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INCOME ELASTICITY AND TRENDS IN SECOND-HAND GOODS SALES[3]

The current study aims to show the primary tendencies in second-hand goods trade, determine the significance of disposable income as an economic factor on second-hand goods sales, the income elasticity of their demand and the influence of income inequality on second-hand purchases in 21 selected European economies. The methods of content, comparative and correlational analysis have been applied and secondary sources of data from Eurostat are used, which allows for a national review, international comparisons and a study of the economic significance of second-hand goods trade for GDP to take place for each EU country. The results suggest that in the span of the 2010-2020 period, there is an uneven and mildly descending trend in second-hand goods commerce in the EU-21 which matches the instability of the business cycle in the entirety of the European and separate national economies and contributes, though slightly, to the creation of economic value added. The second-hand goods are normal, regardless of the initial hypothesis, they are inferior goods and their sales are moderately, positively correlated to the disposable income of the users. In fact, they are not underestimated as a source of utility and their preference is determined by a line of other factors outside the income limits.
Keywords: second-hand goods market; disposable income; second-hand goods turnover; income inequality
JEL: L10; M31

1. Introduction

The science of economics has always been driven by the fundamental problem of scarcity of resources and the effectiveness of their exploitation and possible renewal. With the advancement of social development, this issue escalates and introduces challenges for a more continuous re-use of goods with an even bigger significance towards human existence and the environment which is influenced by economic, social, psychological, ecological and distribution drivers. At the base of the economic determinant for rational satisfaction of human needs lies disposable income. It is the primary indicator of wealth and development

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of the nations, of human prosperity, of the standard and conditions of life. It is also the main economic variable which predetermines the capabilities of people to satisfy their needs not only on a basic but on a higher level as well. According to the European Commission by 2060 as a result of the increase in incomes and the number of households, an unprecedented increase in the global consumption of goods and services is expected (European Commission, 2020). The higher income leads to improved satisfaction levels for people in regards to their way of life and material conditions, to a lowering of opportunity costs and to aspirations for more luxurious and higher quality goods. On the other hand, it is a prerequisite for ineffective resource use, for increasing waste and for short-sightedness when it comes to utilizing the limited production factors. The re-use of certain goods that have retained their properties and intended function, which are however devalued, undervalued or replaced by the wealthier users, is the essence behind the existence of the second-hand goods market and therefore provides an opportunity for the low-income segments of society to acquire something stylish and of brand name at an affordable price, but also limits the overall overconsumption and environmental pollution. In perspective, on one hand income is the primary brake for individuals that prevents them from partaking in unreasonable consumerism, on the other it's a factor for the rational satisfaction of the limitless human needs.

In view of its lower price in comparison to the newly manufactured analogues, second-hand goods present a good alternative for the distribution of limited financial resources. Regardless of the specific type of products to which it is forwarded, the consumer's choice is aimed at owner comfort, functionality, prestige, uniqueness of purchase and convenience in the shopping process which to a large extent is provided by the new market goods. The already used ones can be relatively viewed as their analogue with a lower price and quality characteristics. Along with the price benefits of the purchase, the possession of the already worn clothing, the already driven car, the used piece of furniture, the read book, the used computer etc. has its user-related advantages. Drivers such as inimitability, uniqueness, preserved quality, social inclusion, a positive environmental footprint, moral significance and other similar social, ecological and psychological motives are also taken into account and studied by specialists. The increased interest in circular economy introduces an ecological motive for the acquisition of a used product in response to a type of consumer behaviour that seeks solutions towards a lower carbon footprint for human existence. For example, the increase of a clothing's lifecycle through the purchase of already used garments has a significant impact on the environment. According to a study in the UK an increase in the active lifespan of half of the clothes in the country by 9 months would decrease the carbon footprint by 8%, the use of water by 10% and the waste generated by it by 4% for every ton of clothing, while the increase of second-hand sales of 10% would decrease 3% of carbon emissions, 4% of water and 1% of the waste generated by it for every ton of clothing (WRAP, 2017). The positive environmental footprint from the reuse of goods is expected to turn the recommercialization of a niche market into a phenomenon worth billions of dollars (European Commission, 2020). Currently, however, the economic contribution of the second-hand goods market is low in relation to the well-being of the states despite the growing trend in its development. Commerce of such types of merchandise is more often an addition to an already new product rather than a sufficient substitute, towards which the mass consumer does not prefer to allocate his/her resources. The primary question of this study is to determine to what degree the higher income diverts the consumption towards higher

quality goods or, alternatively, how does the wealthier user differentiate him/herself with a bigger concern for environmental protection or in spite of income levels he/she wishes to purchase used goods due to their uniqueness, luxury, nostalgia, collector's value, obsessiveness and other hedonistic motives.

The study aims to determine the trends of development of the primary indicators of second-hand goods commerce, its significance to the GDP of the 21 EU states and to examine the influence of disposable income and income inequality as factors of sales development of second-hand products in these countries for the period of 2010-2020.

The paper puts forth the challenge on the basis of a literary review of studies related to the content and factors that influence second-hand goods turnover, in order to evaluate the primary trends of their development, their significance in relation to the EU states' economy as well as the impact of the disposable income and income inequality.

The study suggests the making and subsequent validation or the rejection of the following hypotheses:

H_1: The second-hand goods commerce marks a positive trend of development for most countries in the EU, but there is still a lack of consumer culture and a stable demand, as well as sufficient coverage with retail points of sales to provoke consumer interest and make the purchase convenient through innovative and distinctive business behaviour.

H_2: Second-hand goods turnover generates low value added for the economy of each state.

H_3: The existing differences in the levels of disposable income in separate European countries lead to the generation of higher second-hand goods sales in the poorer states among them, while in richer countries preference is given to the consumption of new products i.e. the relation of the disposable income-sales connection is negative.

H_4: There is an inverse proportion between the magnitude of the disposable income and the second-hand goods turnover which hints at their nature as inferior products and predetermines the availability of other factors for the purchase of such merchandise.

H_5: The inequality of income has an impact on second-hand goods sales as their consumption is prioritized in the poorer decile groups and it is viewed as weaker and even unpopular among richer income groups.

2. Essence, Significance and Factors Determining the Second-Hand Goods Market

The existence of every single product is predetermined by its capability to bring utility to its owner through its appearance, functional characteristics and user satisfaction. Second-hand goods are no exceptions to this rule. In their broad sense, they are at least once previously owned products by an individual (regardless of their degree of use) that the first owner gave up on (via their disposal, deposit towards follow-up utilization, pre-sale returns for maintenance etc.) and their lifecycle has been extended through use by secondary, tertiary and further owners. In actuality almost, every single item can be owned more than one time and, in that sense, almost anything which has been bought and owned by the market users

can find its "second life". From a narrower legal viewpoint, second-hand goods are "used moveable property, fit for further use in its current state or after repair that can be used for the purpose it was created for" (Zakon za danaka varhu dobavenata stoynost, 2021). There are two distinguishing moments in the interpretive provision. On one hand, they are used products that have already been the subject of initial use, and on the other, their subsequent use is connected to the same purpose that the products were created for. Important moments related to the requirements of the standardization of the definition and standards of taxation, are: (i) real estate, despite its opportunity for repeated exchange and continuous use it is not considered as second-hand products; (ii) works of art, subjects of collections, antiques, precious metals and precious stones regardless of their form are excluded in the range of second-hand goods; (iii) there are specific requirements for second-hand clothes due to the fact that they have to go through a mandatory regime of "additional processing in order to be used for the purpose they were created for" (Ministerstvo na zdraveopazvaneto, 2020). Therefore, in spite of the diversity of variants of the product scope of used goods, their analysis and reporting are standardized according to the legal requirements established within the EU.

Building and effectively developing a second-hand goods market has an inevitably positive influence on the consumers, the economy and the environment. Breathing "new life" into the existing products' reuse provides an opportunity for the new digital generations – Y, Z and Ω, to make a reasonable and rational choice for allocation of their limited budget towards goods that support their goal towards minimalism and anti-consumerism (Lee, 2016; Gregson, Crewe, 2003). The availability of choice allows for a redistribution of product ownership: from subjects who underestimate their usefulness to one for whom it is acceptable (Bond, 1982); from subjects that have high product maintenance costs to those who have access to technology to reduce the aforementioned costs; from subjects that can afford higher quality goods at a higher price to those who are only able to buy cheaper analogues (Van Cayseele, 1993). This achieves a rational distribution of limited economic resources and embodies the idea of a circular economy which is designed to handle the global challenges of instability and the depletion of the planet's natural resources, and pollution. It is related to the establishment of mechanisms and processes meant to preserve the goods' value via their reuse, repair, renewal, remanufacturing, redistribution and recycling (Blomsma, 2019; Geissdoerfer, 2017). In spite of the criticism directed towards the way of implementation into the global economy (Corvellec, 2021), the necessity for more effective use of limited resources to satisfy limitless human needs stimulates the search for more sustainable instruments for economic development based on the circular model. Therefore, reduction, reuse and resource recycling are to be sought after in every economic activity – manufacturing, transport, commerce, to achieve a positive impact on the planet's global resources (Zhelyazkova, 2017), the volumes and speed of their use. According to the strategy of the European Commission, the reuse of goods takes greater priority over their recycling (European Commission, 2020) which in turn puts building an effective second-hand goods market at the base of the modern economic model. Its promotion is also stimulated by the rules for the encouragement of repair and reuse of products bought by end users which are regulated through the so-called "right to repair" (European Parlament, 2023). It guarantees that in regards to specific groups of durable goods (currently 8 electrical household appliances such as televisions, electronic displays, laundry and dishwashing machines,

refrigerators etc.) manufacturers are to ensure the possibility for repair (via spare parts, components and maintenance manual) in the span of at least 10 years from the time of purchase (European Commission, 2023). Such a guaranteed product functioning that lasts at least 10 years would give a serious boost towards the development of the second-hand goods market, in which only functioning products will be offered, whose owners have decided to substitute them with newer models or those which can be relatively easily brought back to serviceability. In such a situation what is left in actuality are only the dimensions, linked to the moral ageing of the products and the appearance of newer and improved design, energy and other characteristics and functionalities.

From a retailer's viewpoint and in relation to its interconnection to the primary market, second-hand goods turn into a stable substitute as well as a complementary one, created by the necessity for all goods to find an owner who can make use of them. The volume and value of the newly offered merchandise determine the commercial offer of the pre-seller of the same items on the market. Oftentimes, the market pricing of second-hand goods depends on their value in the primary one. A bigger brand and a higher quality product will have a higher price not only on the primary but also on the second-hand market. This is because the impact of the so-called "resale effect" will lead to a profit for the reseller due to the exclusivity of the goods on the primary market. Because of this, especially during the resale of so-called luxury goods, the primary market is stagnating while the secondary one is flourishing as a result of the difference in price, the non-substantial quality difference and mostly due to the desire of everyone to own a "big" brand, unique and original product (Kessous, Valette-Florence, 2019). Part of the second-hand goods products are asset-backed with collector's value (works of art, watches, jewellery, postal stamps etc.) They turn into rare items in time so that the user doesn't simply pay for them but also invests in them with expected future returns. They are an adequate instrument, competing with financial assets such as bonds, shares or real estate and gold (di Torcello, 2011). At the same time, this does not decrease new product sales (Bianchi, et al., 2020) and instead creates a new consumer segment of clients who are looking to contribute to the sustainability of the luxury goods market, and want to express themselves in the form of fashion style, social status etc. This way, the secondary market attracts the users' incomes who are interested in such consumer behaviour. On the other hand, the opportunity to purchase an identical product brand and type-wise with a lower quality but also at a lower price reduces the attractiveness of the primary market and causes a substitution effect (Wang, et al., 2022). Retailers of new products aim to establish protective behaviour and to create a competitive advantage in response to the conditions of changing consumer habits. Examples of such behaviour are: the enactment of a hybrid business sales model, including a new product sales channel as well as one for second-hand goods[4], providing greater product information transparency and after-sales service, as well as environmentally friendly "green" strategies for the recycling of products that have already lost their qualities or a buy-back scheme for already used items (e.g. IKEA launched an initiative for buy-backs of already used furniture or the buy-back strategies of car dealerships). These strategies are being applied thanks to the favourable development of the niche market which has separated itself from the new-goods one, developing well-positioned

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[4] E.g. a large part of car dealers are the exceptional representatives of a particular manufacturer and offer its new car brands exclusively as well as the used ones.

and targeted marketing strategies which pose new challenges for the retailers (Guiot, Roux, 2010). The interconnection between the two markets gives birth to not only their effective competition but also to their complementarity as the last aspect is a necessary condition for the existence of the economy of waste prevention.

The development of the second-hand goods market generates added value for the national economies. This is realized by: (i) increasing the amount of small and medium-sized enterprises which enriches the national budget via the mechanisms of the tax system; (ii) creating employment for qualified professionals in the service sector; (iii) establishing a network of connections and relationships between retailers, with a number of economic agents from the same and other sectors of the economy that has synergistic effects; (iv) being a source of additional competitive pressure on the market of newly-manufactured goods which is a factor in enhancing competitiveness; (v) prolonging the goods' lifecycle which reduces environmental pollution, creates prerequisites for better control of oversupply and aids in the more effective use of limited resources; (vi) generating consistency in consumer patterns across the generations with an orientation towards anti-consumerism and care for future consumer groups. At the same time, the level of preference of the second-hand goods market to the new one remains very low. According to the European Environment Agency´s progress report on waste prevention, the total turnover of the European second-hand sector is below 1% of the total retail sector and below 0.01% of Europe's gross added value" (Wilts, et al., 2021). Therefore, the future stimulation of the second-hand goods market will be beneficial for the economy, society and the environment while its development is to be proactively assisted.

Trade with second-hand goods much like any other kind is highly dependent on the volume and the characteristics of consumer demand. The demand is an aggregate economic category which pre-determines the success of retailers in every single market and is decided by two main components: (i) the consumer desire to buy a precisely specific product. (ii) an availability of monetary means and rights which would ensure the purchase. In this respect, disposable income is a fundamental measurement and a primary factor for the availability of demand. The limited budget pushes the user towards a continuous choice between the different in-nature goods that are competing in relation to their priority, substitutability and brand identity. It is deemed that with the growth of disposable income, there is a decrease in demand for products which people consider to be inferior due to their lower quality. They are an alternative to what consumers really want to consume if they have a higher social status and income. The increase in income redirects the demand not only towards a larger amount of products but also towards bigger brands, better quality and more desired goods which in economic theory are marked as normal and in some cases luxury types. As a result of the differences in household incomes within a country and between states, retailers have different alternatives at their disposal when it comes to positioning their product in accordance with its characteristics and the peculiarities of the market environment so that a higher profit is gained from its sale. As a product, second-hand goods have at the very least undergone a certain amount of physical exploitation by their first possessor and if they haven't then they carry the aspect of moral wear and tear (due to the fact that they were previously owned) and along with their lower price, can be a kind of motivation for some consumers to classify them as an inferior product (Fox, 1957). In the past, they were a prerogative for the lower social class which made their purchase by people of higher status

unacceptable (Rudawska, et al., 2018; Pipyrou, 2014). Nowadays, instead of a product for the poor, second-hand goods are beginning to play a different role for consumers, as for those who practice a minimalist lifestyle which requires little consumption and self-improvement, they are a modern way of life (Lee, 2016). In support of this transformation of consumer perceptions are the assessments of the market study of the drivers of second-hand consumption worldwide in 2022 which point out that for 50% of respondents such drivers are factors such as affordability and value, for 40% they're variety of choice and uniqueness, 40% sustainability and 40% the thrill of the hunt (Statista Inc., 2022). For other users, they are original, unique goods that provoke the nostalgia for a product owned in the past and/or which could change depending on the individual characteristics and/or even a product of the Veblen type (with an investment goal), and for these reasons, the increase in income would lead to increase in demand (Bardhi, Arnould, 2005; Guiot, Roux, 2010; O'Cass, McEwen, 2004). The demand and its factors have a different meaning and correlations for different consumers, thus confirming that the influence of income on demand can be different throughout the various time periods and for separate states and social classes.

In order to answer the question as to why users would prefer to spend money on a used product instead of a new one, a range of factors and characteristics of consumer behaviour have to be taken into account. The main drivers of user choice for allocation of resources can be divided into financial (economic), psychological, social and ecological. The price of used goods, which is lower than its new analogue (Estelami, Raymundo, 2012), is one of the primaries if not the most important factor behind the purchase, regardless if they're a big brand analogue of a luxurious product or a regular one (Gregson, Crewe, 1997; Guiot, Roux, 2010; Williams, Paddock, 2003; Stolz, 2022; Gullstrand Edbring, et al., 2016).

If users separate into those who consider the process of purchasing or owning a product important and those who look for alternative channels of purchase with the goal of saving money (Waight, 2013), then financial motivation is fundamental for the second group. It is also directly related to the income of the consumers since the more expensive product increases opportunity costs and therefore reduces the customer value added. Consumers in general are looking for economic benefit through their desire to pay less for an identical item, i.e. to purchase goods at a fair, more affordable price especially if its use has a limited timeframe (e.g. children's items); are participating in bargain hunting, in which second-hand goods are often a better alternative; are willing to decrease opportunity costs and with that can afford more activities, articles and a rich lifestyle with the existing monetary means (Guiot, Roux, 2010). The saving attitude of the consumer, as a goal of his/her behaviour, can attest to the availability of a larger consumption rate of second-hand goods in countries with a smaller income per capita.

On the other hand, along with the financial benefits, the consumer is also looking for the non-price factor when using the goods. Only a fraction of all users is the type to look for a good deal regardless of the product. These are most often either members of the poorest sections of society or the type whose behaviour is driven by the constant search for a better bargain. For most the lower price is to be accompanied by the utility of the product, expressed by its uniqueness, quality characteristics, social support and environmental friendliness. Sometimes this is a compromise decision due to the lack of another suitable or available product alternative. The circumvention and avoidance of traditional distribution channels

through which the consumers' sense of sovereignty is preserved, the minimalistic consumption with the purpose of reducing environmental damages i.e. ethical consumption (Shaw, Newholm, 2002), refusing to become slaves to brands and stereotypes are an expression of so-called critical motivators of purchase of used goods (Guiot, Roux, 2010). The reasons behind originality and uniqueness, through which the large-scale and "boredom" of new products is avoided, can be a strong motivator for the purchase of a used item. For some users owning a rare piece of furniture, for example, is valued because of its exclusivity; for other this is due to nostalgic reasons (Cervellon, et al., 2012) such as memories, history and the presence of a "soul"; for others it's because it is a way of expressing oneself and conforming to a precise vision of the product, unique from the rest on the market or it is the right choice of a "treasure hunt" in the online and offline space. This means an acquisition of a product which is substantially undervalued regardless of the fact that it is in use. The social community and belonging to a specific reference group also have an impact on the decision on whether or not to purchase used goods. Social communication between young generations and the use of online channels makes them subject to "trends" dictated by digital spaces, while used goods that have their own "identity" become an instrument of storytelling. The presence of communication related to environmental topics, saving the environment, minimalism and the simplicity of everyday life combined with the opportunity for the product to be quickly and easily available online, are social factors leading to a preference towards second-hand goods (Kim-Vick, Yu, 2023). "Individuals and organizations express their identity in regards to values, beliefs, perceived norms and rules of conduct" (Grozdeva, 2012, p. 28) exchanging experience and making use of the chances social media provide to realize a great utility and to leave a large imprint on business and society. Especially in countries with bigger incomes, the purchase of used products can be impacted more significantly by emotional, social and environmental factors.

The analysis of the references provides the chance to make the conclusion that the allocation of limited personal income towards a previously owned and used product brings economic, social and emotional gains for the consumers, an added value to the economy and an environmental significance for the planet and for future generations.

3. The Methodology Used to Evaluate the Influence of Disposable Income on Second-Hand Goods Turnover and Second-Hand Commerce Trends

To achieve the goal of the study and to verify the primary hypotheses a sample has been selected from 21 EU member states – Netherlands (NLD), Germany (DEU), Greece (GRC), Portugal (PRT), Italy (ITA), Slovenia (SVN), Slovak Republic (SVK), Poland (POL), Belgium (BEL), Sweden (SWE), Spain (ESP), Estonia (EST), Hungary (HUN), Finland (FIN), Austria (AUT), Luxembourg (LUX), France (FRA), Denmark (DNK), Latvia (LVA), Lithuania (LTU), Bulgaria (BUL). Countries are chosen based on the hard statistical data completeness available in Eurostat and The Organisation for Economic Cooperation and Development (OECD) for the time period of 11 years (2010-2020). The length of the time period provides an opportunity to make conclusions related to the impact of the economic crisis from 2008 that began to show in Bulgaria during the 2009-2010 period and of the effects of the first wave of the COVID-19 pandemic.

The main logical structure of the study of trends and the significance of second-hand goods commerce and the influence of income levels on their sales is presented in Figure 1.

Figure 1. The main structure of research and methods to evaluate the hypothesis

H₁

Descriptive statistical analysis (annual percentage growth rates and Compound Annual Growth Rate – CAGR for all period)

Indicators for second-hand goods trade development for each of 21 EU countries and average for EU-21:
- ✓ turnover or gross premiums written (million euro),
- ✓ number of enterprises,
- ✓ persons employed (number),
- ✓ turnover per person employed (thousand euro),
- ✓ turnover per citizen (euro), enterprises per 10000 citizens (euro).

H₂

Descriptive statistical analysis

Turnover to GDP ratio for each of 21 EU countries and average for EU-21 in period 2010-2020.

H₃

Analysis of inequality in structure and correlation analysis.
- ✓ The Integrated Coefficient of Inequality (ICI) (Gatev, 2007, p. 124) using formula 1:

$$ICI = \sqrt{1 - \frac{20000}{10000 + \sum_{i=1}^{k} d_{it}^2}} \qquad (1)$$

where: d_{it} – the indicator's share of country 'i' in moment 't'; k – the number of countries. The closer the coefficient is to a 1, the bigger are the differences in distribution of the set measure between countries.
- ✓ nonparametric correlation coefficient of Kendall's tau-b and determination coefficient.

- ✓ Determining the unevenness in the disposable income and the total sales between member states in the sample of the chosen time period.
- ✓ Determining strength and direction of the relationship between disposable income and sales of second-hand goods by years of the period.
- ✓ Discuss the presumed impact of all other factors over the sales via the coefficients of determination and indetermination

H₄

Analysis of income elasticity of demand (YED) (form.2) and its trend in each of 21 selected countries in dynamic of time period.

$$YED = \frac{\Delta\%Turnover}{\Delta\%Disposable\ Income\ per\ capita} \qquad (2)$$

The coefficient displays the percentage of change in second-hand goods turnover caused by a change in disposable income per capita by 1%.

Determine the nature of second-hand product types in relation with income:
- ✓ The negative values of the coefficient determine the product as inferior (with degraded quality characteristics) due to which as the income increases, consumers redirect themselves towards better quality substitutes.
- ✓ Zero elasticity is characteristic for essential commodities which means that the increase in income does not lead to an increase in demand.
- ✓ The positive values of the coefficient define the product as "normal" while a higher elasticity value can even establish it as the luxury premium good, hence even small changes in income would lead to much bigger positive changes in demand.

H₅

Nonparametric correlation coefficient of Kendall's tau-b between second-hand goods turnover by every single of 21 EU countries and:
- ✓ Gini coefficient.
- ✓ First decile income group in every country.
- ✓ Ninth decile income group in every country (there is no data for tenth decile income group).

- ✓ Determining the impact of income inequality in each of 21 European countries on sales of second-hand goods, assuming that as inequality increases, so do sales.
- ✓ Study of the relationship between the income of the poorest 10% of the population and the purchase of second-hand goods, assuming that for them they are a normal type of product;
- ✓ The relationship between the income of the wealthier citizens and the purchase of second-hand goods, assuming that it is inverse.

Limitations of the study include:

- The data coverage of the economic activity "G 4779 Retail sale of second-hand goods in stores" has also been restricted to the activity of specialized retailers which excludes the retail trade of second-hand motor vehicles, e-commerce and other non-store forms of trade as well as the sales made by individuals (European Commission, 2024).

- The study depends on hard statistical data from Eurostat and OECD which give the opportunity to outline trends and dependencies, however, they cannot explain user behaviour and its factors in the separate members of the EU. This way, the influence of income as a factor is evaluated via pure statistical methods while the impact of other economic and behavioural factors on second-hand goods sales is rated as indirect and heuristic.

- The available secondary statistical data does not allow for a calculation of the price elasticity of the demand for second-hand goods, nevertheless, the content analysis of different studies that were carried out demonstrates that it is an important factor among many others for the purchase, one that has an ambiguous influence on the different consumers in regards to their incomes and excluding the vintage, luxury and collector items, second-hand is lower than that of the primary market.

- Data for the disposable income per capita in Bulgaria is taken from the CEIC (CEIC, 2024) and is converted from BGN (Bulgarian levs) to USD (US dollars) at average annual dollar exchange rates announced by the Bulgarian National Bank (BNB, 2024).

- The correlation between income and second-hand goods turnover is evaluated by the non-parametric correlation coefficient of Kendall's tau-b. This is preferred to Pearson's in view of the statistical limitations related to the necessity for normal distribution, linear dependency, a long statistical order, the multitude of factors and the lack of sensitivity towards extreme variables and unusual and abnormal measurements.

4. An Evaluation of Second-Hand Trade Developments in the Selected 21 EU Member States and the Impact of Disposable Income per Capita on Retail Sales

The second-hand goods market in the 21 EU member states reaches a volume of sales of 5 480 million Euro realized by a total of 42 197 specialized retailers with 86 234 people employed by them, each business selling an average of 71 000 Euro worth of goods annually (see Table 1). The best-performing member state among the ones under the study in regards to turnover is France which has obtained 1 421.4 million euro and has 10 649 registered retailers of second-hand goods in 2020 which is approximately 5 times more than the average for the EU. In Bulgaria, the sales turnover of used goods reaches the insignificant 31.4 million Euro which is 8 times under the EU-21 average with 1 064 points of sales available with 2 385 persons employed and the lowest level of labour productivity of 13.2 thousand Euro per employed person. In practice, the second-hand goods retail trade in Bulgaria faces a number of difficulties, after the country realizes lesser indicators than the EU average, while the labour productivity is very far away from the leader in that index Luxembourg. Being last due to its significantly smaller population numbers, it distinguishes itself with lower sales, a

lower number of establishments and employed persons which allows it to receive higher results in relation to specific composite indicators. The labour employed by the Bulgarian retailers does not correspond to the current potential of the native second-hand goods market, however, it can hint at the expectations of the retailers for the purpose of future improvement.

Table 1. Dynamics of the second-hand goods market by turnover, number of enterprises, employed persons and turnover per person employed for the period 2010-2020

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Turnover or gross premiums written – million euro											
BUL	18.2	14.3	20.5	24.0	27.3	27.1	30.0	29.0	30.0	34.4	31.4
Average EU 21	275.7	296.0	353.5	303.2	294.5	300.9	290.5	289.6	302.2	303.8	261.0
Growth rates, %		7.3	19.4	-14.2	-2.9	2.2	-3.5	-0.3	4.3	0.5	-14.1
Total EU21	5789.9	6215.4	7423.3	6368.2	5889.9	6017.7	6099.6	6082.6	6043.6	6379.2	5480.0
Growth rates, %		7.3	19.4	-14.2	-7.5	2.2	1.4	-0.3	-0.6	5.6	-14.1
Enterprises - number											
BUL	1053	1076	1209	1279	1281	1296	1312	1239	1232	1184	1064
Average EU-21	2532	2470	2544	2526	2293	2231	2202	2121	2128	2083	2009
Growth rates, %		-2.5	3.0	-0.7	-9.2	-2.7	-1.3	-3.7	0.3	-2.1	-3.5
Total EU-21	53173	51868	53420	53040	48155	46856	46239	44541	44691	43736	42197
Growth rates, %		-2.5	3.0	-0.7	-9.2	-2.7	-1.3	-3.7	0.3	-2.1	-3.5
Persons employed - number											
BUL	2386	2126	2577	2732	2831	2895	3153	2896	2717	2740	2385
Average EU-21	4239	4466	4514	4573	4465	4305	4370	4240	4510	4281	4106
Growth rates, %		5.4	1.1	1.3	-2.4	-3.6	1.5	-3.0	6.4	-5.1	-4.1
Total EU-21	89018	93789	94796	96026	89291	86096	91766	89034	90192	89901	86234
Growth rates, %		5.4	1.1	1.3	-7.0	-3.6	6.6	-3.0	1.3	-0.3	-4.1
Turnover per person employed - thousand euro											
BUL	n.d	6.7	7.9	8.8	9.7	9.4	9.5	10.0	11.0	12.6	13.2
Average EU-21		62.6	78.8	71.8	69.6	80.5	69.2	67.6	66.4	67.3	63.9
Growth rates, %			25.9	-8.9	-3.0	15.6	-14.0	-2.4	-1.7	1.4	-5.2
Total EU-21	n.d	65.0	66.3	78.3	66.3	66.0	69.9	66.5	68.3	67.0	71.0
Growth rates, %			1.9	18.2	-15.3	-0.5	6.0	-4.9	2.8	-1.9	5.9
Turnover per citizen, euro											
Average EU 21	13.5	14.4	19.9	16.0	13.9	15.3	16.4	16.5	14.4	15.6	14.7
BUL	2.5	1.9	2.8	3.3	3.8	3.8	4.2	4.1	4.3	4.9	4.5
Enterprises per 10 000 citizens, number											
Average EU 21	2.4	2.3	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.1
BUL	1.4	1.5	1.7	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.5

Source: Author's calculations based on data from Eurostat (Eurostat, 2024a)*.*

The reports of the population estimates of the countries from the sample and the derivation of the composite indicators of the second-hand goods sales per capita on average and the number of registered second-hand goods retailers per 10,000 inhabitants provide the opportunity to make a more direct comparison to the success and economic significance of the trade from this product group. A discernibly larger sales value is realized by 1 Belgian citizen – 41.5 Euro which is much more than the average of the sample taken from all countries and a modest 0.7 euro for a single Slovenian. At the same time, there are significantly more points of sales of used goods per 10,000 inhabitants in Austria – 15.4 counts, with an average level of the chosen EU states being 2.1 outlets per 10,000 inhabitants. In Bulgaria, the situation is comparable to that of other countries, as an average of 4.5 Euro

of sales are accounted for each inhabitant with an average of 1.5 retail stores serving 10,000 inhabitants of the population. With small exceptions, there is still a lack of consumer culture and a stable demand for second-hand goods as well as a sufficient coverage of the population with specialized retail establishments which are to provoke user interest and make the purchase convenient through innovative and distinguishable business behaviour.

In its dynamics, in spite of the impressive figures of the sum total of the indicators of all countries, the development of the second-hand goods market is relatively static. The average linear trend for the 2010-2020 period is seen to have a small decrease, however, certain sub-periods mark increases and reductions which is a result of an unstable economic conjuncture throughout the separate years. The annual average turnover total for the entire EU-21 decreases with $CAGR_{2010-2020}$ = -0,55%, as the decrease in the last year of 2020 compared to 2019 is the largest, with 14.1% while a substantial growth on a yearly basis is marked in 2012 as 19.4%. The trend observed in the amount of establishments and employed workers is almost identical to this one, during which the productivity of an employed worker is the only indicator having a modest growth index of 0.2% on average for the period, however, it experienced a decrease of -5.2% on a twelve-month-basis during the latest year of 2020. It's an interesting fact that even countries with the best indicators in regard to turnover, the number of enterprises and the number of employed persons have not been able to accomplish a positive average annual growth and have lost many of the achieved levels of development throughout the latest year, which has been registered during certain sub-periods of the studied time interval. Only the labour productivity levels rise more significantly from a 6.4% average annual growth in Luxemburg to a 7.8% average annual growth for the weakest performing state in regards to this indicator – Bulgaria. Compared to other countries, second-hand goods trade in Bulgaria marks a 5.6% increase on average over the period, the number of enterprises increased by 0.1% in 2020 in comparison to 2010, however, there is a significant decrease registered in 2020 in regards to 2019 by -10.1%. The number of employed workers almost does not change, however, there is a reduction on an annual basis compared to 2019 which leads to a positive effect on the composite indicator of labour productivity where there is an increase of 4.8%. From that perspective, it can be concluded that there is a small hesitant development in the second-hand goods trade for the separate member states and the powerful influence of the COVID-19 pandemic on the sales and market, primarily as a result of the limitations facing the traditional brick-and-mortar shops and the adverse business effects on the entire economic cycle. Bulgaria is one of the countries which despite the lower level of development and the minor preference towards this type of product, succeeds in keeping and slightly boosting user interest throughout the 10-year period. The development of indicators related to second-hand goods commerce partially supports the first hypothesis of the paper – its development has a fluctuating trend of growth and drops during a still inadequately expressed demand, consumer preference and loyalty and an insufficiency of a commercial network of shops to provoke interest. In light of these findings, it can be determined that the expected favourable development in the direction of an economy with zero waste is still a faraway target. The attractiveness of the secondary market, the development of which lies in the basis of the EU's strategy for an environmentally oriented society, is large, however, its practical development is many years away from achieving that aim.

It is considered that the appearance and the growth of every type of trading activity have favourable effects on the economy and add value to the process of wealth distribution. In

practice, the existence of a second-hand goods market and the presence of an average of 2 009 enterprises and an average of 4 106 employed salespersons throughout 2020 does not provide a big contribution towards the European economies (see Figure 2). The average share of sales of second-hand goods towards the GDP for the period varies from 0.05% at the end of the study period in 2020 to the highest rate of 0.11% during 2012, however, its de facto value is absolutely insignificant – under 0.3% on average for the EU-21. The highest values related to contributions of second-hand goods trade towards economic productivity have been realized in Latvia (0,21% sales towards the GDP), however, this indicator has a downward trend like the rest as it declines to 0.12% during the last year of the period. In Bulgaria, the values changing in the 0.05% to 0.06% interval demonstrate the remarkably low contribution of the secondary goods market towards the economy of the country and predetermine the wealth distribution towards already used goods as negligible. Along with the overall development and the dynamics of the secondary market, this minor added value (proven by H_2) provides evidence for the unpopularity of the use of "worn-out" goods and still lacks sufficient popularity, marketing efforts, established fashion and consumer loyalty that can realize the advantages of the second-hand goods market.

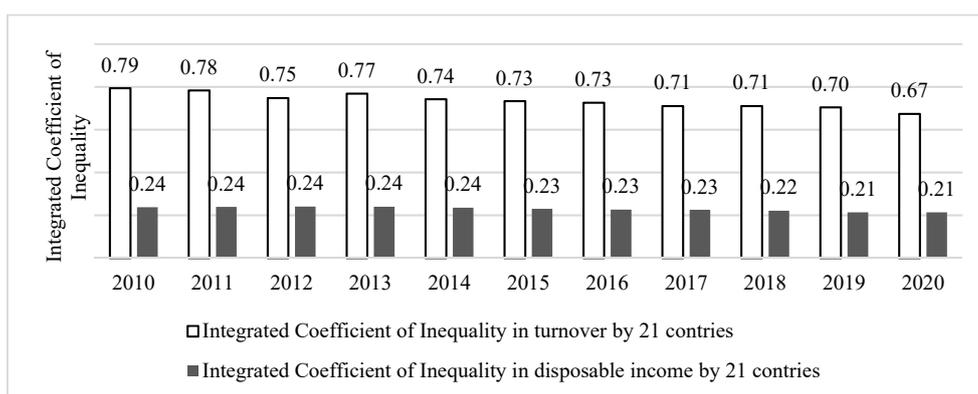*Figure 2. Turnover to GDP ratio in the period 2010-2020 (%)*
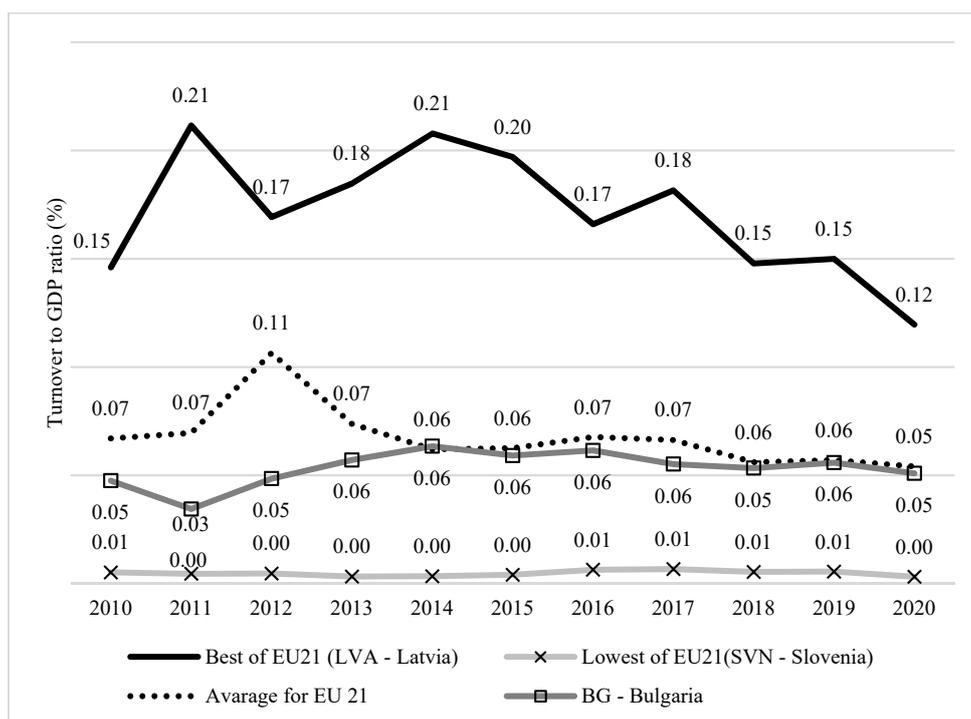
Source: Author's calculations based on data from Eurostat (Eurostat, 2024a, 2024b).

The study of the relationship between disposable income and second-hand goods sales reveals four main facts: 1) The disposable income per capita of the studied member states is relatively equally distributed, yet the difference in the realized sales is substantial between separate countries. 2) There is a moderate positive correlation between second-hand goods sales and the disposable income per capita amongst the studied countries. 3) The income elasticity of demand in different countries is very variable, however during most of the years of the period the growth of the disposable income leads to an increase in sales. 4) In the majority of the countries there's a lack of a statistically significant correlation between second-hand goods sales and income inequality, as in the cases where such a connection is observed, it is as a whole a stronger and positive one.

The studied EU member states have non-substantial differences when it comes to disposable income per capita, however in contrast they generate different turnover rates of second-hand goods (see Figure 3). The Integrated Coefficient of Inequality (ICI) forms an estimate of 0.24 at the start of the period and it even decreases to 0.21 in relation to the disposable income, as Bulgaria is the state with the poorest population with an annual disposable income per citizen of the state of 4 079.65 dollars. Most of the other selected countries have a yearly disposable income between 20,000 and 30,000 dollars per year, Luxemburg and Germany being in the lead with over 40,000 dollars yearly. In contrast to income, sales have significantly different rates in the EU-21, the ICI being the highest in 2010 (0.79 units) and despite its reduction, it remains on a significant level until the end of the period (in 2020 it reaches 0.67 units). The relatively equal levels of annual disposable income among most of the member states reduce its significance as a factor in the preference towards second-hand goods as a whole since this eliminates the financial motive as the deciding factor for their purchase. E.g., the leader in sales – France is relatively even with Denmark, Austria, Sweden and Holland when it comes to disposable income levels per capita which is around 32,000 – 33,000, however, it has an almost 4-5 times higher preference for second-hand goods. Such a report regarding the uniformity of incomes and the non-uniformity of sales of the selected countries suggests the availability of non-financial drivers of purchase and denies H_3 of the study.

Figure 3. Degree of inequality in turnover and disposable income in EU-21 countries for the period 2010 -2020

Source: Author's calculations based on data from Eurostat (Eurostat, 2024a) and OECD (OECD, 2024).

The research on the correlational dependence between the turnover of second-hand goods and the disposable income per capita done via the non-parametric coefficient of Kendall's tau-b confirms the abovementioned conclusion (see Figure 4).

Figure 4. Correlation between disposable income per capita and second-hand goods turnover of the EU-21 and determination coefficient for the period 2010-2020
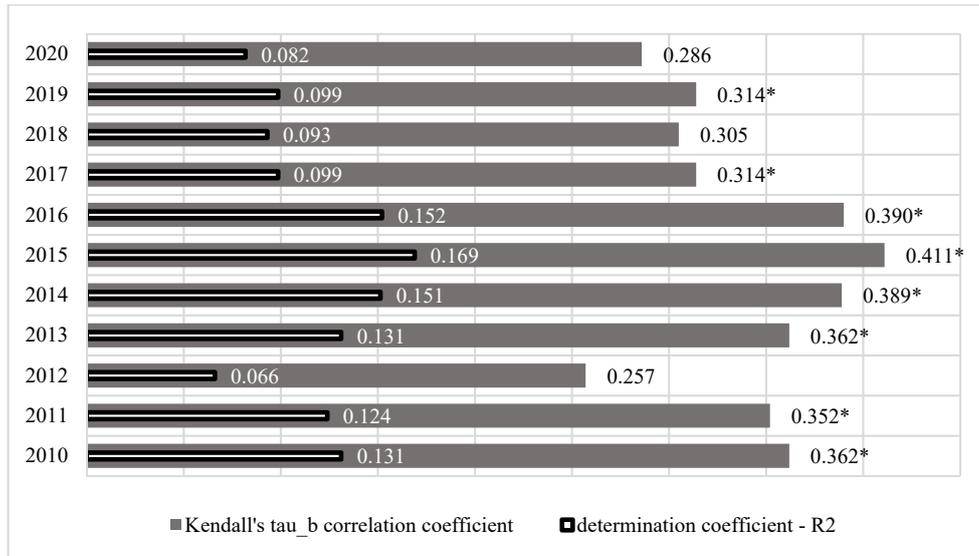
* Correlation is significant at the 0.05 level (2-tailed).
Source: Author's calculations based on data from Eurostat (Eurostat, 2024a) *and OECD* (OECD, 2024).
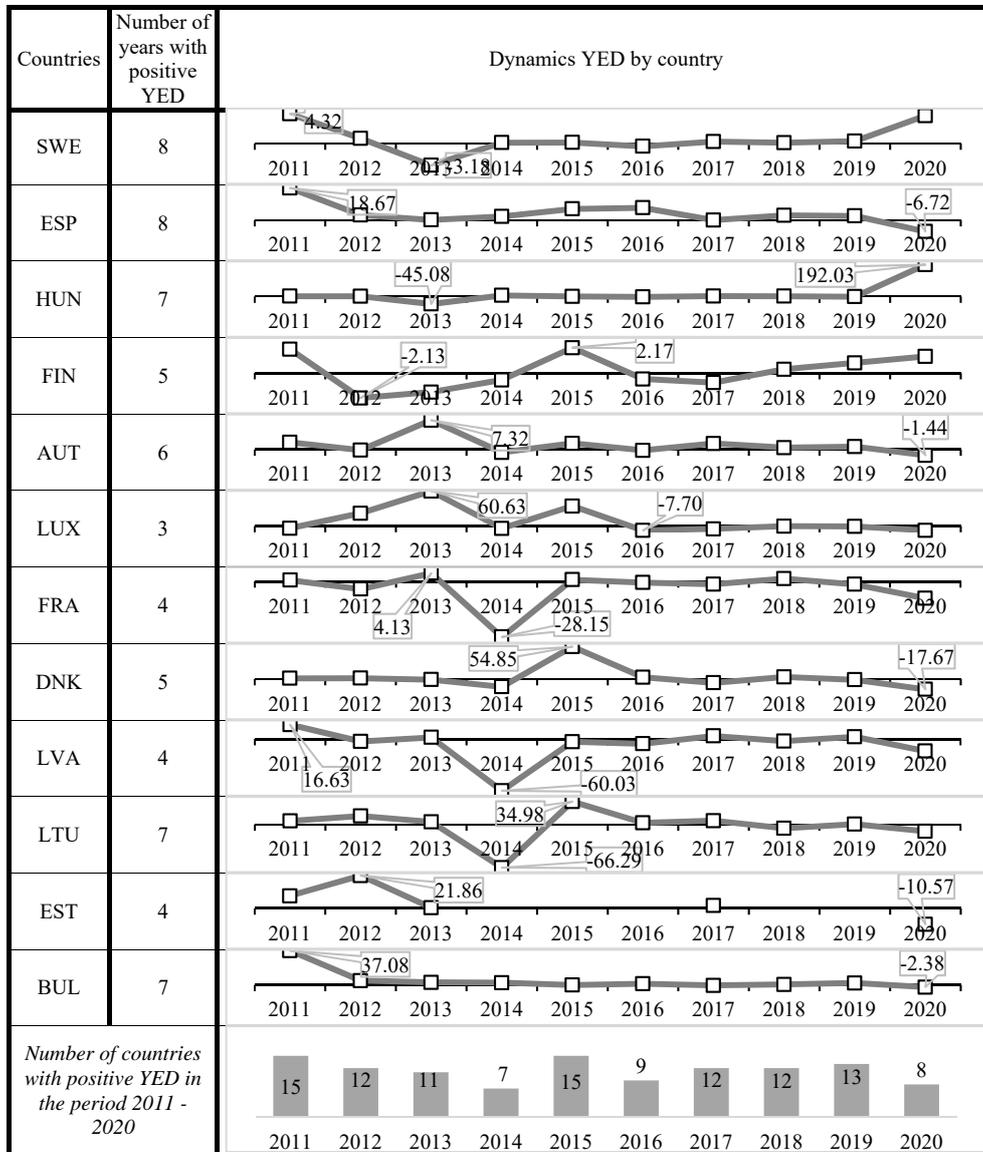
Despite the hypothesis of the negative dependence on income, because of the used nature of the goods and the degradation of their quality characteristics, the statistical dependence demonstrates that throughout all 11 years of studying, the sales grow with an increase in income. The correlational coefficient is statistically significant for 8 of the studied groups and expresses a moderate correlation between income and sales. The maximum significance of the coefficient of determination reaches 0.152 and predetermines that the other 84.8% of changes in sales are owed to the influence of other facts outside the disposable income. This denies H_3 of the study. This way income for selected countries is not a deciding factor for the purchase of the used item which is preferred even by persons with a higher social and income status due to other characteristics than quality. It should be considered that the extracted analysis and data are highly dependent on the included in the category "Retail sale of second-hand goods in stores" and exclude the sales of used vehicles, e-commerce turnover and sales between persons. Thus, the formed findings are valid in regards to the specialized barter agents of second-hand goods and it is possible for these evaluations to be even more expressive if the actual range of the whole market of second-hand goods is expanded. Simultaneously these evaluations that have been overlooked after reviewing the sales statistics can considerably distort the analysed data and lead to different dependencies than the ones presented. This is so, because the modern process of digitalization of trade which is

geared towards modern needs for saving time and spending it in the online environment, all done by younger generations, gives birth to the dynamic development of e-commerce including the sales of second-hand goods. The exclusion of the sales in popular international sites like eBay and/or its Bulgarian analogue OLX and the resale itself from one person to another eliminates a big amount of the actually realized volumes of commerce with second-hand goods. Moreover, the exclusion of the used cars market in the turnover leads to a failure to take into account sales with a total value of 429 billion Euro in 2021 which is equivalent to the volume of the new car market as 44% of transactions were made via the consumer-to-consumer model (C2C) (Baranowski, et al., 2023). In practice, the above-mentioned eliminates a significant piece of the second-hand goods market. Therefore, the results of the conducted analysis are to be accounted for with the limitations of the data used and the impossibility of a precise explanation behind the factors that have influenced consumer behaviour and setting the second-hand goods trade as moderately positively dependent on the disposable income per capita from the selected member states.

The connection between the change in disposable income and the realized change in second-hand goods turnover is extremely dynamic for each country during the examined period (see Table 2).

Table 2. Dynamics in YED in EU-21 countries in the period 2011-2020

Countries	Number of years with positive YED	Dynamics YED by country
NLD	5	
DEU	4	
GRC	5	
PRT	7	
ITA	6	
SVN	5	
SVK	2	
POL	6	
BEL	6	

Countries	Number of years with positive YED	Dynamics YED by country
SWE	8	4.32 ... -33.18 (2011–2020)
ESP	8	18.67 ... -6.72 (2011–2020)
HUN	7	-45.08 ... 192.03 (2011–2020)
FIN	5	-2.13 ... 2.17 (2011–2020)
AUT	6	7.32 ... -1.44 (2011–2020)
LUX	3	60.63 ... -7.70 (2011–2020)
FRA	4	4.13 ... -28.15 (2011–2020)
DNK	5	54.85 ... -17.67 (2011–2020)
LVA	4	16.63 ... -60.03 (2011–2020)
LTU	7	34.98 ... -66.29 (2011–2020)
EST	4	21.86 ... -10.57 (2011–2020)
BUL	7	37.08 ... -2.38 (2011–2020)
Number of countries with positive YED in the period 2011 - 2020		2011: 15, 2012: 12, 2013: 11, 2014: 7, 2015: 15, 2016: 9, 2017: 12, 2018: 12, 2019: 13, 2020: 8

Source: Author's calculations based on data from Eurostat (Eurostat, 2024a) and OECD (OECD, 2024).

Throughout most years there are connotations of the YED that are prevalent and which have positive value or with an increase in income there is a registered increase in sales, which rejects the hypothesis of second-hand goods being low value as a consumer product – H_4. This may be a signal that same as every other product, used goods increase their utility for the user and he/she can and will want to purchase more of them in case of a higher income. I.e. contrary to expectations second-hand goods are currently according to economic theory

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considered "normal" products. It is notable that countries where there is a predominance of negative connotations of the YED, have distinguished themselves with the largest turnovers and number of retailers of second-hand goods – France and Luxemburg, as the latter along with Germany also discern themselves with the biggest disposable income per capita. Apparently, the change in income in these countries leads to the consumption towards the primary market or after exceeding the available budget at a certain point, the persons with a bigger financial capacity have a bigger appetite for goods even in the luxurious category (Ray, Vatan, 2013; Akarsu, et al., 2023). This limit for the disposable income which registers a heightened interest towards second-hand consumer goods is a signal for the shaping of a specific and distinguishable client segment with its own motives and loyalty towards the consumption of these goods. The sensitivity of demand based on income of luxurious goods has been proven to be strong while for used goods (part of which also possess the same characteristics) this relation should not be large, even rather negative. In richer countries (France, Germany, Luxembourg) out of the 21 selected, such a relation is observed in the bigger portion of the periods and this suggests that second-hand goods in these states are low value in nature. Their sales in France have reached the biggest volume out of all studied counties, i.e. despite the negative sensitivity towards income, there are users who demonstrate a stable consumer interest towards acquiring such goods. Consumption is low in Germany and Luxembourg, and in Slovakia and Latvia, the income is also lower which logically means that used goods are characterized by a demand of inferior products. In Bulgaria, the growth in income of 1% has led to a 0.5% increase in sales in 2018 at the lowest and 37.1% during 2011 at the highest. During just 3 out of 10 years of the period, they decrease with an increase in income, however, even this reduction is insignificant. Therefore, even for the poorest of the countries reviewed, non-price factors play a bigger role in the demand for goods which have already had an original first owner.

Would the rich be willing to use previously owned products or are the risks related to their use make said items low value for the social strata with higher incomes? As an answer to this, on tab. 3 it is indicated that income inequality is weak and insignificantly correlated to second-hand goods sales. This indirectly predetermines the quantity of the income as an irrelevant determinant in the choice of a used product. The countries in which income inequality has significance in regards to correlational dependency are Poland, Finland, Austria, France and Bulgaria. The income inequality, expressed through Gini coefficients plays a positive, moderate to strong role in the turnover growth in Bulgaria and France, while in Poland it is expressed in a strong negative relation. I.e. the bigger the income barrier between the French and Bulgarians, the larger their preference and choice in favour of second-hand goods will be, while it's the opposite for the Polish. With the exception of the sales leader – France, with the increase in income of the number one poorest decile group and the number nine decile group, second-hand goods sales increase in both cases. This way in spite of H_5 of this paper, for the poorest strata of society, it is logical that second-hand goods would be a normal product, however the rich also possess this property thanks to the motives of purchase which are different from the financial ones. The main reason for this is the availability of a quite complicated and diverse product composition of second-hand goods which vary from affordable products from everyday life to luxury goods that are discerned by their recognizable brand.

Table 3. Influence of Income Inequality in second-hand goods turnover in 21 EU countries, Kendall's tau_b correlation coefficients

Kendall's tau_b correlation coefficients between second-hand goods turnover and:						
Countries	Gini coefficient	First decile income group	Ninth decile income group	Countries	Gini coefficient	First decile income group	Ninth decile income group
NLD	-0.018	-0.018	-0.091	HUN	0.130	-0.091	0.018
DEU	-0.073	-0.309	-0.236	FIN	0.152	0.477*	0.550*
GRC	0.073	-0.220	-0.382	AUT	-0.411	0.782**	0.709**
PRT	-0.449	0.404	0.477*	LUX	0.183	-0.093	0.037
ITA	0.038	0.055	0.018	FRA	0.559*	-0.782**	-0.709**
SVN	-0.245	0.440	0.183	DNK	0.073	0.455	0.345
SVK	0.130	0.000	-0.037	LVA	-0.076	0.220	0.183
POL	-0.734**	0.745**	0.745**	LTU	-0.220	-0.418	-0.455
BEL	0.299	-0.037	-0.037	EST	0.182	0.357	0.429
SWE	-0.153	-0.091	-0.164	BUL	0.759**	0.661**	0.697**
ESP	-0.127	-0.091	0.164				

* Correlation is significant at the 0.05 level (2-tailed); ** correlation is significant at the 0.01 level (2-tailed).
Source: Author's calculations based on data from Eurostat (Eurostat, 2024a, 2024c, 2024d).

This puts a particular emphasis on the question: What drives the wealthier users to spend more on an item that is not new nor is it first class? It is clear that the statistical analysis of aggregated data could not answer this question in detail. The analysis performed could only hint at the fact that the used item is not inferior by its nature. The trend of preferring used goods, even by higher income groups, is to be stimulated in view of the development of the circular economy and the escalation of decisions for sustainable consumption. To bring a

positive purchase experience to its buyer and to have a number of advantages over its new counterpart related to the opportunity: to purchase luxury or "big" (top) brand goods at a lower price; to differentiate itself from the rest due to a lack of analogue of purchased products; to express itself via an item which has gone through and withstood the test of time with its history, a product that has stood the challenges of use and adequate maintenance; to acquire membership to a specific social group or community; to realize an ethical environmentally oriented behaviour that preserves the planet's resources (Borusiak et al., 2021); "treasure hunting" of goods that even if unused still has changed its owner or such products that express the individuality of its user; increasing the collector's spirit of the people because it is something "instinctive or acquired, about whether it is a rational activity or a mental disease" (Tanselle, 1998) and many others in full. The studies currently define different factors of purchase in relation to country and age groups. E.g. the studies of Wilts et al. demonstrate that younger cohorts from the population are prone to purchase used products due to their price (Wilts, et al., 2021) while the results from different research give preference to the growing anti-consumer view of younger people (Lee, 2016) or their environmental conscience (Shaw, Newholm, 2002). The demand-related factors of different countries as well as in studies about the same country but with a different range, period and methodology, put their differences on display once more. The users in Great Britain prefer second-hand goods due to their social inclusion or due to financial difficulties (Waight, 2013; Williams, Paddock, 2003) while in Germany this preference is owed primarily to non-economic – social and emotional reasons (Steffen, 2016). In the US reasons for purchase such as quality and lower pricing are with almost the same relevance – 88% of respondents think so (Statista Inc., 2019), in Italy in 2016 the primary reason is the opportunity to save money – 63% of respondents (Statista Inc., 2016), in 2017 the focus of the Italian citizens shifts from the price to the more stable consumption (66% of respondents) and the provision of a second life for the products (60% of respondents) (Statista Inc., 2017). This way the factors of consumer behaviour are highly variable in relation to time, different for the member states and around the world, and unpredictable in their nature. Regardless, they demonstrate clearly a type of deep awareness behind the purchase of second-hand goods as an act with serious economic and social motives which demonstrate the commitment of the consumers and their preference towards acquiring products with a past. Currently, despite its environmental direction and economic significance, the second-hand goods market has future potential, but not a significant current role.

5. Conclusion

This research puts an important emphasis on the processes of normalizing the use and trade of second-hand goods and their gradual conversion from standard consumer demand and the prevalent consumer culture of the modern person, eliminating the stigma of the inferiority complex and repeated consumption. The conducted empirical study denies the larger part of the heuristic-based hypotheses and the well-established consumer stigma and stereotypes in regards to their acquisition. The first hypothesis (H_1) is partially confirmed so far, as the second-hand goods market is described in a relatively unclearly expressed trend of development, the consumers still don't have a fixed long-term preference towards these

products which in the context of the goals of the circular economy and the expectation for its development, it still does not stimulate the vendors to a sufficient degree. It expresses a simultaneously polarized positive and negative attitude towards second-hand goods and their subjective underestimation as products with in itself substantial economic potential, however also for their underdeveloped popularity as a key element of the circular economy. In this regard, economic stimuli for an increased commitment from the retailers is needed, a goal-oriented and strategic state policies to stimulate the second-hand goods commerce – informational campaigns, tax incentives, regulatory requirements for an extended product lifecycle, the right for repair and maintenance etc. The second hypothesis (H_2) is confirmed as far as the second-hand trade has its contribution to the creation of added value in the economies, however, it is not expressed in a substantial way for it to be considered as essential and significant. The denial of the return dependence between the disposable income per capita and second-hand sales both separated by years of the period (H_3) and separated by states (H_4) as well as the preference of even higher-income groups in relation to the purchase of used products (H_5) are some of the most important findings in the present paper. Second-hand goods are not low-value but rather considered normal for all income groups in a large part of the selected EU countries, even in our country that is discernable by the lowest yearly disposable income per capita and the largest income inequality. As an extension of the life of every newly created item, its secondary life can also be just as complete, and the item itself has demand for it even in an increase in disposable income. The moderate correlation between sales and income determines the significance of a number of other factors and their demand such as: the relatively and comparatively lower price of these products; the unique qualities of the goods and their brand and moral value; the subjective consumer preferences based on personal taste; an establishment of models of consumer behaviour formed under the influence of environmental, socio-cultural and subcultural factors and ways of consumer self-expression and a large diversity of other determinants of consumption of second-hand goods that are relevant for the present. In order to justify the expectations for the development of the circular economy in the part of sustainable consumption, the restrictions on the purchase of used products should be overcome and their market should be transformed from a niche to more mass and popular.

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