: Processed from SPT Tahunan WP OP 2020

. sum etrfinal if etrfinal > 0					
Variable	Obs	Mean	Std. Dev.	Min	Max
etrfinal	2,025,504	.0520462	.0801626	8.99e-12	.9999999
. sum etrnonfinal if etrnonfinal > 0					
Variable	Obs	Mean	Std. Dev.	Min	Max
etrnonfinal	4,885,381	.0402573	.0512528	7.94e-08	.9999992

By changing the final taxation system approach, the authors hope to restore the OP PPh taxation system to maintain its progress and be fair for all parties.

5. CONCLUSION

Based on the analysis that has been done before, based on testing of the top percentile of taxpayers with the highest income, the results show a regressiveness of the ETR of all taxpayers' income. One of the contributors to this regression is the income component subject to Final Income Tax. This conclusion is supported by income data for HWI taxpayers, whose income is dominated by income subject to Final Income Tax. However, researchers see that the risk of filling in the SPT Tahunan by taxpayers is still inherent.

From the conclusions above, it is necessary to consider the imposition of income rates subject to Final Income Tax that are dynamic or progressive following the level of income received so that there is an increase in ETR comparable to Taxpayers whose income is subject to non-final Income Tax. Apart from that, DGT also needs to develop a prepopulated filing system for income subject to Final Income Tax to reduce filling errors.

All information and results of this analysis can be disseminated widely to obtain other academic and regulatory views, which play a role in improving the taxation system in Indonesia, primarily related to PPh OP.

6. IMPLICATIONS AND LIMITATIONS

The analysis indicates that the current use of final income tax rates contributes to a regressive ETR among high-income taxpayers. The regressive nature of final income tax rates suggests a need to amend the regulations to introduce progressive final tax rates and improve prepopulated filing systems to enhance fairness and accuracy in the tax system.

Any views, ideas, and/or ideas contained in this paper are not representative of the policies issued by the author's place of work-the Head Office of the Directorate General of Taxes. However, they are solely the professional responsibility of the author.

In conducting this research, the authors have various limitations, including that limited data access causes the SPT data used in the research to only come from a few tax years, namely 2018, 2019, and 2020 tax years, years in which the HPP Law has not been effectively applied. What is more, the community's economic condition was unstable at this time due to the pandemic. However, the tax year used is the most recent in the DGT tax database. In addition, the authors have made efforts so that data consistency is not an issue in this study.

Furthermore, the author also needs to remind us that the data used in this paper is the WP OP's self-assessment version outlined in the SPT Tahunan, so the tax office has done no research or inspection. It means there may be typos, wrong numbers, wrong columns, or wrong

application of tax law. Originality is key to source data and can have positive implications for research.

Finally, in formulating two approaches that can be taken to eliminate the final taxation system, the authors have yet to conduct research or simulations due to time and space limitations in this study. For this reason, the authors will conduct further research separately in less time since this research was completed.

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APPENDICES

Appendix 1 List of the 50 Richest People in Indonesia in 2021

Source: Forbes, processed

Rank	Name	Net Worth	Origin of Wealth
#1	R. Budi & Michael Hartono	\$42.6 B	conglomerate
#2	Widjaja family	\$9.7 B	diversified
#3	Anthoni Salim	\$8.5 B	diversified
#4	Sri Prakash Lohia	\$6.2 B	petrochemicals
#5	Prajogo Pangestu	\$6.1 B	petrochemicals
#6	Chairul Tanjung	\$5.5 B	diversified
#7	Susilo Wonowidjojo	\$4.8 B	tobacco
#8	Boenjamin Setiawan	\$4.2 B	pharmaceuticals
#9	Jogi Hendra Atmadja	\$4.1 B	consumer goods
#10	Bachtiar Karim	\$3.5 B	palm oil
#11	Wijono & Hermanto Tanoko	\$3.3 B	diversified
#12	Jerry Ng	\$3.2 B	banking
#13	Eddy Kusnadi Sariaatmadja	\$2.9 B	media, tech
#14	Martua Sitorus	\$2.85 B	palm oil
#15	Theodore Rachmat	\$2.84 B	diversified
#16	Tahir	\$2.8 B	diversified
#17	Garibaldi Thohir	\$2.6 B	coal
#18	Low Tuck Kwong	\$2.55 B	coal
#19	Otto Toto Sugiri	\$2.5 B	data centers
#20	Peter Sondakh	\$2.15 B	investments
#21	Sukanto Tanoto	\$2.1 B	diversified
#22	Djoko Susanto	\$1.9 B	supermarkets
#23	Mochtar Riady	\$1.85 B	diversified
#24	Ciliandra Fangiono	\$1.83 B	palm oil
#25	Putera Sampoerna	\$1.8 B	investments
#26	Ciputra family	\$1.65 B	real estate
#27	Kiki Barki	\$1.6 B	coal
#28	Irwan Hidayat	\$1.58 B	herbal medicine
#29	Edwin Soeryadjaya	\$1.51 B	coal, investments
#30	Marina Budiman	\$1.5 B	data centers
#31	Kuncoro Wibowo	\$1.48 B	retail, tools
#32	John Kusuma	\$1.4 B	banking
#33	Murdaya Poo	\$1.26 B	diversified
#34	Husain Djojonegoro	\$1.25 B	consumer goods
#35	Husodo Angkosubroto	\$1.22 B	insurance, agribusiness, property
#36	Winarko Sulistyio	\$1.2 B	paper and pulp
#37	Han Arming Hanafia	\$1.19 B	data centers
#38	Alexander Tedja	\$1.15 B	real estate
#39	Eddy Katuari	\$1.1 B	consumer goods
#40	Hary Tanoesoedibjo	\$1.02 B	media, real estate
#41	Lim Hariyanto Wijaya Sarwono	\$1 B	palm oil, nickel mining
#42	Sudhamek Agoeng Waspodo Soenjoto	\$995 M	snacks, beverages
#43	Hamami family	\$985 M	heavy equipment
#44	Arini Subianto	\$975 M	coal, palm oil
#45	Susanto Suwanto	\$925 M	media
#46	Sabana Prawirawidjaja	\$900 M	beverages
#47	Sjamsul Nursalim	\$880 M	tires, retail
#48	Soegiarto Adikoesoemo	\$860 M	chemicals
#49	Osbert Lyman	\$800 M	real estate
#50	Kartini Muljadi	\$695 M	pharmaceuticals

Appendix 2 Do-File

/*GENERATE VARIABEL BARU: TOTAL PENGHASILAN DAN TOTAL PPH (FINAL DAN NON-FINAL)*/

```
gen totalpengh = jml_ph_netto + jml_dpp_ph_final
gen totalpph = jml_pph_terutang + jml_pph_final
gen etr = totalpph / totalpengh
gen inc_mil = totalpengh / 1000000
replace jml_ph_netto = 0 if jml_ph_netto ==.
replace jml_dpp_ph_final = 0 if jml_dpp_ph_final ==.
replace etr=0 if etr==.
drop if jml_ph_netto < 0
drop if jml_dpp_ph_final < 0
gen etrnonfinal = jml_pph_terutang / jml_ph_netto
gen etrfinal = jml_pph_final / jml_dpp_ph_final
drop if etrnonfinal >=1
drop if etrfinal >=1
drop if etr >=1
```

/*DISTRIBUSI PENGHASILAN BY LAYER UU PPH*/

```
gen layer = 1 if jml_pkp <= 500000000
replace layer = 2 if jml_pkp > 500000000
replace layer = 3 if jml_pkp > 2500000000
replace layer = 4 if jml_pkp > 5000000000
tab layer
total jml_pph_terutang, over (layer)
```

/*DISTRIBUSI XTILE*/

```
gen income_class=.
replace income_class= 20 if jml_ph_netto > 5000000000
replace income_class= 19 if jml_ph_netto <= 5000000000
replace income_class= 18 if jml_ph_netto <= 4000000000
replace income_class= 17 if jml_ph_netto <= 3000000000
replace income_class= 16 if jml_ph_netto <= 2000000000
replace income_class= 15 if jml_ph_netto <= 1000000000
replace income_class= 14 if jml_ph_netto <= 900000000
replace income_class= 13 if jml_ph_netto <= 800000000
replace income_class= 12 if jml_ph_netto <= 700000000
replace income_class= 11 if jml_ph_netto <= 600000000
replace income_class= 10 if jml_ph_netto <= 500000000
replace income_class= 9 if jml_ph_netto <= 450000000
replace income_class= 8 if jml_ph_netto <= 400000000
replace income_class= 7 if jml_ph_netto <= 350000000
replace income_class= 6 if jml_ph_netto <= 300000000
replace income_class= 5 if jml_ph_netto <= 250000000
replace income_class= 4 if jml_ph_netto <= 200000000
replace income_class= 3 if jml_ph_netto <= 150000000
replace income_class= 2 if jml_ph_netto <= 100000000
replace income_class= 1 if jml_ph_netto <= 50000000
total jml_pph_final, over (income_class)
xtile decile_pengh = totalpengh, nq(10)
```

```
xtile pctlengh = totalpengh, nq(100)
replace pctlengh=1 if pctlengh==.
xtile pctlengh_nonfinal = jml_ph_netto, nq(100)
replace pctlengh_nonfinal=1 if pctlengh_nonfinal==.
```

/*sebaran ETR per lapisan penghasilan maupun *percentile* penghasilan*/

```
tabstat inc_mil, by(pctlengh) s(n mean sd min max)
tabstat etr, by(pctlengh) s(n mean sd min max)
*ETR lapisan non-Final*
tabstat etrnonfinal, by( pctlengh_nonfinal ) s(n mean sd min max)
tabstat etrnonfinal, by( pctlengh ) s(n mean sd min max)
*ETR lapisan Final*
tabstat etrfinal, by( pctlengh ) s(n mean sd min max)
*ETR all lapisan*
tabstat etr, by( pctlengh ) s(n mean sd min max)
```

/*buat diagram ETR per *percentile/**

```
preserve
collapse (mean) etr, by (pctlengh)
graph twoway (connected etr pctlengh if etr<=1 & etr>=0, lwidth (thin) msymbol (smcircle)),
graphregion(fcolor(white))
restore
```

/*data buat diagram stacking final vs non-final per *percentile/**

```
total jml_ph_netto jml_dpp_ph_final, over (pctlengh)
```

/*data buat diagram jenis final top *percentile/**

```
total jml_ph_bruto_diskonto_sbi jml_ph_bruto_obligasi jml_ph_bruto_penjualan_saham
jml_ph_bruto_honorarium_apbn jml_ph_bruto_phtb jml_ph_bruto_bangun_guna_serah
jml_ph_bruto_sewa_tanah_bangunan jml_ph_bruto_usaha_jaskon jml_ph_bruto_transaksi_derivatif
jml_ph_bruto_dividen jml_ph_bruto_lainnya if pctlengh >89, over ( pctlengh)
```