

**INVESTIGATION OF CONSUMER TAX PREFERENCES: DIRECT OR
INDIRECT TAXES ***

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To ensure the social and economic stability of the economy, as well as its efficiency and fairness, it is crucial to understand which taxes are more preferable from the taxpayer's perspective. When formulating tax policy, governments need to consider how consumers respond to different tax systems. A comprehensive understanding of consumer tax preferences can help the government establish more effective and equitable tax policies, which, in turn, can contribute to economic growth and social justice.

The purpose of this article is to examine the impact of direct and indirect taxes on economic agents in the context of fairness and reciprocity. It seeks to analyze consumer preferences for different types of taxes across various social groups, assess how the perceived significance of the tax burden influences preferences for direct versus indirect taxes, and evaluate the effects of tax preference on economic impact, equitable distribution of the tax burden among different social groups, individual financial planning, and other related factors.

To this end, the article aims to identify which type of tax —direct or indirect — consumers prefer to maximize their utility, assuming all other conditions are equal.

To conduct the research, empirical methods were employed, including economic-mathematical modeling and comparative analysis. During the theoretical phase, a combinatorial method was applied.

Based on the research conducted, it can be concluded that consumers prefer direct taxes, because direct taxes are often progressive, meaning the rate of tax

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increases as the taxpayer's income increases. This means that those who can afford to pay more contribute more, which is generally seen as a fairer system.

Key words: *Tax burden, consumer preference, direct tax, indirect tax, consumer utility, budget line, optimal solution.*

Introduction

From the consumer's perspective, the preference for types of tax payment is influenced by various factors. For instance, consumers who prioritize personal financial planning may favor tax types that make their expenses more predictable and understandable. Conversely, those who prefer not to see which portion of their income is taxed might opt for indirect taxes, as these are incorporated into the prices of goods and services and are generally less noticeable to consumers. In developed countries, as opposed to developing ones, direct taxes typically constitute a larger share of total revenue, while indirect taxes account for a smaller proportion. It is important to note that such differences are also determined by a variety of other economic factors unique to each country. The debate over whether tax pressure (or the tax burden) should focus more on consumption or business taxation is a longstanding and complex issue in economics and tax policy. Several factors — economic growth, fairness, administrative efficiency, and the impact on consumer behavior and business investment — play a role in shaping this discussion.

Table 1. Tax Revenues of the Republic of Armenia's State Budget for 2023

No.	Tax Type	Taxes Collected in 2023 (in AMD)	Share of Tax Revenues (%)	Growth (%) ¹
1	Value Added Tax (VAT)	767.173.500.000	34.5 %	12. 9
2	Corporate Income Tax	321.520.700.000	14.5 %	44. 3
3	Income Tax	554.554.200.000	25.0 %	16. 7
4	Excise Tax	149.446.000.000	6.7 %	17. 2
5	Turnover Tax	52.189.300.000	2.3 %	28. 1
6	Environmental Tax and Resource Usage Fee	60.643.300.000	2.7 %	-36. 8

Source: State Revenue Committee of the Republic of Armenia. Regarding revenues controlled by the RA SRC

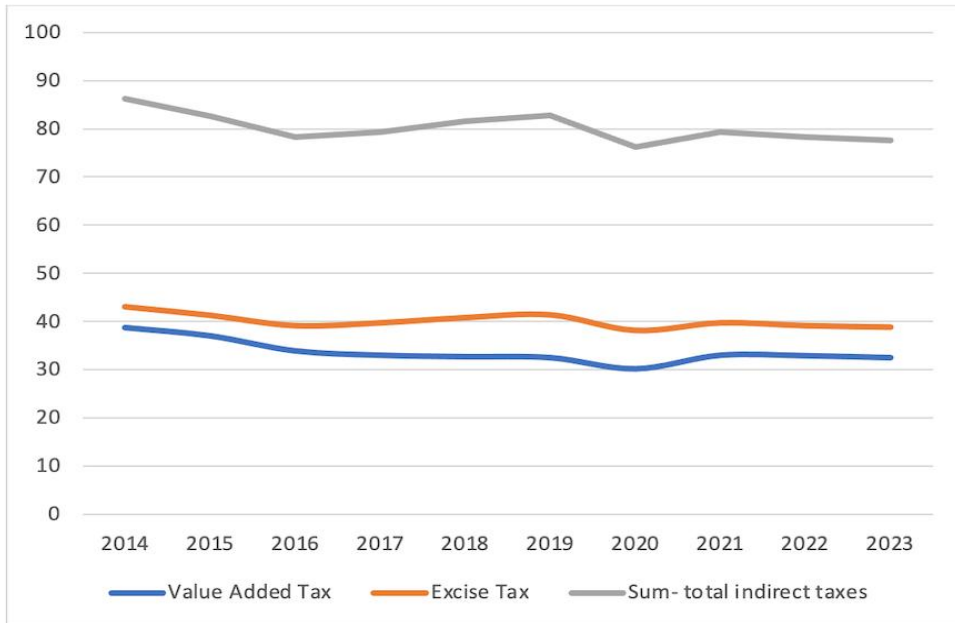
Overall, it is also important to consider which types of taxes dominate in tax revenues — direct taxes or indirect taxes.

In the structure of tax revenues of the Republic of Armenia, the share of indirect taxes (Value Added Tax and excise tax) was 41.2 percent in 2023. This figure has begun to decline in recent years; however, compared to international taxation practices, it

¹ This is a growth rate compared to the previous year.

remains relatively high. Consequently, when the proportion of indirect taxes is significant, the principle of tax equity is not adequately maintained, as the tax burden predominantly falls on individuals (Panosyan 49).

Figure 1. The share of indirect taxes (Value Added Tax and Excise Tax) in total tax revenues in the Republic of Armenia from 2014 to 2023



Source: Statistical Committee of the Republic of Armenia. Publications by year

Since indirect taxes are fully borne by consumers, in cases of high-income polarization, direct taxes should prevail in that country. Furthermore, it is believed that indirect taxes contribute only to the fiscal function of taxation, while direct taxes fulfill the remaining functions of taxation.

The first objective of taxation is to raise revenue. Total tax revenues a share of GDP in OECD countries range from 17% to 47%. On average, around $\frac{1}{2}$ of these revenues is from a combination of personal income taxes and social security contributions, $\frac{1}{4}$ from VAT, 10% from corporate income taxes and other consumption taxes each, and 6% from property taxes. In non-OECD economies, the tax revenue-to-GDP ratio is lower on average than in OECD countries and the share of indirect tax revenues higher.

Differences in tax levels and structures reflect a range of political choices and administrative capabilities and they have a major impact on economic and social outcomes. High-quality data on tax revenues is essential for countries' fiscal policy and international co-operation on tax (IMF Working Paper 2010).

There is no definitive answer to the question of whether tax pressure should focus more on consumption or business taxes, as the optimal approach depends on a variety of factors, including the stage of economic development, social equity goals, and the need to generate sufficient government revenue. For developed countries, a balanced approach combining both types of taxation is often seen as the most effective strategy.

However, developing countries may lean more heavily on consumption taxes due to administrative simplicity and ease of collection (IMF Working Paper 2010).

Results and Findings

Since the definition of taxes significantly shapes consumer behavior and taxation can influence their actions, it is important to understand which taxes consumers prefer and how taxation will affect their behavior.

Through economic-mathematical modeling, let us determine which taxes are more preferable for the taxpayer — direct taxes or indirect taxes. Suppose the taxpayer has a choice between paying an excise tax or an income tax. Additionally, let's assume that under equal conditions, both tax types provide the same level of revenue to the state budget¹. Which type of tax will the consumer prefer in order to receive greater utility?

Let's assume we have goods X and Y priced at P_1 and P_2 , respectively, and we have an income of M . The state decides to impose an excise tax of t on good X or an income tax of T on the consumer's income.

Let's examine the equations of the consumer's budget constraint in three cases.

(1) $P_1X + P_2Y = M$, with the optimal solution being $(x_1^*; y_1^*)$ and a slope of $-P_1/P_2$, where no tax is present.

(2) $(P_1 + t)X + P_2Y = M$, with the optimal solution being $(x_2^*; y_2^*)$ and a slope of $-(P_1 + t)/P_2$, where an excise tax is applied.

(3) $P_1X + P_2Y = M - T$, with the optimal solution being $(x_3^*; y_3^*)$, where an income tax is present.

Let us place $(x_2^*; y_2^*)$ into the constraint (2):

$$(P_1 + t)x_2^* + P_2y_2^* = M \Rightarrow$$

$P_1x_2^* + P_2y_2^* = M - tx_2^*$, since both tax types are assumed to generate the same revenue. $P_1x_2^* + P_2y_2^* = M \Rightarrow P_1x_2^* + P_2y_2^* = M - tx_2^*$, $T = tx_2^*$

since both tax types are assumed to generate the same revenue. Thus, we have $P_1x_2^* + P_2y_2^* = M - T$, indicating that $(x_2^*; y_2^*)$ also satisfies (3), but it is not the optimal solution.

Let us illustrate the solution graphically. For the first budget constraint, the intersection points are:

$$X=0, Y=M/P_2$$

$$Y=0, X=M/P_1$$

For the second budget constraint curve:

$$X=0, Y=M/P_2$$

$$Y=0, X=M/(P_1 + t), \text{ the curve will shift to the left along the OX axis.}$$

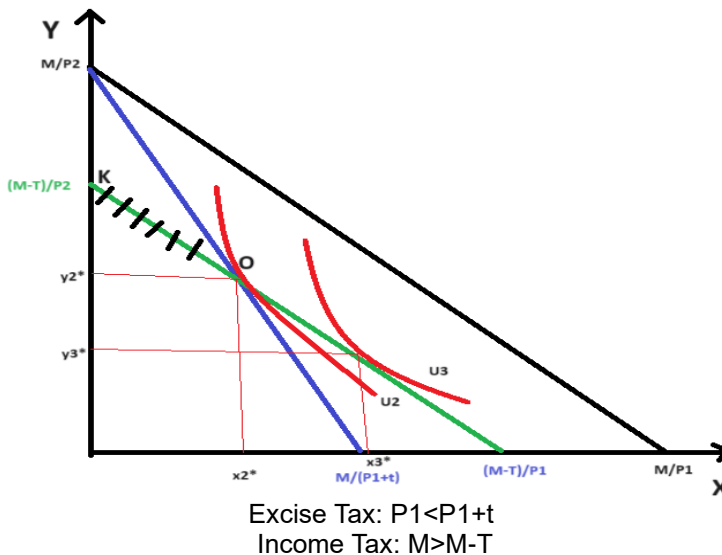
For the third constraint curve:

$$X=0, Y=(M - T)/P_2$$

$Y=0, X=(M - T)/P_1$, this curve will also shift to the left parallel to the first curve, as the numerator decreases.

¹ We note this condition so that there is no difference for the government in terms of determining the type of tax.

Figure 2. Consumer Preference for Excise and Income Taxes¹



To find the optimal points of consumer utility, the indifference curve must touch each budget line at its optimal solution point. Since the optimal solution of the second budget constraint also satisfies the third, this point should be located at the intersection of the two lines, and the U_2 indifference curve must pass through this point. The U_3 indifference curve cannot lie in the segment OK , as this would lead to intersections of the indifference curves, which should remain parallel.

Thus, we have $U_3 > U_2$, indicating that the consumer prefers the income tax, as the price of the good increases under the excise tax, forcing them to reduce its quantity and substitute it with another good. However, there is a substitution problem, and this good cannot be replaced infinitely. This also stems from the theory of rational choice, which posits that individuals make rational decisions by weighing costs and benefits in order to maximize their personal utility or satisfaction (Lehner, Mont, & Heiskanen 168). Therefore, it is more preferable for the consumer to pay the income tax and manage their remaining income at their discretion.

Compensation for Excise Tax

Assume the government imposes an excise tax and simultaneously decides to compensate for it to prevent the tax burden from becoming too heavy for the consumer. For instance, it may increase wages or pensions.

Let us again examine the budget constraints.

- (1) $P_1X + P_2Y = M$ has an optimal solution $(x_1^*; y_1^*)$ with no tax present.
- (2) $(P_1 + t)X + P_2Y = M + S$ has an optimal solution $(x_2^*; y_2^*)$ with an excise tax and compensation provided.

Substituting the solution from (2) into (1), we have:

$$P_1x_2^* + P_2y_2^* = M - tx_2^* + S, \quad S = tx_2^*$$

Thus,

$$(3) \quad P_1x_2^* + P_2y_2^* = M$$

¹ The figure has been created by the author based on Nicholson, Snyder, p. 131.

The point (x_2^*, y_2^*) satisfies both (1) and (2), indicating that the utility function touches at this point; however, it is not the optimal solution.

To obtain the specified budget constraint curves, let us determine the intersection points with the axes.

In the first case:

$$X=0, Y=M/P_2$$

$$Y=0, X=M/P_1$$

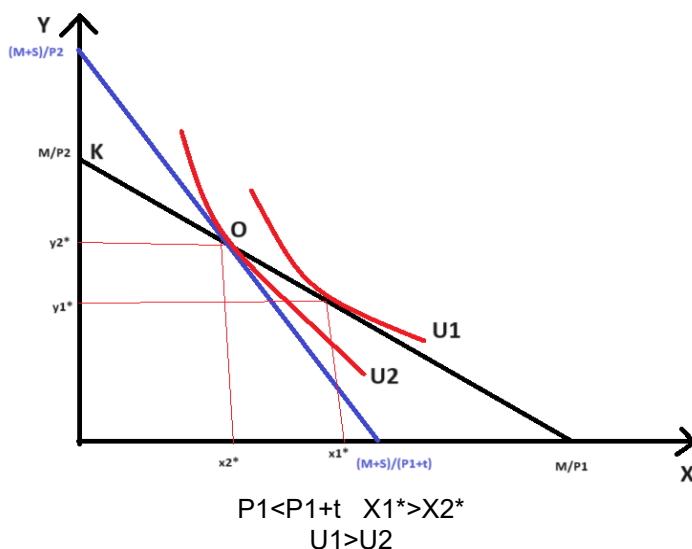
In the second case:

$$X=0, Y=(M+S)/P_2$$

$$Y=0, X=(M+S)/(P_1+t)$$

To determine the precise position of the second line, we can refer to the intersection point with the Y-axis. Since the numerator has increased in the case of the second line, it will shift upward on the ordinate axis and to the left on the abscissa axis.

Figure 3. Imposition of Excise Tax and Compensation¹



Therefore, the consumer prefers that neither a tax be imposed nor compensation provided, as their utility will still decline, and they will be compelled to reduce the quantity of the good in response to an increase in its price.

This further confirms that taxation affects consumer behavior by altering price sensitivity and elasticity. Along with the increase in taxes, the prices of goods and services also rise, which compels consumers to be more sensitive to price changes and potentially decreases the demand for such goods (Currie, Rowley 374).

If we consider the impact of various factors (accumulated wealth, free education, healthcare, price changes, income expectations, etc.), it becomes evident that changes in taxation, either increases or decreases, have a unidirectional effect on consumption and savings. Specifically, if taxes are reduced, both consumption and savings will increase, and conversely, if taxes are raised, both consumption and savings will decrease. In contrast, changes in other factors (except for taxation) have an opposite effect on

¹ The figure has been created by the author based on Varian, p. 151.

consumption and savings (Ефимова 202). For instance, an expectation of rising prices will increase current consumption and, consequently, reduce savings, while a decrease in accumulated wealth will have the opposite effect, reducing consumption and increasing savings. When taxes are reduced, savings may either increase or decrease, depending on individuals' propensity to consume. Those with a high propensity to consume will spend a large portion of the tax reduction, leading to an increase in consumption. Conversely, individuals with a low propensity to consume will save a greater portion of the tax reduction, resulting in an increase in savings.

This is particularly evident among socially vulnerable groups. In the structure of the average monthly nominal consumer expenditures of households in the Republic of Armenia for the years 2022–2024, the largest (Household Incomes 88) share (42–44 %) is allocated to food and non-alcoholic beverages. This indicates that the high proportion of food-related expenses disproportionately affects economically disadvantaged segments of the population. In 2024, the minimum consumer basket in Armenia amounts to 77,065 AMD per month.

Let us consider two different social groups in Armenia: low-income (poor) households and high-income households. Both groups are subject to indirect taxes, such as the Value Added Tax (VAT), and direct taxes, such as Income tax. Suppose the first household earns 80,000 AMD per month (corresponding to the minimum consumer basket) and spends the entirety of its income (100%). In contrast, the second household earns 500,000 AMD per month and spends 60% of its income (300,000 AMD).

Table 2. Analysis of the Tax Burden of Different Social Groups

<i>Social groups</i>	<i>VAT (20%)</i>	<i>Income tax (20%)</i>	<i>Total tax burden</i>	<i>The percentage of the tax burden on income</i>
1	16000	16000	32000	40 %
2	60000	100000	160000	32 %

For the first family, which belongs to a poor social group, the tax burden is 40%, indicating that relative to their income, the tax burden is excessively high for them. Indirect taxes are heavier for them than for families with higher incomes. Indirect taxes have a greater impact on low-income individuals because a larger portion of their income is spent on consumption. The VAT applied to those expenses increases their tax burden, negatively affecting their standard of living.

This analysis shows that, under the current conditions of Armenia's economy, direct taxes are more equitable and transparent for socially vulnerable groups, due to the structure of their income distribution and spending (see Armenia: Household Incomes, Expenditures, and Consumption of Basic Food Products, pages 84–89). Indirect taxes, particularly VAT, lack a progressive nature, as a result of which poor groups are in fact more adversely affected than higher-income segments.

Conclusion

The analysis reveals that both direct and indirect taxes can affect consumer preferences, the availability of consumer resources, the prices of goods and services, as well as consumers' purchasing decisions in various ways. The relationship between direct and indirect taxes is a characteristic feature of each country's tax system, and depending on the economic conditions of the state, this relationship may vary.

Summarizing the study of consumer tax preferences, we can conclude that direct taxation is generally preferred by consumers, as it is primarily aligned with increases in

income. In contrast, indirect taxes are regressive and vary for each good and service. The regressive nature of indirect taxes exacerbates their negative impact on low-income individuals, as everyone pays the same tax rate regardless of income level, disproportionately affecting those with lower earnings. Furthermore, direct taxes fulfill the criterion of tax certainty, as taxpayers know precisely how much they need to pay, and the government is also assured of the revenue it will receive from direct taxes.

Given the uniform VAT rate in Armenia, the effective tax burden of indirect taxes is disproportionately higher for low-income households. This is because the entire income of a low-income household is subject to VAT through consumption, while high-income households are able to save or invest a significant portion of their income, thus deferring or avoiding VAT on the non-consumed portion. As a result, the relative regressivity of the VAT system becomes evident, with low-income households bearing a heavier effective tax burden relative to their income.

This disparity raises important policy considerations regarding the equity of Armenia's tax system. It suggests the need to either reduce the VAT burden on essential goods—such as through targeted exemptions or reduced rates—or enhance the progressivity of income taxation to offset the regressive effects of consumption-based taxes. To promote tax justice and reduce the economic strain on vulnerable populations, a reconsideration of the balance between direct and indirect taxation is necessary. A more progressive tax system—where tax obligations increase with the ability to pay—could enhance equity, reduce poverty-related burdens, and support a more inclusive economic environment.

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ՄՊԱՌՈՐԻ ՀԱՐԿԱՅԻՆ ՆԱԽԸՆՏՐՈՒԹՅՈՒՆՆԵՐԻ ՌԻՍՈՒՄՆԱՍԻՐՈՒԹՅՈՒՆ. ՈՒՂՂԱԿԻ, ԹԵ՞ ԱՆՈՒՂՂԱԿԻ ՀԱՐԿԵՐ

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Տնտեսության սոցիալական և տնտեսական կայունության ապահովման, ինչպես նաև տնտեսության արդյունավետության ու արդարության ապահովման տեսանկյունից կարևոր է հասկանալ, թե հարկատուի համար ո՞ր հարկերն են նախընտրելի: Հարկային քաղաքականությունը ձևավորելիս կառավարությունները պետք է հաշվի առնեն, թե ինչպես են սպառողները արձագանքում տարբեր հարկային համակարգերին, քանի որ սպառողների հարկային նախընտրությունների մասին ամբողջական պատկերացում ունենալը կառավարությանը կարող է օգնել ավելի արդյունավետ ու արդար հարկատեսակներ սահմանելու գործում, ինչն էլ, իր հերթին, կարող է նպաստել տնտեսական աճին և սոցիալական արդարությանը:

Սույն հոդվածի նպատակն է ուսումնասիրել ուղղակի և անուղղակի հարկերի ազդեցությունը տարբեր սոցիալ-տնտեսական խմբերի վրա՝ արդարության և փոխադարձելիության համատեքստում, վերլուծել տարբեր սոցիալական խմբերի պատկանող սպառողների նախընտրությունը հարկերի տարբեր տեսակների տեսանկյունից, վերլուծել հարկային բեռի զգալիության ազդեցությունը սպառողների՝ ուղղակի կամ անուղղակի հարկերի վճարման նախընտրության տեսանկյունից, գնահատել ուղղակի և անուղղակի հարկերի նախընտրելիության ազդեցությունը տնտեսական ներգործության, տարբեր սոցիալական խմբերի համար հարկային բեռի արդարացի բաշխման, անհատական ֆինանսական պլանավորման և այլ գործոնների վրա:

Այդ նպատակով հոդվածում խնդիր է դրվել բացահայտելու, թե, այլ հավասար պայմանների առկայության դեպքում, ուղղակի և անուղղակի հարկերից ո՞րը կընտրի սպառողը, որպեսզի ստանա ավելի մեծ օգտակարություն: Հետազոտության իրականացման համար կիրառվել են Էմպիրիկ հետազոտության մեթոդներ՝ իրականացվել է տնտեսամաթեմատիկական մոդելավորում և համեմատական վերլուծություն:

Հետազոտության տեսական փուլում կիրառվել է համադրության մեթոդը:

Կատարված հետազոտության արդյունքում կատարվել է եզրակացություն, որ սպառողները նախընտրում են ուղղակի հարկերը՝ տարբեր գործոններով պայմանավորված:

Հիմնաբանը՝ *հարկային բեռ, սպառողի նախընտրություն, ուղղակի հարկ, անուղղակի հարկ, սպառողի օգտակարություն, բյուջետային գիծ, օպտիմալ լուծում:*

ИССЛЕДОВАНИЕ ПРЕДПОЧТЕНИЙ ПОТРЕБИТЕЛЕЙ В ОТНОШЕНИИ НАЛОГОВ: ПРЯМЫЕ И КОСВЕННЫЕ

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Для обеспечения социальной и экономической стабильности экономики, а также её эффективности и справедливости важно понять, какие налоги являются более предпочтительными с точки зрения налогоплательщиков. При формулировании налоговой политики государствам необходимо учитывать, как потребители реагируют на различные налоговые системы. Глубокое понимание предпочтений потребителей в отношении налогов может помочь правительству установить более эффективные и справедливые налоги, что, в свою очередь, может способствовать экономическому росту и социальной справедливости.

Цель данной статьи — изучить влияние прямых и косвенных налогов на различные социоэкономические группы в контексте справедливости и взаимозаменяемости. В статье рассматриваются предпочтения потребителей в отношении различных типов налогов среди разных социальных групп, оценивается, как восприятие значимости налогового бремени влияет на предпочтения между прямыми и косвенными налогами, а также анализируются последствия налоговых предпочтений для экономического воздействия, справедливого распределения налогового бремени между различными социальными группами, индивидуального финансового планирования и других связанных факторов.

В этой связи статья ставит целью определить, какой тип налога — прямой или косвенный — потребители предпочитают для максимизации своей полезности при прочих равных условиях.

Для исследования использовались эмпирические методы, осуществлено экономико-математическое моделирование и сравнительный анализ. В теоретической фазе исследования применялся комбинаторный метод.

На основе проведенного исследования можно сделать вывод о том, что потребители предпочитают прямые налоги, что обусловлено различными факторами.

Ключевые слова: *налоговое бремя, предпочтение потребителя, прямой налог, косвенный налог, полезность потребителя, бюджетная линия, оптимальное решение.*