A Uniform Rate on Consumption Taxation Benefits the Poorest:
Presentation and Analysis of the International Debate

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Abstract
The proposal to adopt a uniform rate for the taxation on consumption has been criticized because supposedly differentiated rates would favor the poorest. Based on the analysis of the international literature, the article concludes the opposite: differentiated rates are not the best means of protecting the poorest for four reasons: (i) lower rates affect both the poorest and the richest, who normally consume more than the poorest, in absolute terms, goods with a reduced rate or which are exempt; (ii) reduced rates foster complexity, creating litigation that impairs the functioning of the system as a whole; (iii) lower rates favor the action of pressure groups; and (iv) rate reductions are not normally or fully passed-through to product prices.

Keywords
Value-added tax; tax justice; VAT; consumption taxation; progressivity.

Resumen
La propuesta de adoptar una tasa uniforme para la tributación del consumo ha sido criticada porque supuestamente las tasas diferenciadas favorecerían a los más pobres. Con base en el análisis de la literatura internacional, el artículo concluye en sentido contrario: las tasas diferenciadas no son la mejor forma de proteger a los más pobres por cuatro razones: (i) las tasas más bajas afectan tanto a los más pobres como a los más ricos, quienes normalmente consumen más que los más pobres, en términos absolutos, los bienes con tasa reducida o exentos; (ii) las tajas reducidas crean complejidad, lo que genera litigios que perjudican el funcionamiento del sistema en su conjunto; (iii) las tasas más bajas favorecen la acción de los grupos de presión; y (iv) las reducciones de tasas no se trasladan normalmente o en su totalidad a los precios de los productos.

Palabras clave
Tributación sobre el valor añadido; justicia fiscal; IVA; tributación al consumo; progresividad.

Resumo
A proposta de adoção de uma alíquota uniforme para a tributação sobre o consumo tem sido criticada porque, supostamente, alíquotas diferenciadas favoreceriam os mais pobres. A partir da análise da literatura internacional, o artigo conclui de forma contrária: alíquotas diferenciadas não são o melhor meio de se proteger os mais pobres por quatro razões: (i) as alíquotas menores atingem tanto os mais pobres quanto os mais ricos, que normalmente consomem mais que os mais pobres, em termos absolutos, os bens com alíquota reduzida ou isentos; (ii)
alíquotas reduzidas geram complexidade, o que cria um contencioso que prejudica o funcionamento do sistema como um todo; (iii) alíquotas menores favorecem a atuação dos grupos de pressão; e (iv) as reduções de alíquota não são em geral ou integralmente repassadas aos preços dos produtos.

**Palavras-chave**

Tributação sobre o valor agregado; justiça tributária; ICMS; tributação sobre o consumo; progressividade.
INTRODUCTION
Brazil has debated the reform of its consumption tax for some years. In the proposed design, five taxes—at federal, state, and municipal level—will be replaced by a dual value-added tax (VAT), composed of the Contribution on Goods and Services (CBS), under the jurisdiction of the Federal Government, and by the Tax on Goods and Services (IBS), under the shared jurisdiction of states and municipalities. International best practices inspire the design of these proposed changes. It means that the Value Added Tax (VAT) to be created will be levied on a broad base, including all goods and services, as well as guided by the principle of destination. The initial design of the proposal also envisioned a uniform rate for all goods and services.

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2 Two Proposals for Constitutional Amendments (PECs), with similar content, were submitted for consideration, one in the Chamber and the other in the Senate. PEC 45/2019 (Brazil, 2019a), which was processed in the Chamber of Deputies, proposed the replacement of five taxes—the Social Integration Program (PIS), Contribution for Social Security Financing (Cofins), Tax on Circulation of Goods and Services (ICMS), Service Tax (ISS), and Tax on Industrialized Products (IPI)—with a single consumption tax, the Tax on Goods and Services (IBS), and an Excise Tax (IS) on some products. PEC 110/2019 (Brazil, 2019b) has begun its processing in the Senate and proposed the replacement of nine taxes by the IBS and IS, namely: IPI, Tax on Financial Transactions (IOF), PIS, Program for Civil Servant Asset Formation (Pasep), Cofins, Contribution for Intervention in the Economic Domain (Cide-fuels), the ICMS and ISS, and the Salário-Educação tax. In an attempt to unify both proposals, a mixed commission was created between the Chamber and the Senate, with Congressman Aguinaldo Ribeiro as rapporteur and Senator Roberto Rocha as president. Congressman Aguinaldo Ribeiro’s report reconciled both PECs into a single text. After the report was presented, the newly elected president of the Chamber, Congressman Arthur Lira, did not proceed with it, and the commission was disbanded. The work then continued in the Senate, resuming the processing of PEC 110. Instead of the original wording of the PEC, the rapporteur Senator Roberto Rocha based his report on the text of Congressman Aguinaldo Ribeiro and sought to reconcile it with Bill No. 3,887/2020 (Brazil, 2020), sent by the Federal Government to Congress, which provided for the creation of the Contribution on Goods and Services (CBS). In this new version, PEC 110 enabled the extinction of ICMS, ISS, PIS, Cofins, and Cofins-Importation and their replacement with a dual VAT, and the replacement of IPI with an IS. With Lula’s election at the end of 2022, tax reform received new impetus. In early 2023, Fernando Haddad, Minister of Finance, appointed Bernard Appy—one of the authors of the text on which PEC 45 was based—as Extraordinary Secretary for Tax Reform, resuming PEC 45 in the Chamber. Congressman Aguinaldo Ribeiro was appointed as rapporteur once again, but the new text presented incorporated many of the changes promoted by Senator Roberto Rocha’s text. The text was approved in the plenaries of the Chamber and the Senate, and on December 20, 2023, Constitutional Amendment No. 132 (Brazil, 2023) was promulgated as a result of the PEC. For a more detailed history of tax reform proposals and a comparison between them, see Orair and Gobetti (2019).
This is the third time in recent years that a consumption tax reform project has been proposed. During both the Fernando Henrique Cardoso (FHC) and the first Lula administrations, the proposal was not approved. The current proposal has also faced significant resistance. This article aims to address one of the points of this resistance.

It is well-known that Brazil is a country marked by inequality. One of the main criticisms leveled against the proposed consumption taxation reform is that the establishment of a uniform rate would have a regressive nature and, supposedly, worsen our distributive problem.\(^3\)

The debate surrounding a uniform rate has been occurring in a disorganized manner in the Brazilian media, but it has developed in a more structured manner within subject-specific international literature. Mainly in Europe, for the past two decades, this debate seeks to assess the outcomes of applying different tax rates and to analyze the segments of society that incur a benefit.

The objective of this article is to analyze the central points of this debate in order to contribute to the organization of the current intensive discussions in Brazil. In order to progress towards the construction of a more rational and fair tax system, it is essential for the discussion on this topic to occur in a more in-depth manner.

The article is divided into four parts, in addition to this introduction. The first part examines the ways of measuring the distributive impacts of consumption taxation; the second discusses the reasons for using different rates and is subdivided into: economic efficiency, merit goods, and distributive reasons. The third part analyzes the problems in using different rates and is subdivided into: inclusion of expenditures by the wealthiest segments of society, pass-through on tax reductions, challenges for the system as a whole, and the creation of a potentially more vulnerable system to lobbying and special interest groups. Finally, the fourth part presents final considerations.

\textbf{1. Regressivity and Consumption Taxation}

Even before the aforementioned criticism of the implementation of a uniform rate, taxation on consumption in general and VAT (Value Added Tax), in particular, are criticized. There is a deep-seated perception that such tax and any way of consumption taxation would be considered regressive. However, international studies suggest that this conclusion is not so evident, and controversies surrounding this issue have not been definitively resolved.\(^4\)

\begin{itemize}
  \item[3] This is also one of the most commonly used arguments against the creation of a VAT in the United States (Metcalf, 1994).
  \item[4] This entrenched perception is also observed in Canada, despite very few applied studies on the incidence of taxes in this country. Richard Bird and Michael Smart (2016) write that the presumed regressivity of consumption taxation should be considered a matter of faith rather than fact.
\end{itemize}
The studies that have tackled this issue begin with the consumption of taxpayers distributed across different income deciles. Typically, the population is divided into such deciles, and based on the consumption of each one of them, the VAT paid by taxpayers within different income groups is calculated.

However, for an assessment of the progressivity or regressivity of the tax, the raw numbers obtained from VAT expenditure per decile cannot be directly compared. Since the wealthy spend more than the poor, the raw numbers would always indicate that the wealthiest individuals pay more tax. Obtaining relative numbers poses the greatest difficulty, as there is no consensus on the best parameter with which VAT expenditure should be compared. The main focus of the controversy is that there are two possible parameters: income or expenditure itself.\(^5\)

To explore the difference between these two methodological perspectives for calculating the distributive effects of consumption taxation, we start from a point with no controversy. If the income of a particular society were entirely consumed, and if there were a uniform rate for all goods and services, consumption taxation would be proportional.

However, as differentiation begins to occur, i.e., not everyone consumes their entire income, the situation changes. If the poorest individuals consume all of their income while the wealthiest save and only consume a portion of it, then, using income as the criterion leads to the conclusion that consumption taxation is regressive. This is because the poorest individuals will pay tax on their entire income—as they have consumed everything—while the wealthiest will only pay tax on the portion they have consumed. Empirical studies corroborate this trend.

There is a vast body of international literature that aims to study the issue of the progressivity or regressivity of VAT, taking income as a parameter. Leahy, Lyons, and Tol (2011) present the situation in Ireland. They analyze the distribution of VAT payments among households across different deciles with income as a reference, and conclude that the tax is highly regressive. The same conclusion is reached by Ruiz and Trannoy (2008), who study data from France in 2001, and by Barreix, Bes, and Roca (2009), who analyze data from various Latin American countries between 2000 and 2004. In the perspective of using income as a parameter, the most comprehensive study is that of O’Donoghue, Baldini and Mantovani (2004), which examines the distributive effects of VAT, income tax, and social security contributions in 12 European countries, using household consumption microdata from 1990 to 1996. They also conclude that VAT is strongly regressive. This literature was reviewed in its entirety by Thomas (2020).

\(^5\) The difference between the two possible parameters is presented, for example, by the European Commission (2011, p. 361), Thomas (2020, p. 5), and Feria and Walpole (2020, p. 639).
A fundamental critique of the approach that uses income as a parameter is that it does not consider that saved income would revert to consumption in the future. People save when their income is greater than their consumption, and use saved income or take out loans when it is lower. According to the critiques, if the analysis were focused on the income earned over the period of an entire life cycle—rather than over the shorter period of a year—the data obtained would not reflect these temporary fluctuations in income and would mirror reality more closely. If the analysis is limited to a one-year period, the VAT that would have been collected on future spending from the saved income is not captured and fails to show up in the analysis (Thomas, 2020).

Another way to observe the advantages of using the entire life cycle period is that if one year is taken as the basis, it is likely to lead to a distortion in the distribution of individuals across different deciles. This is because people tend to have higher incomes in middle age and lower incomes in youth or in old age.

If an annual perspective is adopted, the deciles representing the poorest individuals may encompass both younger and older members of society who would not be classified as poor, considering the life cycle criterion.

In this regard, Caspersen and Metcalf (1994, p. 732) argue: “By invoking Friedman’s (1957) permanent income hypothesis, as well as considerations about the life cycle, economists have recognized that annual income may not be a very good measure of an individual’s consumption potential.”

However, estimating both lifetime income and lifetime VAT expenditure is a very complex task. Faced with the practical impossibility of making this estimation, some authors propose that consumption itself, i.e., current expenses, be adopted as a criterion. This is because, in the words of Thomas (2020, p. 5), “measuring VAT burdens relative to current expenses is likely to provide a more meaningful estimate of the distributive impact of VAT over an individual’s lifetime than measuring VAT burdens relative to current income.” Additionally, it is argued that income measures the individual’s contribution to society, whereas consumption measures how much they have withdrawn from society for their benefit.  

Hence, various international studies have been conducted to analyze the distributive impact of consumption taxation using current expenses as a parameter, rather than income. This extensive literature, which was also reviewed by Thomas (2020), identifies that VAT is not regressive when current expenses suit as parameter, but rather proportional or, in some cases, slightly progressive.

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6 According to Due and Friedlaender (1977), this idea dates back to the English philosopher Thomas Hobbes and was developed in the work of Irving Fisher.
Bird and Smart (2016) examine Canada’s experience based on household spending data from 2009 and conclude that VAT is slightly progressive. Bover et al. (2017) analyze Spain’s experience using household spending data from 2015 and present results with both income and spending as parameters. When spending or expenditure are considered they conclude that VAT expenditure is proportional.

A comprehensive study, conducted by a consortium led by the Institute for Fiscal Studies (IFS) for the European Commission, also analyzes data from 2004 to 2009 from across nine European Union countries: Germany, Belgium, Spain, France, Greece, Hungary, Italy, Poland, and the United Kingdom. This study strongly argues that expenditure is a better parameter than income for evaluating the distributive effects of VAT expenditure, however it also presents results for both parameters: income and expenditure itself. When expenditure is considered the study concludes that VAT appears to be distributively neutral in some countries and slightly progressive in others (European Commission, 2011).

The work of Thomas aligns with this perspective. Analyzing a sample of 27 countries, he concludes that VAT, when measured based on current expenditure, is either proportional or slightly progressive (Thomas, 2020). However, is it appropriate to hypothesize that expenditure better reflects the distributive impact of consumption taxation over an entire lifetime rather than income does?

Rita de la Feria and Michael Walpole (2020) raise two criticisms against this argument. According to these authors, on the one hand, income can be considered deferred consumption, on the other hand, as long as it is not consumed, it continues to generate other types of benefits, and income holders will benefit from it in various ways.

Furthermore, they argue that the higher the income saved, the more deferred the consumption will be over time, which, ultimately, could be transferred to future generations and to a time when consumption may no longer be subject to taxation. Therefore, they conclude that it would be more reasonable to assume that VAT is proportional for lower income deciles and becomes regressive as income is saved (Feria; Walpole, 2020).

This argument and conclusion do not seem correct. Theoretically, consumption taxation in the future could be lower and, even, potentially abolished, but it could also increase to levels above its current state. The existence of a possibility, without justifying that events should actually follow this direction (and not the opposite), is not enough to form a judgment about the distributive nature of taxation.

The conclusion that there is proportionality up to a certain point and regressivity beyond is also not correct. According to Feria and Walpole (2020), what would justify the change in the assessment of the distributive nature (from proportional to regressive) would be that, at the inflection point, savings would begin. However, the entire construction of consumption as a criterion was precisely made to demonstrate the theoretical limits of trying to establish a causal relationship between the observation of arising savings and regressivity as a consequence.
In Brazil, a series of empirical studies has also focused on this topic. Professors from the Federal University of Pernambuco (UFPE), Rozane Bezerra de Siqueira and José Ricardo Bezerra Nogueira, have published several articles (with other co-authors) using spending rather than income as a basis and analyzing only indirect taxes. These studies assess that the distribution of the tax burden would be proportional (Siqueira et al., 2017; Siqueira; Nogueira; Souza, 2000, 2010; Siqueira; Nogueira; Levy, 2003).

Alongside the theoretical arguments, previously mentioned, in favor of using spending as a parameter for calculating the distributive effects of consumption taxation, these professors argue that there is also a practical dimension. In Brazil, within the household budget surveys that serve as the basis for investigation, the income of the poorest families is underreported.

If we consider the Household Budget Survey (POF) 2008-2009 (IBGE, 2010), for example, the income reported by families in the lowest stratum of society is much lower than their expenditure: “[...] the average deficit between total income and total spending [...] for the poorest 10% is around 52%” (Siqueira et al., 2017, p. 505).

In 2012, an extensive study by Fernando Gaiger Silveira was published with the aim of assessing the distributive effects of social security, social assistance, taxation, education, and health policies, based on the Household Budget Surveys (POFs) from 2002-2003 and 2008-2009 (IBGE, 2003, 2010). He analyzes both direct and indirect taxation. His analysis also allows to draw separate conclusions for direct and indirect taxation schemes (Silveira, 2012, p. 46).

The study by Silveira (2012) argues in favor of income as a parameter and concludes that, when this criterion is considered, the tax burden on consumption is clearly regressive. However, according to the study, even if expenditure is taken as the parameter, consumption taxes are still regressive.

These conclusions point to a very characteristic trait of the Brazilian tax system. In international empirical research, when income is used as a parameter, taxation on consumption is always considered as regressive. However, when expenditure is used as the criterion, taxation may be invariably considered neutral or even slightly progressive.

If we take Silveira’s (2012) conclusions as accurate, the distributive effects issue of the current design of taxation on consumption tends to be more problematic in Brazil. Given the current levies, tax rates, exemptions, and so on, established for taxation on consumption, taxation is still regressive even if expenditure is taken as parameter.7,8

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7 As previously mentioned, the conclusions of the empirical studies by Siqueira, Nogueira, and Souza (2010) differ from those of Silveira (2012).

8 A detailed analysis of selectivity in ICMS and IPI, pointing out the distortions of their current use, is provided by Godoi (2017).
On the one hand, this fact leads to a peculiar situation and potential changes that could improve the Brazilian system; on the other hand, it is important to remember that consumption taxation was designed to raise revenue in a way that distorts market conditions to the smallest extent possible. The most appropriate time for an effective assessment of the distributive effects of such taxation should be after the expenditure of the collected amount. Even though it may be considered as regressive before expenditures, consumption taxation, combined with well-designed public policies, can result, in certain cases, in greater distribution, potentially surpassing the redistributive effects of a progressive income tax system (Bird; Zolt, 2005).

2. REASONS FOR DIFFERENTIATED TAX RATES
Putting aside the choice over which parameter is best to assess the distributive impact of consumption taxation, it is important to highlight that there is an established international literature and debate, systematically overlooked in the discussions occurring in Brazil regarding the reform of this taxation. One prevalent topic in this literature is that the use of differentiated tax rates does not benefit the poorest; this topic will be further developed. However, advocating for differentiated tax rates in consumption taxation is not solely about protecting the poorest; it is important to identify all the reasons that could justify the use of such rates and then analyze the issues in their adoption.

According to this extensive body of literature, there are, broadly speaking, three reasons to justify the use of differentiated tax rates. Although the main argument is that they should be

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9 According to Mehrotra (2022, p. 244): “As scholars of comparative law and political economy have shown, there is a high degree of correlation across space and time between regressive national consumption taxes like the VAT and robust, progressive social-welfare spending”.

10 We mention, herein, the books and articles listed in the “References” section at the end of this article, but we also highlight the material produced for the European Commission, the studies conducted by the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD). Regarding the texts produced for the European Commission, we primarily refer to the following: Copenhagen Economics (2007), European Commission (2011); by the IMF (Ebrill et al., 2001) and concerning the OECD texts, especially the studies by Thomas (2020), OECD and KIPF (2014). In addition to these texts, we indicate the extensive and classic review conducted for the government of the United Kingdom coordinated by James Mirrlees (Crawford; Keen; Smith, 2010).

11 A notable exception in the local debate is the article by Marciano Seabra de Godoi (2017), which engages with a text from the OECD.

12 See the entirety of the bibliography indicated in note 8.
used for equity reasons, there is also an argument regarding goods and services that have merit (in production or consumption) and another argument concerning economic efficiency.

2.1. ECONOMIC EFFICIENCY

With regard to this last argument, from a theoretical standpoint, tax rates should not, in principle, be uniform. A tax system is more efficient to the extent that deadweight loss is minimized. It occurs when the system is able to refrain from altering people’s consumption decisions or do so as little as possible (Copenhagen Economics, 2007, p. 8).

In turn, the potential variation in tax rate will depend on the different price elasticities of products: the more elastic the good, the greater the change in the tax rate (which reflects in the price) to affect consumer behavior. Therefore, in theory, “an economically efficient VAT system necessarily must be non-uniform, imposing higher VAT rates on price-inelastic rather than price-elastic goods” (Copenhagen Economics, 2007, p. 9).

However, imposing different tax rates according to the elasticity of goods would require that these elasticities and their variations be constantly measured, which is an impossible task. Thus, although theory might highlight the greater efficiency of using differentiated rates, from a practical standpoint, it is believed that uniform rates would be more appropriate. In this regard, the study by Copenhagen Economics (2007, p. 9), prepared for the European Commission, has concluded that: “[...] differentiating VAT rates without detailed knowledge of the underlying price elasticities is unlikely to lead to gains in efficiency and may even lead to sizable losses in efficiency as the ‘wrong’ goods or services are given reduced rates.”


14 Professor at the Brazilian School of Economics and Finance (EPGE FGV/RJ), Aloisio Araujo, has been involved in the debate on tax reform in Brazil. Recently, he and co-authors presented a text arguing that, given the different rates of evasion, proven for Brazil, the primary support for a single tax rate in terms of efficiency would be lost. The experience of increasing the Cofins rate in 1999, without any change to PIS, allowed them to calculate the difference in compliance elasticities between sectors, concluding that it is much higher for the construction sector, for example, than for the financial and real estate sectors (Albuquerque et al., 2023). Even if one accepts the authors’ conclusion regarding the variation in elasticities, the suggestive part of the argument would have to deal with the practical difficulties of estimating the variation in price and compliance elasticities. Additionally, it must be noticed that advocating for a uniform tax rate is not solely based on efficiency reasons. As it will be observed throughout this article, to support the adoption of a uniform rate, there are not only efficiency reasons but also equity reasons and benefits for the entire system.

15 Bruno Delalibera et al. (2023) published a paper using a general equilibrium model that includes multiple sectors with market power. They assessed the effects of a tax reform that would eliminate rate heterogeneity
If, in more general terms, difficulties in sustaining the argument arise, there are also some specific situations in which the literature justifies the differentiation of rates also for efficiency reasons. In this case, the argument to justify the differentiated rates starts from the observation that there are untaxed activities by definition. This is the case with what has become known as “Do It Yourself” (DIY) work: preparing food at home, small repairs, taking care of young children, cleaning services in homes, and even much practices in beauty salons. They all represent activities of which people can either hire service providers or do themselves at home.

There is, therefore, a differentiation that is caused by taxation: when the service is provided by third parties, it is subject to tax, but when it is done at home by consumers themselves, no tax is imposed. Let us illustrate it with the example of food: the activity of preparing food at home is not subject to tax, whereas the activities of restaurants, even for “buffet-style” dining, are.

Therefore, there is a distinction resulting from taxation: when services are acquired from third parties, they are subject to taxation, whereas when they are performed domestically, by the consumers themselves, no taxation is applied. With the example of food preparation, the act of doing it at home is exempt from taxation, whereas the operations of restaurants, even those offering meals on a “per kilo” basis, are subject to taxation.

This difference may lead people to choose to prepare food at home instead of going to restaurants. However, from the perspective of system efficiency, this is not the best option. This is because it introduces “a distortion that may lead skilled and highly productive persons to carry out DIY even though they are not very good at it” (Copenhagen Economics, 2007, p. 22), which is a source of economic inefficiency.

The preparation of food at home takes time, which reduces the time available for work, while frozen, ready-made meals or meals in restaurants save time. If skilled individuals are led to exchange some hours of their work for DIY work at home, the economy ends up operating inefficiently. Therefore, the report presented to the European Commission (Copenhagen Economics, 2007, p. 21), among several other studies, concludes that these are situations in which greater economic efficiency would be achieved through the use of differentiated rates for these services, aiming to discourage DIY work.

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and cumulativeness. According to the authors, a “revenue-neutral tax reform generates gains of 7.8% of GDP and 1.9% of welfare. Just eliminating Value-Added Tax (VAT) rate dispersion leads to a 5.6% increase in GDP” (Delalibera et al., 2023, p. 1).

In the terms of Copenhagen Economics (2007, p. 21), “[t]here is little doubt that carefully designed reductions in VAT rates or equivalent direct support schemes for several reasons may improve member state and community welfare.”
The literature does not deny that there may be situations in which differentiated tax rates can lead to increased economic efficiency. However, it also points out, as with the analysis proposing different rates based on different elasticities, the complexity of evaluating such gains and highlights that it is not clear whether the goods currently subject to reduced rates (taxes foregone) are yielding this result (Abramovsky; Phillips; Warwick, 2017, p. 15).

2.2. MERIT GOODS
The second argument to justify the use of differentiated tax rates concerns what has conventionally been referred to as “merit goods.” People make their choices and transact in the market according to what they believe is good for them. However, consumption (and production) of certain goods may be considered more beneficial for society and for individuals themselves than they can evaluate on their own.

One could argue that both externalities and internalities are associated with these goods. Positive externalities arise because the consumption of these goods generates more benefits for society overall than what individual buyers can perceive and consider in their purchasing decision.

There would also be internalities because, due to a lack of information, buyers themselves may not fully realize the benefits that purchasing a particular good would bring to them.

Due to both factors, “consumers have a tendency to purchase less than the socially optimal level of such goods and services,” and a reduction in tax would aim to change this state of affairs (European Commission, 2011, p. 551).

Therefore, in a significant number of countries, taxation on the consumption of certain goods, such as books, magazines, newspapers, cultural activities, and public transportation, is treated differently (European Commission, 2011). Also within this category are environmentally friendly products, such as solar panels or wind turbines, to encourage the generation of clean energy.

2.3. DISTRIBUTIVE REASONS
The third argument typically presented in favor of differentiated tax rates is related to the desire for distribution and equality. As Brazil is one of the most unequal countries in the world, the argument gains special relevance in the country. It is crucial to protect the poorest and address the issue of inequality. Thus, within the scope of VAT, it is believed that one instrument for this matter could be the reduction of the tax rate on certain goods and services.

What goods would those be?

Certain goods are essential for living. The list includes, for example, water, certain basic food items, cooking gas, and certain medications. However, to qualify for reduced tax rates, in addition to being essential, the consumption of these goods would have to account for a larger fraction of poorer families’ budgets and a smaller fraction of the budget of richer families.
This was already one of the points raised by Cnossen in 1998 when arguing against the differentiation of tax rates within the European Union. He pointed out that the experience of European countries showed a convergence between the consumption patterns of the poor and the rich (Cnossen, 1998, p. 409). Thus, differentiation would not benefit, not even in relative terms, the poorest.

The report by a consortium led by the IFS for the European Commission analyzed the distributive impact of differentiated tax rates in nine European Union countries and concluded that “existing zero and reduced rates, taken together, reduce the proportion of expenditure taken up by VAT for poorer households more than for richer ones” (European Commission, 2011, p. 542).

However, even if these potential effects exist, it is necessary to analyze whether this justification is enough to support the reduction of rates and the differentiated treatment for the chosen goods. The next section will present this analysis and will particularly examine the problems generated by differentiated rates.

3. PROBLEMS OF DIFFERENTIATED TAX RATES

The international literature identifies at least four issues related to the use of differentiated tax rates. Firstly, they are deemed ineffective in reducing inequalities as the benefits are not exclusively directed towards the poorest sectors of society; instead, everyone benefits, including the wealthiest, who enjoy price reductions. It suggests that more targeted tax policy instruments could be much more effective in achieving the intended objective. Furthermore, a non-targeted mechanism may have unintended consequences that conflict with the broader fiscal policy goals of the government; for instance, reduced rates for gasoline may not align with environmental objectives.

Secondly, public opinion often tends toward the belief that implementing reduced tax rates automatically translates to lower prices, as if there were an automatic pass-through of the entire tax rate reduction to prices. However, this pass-through involves other factors, such as market structure and the supply and demand elasticities of goods. International empirical research suggests that this is not a settled matter.

Thirdly, differentiated tax rates make the system much more complex, which impairs its productivity and affects its efficiency. Consequently, this contributes to a decrease in the gross domestic product to be divided, affecting even the poorest.

One last relevant argument to Brazil is the existence of differentiated tax rates that makes the field of taxation especially vulnerable to lobbying. Some “sectors” argue that they experience very particular situations that, supposedly, set them apart from others and warrant differentiated treatment. Each of these arguments will be further developed below.
3.1. Differentiated Rates Include Expenditures of the Richest

First and foremost, differentiated rates can effectively make the system more progressive. However, this is not necessarily the case. For this to happen, the portion of goods and services consumed by the poorest and subject to reduced rates would have to be proportionally greater than the portion of the same goods and services consumed by the richest. Only under such a scenario—one in which the poorest consume relatively more goods subject to reduced rates, as compared to the wealthiest—would reduced rates make the system more progressive (Ebrill et al., 2001, p. 74). However, it has been noticed that this fact is not always the case, as Cnossen (1998) pointed out for the European Union, where consumption patterns may be similar.

Even if it occurs and consumption patterns differ, reduced rates are not a good alternative. Even if, in relative terms, reduced rates lead to a greater increase in purchasing power for the poorest than they do for the wealthiest, the wealthiest benefit the most from the measure in financial terms.

Empirically, this was the conclusion of the analysis conducted across the nine countries of the European Union, previously mentioned in the study and among several others (European Commission, 2011, p. 543). In absolute terms, if we compare the total money spent on goods subject to reduced rates by the wealthiest versus that spent by the poorest, the total spent by the first strata was higher.

The OECD and KIPF (2014) study had the exactly same conclusion. This study analyzed the distributive effects of consumption taxation in 20 OECD countries. It concluded that the reduced tax rates had, on average, a small progressive effect in relation to the tax expenditures. However, it also confirmed that due to the higher overall spending of richer families, they would have benefited much more than poorer families from the differentiation. Finally, it concluded that:

however, despite this progressive effect, these reduced VAT rates are still shown to be a very poor tool for targeting support to poor households: at best, rich households receive as much aggregate benefit from a reduced VAT rate as do poor households at worst, rich households benefit vastly more in aggregate terms than poor household (OCDE; KIPF, 2014, p. 56).

Cnossen (1998) refers to an empirical study in Ireland that reached the same conclusion: although, in relative terms, the poorest would have benefited more from the reduction in tax rates, in absolute terms, the benefit to the richer was twice as great. He attributed it to the fact that they purchase more expensive types of goods subject to the reductions, eat more in restaurants, and more easily throw away food.

Ebrill et al. (2001) provide another example. They note that, in a certain country, the IMF’s Fiscal Affairs Department calculated that “[f]or every $100 (say) in VAT revenue forgone
as a result of zero-rating food, less than $15 is accrued to the poorest 30 percent of the population, while about $45 benefited the richest 30 percent” (Ebrill et al., 2001, p. 76).

The extent of distribution achievable through tax rate differentiation is quite limited, as compared to other possible instruments, indicating that this is not a suitable mechanism for this purpose; much of the money spent to subsidize reduced rates will be redirected to the wealthiest (Abramovsky; Phillips; Warwick, 2017, p. 16). The conclusion of the reviewed literature is unanimous in the sense that, in the presence of possible alternatives for income distribution, consumption tax is the worst option.

Therefore, a more targeted instrument, such as a direct transfer system—like the Bolsa Família Program in Brazil—would achieve the same results with fewer resources.

Around the world, the debate over a uniform rate in consumption taxation revolves around reductions within the scope of the VAT. In Brazil, the situation is slightly different. For this reason, there is an additional argument in favor of uniform rates. While the worldwide VAT covers goods and services, in Brazil, there is a tax for services (ISS) and another for goods and some other selected services (ICMS). Since the ISS, despite being cumulative, is applied at a much lower rate, services end up being less taxed than goods.

It changes the significance and widens the scope for the establishment of a uniform rate—which, in Brazil, would be accompanied by the aligning of taxation between goods and services. Orair and Gobetti (2019) demonstrate how these measures would lead the system to be less regressive. They explain that this happens because the wealthier consume more services than the poorer, and that there are services, included in the basket of goods consumed by the poorer, that are heavily taxed, such as telephone services.

Another argument against differentiation as the most efficient mechanism for distribution concerns higher-cost versions of favored goods. The European Commission’s 2011 report elaborates on this issue. Tax measures that establish differential treatment do not differentiate between high-cost and low-cost versions of the goods subject to reduced rates. Therefore, under a rate reduction policy, high-cost versions of the goods are equally benefited (European Commission, 2011, p. 551). However, the social benefit of using a high-cost version of the good is not superior (and probably much lower) than that of a low-cost version.

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17 The OECD and KIPF study (2014) indicates how such effect of a greater benefit for the wealthiest has been repeated across all products: food, pharmaceuticals, children’s clothing and shoes, natural gas, electricity, and water supply, with a smaller difference for both latter products. “In almost all countries, the top income (expenditure) decile received a tax expenditure that is more than double (triple) what the bottom income (expenditure) decile received” (OECD; KIPF, 2014, p. 58). In Estonia, where the difference was greater, the benefit for the wealthiest decile was six times greater than that for the poorest decile.
Let us use the example of books. Some of them are consumed fundamentally by the wealthiest individuals, such as art books. Even regarding conventional ones, publishers may produce more expensive editions with hardcover bindings, and all books would benefit from a reduction in tax rates proportional to their price.

In the case of beef, across various Brazilian states, reduced rates are not just established for everyday cuts, but for all varieties, including Filet Mignon. In the case of fish, favored rates apply to salmon and other fish consumed only by the wealthiest. For all goods, high-cost versions that are equally benefited by differential treatment can be found. This is another argument suggesting that rate reduction is not a good tool for public policy, as differentiation is not targeted.

Thus, when arguing against differentiated treatment for books, one neither denies the externalities or the internalities described earlier in subsection 2.2 which described reasons for the differential treatment of merit goods. The contraposition points out that the argument that reducing the tax rate generally increases the aggregate consumption of the good is insufficient to justify the measure.

Messias and Canado (2021, p. 3) estimated, based on the 2017–2018 Family Budget Survey (POF), conducted by the Brazilian Institute of Geography and Statistics (IBGE), numbers for the purchase of books using personal resources by households, segmented by household income strata. They were divided into seven groups based on monthly income: the first group comprised households with income below the equivalent of two minimum-wage salaries (calculated in Brazil on a monthly basis), and the last group comprised households with incomes exceeding that of 25 times a monthly minimum-wage. They concluded that the first group spend around R$ 70.00 per year on books, while those in the most affluent group spend around R$ 620.00 annually. Therefore, a reduction in tax rates is deemed highly inefficient, as it ends up benefiting those who need the least from public policy.18

If not properly targeted, the policy may fail to achieve the goal of increasing consumption among the segment that does not consume, despite any increase in absolute terms. Therefore, it is important to highlight its cost and demonstrate that the policy of reducing tax rates should be compared with other possible public policies, for example, a policy of direct

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18 The OECD and KIPF study (2014) analyzed the distribution of benefits with the so-called merit goods, such as: books, newspapers, periodicals, cinema, theater, concerts, museums, and zoos. In the case of these goods, the aggregated results show such a greater expenditure by the wealthiest that, even proportionally, they favor the richest deciles of the population, causing the tax rates to be regressive for these goods in all countries (OCDE; KIPF, 2014, p. 63).
subsidies in order to achieve the same objectives. Messias and Canado (2021, p. 3) also discuss how tax refund policies or personalized exemptions would be much more suitable.\textsuperscript{19}

In addition to creating distortions, which will be examined later, in terms of tax litigation, a policy of reducing tax rates will necessarily have to be less focused and will inefficiently allocate resources which could be better allocated if the policy was configured differently.

Regarding the magnitude of the costs of such a policy, “C-efficiency” is a tool employed in various studies to measure the ratio between the current VAT revenue and the product of what would be the standard rate with total consumption. When ranking countries worldwide by using this criterion, European countries—with a significant number of reduced rates—tend to fall below the OECD average of 52.9 “C-efficiency” measure. In contrast, New Zealand, for example, which applies a uniform rate, scores 90 points on this ranking (Feria; Walpole, 2020, p. 645).

In this section, it was argued that reducing tax rates is not an effective tool for redistributing income because the wealthiest individuals capture most of the value of the tax expenditures. However, even if this were not the case and the poorest individuals benefited the most, the idea that a policy of reducing tax rates could be used as a suitable instrument for income distribution is based on another assumption, presumed valid, that the tax rate reduction would be passed on to the final consumer.

3.2. PASS-THROUGH OF REDUCTIONS TO PRICES OF GOODS AND SERVICES
The public opinion presupposes that tax rate reductions lower prices, as if there were an automatic pass-through. Even tax policymakers start their reasoning from this assumption. It is known that there are other factors, such as supply and demand elasticities and market structures, that interfere in price formation. However, since examining these circumstances would make any analysis of the precise effects of a potential reduction very complex and difficult, tax policymakers end up accepting the assumption.

In this context, Bird and Gendron (2007, p. 71) write: “The conventional tax incidence analysis generally avoids such complexities and simply assumes the tax is fully shifted forward from the seller to the final consumer.” Even the more sophisticated literature

\textsuperscript{19} Godoi (2017, p. 569) writes that he does not believe that Brazilian states would have “administrative conditions to create and manage an efficient mechanism for operationalization and control of credits and transfers as occurs in Canada (tax refund).” He argues that, in Brazil, the administration of the system depends on information transmitted to the tax authorities through the Individual Income Tax (IRPF) declaration, but the low-income population does not adhere to the IRPF declaration (Godoi, 2017, p. 568). However, the government program of the state of Rio Grande do Sul, the experience with the Bolsa Família Program, and the Electronic Service Invoice (NF-e) show that it is not only possible, but also has been happening efficiently.
makes this assumption. As Benzarti et al. (2020, p. 4441) point out, “[t]he proposals related to VAT in that review [Mirrlees review] rely on the key assumption that VAT incidence falls fully on consumers—an assumption made by default.” However, does it actually happen like that?

This was a topic of particular concern to the European Union. Three reports were released—in 2003, 2007, and 2011 (the latter two reports are previously mentioned in this article)—which extensively analyzed this issue. In addition to these, several other studies have been published addressing the topic. This article will further present this material.

The concern to empirically evaluate whether price reductions were effectively passed through to consumers when differentiated rates were implemented, dates back to at least 2003, when the European Union published a report that assessed the results of an experiment conducted in 1999.

This report was commissioned to evaluate the experiment of reducing tax rates for labor-intensive services and concluded that “[w]hen they conducted price surveys, Member States found that reduced rates of VAT were never fully reflected in consumer prices. Part of the VAT reduction is used to increase the margins of service providers” (European Commission, 2003, p. 23).

In addition to the reports prepared for the European Commission, a series of studies have been conducted in recent years to identify the pass-through resulting from tax rate reductions (and increases). In this regard, Carbonnier (2007) analyzed data from France; Kosonen (2015) from Finland; Gaarder (2019) from Norway; Nipers et al. (2019) from Latvia; Ván and Oláh (2018) from Hungary; and Politi and Mattos published a study in 2011 that analyzed price changes (75% of those being reductions) occurring between 1994 and 2008 in Brazil and focusing on ten products considered part of the basic basket.

Politi and Mattos (2011) examined data from 16 Brazilian states and sought to estimate not only the pass-through, but also whether there was a difference between situations of rate increases and reductions. The results indicated that, for all goods, there was not a complete pass-through in the case of rate reductions, but it occurred partially in cases of rate increases. The authors concluded that there was asymmetry regarding the different directions of rate changes.

In the same vein, Pinheiro et al. (2023) analyzed data from four Brazilian states for a basket of 79 food products during the period from 1994-2021 and concluded that, on average, each percentage point change in ICMS results in an approximately 0.13 percentage in prices. This pass-through extends itself for the four months after a change in tax rate.

The literature evidences cases in which the pass-through was complete, as described by Gaardner (2019) in Norway; to situations of partial pass-through, as reported by Carbonnier (2007) in France; and to instances in which it was absent, such as the case of restaurants described by Ván and Oláh (2018). Additionally, partial ones sometimes approaches full pass-through, as in the situations presented by Nipers et al. (2019) in Latvia, and some-
times, it is much lower than full pass-through, as in the scenarios described by Politi and Mattos (2011) and Pinheiro et al. (2023) when dealing with Brazil. However, both the comprehensive study by Benzarti et al. (2020) and that of Politi and Mattos (2011) indicate that there is asymmetry in pass-throughs in cases of tax rate increases and decreases. The observation shows that the pass-through is higher for increases and lower for tax decreases. According to the latest report for the European Union, the main hypothesis to explain the differences in pass-throughs is that markets and the elasticities of supply and demand are also different.

Unfortunately, most studies do not compare the results obtained with market characteristics. In this regard, according to the study prepared for the European Commission by the IFS,

[…] those studies that provide information on the market situation seem to find evidence that markets which are closer representatives of perfect competition markets more often feature full shifting of taxes, whereas less competitive markets feature both under- and overshifting more often (European Commission, 2011, p. 317).

3.3. PROBLEMS BROUGHT UPON THE SYSTEM AS A WHOLE

In addition to the uncertainty whether reductions will be passed on to consumers, the introduction of differentiated tax rates brings a series of negative consequences for the functioning of the system as a whole. First, the introduction of differentiation increases compliance costs for taxpayers and the burdens on the public administration to oversee them. As Abramovsky, Phillips, and Warwick (2017, p. 13) write:

Firms buying or selling goods taxed at different rates need accounting and invoicing processes that ensure they reclaim or charge VAT at the right rate on each transaction, and can properly reflect this in their (more complex) tax fillings.

The monitoring work for tax authorities also increases. Audits become more challenging because “not only total sales and purchase values have to be verified, but also the amounts for goods and services subject to different tax rates” (Abramovsky; Phillips; Warwick, 2017, p. 13).

The number of VAT refunds also tends to increase. It is not only exporting companies that accumulate credit positions; there may be more situations in which, with higher tax rates applied to sales over purchases, these credit positions and refund claims accumulate. This creates an incentive for misclassification of goods and services (Ebrill et al., 2001).

In addition to increasing compliance costs for taxpayers and the cost of enforcing compliance for tax authorities, differentiated tax rates increase tax disputes. When a differen-
tiated tax rate is established, there is a tendency for taxpayers to try to include as many goods or services as possible among those that will receive differentiated treatment.

As there is always a gray area, part of the tax disputes arises precisely due to classification and interpretation issues resulting from this differentiation. Rita de la Feria and Michael Walpole (2020) cite examples of products that have been subject to significant disputes due to the tax rate, with the Jaffa Cakes case as the most famous. For years, courts debated whether they should be treated as cakes (and thus subject to a zero rate) or as biscuits, subject to the standard rate (Feria; Walpole, 2020, p. 647).

In Brazil, analogous situations are even more numerous. Below, a single example will be provided for illustrative purposes.

There have been several legal proceedings, for example, concerning the attempt to apply the exemption that exists for fresh meat to hamburgers from fast-food chains like McDonald’s. An example of this situation can be found in the decision of the administrative court of the State of São Paulo TIT/SP’s AIIM 4062297-6 (Government of the State of São Paulo, s.d.). The controversy lies in the fact that the provision granting the exemption refers specifically to fresh meat.

According to tax authorities, hamburger meats would not be considered “fresh meat,” or “meat resulting from slaughter” (as per different wordings of the law), but would undergo transformation as a result of industrial processing. According to taxpayers, the steps of grinding, compacting, shaping, molding, and freezing the meat are part of the production process of this good, however, it is 100% meat, and no ingredients are added to the product, thus, they argue that it is fresh meat.

These cases are presented for illustrative purposes, and there would be dozens of others able to demonstrate the litigation that arises when any form of differentiated treatment is established.

3.4. FERTILE GROUND FOR SPECIAL INTEREST GROUPS

A final argument against reduced rates is that differentiation makes the system more vulnerable to lobbying. Firstly, there is an empirical observation: as reported, there is a general experience that “preferential treatment, once granted, tends to spread, and that in its doing so wider coherence of the tax system suffers” (Crawford; Keen; Smith, 2010, p. 301).

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20 In another text, Rita de la Feria (2021) discusses how multiple tax rates can increase opportunities for tax planning, avoidance, and fraud. According to her, “of all the VAT avoidance cases decided by the CJEU in the last 20 years, for example, only two did not concern either reduced rates or exemption” (Feria, 2021, p. 143).
Once an exception is established, it becomes much more difficult to prevent new exceptions from being created. In the United Kingdom, for example, children’s clothing enjoyed reduced rates in the past. The rationale behind this differential treatment raises questioning; if it is applied to clothing, why shouldn’t many other items for children, such as car seats and baby carriers, also have reduced rates (Crawford; Keen; Smith, 2010)?

Once exceptions are established, there is a tendency for the list to expand rapidly. Similarities are identified between the product that received preferential treatment and the new product seeking the same treatment, and requests for equivalence are made. As exceptions grow, there are more products available for comparison, and more analogies can be drawn.

Originally, Law Decree No. 399 of 1938 (Brazil, 1938), established the basic basket of goods in Brazil as containing 13 items. Currently, in the State of São Paulo, Article 3 of Annex II of the RICMS, which deals with the reduction of the tax base for basic basket products, contains 27 items, and each State has a different basic basket list replete with specific items (São Paulo, 2000).

But the problem is that it is very difficult to assess the fairness of each of the claims for differentiation. As the differentiated treatments expand, they make it harder to resist pressures for other and perhaps less deserving measures of differentiation. By permitting some differentiation, governments may reveal themselves more willing to live with complications that differentiation brings and so increase their vulnerability to further erosion of the tax base (Ebrill et al., 2001, p. 79).

Granting preferential treatment makes the tax field much more susceptible to lobbying and interest groups advocating for differentiated treatment in the particular interest of these same groups.

**Final Considerations**

In Brazil, differentiated tax rates on consumption are advocated because they supposedly benefit the poorest and are responsible for greater distributive justice. This article has sought to present, based on the analysis of international literature, that even if it is admitted that differentiated rates make consumption taxation more progressive, it represents a slight mean of attempting to protect the poorest segments of society.

Firstly, the arguments that could be used in favor of differentiated tax rates were analyzed: besides the equity argument, it was noticed that they are also advocated because it is believed that, in some situations, they could ensure greater economic efficiency and because there are goods that, due to their merit, deserve special protection.

Then, four criticisms of differentiation were examined: it was observed how the idea that differentiated tax rates benefit the poorest relies on the assumption that the reductions...
are passed-through, in price, to final consumers. It was also shown that there are many empirical studies that have delved into this issue, and such studies do not confirm this assumption. Although, sometimes and in some countries, there have been situations in which tax reductions were fully passed on to consumers, in many other instances, it did not actually happen and the pass-through was only partial, or in some situations, there was no pass-through at all.

This differentiated reality can be explained by the different elasticities of supply and demand and market structures. In more competitive markets, the pass-through tends to be higher. A study conducted for the case of Brazil identified asymmetry in the pass-through, when comparing situations of tax rate increases and decreases. It concluded that, for reductions, the pass-through was generally only partial.

Even if the pass-through only occurs in full, three further problems in using this instrument to protect the poorest were examined. First, it was observed that, even though differentiated tax rates may, in relative terms, benefit the poorest more—as they proportionally consume more goods subject to reduced rates—the richest individuals benefit more than the poorest, in absolute terms. Experience shows how this has occurred in all countries where the pass-through has been measured by empirical studies.

Furthermore, it was observed how differentiation creates complexity for both tax authorities and taxpayers, inevitably leading to increased litigation between them: there are always situations in which interpretative issues arise, and the more exceptions, the more controversies will arise. Some examples of the interpretative problems that differentiated tax rates bring were also highlighted, based on the examination of published decisions from the Administrative Tax Court of São Paulo (TIT/SP).

However, it was demonstrated how the existence of some situations with differentiated treatment makes it more challenging to prevent the creation of new and increasingly numerous exceptions to the general rule. The possibility of continually establishing new exceptions makes legislation more susceptible to lobbying and special interest groups.

If the intention is to create a progressive system, it is not necessary for all taxes within the system to be equally progressive. What is important is that the system as a whole promote distribution and equity. For these purposes, income tax and a system of direct transfers are the natural options. The income tax system may vary in its ability to fulfill these objectives, depending on the country.

In Brazil, the Bolsa Família Program is a success story. A uniform tax rate on consumption, accompanied by complementary measures—such as expanding direct transfers or refunding taxes to the poorest segments (also known as personalized exemption or tax refund)—is potentially able to achieve the objectives intended with differentiated rates without incurring the four problems identified in this article.
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