The problem of gross receipts taxes in Indonesia: Economic distortions and policy options

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THE PROBLEM OF GROSS RECEIPTS TAXES IN INDONESIA: ECONOMIC DISTORTIONS AND POLICY OPTIONS

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ABSTRACT

This article examines the experience of Indonesia in adopting gross receipts taxes as one of the elements in the architecture of its tax system. Although Indonesian income tax law and value-added tax law do not explicitly impose gross receipts taxes, however, these laws authorize the use of presumptive taxation methods, which in practice are essentially gross receipts taxes. In the past three decades there have been expansions in the use of these presumptive methods in the tax system. As gross receipts tax is considered to be one of the most distortive tax systems, its expansions may also mean that its distortive effects may have expanded throughout the economy. Nevertheless, if well-designed and properly managed, gross receipts taxes might serve as an effective instrument to broadening the tax base particularly in countries with a significant presence of the informal sector, while still minimizing its adverse impacts on the economy.

Keywords: Gross Receipts Taxes, Economic Distortion, Hard-to-Tax, Administrative Capacity, Informal Sector

JEL classification: E62, H21, H30, O17

INTRODUCTION

A gross receipts tax is a tax that is imposed against the receipts of a business's total sales. In most modern developed economies gross receipts taxes had largely disappeared as an important

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source of revenue. It is possible that the waning role of gross receipts taxes may have to do with the drawbacks inherent in this type of tax: they violate the fundamental principles of tax policy, mainly economic efficiency, equity and transparency.

The first comprehensive tax reform in Indonesia was launched in 1984 and was aimed at replacing the country's outdated taxation systems which were inefficient, overly complex and riddled with loopholes.[2] The most notable elements in the reform was the adoption of Value-Added Tax (VAT) law to replace sales tax and the introduction of self-assessment system in the new income tax law. Initially designed to avoid the same problems of the tax systems they replaced, the laws brought by this reform severely limited the use of presumptive taxation with the expectation that the efficiency, integrity and comprehensiveness of the tax systems could be maintained. In the past three decades, however, there have been amendments to these laws and one of the adverse results of these amendments is expansions in the use of gross receipts taxes as a special regime in the architecture of the tax systems.

The expansions of gross receipts taxes may be dilemmatic since, on the one side, it is considered to be one of the most economically distortive tax instruments and, on the other side, a well-designed and properly managed gross receipts taxes may play an important role in encouraging enterprises operating in the informal economy to migrate to the formal economy and be part of the taxpaying population, amid the limited resources on the part of the tax administration. However, research on gross receipts taxes in Indonesia has been scarce. This article aims to contribute to filling this gap by examining the role of the gross receipts taxes in creating economic distortions while simultaneously serves as an instrument to reduce the costs of compliance for taxpayers and the costs of tax administration, particularly in relation to small taxpayers.

LITERATURE REVIEW

Appropriate design of a tax system may serve as one of the major issues in public finance. Designing such an appropriate system, however, may not an easy task since it has to strike balance among various ideal attributes of taxation: Taxes must be levied (*revenue-yield*) without exerting unnecessary costs on taxpayers or the tax administration (*simplicity*) while giving fair treatment to individuals (*equity*) and minimizing interference on their decisions (*efficiency*)

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[2] See Gillis (1989) for further discussion on the 1984 Indonesian tax reform.

(Alm, 1999). However, a tax system may not be able to be entirely evaluated from the standpoint of the principled vacuum of an ideal world (Testa & Mattoon, 2007) since it may be chosen to be enacted based on political and administrative constraints that a government has to confront in the real world. The need to strike a balance between these variables raises a strand of literature labeled the theory of optimal taxation.

Theory of optimal taxation rests on the principle that the government is required to raise a specified amount of revenue through a tax system that maximizes social welfare function contingent on a set of constraints (Mankiw, Weinzierl, & Yagan, 2009). Hence, a second-best nature may serve as the overarching characteristic of the optimal taxation theory. As such, the basic question the theory tries to answer is how best to raise revenues in a second-best world (Boadway, 2012).

Early major contribution in the optimal tax theory is the seminal paper by Ramsey (1927) which proposed a way to raise revenues from a representative agent that left the agent as well off as possible under the assumed constraint that commodity taxes is the only revenue raising instrument available for the government. Ramsey suggested that in order to minimize the efficiency costs, such taxes should tax different commodities differently in such a way that goods with inelastic demands should be taxed at relatively higher rates. This work was revived by Samuelson (1986) who rephrased Ramsey' proposition within the framework of the principal-agent problem in which the government could be regarded as the principal and taxpayer as the agent.

One critical drawback of the Ramsey's model, however, is the rigid constraint it placed on the ability of the government to choose the best among various tax systems (Mankiw et al., 2009). Ruling out other conceivable tax systems merely by assumption is problematic in the perspective of the optimal taxation theory itself since the theory basically aims to derive the best tax system to finance public expenditures without exerting unnecessary distortions on the economy. On the other hand, if there were no constraint in the ability of the government in choosing a tax system then the optimal tax would simply be a lump-sum tax. In a theoretical world where the economy is described by a representative agent, the lump-sum tax would not interfere with the choices made by that agent thus a tax could be collected with no efficiency costs. Nonetheless, in the real world the most important reason why lump-sum tax is rarely used is that this tax fails to recognize the heterogeneity among taxpayers – particularly related to their

ability to pay. This is because with a lump-sum tax, rich and poor individuals would have to pay the same amount thus placing relatively higher burden on the part of the latter.

The second major contribution to the theory of optimal taxation was the work of Mirrlees (1971) which dealt explicitly with the issue of taxpayers' heterogeneity. In his work, Mirrlees (1971) recognized the previously unobserved heterogeneity, diminishing marginal utility of consumption and the incentive effects of taxation. Thus the trade-off between equality and efficiency, both has to be carefully considered by governments in the real world, are formalized in the model (Mankiw et al., 2009). Models built within the Mirrleesian framework (see, for example, in Little and Mirrlees (1974); Ray (1984)) typically assume that the government cannot directly observes individuals' ability to pay (this assumption may be closer to reality) hence it has to rely on surrogate characteristics of ability to pay which is easily observable; and the closest surrogate is the income received by each taxpayer (Musgrave, 1967). Nonetheless, since the income of an individual depends on that person's capability and effort – which both of them cannot be directly observed – the government has to strike a balance between how much income that should be taken from an individual and that individual's effort to earn that income. On the one hand, if the tax level was set too high then individuals might reduce their work efforts and this may distort economic efficiency. On the other hand, if the tax level was set too low the government might have difficulties in providing public services as well as in reducing economic inequalities.

Hence, in the Mirleesian perspective the problem of optimal taxation evolves into the problem of asymmetric information between the government and taxpayers (Atkinson & Stiglitz, 1976; Mankiw et al., 2009). The government has to design a tax system that is able to transfer income from people with high ability to those with low ability, subject to incomplete information on its part in determining the ability of each individual. It is the difficulties related to the problem of asymmetric information which makes the theory of optimal taxation an interesting and difficult subject. An optimal tax system should provide sufficient incentives and minimize distortions in order to maintain a high level of economic output from taxpayers with high abilities to earn incomes even though they are targeted with higher taxes.

Recent examples of the literature within the Mirrleesian tradition include the works of Conesa, Kitao, and Krueger (2009); Heathcote, Storesletten, and Violante (2017) and Kindermann and Krueger (2014) which explored various optimal taxation policies for capital and

labor incomes. Golosov, Kocherlakota, and Tsyvinski (2003); Golosov and Tsyvinski (2006) and Kocherlakota (2005) examined the various properties related to optimal distortions and their relationships with taxes. Albanesi and Sleet (2006) explored the theoretical basis as well as provided numerical examples of the optimal taxation of capital and labor in a dynamic economy with intermittent shocks. Golosov, Tsyvinski, and Werning (2006) explored the determinants of dynamic optimal taxation in a two-period settings. Weinzierl (2011) studied the theoretical and quantitative exercises related to age-dependent labor income taxes and showed that these taxes might provide larger welfare gains compared to a fully optimal and more complex tax policy.

Tanzi (2008) argued, however, that despite the vast literature available on optimal taxation theory its practical implementations in tax reforms might be limited. According to Tanzi, many countries have limited capacity in producing the statistical and informational specifications as required by the optimal taxation theory. Further, the political capital needed for implementing an optimal taxation reform might be beyond the threshold a government is willing to spend.

On the contrary, Boadway (2012) maintained that it is inconceivable that ideas and principles drawn from normative optimal taxation theory cannot play an important role in tax policy. There is a strong and essential symbiosis between normative optimal tax analyses and the tax policies actually enacted. Further, Boadway argued that although this connection might not be able to be observed directly, policy prescriptions proposed by many tax policy specialists and tax commissions have always been informed by some ideas drawn from normative tax theory. Recent example includes the widespread adoption of VAT, which is generally regarded as a less distortionary form of indirect tax (James, 2015, p. 26). Another example encompasses policies aimed at tackling the problem of asymmetric information, such as keeping close track on transfer recipients, monitoring taxpayer adherence to tax laws and basing taxes on easily observable surrogates (Boadway, 2012, p. 2).

GROSS RECEIPTS TAXES IN INDONESIA

Although Indonesia income tax law and VAT law[3] do not explicitly impose gross receipts taxes, however, some articles in these laws stipulate that presumptive taxation can be applied for

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[3] There is a sales tax (which is basically a form of gross receipts tax) on luxury goods contained in the VAT law, however its discussion is beyond the scope of this paper.

certain transactions or business sectors. The method to calculate the taxes payable under these presumptive systems is similar to how a gross receipts tax is calculated, i.e. the amount of sales (or turnover) multiplied by the corresponding tax rate.

For the reason of simplicity, Indonesia income tax law ruled that a final income tax may be levied upon delivery of certain goods and services. The final taxes paid cannot be credited and the taxes due are calculated by multiplying gross revenues with the respective tariffs – hence in essence they are gross receipts taxes. Therefore, despite its name, the final income taxes could not be considered as taxes on income because they tax business receipts, not business profits. In other words, the income taxes are not imposed based on the economic ability of businesses but based on the gross receipts obtained by these businesses. For a tax system to be classified as an income tax the system should provide an allowance mechanism for the actual costs incurred by businesses in their efforts to generate revenues thus the base of imposition of an income tax must reflect taxpayers' heterogeneity in their ability to earn income. Different costs incurred by different businesses may serve as surrogates for the different ability of each taxpayer in earning income.

Currently, Indonesian final income tax is imposed on the following: interest income; lottery prize; transaction involving stock and/or derivative instrument; transaction involving the transfer of land and/or building; construction service; real estate business; leasing of land and/or building; delivery of fuel and/or gas to distributor; revaluation of fixed asset; dividend income; shipping lines and international flight service.

Moreover, a final income tax also is also levied on small enterprise with annual turnover not exceeding 4.8 billion Rupiah. Regardless of their industry, these small businesses have the option to choose to pay the final income tax at 0.5 percent of their turnover for a specified number of years rather than to calculate their tax payable based on the more complex regular income tax system. This provision is meant to be a special and simplified tax system intended for small taxpayers so that they would have the time needed to develop their bookkeeping capabilities. This special system is also intended to incentivize small enterprises to leave the underground economy and enter the formal economy thus expanding the tax base.

Indonesia VAT law provides that for certain transactions the tax payable may be based on 'other value' which is determined by means of a decree. Under this scheme, the VATs due are based on these other values (not the actual sale prices) and the input taxes paid are not

recoverable. Further, the law also stipulates that in order to determine the amount of VAT due for certain businesses, a truncated base scheme may be instituted. Under this scheme, the amount of input tax that can be recovered is deemed (by a decree) at a certain percentage of the corresponding sales – not the actual input taxes paid by a business. These truncated base schemes result in effective tax rates that varies depending on the types of goods and services delivered as well as depending on the industry in which a business operates. The amount of tax due is calculated by multiplying the corresponding effective tax rate with the amount of sales. Hence, although it is named as VAT, the method to determine how much tax that is due under these schemes is similar to gross receipts taxes, i.e. turnover multiplied by tariff.

Currently, the presumptive schemes in VAT are applied for several businesses: used car dealership; delivery of gold jewelry; delivery of tobacco products; package delivery services; tour and travel services; freight forwarding agency; delivery of certain fertilizers; businesses with annual turnover not exceeding Rp1.8 billion; certain retailers; factoring services and certain sole proprietorship entities.

Table 1 presents the various gross receipts taxes currently applied in Indonesia. At the start of the 1984 tax reform, the businesses mentioned in Table 1 were all taxed under the regular income tax and VAT system. However, subsequent amendments have put these business activities under the gross receipts taxation system. Hence, Table 1 might reflect the expansions in the use of gross receipts taxes in the architecture of Indonesian tax system. It shows that there are 22 different rates applicable for 23 business sectors – and the table is not intended to be exhaustive.

The list of rates in Table 1 also reflects the surprisingly complex gross receipts taxation in Indonesia, although the tax was supposedly intended to be a simplified system. Identical economic transactions and businesses operating in the same industry may face different tax rates, depending on various conditions such as the legal form of the seller (e.g., corporation or natural person), buyer's status (e.g., distributor or end consumer) and business ownership (e.g., domestically owned or foreign subsidiary).

Hence, after more than three decades of reform the presumptive taxation – initially designed to reduce the administrative and compliance costs for a small number of businesses – has evolved into a complex system of gross receipts taxes that is applied on many business activities. This complexity requires a specialized knowledge on behalf of the taxpayers and as

such may increase compliance costs, particularly for the small taxpayers who typically do not have the resources and capabilities to acquire such knowledge. Moreover, gross receipts taxes may create economic distortions and their expansions may also expand the distortive effects throughout the economy.

Table 1. Rates of Sales Tax

Business Activity	Tax Rate (% of Turnover)
Enterprise with annual turnover not exceeding Rp4.8 billion	0.5
Enterprise with annual turnover not exceeding Rp1.8 billion	3; 4*
Construction services	2; 3; 4; 6*
Sale of stocks	0.1; 0.6*
Transfers of land and/or building	0; 1; 2.5*
Real estate business	1
Leasing of land and/or building	10
Delivery of fuel and/or gas	0.25; 0.3*
Oil and gas services	5; 7; 20*
Dividend income	10
Interest income and bond discount	0; 2.5; 5; 7.5; 10; 20*
Lottery prize	25
Shipping line	1.2; 2.64*
Built, operate and transfer operations	5
International flight services	2.64
Used car dealerships	1
Gold jewelry	2
Tobacco products	9.1
Package delivery services	1
Tour and travel services	1
Freight forwarding services	1
Subsidized fertilizers	9.09
Factoring business	0.5

Note: * Applicable rate depends on various conditions.
Sources: Government Regulations, analyzed.

THE FUNDAMENTAL PROBLEMS OF GROSS RECEIPTS TAX

Within the economic profession, gross receipts tax is considered to be one of the most economically harmful tax instruments due to the economic inefficiencies it caused (Barbé & Zodrow, 2014). The history of gross receipts tax can be traced back to the 14th Century Europe. In his book, Adam Smith criticized the sales taxation which is a form of gross receipts tax in Spain (known as *alcabala* or *alcavala*, which started to be imposed in 1342[4]) as hampering growth in manufacturing sector and thus laying the groundwork for the country's rapid economic decelerations in the 17th Century (Smith, 1776).

In the post-World War I years gross receipts taxes became an important source of government revenue particularly in France and Germany since their economies were devastated by the war. This trend continued among European countries until the VAT replaced the sales tax in the 1960s and 1970s. In the U.S, sales tax emerged in the mid-19th century and became an important revenue instrument in the late 1920s and 1930s following the collapse of state finances due to the Great Depression (Mikesell, 2007).

Proponents of the gross receipts taxes generally put forth at least two arguments. First, gross receipts tax's simple structure is argued to be advantageous since on the part of the tax authority it is easier to be administered and on the part of the taxpayers it is easier to comply with, relative to the conventional income tax system. Second, gross receipts tax is argued to be politically attractive to policymakers since it could be imposed on a broad base hence a given amount of revenue could be raised at lower rates relative to other tax instruments (Chamberlain & Fleenor, 2007). Further, gross receipts tax may be chosen to be enacted as revenue instrument because policymakers and the public may see it as a relatively minor and innocuous levy since it is generally hidden from most taxpayers and having a (misleadingly) low rate (Pogue, 2007).

However, the seemingly simple gross receipts taxes may come at some costs to the economy. In an efficient market the relative prices of goods as well as the choices on how to best organize for doing businesses should be determined by the marketplace – not by the peculiarity of the tax systems. In this sense, the tax system should be designed to be as economically neutral as possible. A well-designed tax system should minimize how much the tax directs the choices of businesses away from those which would have been made when no tax was imposed. Gross receipts taxes, however, may cause large distortions throughout the economy due to its inherent

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[4] The tax was eventually discarded completely in the 20th Century.

non-neutral characteristics. The potential economic problems arising from the fundamental shortcomings of the gross receipts tax are as follows.

1. Tax Pyramiding

One important characteristic of a general gross receipts tax is that the tax is imposed at each stage of production and distribution – from extraction, manufacturing, wholesale to retail). These multiple levies may lead to tax pyramiding since there is no credit mechanism for the taxes paid on the intermediate inputs. Further, depending on the length of production and distribution stages, this process of pyramiding could create differences in the effective tax rate of the final products (Pogue, 2007). Complicated products which have to go through multiple production stages that are conducted by different firms would end up having higher effective tax rates compared to products that are produced entirely within a company or simple products that require fewer production stages. This is because the value created in the earlier stages of production would be taxed repeatedly along the production chains. By the same token, products that require multiple distribution channels (due to large geographical area that they have to cover to reach end consumers, for example) would also bear higher effective tax rates than products with shorter distribution chains.

These rate differentials could distort the relative prices of goods and services as well as shift economic agents' decisions regarding resource allocations. Hence economic inefficiencies could emerge due to the non-neutral nature of the tax system. For example, experience in Germany showed how sales taxes caused variations in the effective burdens of taxation, depending on the length of production and distribution stages as well as on the capital and labor intensity of a product. A study conducted across Germany's industries in 1952 found that the effective tax rates on several commodities ranged from as low as 3.2 percent (for electricity, although it was legally tax-exempt) to as high as 12.5 percent (for linen bedspreads) (Institut fur Wirtstchaftsforschung, 1952 as cited in Due, 1957). Another example, sales taxes applied in Washington State (named Business and Occupation Tax) was found to have a substantial degree of tax pyramiding in a range of 1.4 times at its lowest to 6.7 times at its highest (Washington State Tax Structure Study Committe, 2002). Further, a study for Canada by Smart and Bird (2009) found empirical evidence that there was an estimated 100 percent forward-shifting tax incidence that lead to tax pyramiding across different sectors of the economy.

In the long run, tax rate differentials may have significant adverse impacts on the economy as they would affect the rates of return in different industries and this would distort business decisions. Decisions on opening up a new firm in an industry or closing a firm in another one may be affected by even small differences in the effective tax rates. As time goes by the patterns of investment as well as the industrial structures of an economy could be shaped by variations in the effective tax rate, not by efficiency considerations.

2. Distortions in Business Structure

The existence of tax pyramiding could incentivize businesses to produce goods in-house, for example by establishing new division or absorbing suppliers through mergers or acquisitions. Producing internally would shorten the production chains and this would minimize the adverse effects of tax pyramiding. Consolidations would enable firms to reduce their business-to-business transfers of intermediate goods and services hence they would reduce the effective burdens from the gross receipts taxes.

There is qualification to this statement, however, since the incentives for vertical integration would be reduced when the tax savings from producing intermediate inputs in-house are less than when firms buy from outside suppliers. When the tax systems are neutral, enterprises would choose the most efficient business structures subject to the existing constraints, for example competitions from other firms or other industries. Firms, however, may be encouraged to integrate vertically if they calculate that the tax savings they could get exceed the inefficiency loss from the tax-induced vertical integration. Nonetheless, although firms may benefit from this tax-induced inefficiency, the society at large may have to pay the price through shrinkages in other parts of the economy or even in the overall output of the economy.

3. Equity Issue

The issue of equity in a tax system may relate to how the costs of government services are divided among members of the society based on one's ability to pay and the benefits one receives from the services the government provides. In this respect, gross receipts taxes may be a bad candidate to be chosen as an instrument to measure the relative ability to pay between taxpayers. A firm with a high turnover does not necessarily have higher capacity to bear the costs of government services since that would depend on the firm's profitability. On the other hand, a small firm with a lower turnover could have higher profitability and thus have higher ability to pay for the costs of government services.

Gross receipts taxes may also create inequity across economic sectors. The tax would fall particularly hard on industries which have the characteristics of tight competition, high turnover and low profit margins (Mikesell, 2007). Firms in these industries would find it hard to shift the tax incidence forward to consumers and thus have to reduce their profits to absorb the burdens of the gross receipts taxes. This tax-induced low profit margin would adversely affect the survivability of such firms, particularly during economic downturns.

Moreover, the incentives for vertical integration arising from tax pyramiding may favor larger firms over smaller competitors that cannot afford business consolidation thus creating significant problems of discrimination against small, nonintegrated firms (Due, 1959). A gross receipts tax would advantage larger firms which own in-house production facilities or have the capabilities to purchase directly from manufacturers over smaller firms which may have to buy from distributors. This is because larger firms would be able to minimize the size of tax pyramiding through shorter production chains. Further, competition from integrated firms would make it difficult for nonintegrated firms to shift the tax burden due to the higher effective rates imposed by the larger magnitude of tax pyramiding confronted by these nonintegrated firms.

Pogue (1999, 2007) argued that the distortionary nature of the sales tax may not be the result of differences in the effective tax rates in itself but rather this non-neutrality may rise due to the inaccuracy of the effective tax rate differentials in reflecting the differences in the social costs imposed by business activities. Economic efficiency principle dictates that businesses should internalize the costs that they are otherwise would not consider in choosing what, where and how to produce. Hence, a tax may serve as a means of confronting businesses with the costs borne by the government to provide public services, thus forcing businesses to treat these services not as free goods but rather as economic goods which have to be used judiciously. However, due to the distortions it caused, a gross receipts tax may not be an effective instrument to properly charge each business according the costs it exerted on the society.

For the case of Indonesia, the equity problem of the tax system is compounded by the fact that businesses with annual turnover exceeding Rp4.8 billion fall under the regular income tax system. Hence, for these larger businesses, taxes are paid based on net income (i.e. total sales deducted by total costs) – not on the total sales *per se*. This differentiated system may distort buyers' decision on who to buy from, since these buyers may have to bear the tax burdens emanating from tax pyramiding when they buy from smaller firms that fall under the gross

receipts taxation system. As such, gross receipts taxes would bias unfavorably against small businesses with annual turnover less than Rp4.8 billion.[5]

4. Opaqueness

The design of a good tax system should allow taxpayers, whether they are businesses or end consumers, to be informed on when and how much taxes they have to pay. When citizens do not know the costs of government services and who will bear these costs then it could be hard to expect them to make judicious decisions regarding government services (Washington State Tax Structure Study Committe, 2002).

A gross receipts tax may be opaque in terms of who actually bear the burden of the tax. Although it may be supposed to be a tax on business, however, it may not be clear who actually pays the tax – it could fall on business owner, owner of production inputs (including labor) or consumer (Mikesell, 2007). This obscurity regarding who really pays the costs of government services could be counterproductive in ensuring the accountability of public sector policies (Bird, 2003).

To add with, the gross receipts tax's problem of transparency may also be compounded by the existence of tax pyramiding. As the tax pyramided through production and distribution chains, it might not be possible to know the extent in which these layers of taxation have increased the prices end consumers have to pay. Even if end consumers might know the tax rates imposed on goods and services they bought, it might be unlikely that they have complete information on how the prices have been inflated by the pyramiding effects. Opaqueness in the actual amount of tax burden borne by taxpayers may hamper informed and transparent decision-making regarding the actual costs of government services.

5. Favoring Imports Over Domestic Goods

Generally the VATs paid for imported products are recoverable and these products may not bear the burden of VAT in its country of origin since exports are usually zero-rated. Hence, businesses would have the incentives to import intermediate goods rather than acquiring them through domestic sources when these domestic sources are under the gross receipts taxes system. This is because the buyer of intermediate goods may have to bear the burden of gross receipts taxes when they buy domestically produced goods while they could simply avert this problem by

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[5] Assuming both small and large firms are facing the same price elasticity of demand.

importing those same goods. This tax-induced distortion may erode the competitiveness of domestic industries as well as put unnecessary pressures on the country's balance of payments.

6. Complications in Enforcement

In Indonesia, there basically are two systems of consumption taxes enacted in one jurisdiction: VAT and gross receipts taxes. These system (and rate) differentiations may create scope for fraudulent misclassifications as well as increase administrative and compliance costs. Moreover, imposing gross receipts taxes for some parts of the economy in a country where VAT is also imposed on other, broader economic sectors would break the chain of VAT at the point where goods or services enter the industries under the gross receipts tax system. Ideally, VAT should be imposed on all levels of production and distribution chains – from the point where goods and services start their production process until the point where they reached end consumers. This way, the tax authority would be able to follow the flow of goods and services through the invoice-and-credit mechanism provided by the VAT system. Breaking this chain, however, would cut the information from the VAT's invoice-and-credit mechanism which supposedly flows to the tax authority thus adding to the complications in enforcing compliance.

All in all, a tax system should be designed in the best possible way to minimize distortions to economic choices made by individuals and businesses. The functions of competitive markets in allocating resources should not be interfered by the existing tax systems as this would be advantageous for the society at large. The public may have to pay higher prices for goods and services than would otherwise necessary due to the distortionary designs of the tax systems. This could cause living standards to be lower than would otherwise be attainable when the tax systems do not distort economic decisions (Mikesell, 2007).

GROSS RECEIPTS TAX FOR THE HARD-TO-TAX

Despite its distortionary effects, the perception that gross receipts tax is simple to administer and to comply with might make this tax instrument to be seen as a solution to broaden the tax base, particularly in countries with significant presence of the informal[6] sector in the economy and this informal sector is usually hard to tax. This might fit Indonesia which has a significant presence of the informal economy. Previous studies on the size of informal economy in Indonesia provided various results, however, with one study estimated it to be around 25 percent of Gross

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[6] It is also called the underground or shadow or hidden economy.

Domestic Product (GDP) (Wibowo, 2001) while other studies' estimates were at approximately 20 percent of GDP (Tatariyanto, 2014) and 18 percent of GDP (Schneider, Buehn, & Montenegro, 2010).[7]

Limited resources and skills generally put constraint on the capacity of tax authorities, particularly in developing countries such as Indonesia. Hence, they must often face a dilemma: whether to direct the scarce resources toward smaller taxpayers who are typically hard to tax in order to uphold the integrity and equity of the tax system although the payout could be insignificant or to go after instead larger firms that are typically already in the tax net and may provide substantial payout with the risk of overburdening them.

Part of a good tax administration requires that large taxpayers should be closely monitored in order to keep them complying to the tax laws at the highest possible levels, particularly to matters related with filing, assessment and collection of the taxes due (Benon, Baer, & Toro, 2002). However, disproportionate emphasis on large taxpayers may, in the long run, pose some dangerous risks. As large taxpayers feel that pressures put upon them increases, they may become increasingly agitated and thus increases their incentives to evolve into allegedly off-shore operation or break down their business structures into groups of small entities to minimize the overwhelming pressures from the tax authority (Bird & Wallace, 2004).

In that sense, monitoring the small, hard-to-tax businesses may matter to policy makers even though in the short run this may not seem to be a cost-effective strategy. Left uncontrolled, the hard-to-tax sector may pose significant adverse economic impacts. Alm, Martinez-Vazquez, and Schneider (2004) found that the hard to tax, particularly in developing countries, may have significant negative impacts on tax revenue. They also found that unintended changes in the tax structure may arise in accordance to the size of the hard to tax, for example countries might have to put greater reliance on indirect taxation instruments when the size of the hard to tax was too high. Further, excess burdens due to misallocation of resources seem to be correlated with the existence of the hard to tax and this could result in quite large welfare losses. Developing countries' long-run economic growth tended to be inversely related to the size of the hard to tax: the larger the hard to tax in a country, the slower would be its long-run economic growth. Alm et

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[7] Other studies provided much lower estimates: 6 percent of GDP in Nizar and Purnomo (2011) and 8.33 percent of GDP in Samuda (2016). Although there are differences in what constitutes as an underground economy and in research methods, these estimates seem unlikely since they are far below the average in advanced OECD economies (13.4 percent in Schneider et al. (2010)).

al. (2004) argued that the overall equity of the tax system would be able to be improved when the hard to tax pay their fair share of taxes.

Further, low compliance rates particularly in the lower end of the economic scale may serve as one of the dominant problems with the tax system (Bahl, 2004). Taxpayers in the formal economy who cannot escape taxation by going underground would have to pay their full tax liabilities and may face excessive burdens when significant numbers of businesses in the hard-to-tax sector can freely evade their tax obligations. As a result, tax burdens would be unfairly distributed among members of society and this might erode public's trust in the fiscal system in particular and the government in general.

Evaluating the performance of the gross receipts taxes as a special system for the hard to tax in Indonesia might not be a straightforward exercise due to, firstly, the limited published data on the revenue performance of such taxes; and secondly, the difficulties in controlling for other changes to the tax system and the economy. Nonetheless, overviews on the performance of tax revenues in general might provide rough guidelines as well as provide first expression and assessment on the role of gross receipts taxes in the broader Indonesian tax system.

Figure 1 presents the tax revenue collected by Indonesian central government as a percentage GDP for period 1984-2016. It shows that in the first six years after the tax reform, in period 1984-1989, the annual average of the tax ratio was only 5.1 percent of GDP. This relatively low levels of tax ratio might be understandable because the tax authority and taxpayers needed time to learn the new system of self-assessment from the previous official assessment system as well as to learn the newly introduced VAT. Nevertheless, there were steep increases in the tax ratio during this time period which might signify a steep learning curve for both the tax authority and taxpayers.

In the next period, 1990-1999, increases in tax ratio were less steep than previously albeit at significantly higher levels, with an annual average of 8.9 percent of GDP. This trend continued in period 2000-2008 with an annual average of 9.4 percent with its peak reached in 2008 with a tax ratio of 10.9 percent of GDP. This trend reversed, however, in period 2009-2016 and there were persistent declines with an annual average of just 9.0 percent of GDP. This declining trend occurred even after the gross receipts tax was expanded in 2013 to include businesses with an annual turnover not exceeding Rp4.8 billion.
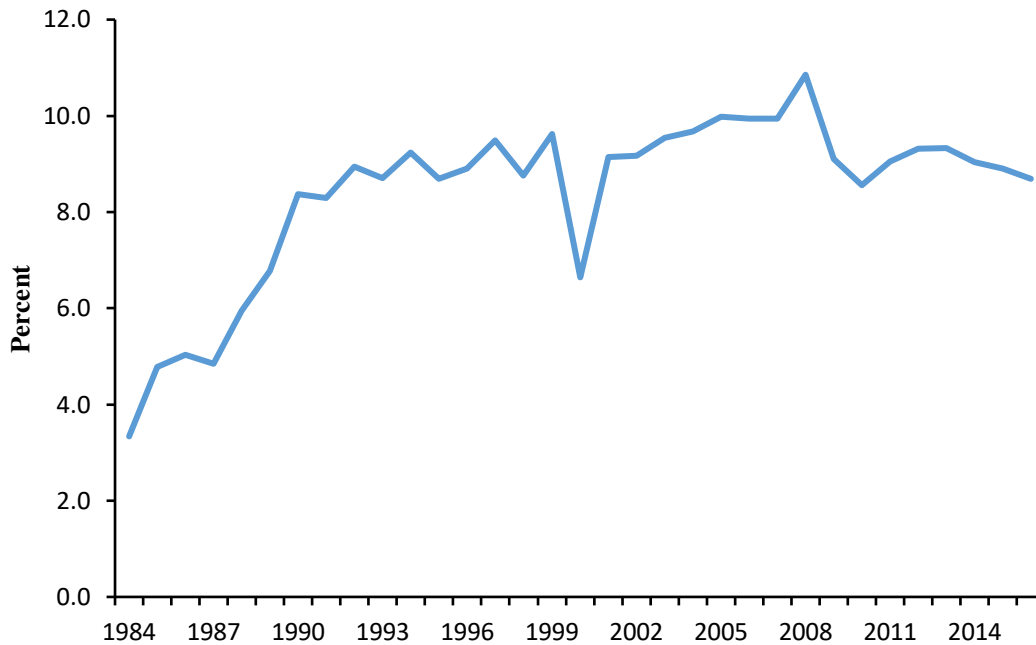
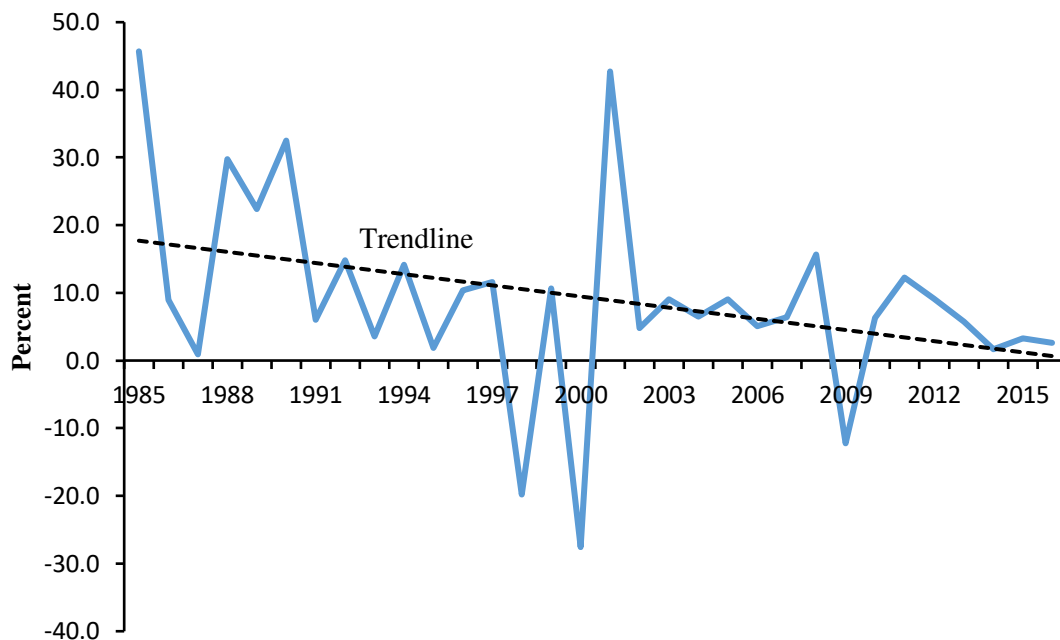**Figure 1**. Tax Revenue as a Percentage of GDP, 1984-2016

Note: data on tax revenue consist of self-assessed taxes collected by Indonesia central government, i.e. income tax and VAT.
Sources: Government of Indonesia (Various Years); Indonesia Central Board of Statistics (Various Years); Indonesia Ministry of Finance (Various Years), analyzed.

A discouraging picture emerges when the tax revenue is seen from another perspective. Figure 2 presents the growth rates of tax revenue for 1985-2016, with the dashed line indicating its proximate long-run trend. The highest levels of growth in tax revenue were reached within the first few years after the tax reform of 1984 with an annual average growth of 21.5 percent for period 1985-1989. Afterward, the average growth rates persistently declined: 8.6 percent for 1990-1999, 8.0 percent in 2000-2008 and 3.6 percent in 2009-2016. Particularly, for period 2009-2016, the average growth of tax revenue was lower than the average growth of the economy which reached an average rate of 5.4 percent during the same period.

Overall, data presented in Figure 1 and Figure 2 may indicate, among others, the limited role of gross receipts taxes in Indonesia as a special tax regime to bringing the underground economy into the official tax net, broadening the tax base and improving revenue performance. One of the possible explanations for these sub-optimal performances may relate to taxpayers who, after entering the tax system, are 'disappearing' once again by going underground. Figure 3

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presents the numbers of registered taxpayers required to submit annual returns and the tax returns actually submitted.


Figure 2. Growth in Tax Revenue, 1985-2016 (2010=100)

Note: Data on tax revenue consist of self-assessed taxes collected by Indonesia's central government, i.e. income taxes and value added taxes.
Sources: Government of Indonesia (Various Years); Indonesia Central Board of Statistics (Various Years); Indonesia Ministry of Finance (Various Years), analyzed.

Data in Figure 3 reveal that, on average, only 51 percent of the registered taxpayers that are required to submit tax returns actually submitted them. Hence, there is the possibility that almost half of the taxpayers who were previously registered in the tax net might have escaped and gone back to the informal sector.

On the other hand, there are some capacity constraints experienced by the Indonesian central government tax administration (i.e., Directorate General of Taxes), especially in terms of administrative resources. Table 2 reports comparative data on the total resources dedicated by governments to tax administration in selected Southeast Asia and Pacific countries, including Indonesia.
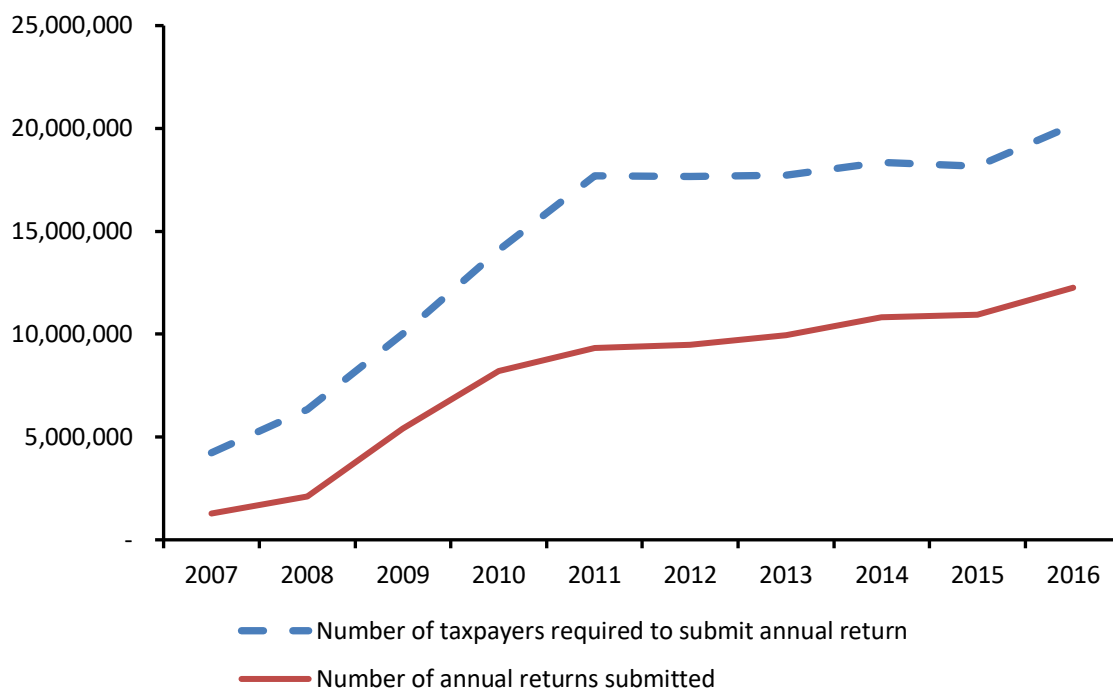
Figure 3. Taxpayers' Formal Compliance, 2007-2016

Source: Indonesian Directorate General of Taxes (2017)

Table 2. Total Costs of Tax Administration to Net Revenue Collected (%)

Country	Ratio of Tax Administration Expenditure to Net Revenue Collected					Note
	2011	**2012**	**2013**	**2014**	**2015**	
Australia	0.99	0.98	0.93	0.94	0.86	
New Zealand	0.89	0.92	0.85	0.84	0.79	Excise taxes not included
Malaysia	0.70	0.82	1.00	1.36	1.58	Indirect taxes not included
Philippines	0.71	0.59	0.61	0.50	0.48	
Singapore	0.87	0.78	0.79	0.85	0.86	Excise taxes not included
Thailand	0.76	0.73	0.71	0.82	0.90	Excise taxes and social contributions not included
Indonesia	0.55	0.60	0.56	0.78	1.27	Excise taxes not included

Source: Asian Development Bank (2018).

As apparent in Table 2, except for a significant hike in 2015, the ratio of resources devoted to Indonesia tax administration to the net revenue it collected is quite low compared with the majority of developing and developed economies in the region. Further, effective

administration of taxation requires the tax authority to make careful decisions in allocating its limited resources. The available staff resources must be devoted to deal with various tasks of a tax administration: taxpayer services (e.g., registering taxpayers, processing tax returns and payments and educating taxpayers); law enforcements (e.g., audit and collection of arrears) and support work streams (e.g., staff administration, finance and information technology).

Table 3 presents the relative staff strengths in Indonesia and its neighboring countries, both developing and developed ones.

Table 3. Relative Staffing Levels of Tax Administrations

Country	Ratio of Staff Usage	
	Taxpayers/FTE	**Labor Force Participants/FTE**
Australia	1,323	699
New Zealand	1,302	705
Malaysia	3,299	1,488
Philippines	9,990	4,291
Singapore	2,845	1,128
Thailand	2,897	1,706
Indonesia	7,742	3,724

Note: FTE = Full-Time Equivalent.

Source: Asian Development Bank (2016).

The first of the two variables presented in Table 3 reports the number of taxpayers served by one full-time equivalent (FTE) staff. This ratio for Indonesia shows the relatively high number of taxpayers that have to be served by one FTE staff compared with most countries in region. The second variable in Table 3 presents the ratio of total labor force in an economy to the number of FTE staff positions. Again, this variable may reflect the relatively high number of potential taxpayers for a staff of the Indonesian tax administration to manage.

POLICY OPTIONS

Basically, a special tax system for small taxpayers could be regarded a success if it results in the following sequence of events. A small, start-up business enterprise operates in the informal economy. A special system is designed with the stated aims to encourage such enterprises to

become members of the taxpaying population in the formal economy and to educate them up to a point at which they are able to comply with the regular tax systems (Bird & Wallace, 2004).

On the contrary, a special tax system could be considered as a failure if it encourages migration of taxpayers out of the regular tax systems and into the special system. It would also be regarded as a failure if enterprises stay on and fraudulently exploited the special system for years, without time limits. Further, it would also be considered a failure if the special system adversely affected the long-run revenue performance compared to the revenue which could have been collected in the absence of such system.

Besides wage earners, a large portion of taxpayers in the tax net may comprise of small enterprises. However, this class of taxpayer presents a unique challenge for policy makers. On the one hand, complicated tax systems may make it difficult and expensive for small taxpayers to comply due to the costs incurred in keeping records and the need for specific knowledge to abide by the complex tax laws. On the other hand, tax administrations in developing countries are generally constrained in their capacity and skills, however they may still have to devote valuable resources to keep the small enterprises in check although its payoffs in terms of revenue collected might be insignificant.

In this light, the Indonesian gross receipts taxation may be seen as a compromise to lessening the compliance costs borne by small taxpayers and the administrative burdens on the side of the tax authority. Hence, despite its potentials for economic distortions, the gross receipts tax may serve as a second-best option to bringing the hard to tax to the formal economy and thus broadening the tax base.

However, a special system particularly as distortive as the gross receipts tax should be limited in its use as well as should be carefully targeted toward the really small entities. In this respect, Indonesia has a special system in the form of a gross receipts tax for small business with turnover not exceeding Rp4.8 billion. This scheme is incorporated in Government Regulation Number 23 Year 2018 (GR-23/2018) and its principal contents are actually consistent with international best practices regarding the simplified taxation for small enterprises: firstly, it limits the time eligibility for the simplified system thus encouraging migration toward the normal systems and, secondly, it has a rebuttable mechanism thus small taxpayers who have the capability to maintain proper accounting and bookkeeping may opt out of this simplified system.

However, the problem is that besides the scheme of GR-23/2018, there are various gross receipts taxes that also are applicable for taxpayers operating in various business sectors as discussed previously. Hence, the classification of businesses that fall under the special system of gross receipts taxation is very broad. Complicating the issue of inequality, in certain industries the gross receipts tax system is applicable not only for small enterprises but also for large ones. For example, all construction service businesses fall under the gross receipts tax system regardless of their annual turnover thus there is no differentiation between small and large enterprises. Moreover, these construction enterprises would fall under the gross receipts tax system without time limits, thus they may be able to stay in this simplified system for years without having some incentives that can push them to graduate to the regular tax systems.

Hence, one of the problems of the Indonesian gross receipts tax as a special system is that they may not be well targeted. When a simplified system is too broadly applicable, enterprises that are actually capable of bookkeeping and complying to the complexity of the regular systems may have the incentives to take advantage of either the lower tax rates, the lower costs of compliance and the lower probability of audits offered by the simplified system (Bird & Wallace, 2004). Therefore, limiting the scope of taxpayers eligible under the gross receipts tax system may be an important first step. In this respect, it might be necessary for the gross receipts tax system to only include taxpayers with annual turnover not exceeding Rp4.8 billion, regardless of their industries.

One of the arguments frequently put forward for expanding the gross receipts taxes as special system is the lack of capacity on the part of the tax administration. However, a special tax system should not deter efforts to improving the capacity of the tax administration. A special system is not a justification for the lack of enforcement capability of the tax administration. In this light, it seems that the designers of the Indonesian tax reform of 1984 were aware of the need to limit the imposition of a special system, even when the capacity of the tax administration at that time was far from adequate. Expansions of the special tax system only occurred during subsequent tax reforms even though at the same time there were some improvements in tax administration's capacity.[8] For example, recent data collection programs particularly tax administration's access to banking records should ease any doubt on the capacity of the

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[8] For further discussion on the capacity of Indonesia's tax administration, see Brondolo, Silvani, Le Borgne, and Bosch (2008).

Indonesian tax administration to detect, deter and punish noncompliance. These developments should path the way to limiting the intrusions of the special regime in the regular tax systems, particularly a regime with adverse impacts on the economy as the gross receipts taxes.

Further, it may also be important that small taxpayers be imposed with only a single tax. If simplification is the main purpose of the simplified system, then it may make sense that small enterprises be required to pay only one tax rather than a variety of taxes. This arrangement may support the effort aimed at keeping the registered taxpayers to stay in the tax net and not jumping back to the informal economy. In this light, the problem for the Indonesian small taxpayers is that once they enter the formal economy and registered in the tax net they may have to pay more than one taxes in more than one 'simplified' tax systems.

For example, a seller of gold jewelry with an annual turnover less than Rp4.8 billion would fall under the scheme of GR-23/2018, thus he has to pay an income tax under this simplified regime with a rate of 0.5 percent of turnover. However, he also has to pay a 'VAT' at 2 percent of turnover without having the right to reimburse the input VATs paid from previous production and distribution channels. Hence, in essence he has to pay two types of gross receipts taxes with different rates (and different form of tax returns): one under the simplified income tax system and one under the simplified VAT system. If the tax burdens and compliance costs which arise from these simplified systems were higher than the willingness of the small taxpayers to bear them, then these taxpayers might have the incentives to go back to the underground economy or may even never migrate out the underground economy and thus would be unlikely to be registered in the tax net.

Moreover, if one of the concerns for the special regime is the limited resources available to the tax administration, then a measure to confront the problem of bracket creeping might be important to be put in place. The Indonesian special system is using turnover as a threshold to determine eligibility. As time goes by, this threshold would be eroded by inflation hence taxpayers who do not have the real capacity to comply with the complexity of the regular system may be ineligible for the special system simply because their turnover have exceeded this eroded threshold. Indexing the threshold to inflation may solve this problem; therein the simplified system could be expected to be populated by the really small taxpayers (in terms of turnover) who are not ready yet to abide by the demanding requirements of the regular taxation systems. This would ease the burden on the part of the tax administration and thus could free some of its

resources to be focused on the medium and large taxpayers in the regular system with potential revenue payoffs.

Last but not least, simplified taxation system is not a replacement for good tax administration. The yield, incidence and efficiency of a tax system may depend on how it is administered. Moreover, establishing an environment of voluntary compliance is an important task for an effective tax administration (Bird, 2004). To do so, a tax administration should firstly have a good idea on its 'revenue gap', as this would allow for the assessment of the potential tax base. In addition, the tax administration should also properly undertake the technically complex task of audit. Assuring that those registered in the tax system file in a timely manner and pay the amounts due are critical and thus must also be paid a close attention. Non-filers and incorrect payments must also be immediately followed up. The tax administration must minimize the chances that taxation be used as a cheap source of finance by imposing adequate interest charges on late payments.

CONCLUSION

Gross receipts taxes could be distortive to an economy; however, when well-designed and properly managed it could play a not insignificant role in broadening the tax base particularly from enterprises operating in the informal economy. It seems that the second-best strategy is to employ the sales tax specifically as a special system to encouraging small, hard-to-tax businesses to be part of the taxpaying population. Unfortunately, one prominent characteristic of the Indonesia gross receipts taxes is its breadth of coverage which reaches far beyond its intended purpose as a special system for small taxpayers. Considering the distortive effects of gross receipts taxes, it may be reasonable to reduce its scope of employment.

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