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GENDER BUDGETING WITH EXAMPLES FROM PRACTICE AND CORRELATION ANALYSIS OF RELEVANT INDICATORS[1]

RODNO BUDŽETIRANJE S PRIMJERIMA IZ PRAKSE I KORELACIJSKOM ANALIZOM RELEVANTNIH POKAZATELJA

ABSTRACT: Throughout history, social discourse has given great importance to gender balance issues, while in recent years these issues have become even more actual and deepened, both in the rest of the world and in the European Union (EU). The gender balance issues are increasingly being analyzed through budgetary procedures, and the number of countries that address them is increasing. The paper's theoretical section aims to point out examples of gender-responsive budgeting, but also gender-blind budgeting, both in OECD (Organisation for Economic Co-operation and Development) countries and throughout the world. Examples are divided separately into subchapters, thus achieving clarity, which is the initial condition for the successful analysis and synthesis, and later in the work, the inductive method was used to draw important conclusions based on the findings. Through empirical research, differences are shown between OECD members that have implemented gender-responsive budgeting and those that have not, and its impact on the level of GDP (Gross Domestic Product) per capita and the Gender Inequality Index. The paper analyzes the correlation and impact of policies in OECD members related to gender-responsive budgeting on the most important gender indexes. Using an econometric model was necessary to conduct a correlation analysis between the most important macroeconomic indicators, such as GDP per capita, employment rate and final consumption expenditure, on the one side, and the SDG (Sustainable Development Goals) Gender Index, which has already been revised several times by the European Commission's Competence Centre on Composite Indicators and Scoreboards (COIN) at the Joint Research Centre (JRC) in Ispra, on the other side. As a result of analyses, correlation coefficients represent a quantitative method to show the correlation intensity, which is important for the final conclusions of the empirical section of research.

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[1] Although the paper is focused on the traditional division of gender roles due to the ease of addressing the topic, but also due to the nature of gender-responsive budgeting, the author does not prejudge that such a traditional division of gender roles and their demarcation is appropriate for the modern era.

KEY WORDS: gender budgeting, gender-responsive budgeting, gender-bling budgeting, gender indexation, gender equality, SDG Gender Index, public financial management

SAŽETAK: Tijekom povijesti, društveni je diskurs pridavao veliku važnost pitanjima rodne ravnoteže, dok su posljednjih godina ta pitanja postala još aktualnija i produbljenija, kako u ostatku svijeta tako i u Europskoj uniji (EU). Pitanja rodne ravnoteže sve se više analiziraju putem proračunskih postupaka, a raste i broj zemalja koje se njima bave. Teorijski dio rada ima za cilj ukazati na primjere rodno odgovornog budžetiranja, ali i rodno slijepog budžetiranja, kako u zemljama OECD-a (Organizacija za ekonomsku suradnju i razvoj) tako i diljem svijeta. Primjeri su zasebno podijeljeni u potpoglavlja, čime se postiže jasnoća, koja je početni uvjet za uspješnu analizu i sintezu, dok je u nastavku rada korištena induktivna metoda za izvođenje važnih zaključaka na temelju spoznaja. Empirijskim istraživanjem prikazuju se razlike između članica OECD-a koje su provele rodno odgovorno budžetiranje i onih koje ga nisu provele, te njegov utjecaj na razinu BDP-a (bruto domaćeg proizvoda) po stanovniku i indeksa rodne nejednakosti. U radu se analizira korelacija i utjecaj politika u članicama OECD-a koje se odnose na rodno odgovorno budžetiranje na najvažnije rodne indekse. Korištenje ekonometrijskog modela bilo je nužno za provedbu korelacijske analize između najvažnijih makroekonomskih pokazatelja, poput BDP-a po stanovniku, stope zaposlenosti i finalne potrošnje, s jedne strane, i SDG (ciljevi održivog razvoja) rodnog indeksa, koji je već nekoliko puta revidirao Centar za kompozitne pokazatelje i ljestvice (COIN) pri Zajedničkom istraživačkom centru (JRC) Europske komisije u Ispri, s druge strane. Kao rezultat analiza, koeficijenti korelacije predstavljaju kvantitativnu metodu za prikaz intenziteta korelacije, što je važno za konačne zaključke empirijskog dijela istraživanja.

KLJUČNE RIJEČI: rodno budžetiranje, rodno odgovorno budžetiranje, rodno slijepo budžetiranje, rodno indeksiranje, rodna ravnopravnost, SDG rodni indeks, upravljanje javnim financijama

1. INTRODUCTION

The goal of this work paper is to raise awareness about the significance of the gender-responsive budgeting component within the budget processes, whether at the country level or smaller administrative units. The reason for addressing the topic is the increasing relevance of the issues faced by countries and social groups within them, and in some cases, even in developed countries, the obvious neglect of certain groups, or favoring, whether planned or unintentional, one gender over another in budgetary decision-making.

One of the major challenges facing OECD countries, and particularly EU countries, is the ageing of the population and demographic changes resulting in a shrinking working-age population. Gender-responsive budgeting can be used as a means of achieving an increase in women's participation in the labor market, which is a major economic challenge in OECD countries. Additionally, gender-responsive budgeting provides information on the impact of various government programs aimed at increasing women's employment, as well as on the impact of programs that deviate from this objective.

Closing gender gaps is key to sustaining and strengthening long-term economic growth. Increased participation of women in the workforce, for example, is particularly

helpful in the context of the shrinking labor forces that many OECD countries are expected to face over the coming decades due to population ageing. Effective gender budgeting plays a crucial role in driving policy measures to address these gaps.

In order to provide a quality overview, the practical examples in the paper are categorized by specific segments, which include examples of gender-responsive budgeting and gender-blind budgeting. There are examples from Sweden, Denmark, Iceland, India, Morocco, Bangladesh, Indonesia and Vietnam. From a policy perspective, these examples underscore the importance of understanding the trade-offs between favorable labor market outcomes and gender equity when making decisions about infrastructure investments.

Regarding the theoretical section of the work, in the preliminary phase that preceded the analysis of the topic, secondary research was used to gather relevant work papers and scientific literature, which were then analyzed with the aim of determining the current knowledge on the topic. The introduction with a historical overview is followed by a distinction of terms using the description method, and a review of empirical literature that highlights relevant analyses on the impact of gender budgeting and other issues. The literature is listed from general topics on gender budgeting to more specific ones, using the method of concretization. The third part includes examples from practice and key conclusions from various projects, which are divided into several categories according to how gender budgeting impacts economic and social dimensions. In the fourth section, focus is on the methodology used for the empirical structuring, with a full explanation of the data and variables important for the model, along with a descriptive analysis. The concluding observations summarize the key results of the study and recommend future research areas. The synthesis method is mainly used in the conclusion to merge simpler conclusions into more complex ones, while the inductive method was used to reach conclusions based on the analysis of individual findings, as in most of the rest of the paper. Secondary data were collected from electronic databases available through websites.

To conduct deeper research, an econometric model is used in the fourth section to test the hypothesis that gender budgeting plays a significant role in improving gender equality and has an effect on important macroeconomic indicators in 23 OECD members that have introduced gender budgeting. In addition to the common variables for growth regression, the Gender Inequality Index and SDG Gender Index are used to proxy gender quality. The strength, direction, and significance of relationships between variables are measured by correlation analysis to quantify dependencies. Correlation links are used to test the interdependence between the SDG Gender Index and important macroeconomic indicators, and identify patterns and trends, which helps to understand how closely they are related. In analyses, the Pearson correlation coefficient is used, which is calculated by dividing the covariance of the variables by the product of their standard deviations. The stage before analysis involves collecting, organizing, and analyzing data to build a valid and statistically significant model.

The contribution of paperwork is that while the importance of gender budgeting on gender equality is widely recognized, research on its impact on important macroeconomic indicators has mainly positive results, with an obvious positive effect on GDP per capita and employment rate.

2. GENERAL OVERVIEW, DISTINCTION OF TERMS AND LITERATURE REVIEW

2.1. General overview and distinction of terms

The first mention of gender budgeting comes from Australia between 1983 and 1984, which is considered a pioneer in the field. In the following years, the number of initiatives focused on gender issues grew, so the first institutionalization took place in the mid-1995s. The global commitment to gender equality was further strengthened by the 1995 Beijing Declaration, which was unanimously adopted by 189 countries. Points 345 and 346 of the Beijing Declaration on a Platform for Action include a budgetary commitment by signatories to allocate sufficient resources to carry out gender impact analysis and to meet social needs including those of women (Downes et al., 2017).

Currently, more than 80 countries around the world, including 60% of OECD members and several APEC economies, have implemented certain form of gender budgeting. It is also promoted as best practice to promote gender equality by international bodies including the OECD, United Nations, and the International Monetary Fund (Ministry for Women, New Zealand, 2024).

Furthermore, the COVID-19 pandemic, along with the global commitment to achieving the SDGs[2] by 2030, underscores the urgent need to advance gender budgeting practices. The pandemic has impacted women and men differently, and gender inequalities have made women particularly vulnerable. These inequalities were exacerbated by COVID-19 in all parts of the world (for example, women were more affected by job losses, domestic violence and household and childcare issues; and they have taken higher risks as they are the majority of frontline workers in the global healthcare workforce), amplifying the urgency of tackling gender inequality (Madgavkar et al., 2020).

Regarding relevant indicators, a study by the European Institute of Gender Equality (2019) indicates that increasing gender equality at the EU level would result in significant growth, with up to 9.6% GDP per capita by 2050. The study forecasts an increase of employment rate from 0.5 to 0.8% in 2030 and 2.1 to 3.5% in 2050, which in absolute numbers represents 6.3 to 10.5 million jobs by 2050, driven by greater participation of women in the labor market.

The concept of gender-responsive budgeting is subject to widespread misunderstanding or a wide range of interpretations. There are many misconceptions about what gender responsive budgeting really is and very negative initial reactions to it, but wider acceptance is formed when it is explained as a form of budget execution.

While gender budgeting (GB) is a strategy that focuses on the collection and spending of public resources to maximize efforts towards achieving equality between women and men, gender-responsive budgeting (GRB) is a narrower term, an instrument that supports the objective of gender equality by incorporating a gender perspective in all budgets and accounting, thereby supporting women and men as beneficiaries in projects/programs. Gender-blind budgeting is a way of formulating a budget without taking into account the

[2] SDGs – more details at the beginning of section 3

socially determined differences in roles, responsibilities, and capabilities between women and men.

Gender-responsive budgeting utilizes a diverse set of tools to keep track of government budgets and their effects and outcomes on various groups of women and men. Moreover, GRB includes mechanisms for altering processes and policies within budgets, which, as a result, through expenditures and revenues, can be used to decrease disparities between women and men. It brings into focus issues that are frequently overlooked or obscured in conventional budget analysis and decision-making (Elson & Sharp, 2010). The concept of gender-responsive budgeting does not imply the allocation of equal amounts to issues related to both genders, but rather a budget impact analysis of how different budget programs affect each gender separately. Therefore, it is important to provide information on implementation as a basis for decision-making, rather than to mandate specific decisions. The implementation of gender-responsive budgeting often requires a reporting system, or "Gender Budget Statement", which accompanies new budget proposals and indicates how the proposal will affect each gender separately. When countries initiate this, there is a tendency to establish specific organizational units to pay attention to gender-responsive budgeting issues. Although this encourages gender-responsive budgeting, there is a risk of separating gender-responsive budgeting issues from the main budget process. The OECD recommends that countries integrate gender budgeting issues into the general implementation, results, and evaluation system, rather than establishing specific organizational units to conduct discussions on these issues. There is also a problem of demonstrating the added value of gender-responsive budgeting, because aforementioned budgeting does not only refer to existing budget expenditure in the form of approved amounts within the budget, but also to the existence of secondary and tertiary effects of such expenditures. Therefore, in practice, there are examples of projects that, after the initial impact of the expenditure, generate secondary effects in the form of materialization of the project's impact depending on the gender of the beneficiary, and tertiary effects during the operation of the project, for example in the form of greater inclusion of women in the labor market. The latter represents a key motivation behind the introduction of gender-responsive budgeting. At its core lies gender equality, which is an issue of human rights and social justice.

Combaz (2013) made a very important contribution through deep analysis of factors and limitations that appear in gender budgeting analysis. He reviewed the limited evidence regarding the impact of gender-responsive budgeting, and came to findings that there are limitations, such as a short period of time during which gender-responsive budgeting has been implemented, only a small portion of recent literature addresses impact of this type of budgeting, the coverage of sectoral budgets is uneven etc. He also analyzed the challenges of assessing the impact of GRB, which is most important: definitions of gender-responsive budgeting vary, causal relationships are complex, multiple, and difficult to determine, and effects may take considerable time to materialize. Furthermore, Combaz (2013) divided factors affecting impact into two elements: obstacles and enabling factors. Significant obstacles are lack of sex-disaggregated data and data on gender relations, and limited capacity and resources for a complex task. Key enabling factors include ensuring ongoing support for GRB, enhancing capacities through educational trainings, promoting women's involvement in planning and budgeting processes, and connecting gender issues with other structural inequalities.

In the European Union, gender balance has long been a horizontal issue, and in recent years it has also become a horizontal issue in the EU budget. By the end of the 2021-2027 programming period, it will be precisely known how EU funds are spent to reduce gender inequality and promote gender equality, with the associated methodology which is of great importance. Good practices from OECD member states' legislation are being taken up at the EU level with the aim of including them in the debate and mechanisms that are currently being developed.

2.2. Literature review

In the literature, there is a certain number of studies, analyses, and work papers on the topic of gender budgeting. While there is no consensus on the exact effect of gender budgeting, evidence indicates that it significantly contributes to economic growth. For instance, research has found that the lack of correct policies across countries can to some extent explain the effects of lower or insignificant rate of growth of GDP per capita - Alberts et al. (2016), Goel (2023) and Zakirova (2014). Studies also highlight the importance of improving legislation and budgetary procedures in institutions to enhance gender equality (Puig-Barrachina et al., 2017, Bova & Da Costa Reis, 2022, Khalifa & Scarparo, 2020), which can be implemented in developing economies. The literature review is provided below, first with an overview of OECD countries followed by other countries, as numerous important researches were conducted outside of OECD, which is very important because it deepens the topic of gender budgeting and emphasizes key challenges with methods to address them.

Given that legislative support is crucial for budgeting reforms (Grizzle & Pettijohn, 2002), there is analysis from Moser & Korac (2020) of the speeches referring to gender budgeting in the Austrian parliament, which supports the fact of the Austrian gender budgeting system as a model of good practice. Nearly 90% of the speeches addressing gender budgeting were delivered by women, suggesting that female politicians still continue to prevail on this issue within the legislative domain. Although members of both governing and opposition parties referred to gender budgeting at similar rates, those in the opposition engaged with the topic more extensively in debate. According to the analysis from Moser & Korac (2020), these speakers showed mainly a positive attitude towards gender budgeting.

In Spain, specifically in Andalusia, a very innovative classification of gender budgeting projects is implemented - the G+ Project (the G stands for Gender). Launched in 2007, the G+ Project represents a comprehensive, government-wide framework designed for use within a large and complex organizational system with a broad range of competencies. All program proposals, regardless of budget category, are scrutinized for their effects on gender equality. Program managers are required to review their initiatives and assign them a rating according to the G+ scale. As the programs progress through the ranking scale, managers are required to provide increasing levels of data, evidence of analysis of gender impact, and tools to improve program design (Puig-Barrachina et al., 2017). Programs are evaluated and ranked from higher to lower impact: G+ are highly interesting programs due to their power to transform reality and promote gender equality; G are programs with significant

gender relevance; g1 are programs with low, yet existing, gender relevance, while g0 are programs with no gender relevance. The goal is to move funds toward G+ programs that have the highest potential to create gender equality. Programs are analyzed based on: transformative power (ability to change gender disparities), capacity to act (power to intervene directly in gender equality), impact capacity (volume of citizens affected), and functional relevance (whether the program area is considered strategic for gender). In Spain in general, the so-called Equality Law (Organic Law 3/2007) requires that all ministerial departments submit a gender impact assessment of their spending programs to the Secretary of State for Budget and Expenditure. A national-level gender budgeting working group, composed of representatives from various institutions, has also been established. Moreover, several regional and local government bodies contribute significantly to gender mainstreaming initiatives, although their participation is not compulsory. For example, since 2020 Catalonia's budget includes a gender perspective that has been strengthened for the upcoming year and includes the Swedish 3R method (Bova & Da Costa Reis, 2022).

One of the most recognizable and oldest methods for gender mainstreaming is the Swedish 3R method, which is a structured, data-driven tool to analyze, map, and change how gender equality operates within organizations. The original 3R method was developed as part of the JämKom project, which was carried out by the Swedish Association of Local Authorities in the late 1990s. Its primary testing ground has been in municipal operations (www.government.se). It breaks down organizational activities into three analytical steps with related question steps: Representation - R1 (Who is involved?), Resources - R2 (Who gets what?), and Realia - R3 (Why is it like this?), with aim to identify power imbalances and improve gender-equal outcomes. Later, JämStöd (Swedish Gender Mainstreaming Support Committee) added a further step with related question, which involves drawing up and realizing new objectives and measures - Realization - R4 (What shape should the operation take if it is to achieve gender equality?) (www.government.se). In Sweden, the goal of gender budgeting is to interconnect all levels of government - municipalities, councils, and regions - as well as various actors from civil society. To support the implementation of gender mainstreaming, the Gender Equality Agency was established in 2018. This agency not only provides support and assesses progress but also participates actively in the budgetary process, particularly in deciding how resources are allocated (Bova & da Costa Reis, 2022).

Khalifa & Scarparo (2020) made a summary of GRB approaches in countries with the highest GDP per capita and determined that the majority of the GRB initiatives focus on the expenditure side of the budgets, and less on the revenue side, with the United Kingdom (UK) as an exception. Analyses of gender-responsive issues in government revenue typically concentrate on direct and indirect taxation, intergovernmental transfers, and public debt. The decentralization of spending across federal, state, and regional levels can create inequalities when subnational levels of authority rely on more regressive taxes than those imposed nationally - for example, the council tax in Britain. Walby (2005) points out the problem associated with prioritizing gender equality. In the United Kingdom, for example, the primary objective is maintaining a competitive economy, whereas other aims, such as gender equality, are set as lower priority. As a result, the emphasis on enhancing the UK's economic competitiveness is perceived to have indirect negative effects on gender equality. Although this paper focuses on infrastructure projects, in the literature was found one

important reference on the problem of direct subsidies in relation to consumption habits between women and men in families with children. In 1999, the UK government proposed replacing Income Support, a welfare payment for low-income families with children, typically paid to the primary caregiver (usually the mother), with the Working Families Tax Credit, which would increase the salary of the main earner in such families. The UK Women's Budget Group pointed out that, since the main earner in two-parent low-income families was likely to be the father, this would take money away from poor women and give it to poor men, and would be likely to reduce the amount of family income spent on the welfare of children, since the evidence showed that poor men were likely to spend less of any extra money on children than were poor women (Budlender & Hewitt, 2002, as cited in St. Hill, 2002). This kind of allocation not only increases the income gap and inequality between women and men, but also reduces the welfare of children.

An important work regarding the gender gap in transportation is a study by Davidich & Galkin (2025). The findings reveal subtle gender-based differences in how service attributes are valued. Women generally place greater emphasis on safety, comfort, and affordability, whereas men tend to focus more on travel time and overall cost issues. Women are facing challenges especially in suburban areas, where public transportation is often the only practical means of travel. Because conventional transport models frequently fail to address women's specific needs, the study underscores the concept of "mobility of care," illustrating how women's focus on safety and comfort is closely tied to their more complex travel patterns, often shaped by caregiving responsibilities. The reliance on public transport in Ukraine, driven by low car ownership, which is approximately one car per six people nationwide with even lower rates in suburban areas (Burko et al., 2020; Lobashov et al., 2021), necessitates gender-responsive policies. Women's strong dependence on public transportation highlights the need for targeted enhancements, including better synchronization between bus and rail schedules to minimize transfer times, a stronger police presence during both peak and off-peak hours, and improved stops and stations lighting to enhance safety. Public awareness campaigns focused on reducing harassment and encouraging respectful conduct on public transport could greatly improve women's sense of security. Additionally, subsidies or fare discounts for women, particularly in low-income suburban areas, could enhance affordability and accessibility, which are critical for encouraging greater public transport usage among female commuters. Modulating speed ratios between road and rail services significantly influenced mode choice for both genders. For instance, the increase in road transport speed by 59% led to a higher number of bus riders, with the effect being more manifested among women. This finding aligns with prior research on the importance of operational efficiency (Borkowski et al., 2021), demonstrating that improvements in speed and reliability can encourage broader adoption of public transport.

India is among the countries with the highest levels of gender inequality globally. Alberts et al. (2016) used a qualitative approach to study livelihood strategies of women living in the periphery of a metropolitan city in India (Chennai). The authors identified childcare duties, household responsibilities, restrictive cultural norms regarding work outside the home, and limited job accessibility as key reasons for not engaging in work outside the home. Most respondents did not cite distance, travel costs, or commuting burdens as factors keeping them at home; instead, they emphasized social constraints. Overall, the con-

clusion of the analysis was that access to public transport has a positive effect on people's livelihoods. Goel (2023) made a survey and analysis of the distribution of travel purposes and travel frequency among women and men in India, which can be a representative sample for developing countries. Only one of the results in this analysis is the mobility rates for females and males, which are 47% and 86%. Furthermore, on the reporting day, 53% of females reported that they do not leave their homes compared to only 14% of males, while the average trip rate is 1.3 among females and 2.9 among males.

Regarding the retrograde trends of gender budgeting and the results of such a course, there is an example from Russia (Zakirova, 2014). Since the 1990s, government policy has regressed in its approach to gender equality, moving back toward patriarchal assumptions that women's place primarily is within the home in order to reinforce traditional gender roles. This persistence of gender discrimination results in considerable social and economic costs, while the absence of gender-sensitive perspectives undermines the effectiveness of social policy across all levels of governance in Russia. Consequently, long-term institutional capacity remains weak and underfunded, with limited expertise in gender equality methodologies, such as gender mainstreaming, planning, and budgeting, and is further constrained by low levels of political will and commitment.

Gender budgeting can be a powerful instrument for improving gender equality when supported by strong political commitment, institutional capacity, and systematic data collection, as demonstrated by international experiences. Nonetheless, enduring obstacles, such as limited impact evaluation, weak priority of gender equality, and socio-cultural constraints, can significantly undermine its effectiveness. Overall, steady progress depends on embedding gender perspectives across various policies, strengthening accountability mechanisms, and aligning budgeting processes.

3. EXAMPLES FROM PRACTICE AND KEY CONCLUSIONS FROM VARIOUS PROJECTS

Gender budgeting, especially in developing countries, can help reduce poverty among women and girls by increasing both the level and effectiveness of public spending. This includes investments in infrastructure (such as water, energy, and roads), essential services (education, training, healthcare, access to credit, and support for small businesses), income support measures (child benefits, maternity leave, unemployment assistance, and pensions), and job creation. Spending on infrastructure like water, sanitation, and energy is especially important, as it can significantly reduce the unpaid work for low-income populations. This is particularly beneficial to poor women and girls, who bear most of the burden of fetching water and collecting fuel (Elson & Sharp, 2010).

Figure 1: SDG Gender Index range in 2022



Source: Authors' mapping based on data from Equal Measures 2030 (2024 SDG Gender Index [Data file], 2024)

The figure above (Figure 1) shows the index for 2022 for each country in the 2024 SDG Gender Index. To provide a more comprehensive overview, countries are grouped into index ranges based on individual data, even though range indexes are not present in the 2024 SDG Gender Index. This map is one of the rare ones that shows the gender index by country globally, making it a valuable contribution to this topic. The SDG Gender Index ranges for 2022 are 31-40, 41-50, 51-60, 61-70, 71-80, and 81-90. To give a precise overview, the SDG Gender Index for the world is 66.1, Europe and North America 78.6, Asia and the Pacific 66.5, Middle East and North Africa 64.6, Latin America and the Caribbean 65.8, and Sub-Saharan Africa 51.0.

The 2024 SDG Gender Index represents the most comprehensive and complete assessment of gender equality worldwide. It is a multidimensional index that covers 56 gender issues across 14 of the 17 global Sustainable Development Goals and benchmarks gender equality across 139 countries in five regions of the world. Across all indicators related to gender issues, a score ranging from 0 to 100 is determined for every country, where 100 indicates that the target has been fully achieved. The indicators either specifically reference gender equality or relate to issues that have a disproportionate effect on women and girls, such as access to clean water and sanitation or climate change vulnerability (www.equalmeasures2030.org). In index are used 14 Sustainable Development Goals: No Poverty, Zero Hunger, Good Health and Well-being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Work and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Climate Action, Peace, Justice and Strong Institutions, and Partnerships for the

Goals. Beside these 14 Sustainable Development Goals covered by the index, there are also Responsible Consumption and Production, Life Below Water, and Life on Land.

The original data sources for the majority of indicators in the SDG Gender Index are the relevant national statistical authorities in a country. They report data to international SDG data custodians (such as UN agencies, the World Bank and others) who compile and may adjust indicators in order to meet standards for international comparability. For other indicators, data are provided by market researchers (Gallup), independent NGOs (Center for Reproductive Rights, Freedom House, ILGA, Open Data Watch, World Justice Project), academic researchers (Notre Dame-Gain, Varieties of Democracy) and other organizations who carry out research (World Economic Forum) (www.equalmeasures2030.org).

The Sustainable Development Goals (SDGs) are objectives that are associated with future global development. The United Nations established them, and they began to take effect in 2015 and will last until 2030. They consist of 17 global goals and 169 associated sub-goals.

This section presents examples from various countries, regardless of their level of GDP per capita, to provide an overview of which segments affect gender inequality and how they are addressed in certain countries, some of which are more advanced in terms of gender-responsive budgeting than others. Examples were selected from countries that are geographically relatively close to each other, from Scandinavia and South-Southeast Asia regions, which also form a group of developed and developing countries, due to the cultural, social and political similarities of the systems, but also to review the differences between them in gender-responsive budgeting policies, regardless of the similarities of the systems and geographical proximity. The post-construction phase of Öresund Bridge (Copenhagen-Malmö agglomeration) is elaborated in the most detail because this example shows the largest number of issues. In general, the emphasis is largely on transport, as it has the greatest impact on quality of life, social equality, and employment opportunities. Numerous studies in the literature indicate that women often have more restricted access to transportation options. Studies highlight that women and men exhibit different travel patterns and encounter unique barriers regarding access to transportation. Limited access to transport reduces both the frequency and diversity of trips that women can undertake. Notably, women generally have lower access to private motorized means of transport. Studies have shown that in households where there is a private car, men usually get priority for its use (Hanson & Hanson, 1981; Anand & Tiwari, 2006). Walking remains the predominant mode of travel for many women in developing countries as other transport modes are often not available because they are too expensive or located too inconveniently and far away (World Bank Group, 2010). From the safety aspect, as passengers on buses, women are more exposed to traffic accidents. 80% of deaths and 60% of injured passengers are women (UN Women, 2019). In summary, the emphasis is on better road connectivity, more bicycle lanes, and repairing and widening sidewalks within and between suburban neighborhoods.

3.1. Examples align with gender budgeting

3.1.1. How capital investment can influence the work patterns of women and men

India

Access to Services in India has supplemented reporting with gender outcomes in the government budget, requiring ministries to highlight gender-mainstreaming initiatives and explore ways to enhance women's access to various services. Institutions have ensured that both national and state plans are gender-sensitive, assessed the gender impacts of specific economic zones, and implemented initiatives such as clean and safe public toilets and sufficient street lighting as construction projects - measures that make urban commuting safer and more feasible for women. Improved access to services can significantly improve women's participation in the workforce, including an increase in their working hours. Certain economic zones can offer improved working conditions and higher salaries, and if these zones are designed with equal needs of women and men in mind, it could lead to changes in female work patterns (Gamillscheg, 2022).

Morocco

Safe public transportation and improved road accessibility would decrease women's travel time and therefore reduce the costs related to work and going to school outside the home (World Bank, 2015). Expanding investment in public childcare services could free women's time to pursue education and enter the workforce. In Morocco, women typically shoulder the majority of household responsibilities, and caregiving and home duties were identified as the main reason for women's low labor market participation in the analysis accompanying the 2019 Finance Bill. Lack of access to transportation was also included as a reason that women, especially rural women, were not able to access healthcare services during the COVID-19 pandemic (Kolovich & Ndoye, 2023).

3.1.2. How changes in the income tax system can affect gender economic equality

Iceland

In 2015, the budget committee of Iceland's Parliament (Althingi) introduced a proposal to reform income tax legislation. The plan aimed to simplify the income tax system by reducing the number of tax brackets from three to two and eliminating the rule that allowed the higher-earning partner in a couple to use the residual tax credit of the lower-earning partner. The committee initially suggested retaining provision which include the possibility to use tax credit for lower income partners. From this provision, predominantly benefits men, as they are the higher earners in 75% of marriages. However, owing to the introduction of gender budgeting, the initial proposal of the budget committee was amended after the Ministry of Finance and Economic Affairs was able to point out to the committee that men would receive tax benefits based on the work and salaries of women, and so their disposable income would increase as would the gender income gap, contrary to the goal of economic equality (Gamillscheg, 2022).

3.1.3. How transportation conditions influence genders differently

Viet Nam

Research indicates that limited access to transport services in developing countries disproportionately affects women and girls in comparison with men. They often spend significantly more time than men gathering firewood, purifying water, and processing fuel, as well as traveling to and from agricultural fields - time that could otherwise be devoted to education or paid work. Despite the fact that water is primarily used by women, even when its use in farming or cleaning benefits entire households or communities, they are less frequently involved in decisions about water management at both the household and public levels. In Viet Nam and in some other countries, carrying heavy loads on the head poses serious health risks for women, who also face a higher likelihood of accidents when navigating busy roads while burdened. Poor access to transport reduces women's use of health and other public services, which can increase maternal mortality (Asian Development Bank & UN Women, 2019).

Bangladesh

The Dhaka project in Bangladesh (1997–2004) was an urban transport undertaking that included large-scale land acquisition and resettlement, enhancements to city management capacity, upgrades and expansion of transport infrastructure, and the incorporation of impact analysis of gender issues throughout all project stages. As part of this effort, a women's non-governmental organization was engaged to carry out surveys, focus group discussions, and interviews to identify gender-specific issues and needs. The research findings were used in multi-sectoral national and city workshops with people impacted by the project. Furthermore, the project pinpointed gender issues through the analysis of travel records, financial information, and the daily logs of transport users, to map gender-correlated needs and women's financial ability to afford both public and private transportation. The project generated several important results:

- Walking emerged as the primary mode of commuting for women and lower-income groups. In response, sidewalks along main roads were improved and widened, and all crossings were made safer through the addition of bridges or traffic lights;
- Many individuals preferred walking as it reduced commuting costs while also supporting better health;
- The use of buses by women increased after improvements were made to enhance speed, safety, and the introduction of "seating-only" spaces, which helped minimize harassment of women from other passengers. (Asian Development Bank & UN Women, 2019).

Iceland

Gender budgeting is one of the instruments that Iceland's government uses to secure equal distribution of goods and services. For example, the government in Iceland wants less pollution, and therefore wants more people to cycle, but in Iceland, a small proportion of people ride bicycles, with women making up less than half of all cyclists. Studies suggest that women are more inclined to work close to home and are more often responsible for shopping and childcare. Men, however, are more likely to work further away from home and more likely to cycle to work along the bigger roads where already exist cycling paths. In residential areas, there are a small number of cycling paths, which make it difficult to cycle,

especially when women travel with children. Studies have shown that it is better to plan for different needs right from the start, rather than changing later on (www.reykjavik.is).

3.1.4. How infrastructure needs differ by gender, based on social roles

Sweden

In Karlskoga (Sweden) snow-clearing practices historically prioritized major roads used by cars and larger vehicles, leaving sidewalks and bicycle paths to be cleared later. Studies revealed that this approach disproportionately benefited men, who were more likely to commute via main roads, while women more often relied on walking and cycling routes, for example when taking children to school or traveling to work. As a result, the city revised its snow-clearing strategy to promote greater gender equality, ensuring that pedestrian paths and bike routes, especially those leading to schools, are cleared before families begin their daily routines, i.e. leaving their homes. Changing the approach to snow clearing was not associated with additional costs, but did bring additional economic and social benefits since there was a reduction in pedestrian injuries due to the slippery conditions (Gamillscheg, 2022).

3.1.5. Other areas

Indonesia

The Women's Research Institute (WRI), the Indonesian NGO, has promoted the implementation of GRB in maternal healthcare services at both provincial and district levels. For instance, in South Lombok, their findings indicated that outcomes could improve by allocation of more resources toward midwives, such as increasing their salaries and providing motorbikes and sterile equipment, rather than prioritizing spending on doctors, ambulances, and buildings. This led to an increased budget allocation for maternal services in South Lombok over a period of 3-4 years, which helped ensure that women in remote areas received care (Elson & Sharp 2010).

3.2. Examples of gender-blind budgeting

How capital investment in transportation (tunnels and bridges) can negatively influence gender economic equality

Iceland

In 2009 one of the segments of introducing gender budgeting in Iceland was the obligation for every ministry to carry out a pilot project with the aim of assessing how public spending affected genders within a specific expenditure domain. The aim was to enable better-informed decisions about reallocating funds and reshaping policies to align with gender equality goals. In this context, the Ministry of the Interior examined the gender implications of planned spending on the Héðinsfjarðargöng tunnel, intended to connect Siglufjörður and Ólafsfjörður in northern Iceland (Fjallabyggð area). The government conducted a research project that evaluated multiple dimensions, such as transportation, economic conditions, public services, community development, and social well-being, through a gender lens. The

findings indicated that the project would likely benefit men more than women. Men were expected to gain greater access to employment opportunities and experience reduced commuting time. In contrast, women expressed concerns that linking the two towns could lead to a decline in local services, potentially affecting their daily lives more negatively. This is in part due to different social roles of women who need to work closer to their homes to be able to bring their children to and from school (Gamillscheg, 2022).

After the tunnel was opened in 2010, Hjálmsdóttir & Hafþórsson (2015) concluded ex-post analysis. The findings in the study were derived from two survey research conducted among the residents during the fall of 2009 and 2012. The results of the study were mixed in terms of travel habits (commuting time), income potential, spending time on household tasks, and personal satisfaction. The proportion of those who spend less than one hour per week traveling within the Fjallabyggð area decreased by 18.9 pp (percentage points) among men and 19.4 pp among women. The proportional increase in those who spend one to five hours commuting is 13.4 pp (men) and 11.5 pp (women). The relative increase in the group of those who spend six hours or more per week on trips within the residential area is measured as 5.5 pp for men and 7.9 pp for women. The proportion of women who believed that the impact of the tunnels on income potential in the local area would be rather or very positive decreased by 28.5%, and at the same time, the proportion of those who said neither increased by about 27.5%. For men, there is a small percentage point difference between years; the percentage of positives decreased by 26.1% while the percentage of neutrals increased by 25.4%. The proportion of men who spend little time on housework decreased by 5.9%, while the proportion of those who spend six hours or more increased by 6.7%. The trend was similar among women, i.e. the proportion of those who spent one to five hours on housework increased by 8.9%, while the proportion of those women who spent six hours or more decreased by 6.8% In 2009, the percentage of satisfied men was 26.1%, while the comparable percentage of women was 12.2%. In 2012, the proportion of positive men decreased to 15.1%, while the proportion of women remained almost unchanged. As for women, the proportion of those who said they were rather or very negative increased; it was 36.7% in 2009 compared to 43.8% in 2012.

Copenhagen-Malmö agglomeration

Analyses of Bütikofer et al. (2024) examine the impact of access to larger labor markets on wages and employment after the opening of the Öresund Bridge between Denmark and Sweden. The bridge significantly boosted cross-border commuting among Swedes, led to a 13.5% rise in average salaries of the regional workers, and resulted in Malmö residents seeing their earnings increase by 15% within eight years of the bridge's opening. The impact of increased commuting across the strait among Swedes did not have a negative impact on the wages of Danish residents. On the contrary, it had a slight positive effect. The wage gains among Swedes were distributed unevenly, with the largest increases observed among highly educated men and the smallest among low-educated women. In terms of total wages, men experience an average annual increase of about 27,000 SEK ($2,700), whereas women's wages rose by roughly 12,000 SEK ($1,200). This represents an approximately 80% difference in the magnitude of the effect. Relative to pre-bridge wage levels, men benefited more from the labor market expansion than women: men's total wages increased by 16%, while women's by 10%.

This is mainly explained by the propensity to commute. Specifically, high-educated workers and men are more likely to commute long distances for the same type of jobs as

low-educated workers and women (Le Barbanchon et al., 2019). The inequality is also a result of the fact that most commuters are male: the ratio of male and female commuters is three to two. Although the findings indicate that the overall impact on salaries is considerably greater for cross-border commuters, the larger group of non-commuters, where women outnumber men, also experiences gains. The reasons for these effects can be found in general market equilibrium and spillover mechanisms, such as higher wages offered by companies in Sweden to avoid workers from leaving Malmö, as well as expanded opportunities to offer and provide services across the Öresund strait.

Additionally, the observed effects differ by gender. For men, the response is mainly driven by individuals on unemployment benefits who are actively seeking work. For women, it is largely driven by those transitioning from being out of the labor force into employment. Moreover, while there is a positive impact on multiple jobholding among men, there is a negative impact among women in the same work pattern.

Inequality arises not only from disparity in commuting preference, but also from disparity in educational attainment. The disparities between highly educated and less-educated women and men become even more pronounced in the context of total wages: highly educated men experience significantly larger wage gains than highly educated women (with an effect size roughly 62% greater), while low-educated women and men experienced no wage increase at all. In the context of educational specialization, women commuters are more likely to pursue service-oriented fields of education, where the gains from participating in a broader labor market are relatively limited. By contrast, men more often have degrees in business and STEM fields, which tend to yield much higher returns to commuting. Furthermore, the analysis reveals that men in natural sciences, mathematics, and IT have the most significant impact on salaries, while services have the least impact for both men and women. This is because women more often hold degrees in teacher education and pedagogy, humanities and arts, as well as law, public administration, and social sciences. Regarding total wage effects between genders across educational areas, men in natural sciences, mathematics, and IT benefit roughly ten times more in comparison with women in the same qualification areas. In social sciences, law, and public administration, men's advantage is threefold, whereas in agriculture and land-related sciences, women's gains are twice as high as men's.

Regarding within-couple context in cross-border commuting, inequality between women and men is substantially larger if the couple has children. In contrast, among childless couples, the gender gap is relatively modest. This indicates that the presence of young children is a major factor in reducing the likelihood that mothers engage in cross-border commuting. The effect of heterogeneity in cross-border commuting with respect to couples with and without children also translates into a large difference in the total wage effect: the within-couple gender gap in total wages is 40% larger among couples with children compared to couples without children (Bütikofer et al., 2024).

4. ANALYSIS AND RESULTS

In this section, the focus is on the data, parameters, and methodology applied to analyze the effect of gender budgeting on gender equality across 23 OECD member countries.

The section includes the data and parameters used in the empirical research, followed by an overview of the methodological approach used to conduct the data analysis.

There is a strong theoretical and empirical link between gender budgeting and macroeconomic indicators, because gender budgeting can influence key outcomes such as growth, employment, and productivity. GDP per capita, employment rate, and final consumption expenditure are three of the most important indicators in each country due to their indication of economic wealth and ranking among countries. In the literature, there are many papers that focus on the theoretical basis, but there are a small number of empirical analyses. This consideration, among others, led to the decision to perform the following analyses.

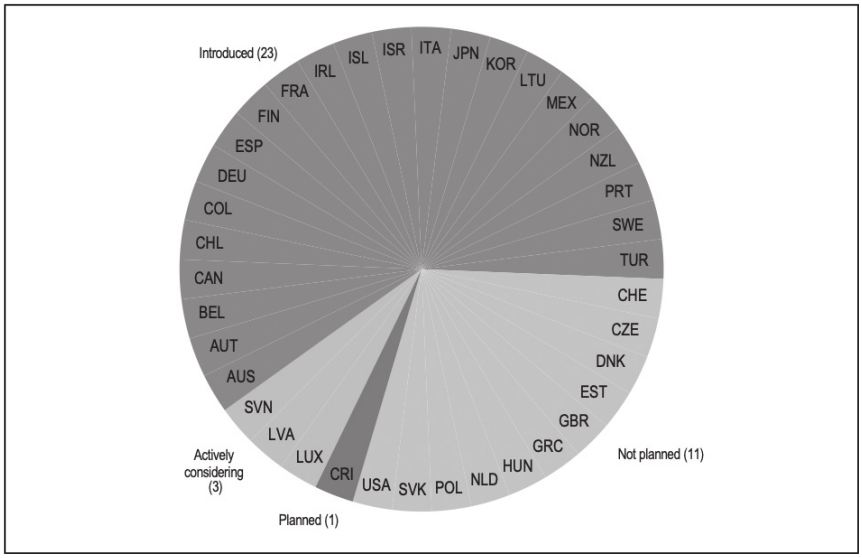
Three analyses were conducted: (1) comparison of trends in GDP per capita from 2016 to 2023 between OECD members that introduced gender budgeting and those that did not, (2) relation between GDP per capita and gender inequality among OECD members in 2022, and (3) the role of gender equality, as a result of gender budgeting, on the most significant macroeconomic indicators in 23 OECD members. It was used a dependable set of macroeconomic indicators and indexations from organizations that issue the most reliable reports on a global scale. For sampling purposes in research, data was used for the following 23 OECD members: Canada, Austria, Iceland, Spain, Sweden, Korea, Mexico, Colombia, Ireland, France, Chile, Belgium, Norway, Finland, Portugal, Italy, Türkiye, Israel, Germany, Lithuania, New Zealand, Australia and Japan.

For analysis, GDP per capita, employment rate, and final consumption expenditure were used from World Bank national accounts data and OECD National Accounts data files (2025), with amounts in current US dollars. In the first analysis, data for years from 2016 to 2023 is used because, according to OECD reports, there was no change in the status of members who introduced gender budgeting versus those who did not, which is important for the purpose of consistent analyses. For the second and third analysis, data for 2022 is used because that is the last year with completed data for all indicators. As for indexations, it was used the Gender Inequality Index from the Human Development Report Office (2023-2024) and the SDG Gender Index from Equal Measures 2030 (2024) to assess the countries' gender quality. These indexations were used due to their broad acceptance as dependable measures of gender quality and issues related to it. Two indexations were used to conduct more comprehensive analyses and obtain more accurate conclusions.

The Gender Inequality Index is a composite indicator reflecting inequality in attainment between women and men across three key areas: reproductive health, empowerment, and participation in the labor market. It is calculated using the following indicators: the maternal mortality ratio (deaths per 100,000 live births), the adolescent birth rate (births per 1,000 women aged 15-19), the share of parliamentary women representatives, the percentage of the population aged 25 and older with at least some secondary education, and the labor force participation rate among individuals aged 15 and above. This index is widely recognized as a reliable tool for evaluating the deviation from gender balance in a particular country. The SDG Gender Index has been explained in the paper at the beginning of section 3.

Figure 2 shows OECD countries that have introduced Gender Budgeting (23), countries that are actively considering it (3), planning to introduce it (1), and not planning to (11), i.e. those that have not introduced it.

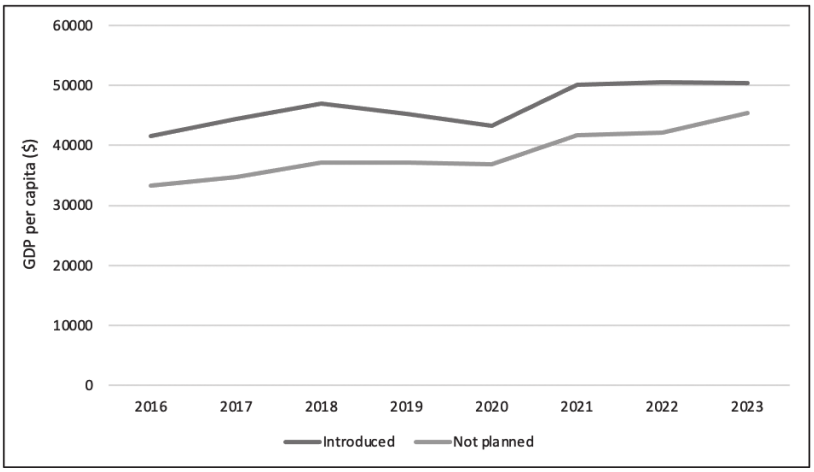
Figure 2: Status of gender budgeting across OECD countries, 2022



Source: OECD (2023), Gender Budgeting in OECD Countries 2023, OECD Publishing, Paris.

The graph below (Graph 1) shows the relation between OECD members that have implemented gender budgeting and those that have not, for the entire period from 2016 to 2023. The relationship is analyzed in terms of GDP per capita. It's worth mentioning that the analyzed variable can also be influenced by other important factors.

Graph 1: Trends in GDP per capita in the period from 2016 to 2023 in countries that have implemented gender budgeting and those that have not implemented it



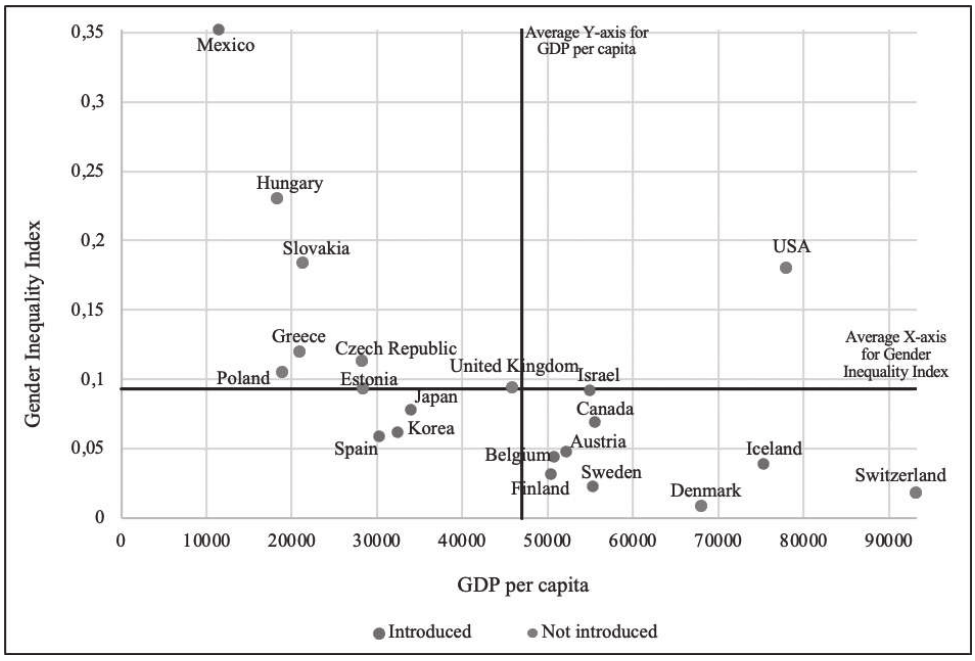
Source: Authors' calculations based on data from World Bank Group (GDP per capita in current US$; World Bank national accounts data and OECD National Accounts data files [Data file], 2025) & OECD (Gender Budgeting in OECD Countries 2023; OECD Publishing, Paris, 2023)

In certain periods, namely during global economic growths, GDP per capita increased more strongly in countries that have introduced gender budgeting compared to countries that have not. However, during the last global recession caused by COVID-19, the decline in GDP per capita was stronger in countries that have introduced gender budgeting. In the last observed years, GDP per capita has stagnated in all countries, regardless of the implementation of gender budgeting, with the exception of the last observed year (2023).

A quadrant chart (also known as a four-quadrant chart and a 2x2 matrix chart) is a visual diagram that divides a graph into four sections (quadrants) using a horizontal and a vertical axis. It is used to compare the subjects of analysis based on two different variables. The horizontal axis (X-axis) is used to represent one variable, while the vertical axis (Y-axis) is used to represent another variable. The intersection creates four quadrants, each of which represents a different combination of high/low values. In short, a quadrant chart helps organize and analyze information by visually comparing two different variables simultaneously.

The quadrant chart below (Graph 2) depicts the relation between GDP per capita and the Gender Inequality Index of the United Nations Development Programme (2023-2024) for countries used for sampling in the analyzed period. An additional aspect of the analysis is the relationship between OECD members that have implemented gender budgeting and those that have not done so in 2022. The analysis reveals a strong opposing relation between GDP per capita and gender inequality.

Graph 2: Quadrant chart of GDP per capita versus the Gender Inequality Index in 2022



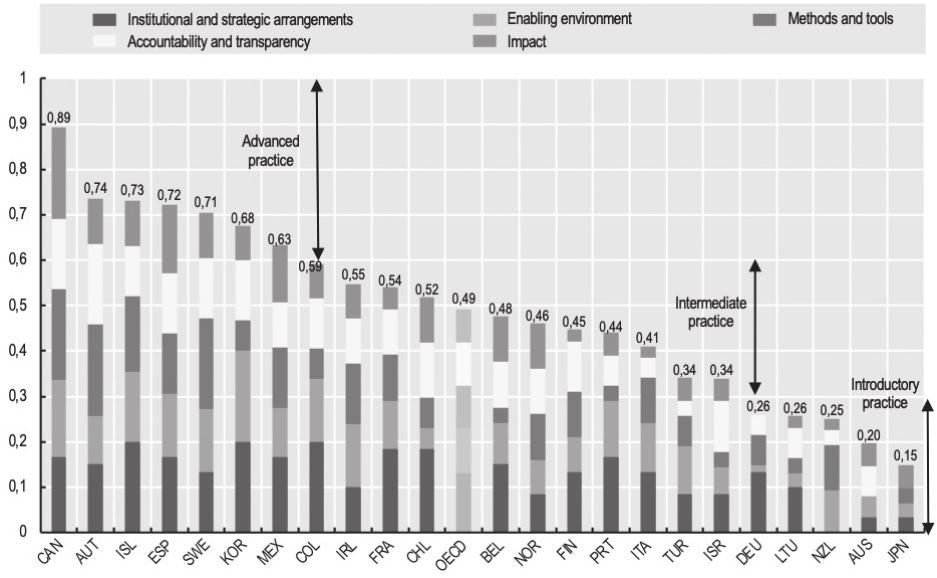
Source: Authors' calculations based on data from United Nations Development Programme (Gender Inequality Index from the Human Development Report Office (HDRO) [Data file], 2023-2024) & World Bank Group (GDP per capita in current US$; World Bank national accounts data and OECD National Accounts data files [Data file], 2025)

The quadrant chart is divided horizontally and vertically into four quadrants, while the base is a scatter chart with its plot area. The quadrants are separated by the chart axes (X-axis and Y-axis), which represent calculated averages of Gender Inequality Index and GDP per capita. In quadrant charts, the axes usually intersect in the center, but on this chart, they are positioned where necessary to demarcate the quadrants and facilitate visual demarcation of above-average and below-average values of analyzed countries for both variables. Because the axes do not intersect exactly at the center, this is also a custom quadrant chart. Of these four quadrants, countries should strive to achieve the "most successful" quadrant on the chart (right lower quadrant). The "most unsuccessful" quadrant is the left upper.

The quadrant chart reveals that a larger number of countries with below-average Gender Inequality Index have above-average GDP per capita. Furthermore, almost all OECD countries with above-average GDP per capita have a below-average Gender Inequality Index. The only exception is the United States (USA), which has above-average GDP per capita and above-average Gender Inequality Index. The quadrant chart shows that almost all countries that have introduced gender budgeting have below average Gender Inequality Index, with the exception of Mexico. A larger number of OECD members that have implemented gender budgeting are in the "most successful" quadrant of the chart, namely 7 out of 11 countries. These OECD countries are below the 0.9345 Gender Inequality Index and have a GDP per capita of more than $50,000. On the contrary, a large number of OECD countries that have not introduced gender budgeting have above-average gender inequality index and below-average GDP per capita ($) of the analyzed countries, i.e. 6 out of 10 countries.

The graph below (Graph 3) shows indicators from 0 to 1 for each segment of gender policy for OECD members that have implemented gender budgeting. The figure also includes a column with the average for each segment for the OECD countries analyzed.

Graph 3: 2022 OECD Gender Budgeting Index



Source: OECD (2023), Gender Budgeting in OECD Countries 2023, OECD Publishing, Paris.

The cumulative score for each country is determined by calculating the scores of individual practices (categories). According to data for 2023, 23 OECD members have implemented gender budgeting, and seven countries have reached an advanced level (score 0.6 and above; 1 being the goal), with Canada achieving the best result and being closest to the goal. Five countries are still at the introductory level (score of 0.3 and below), while eleven countries reached the intermediate (score between 0.3 and 0.6).

Table 1: SDG Gender Index for 23 OECD countries that have introduced gender budgeting

Country	SDG Gender Index
Canada	82,4
Austria	86,1
Iceland	83,9
Spain	82,3
Sweden	89,3
Korea	78,9
Mexico	68,3
Colombia	67,4
Ireland	86,6
France	80,4
Chile	74,5
Belgium	82,6
Norway	88,5
Finland	87,2
Portugal	79,9
Italy	77,1
Türkiye	65,9
Israel	77,5
Germany	85,1
Lithuania	80,5
New Zealand	83,0
Australia	82,6
Japan	76,3

Source: Equal Measures 2030 (2024 SDG Gender Index [Data file], 2024)

The correlation coefficient of the cumulative scores of separate categories from the 2022 OECD Gender Budgeting Index and the SDG Gender Index is 0.127477428. In addition, it is crucial to keep in mind that correlation is not the same as causality because other elements may have an effect on the analyzed variables.

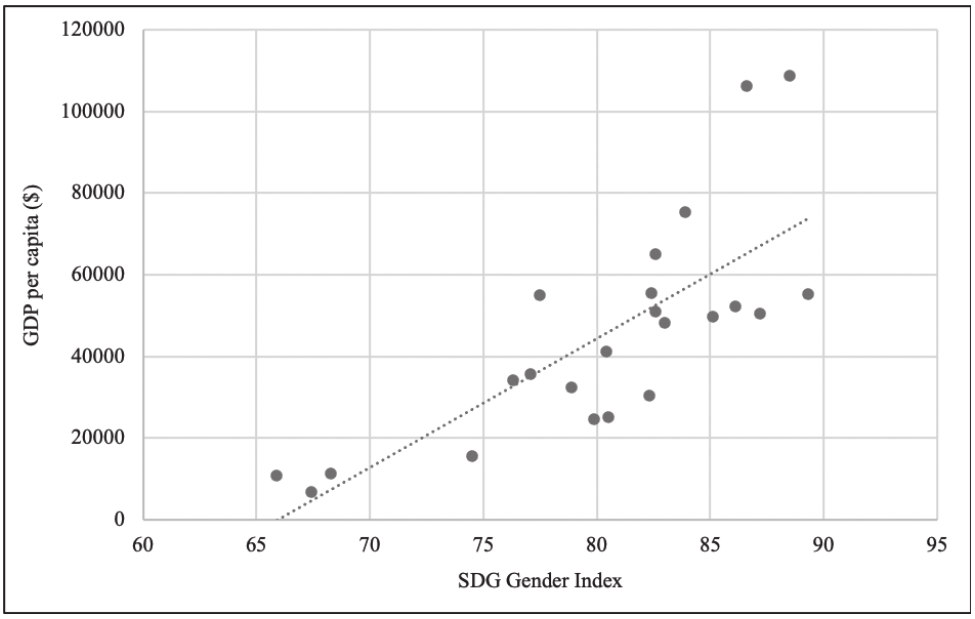
One of the goals of this paper is to validate theoretical relationships and assess the impact of observed variables on each other, based on input data. In that process, the most important is correlation analyses, which measure the strength and direction of a linear rela-

tionship between the SDG Gender Index on one side and GDP per capita, employment rate, and final consumption expenditure on the other side, each on a separate chart.

Taking into consideration the influences stated in theory, in order to verify the extent to which variables impact each other, it is necessary to determine the Pearson correlation coefficients between observed variables, in this case indicators. Since scatter charts only display the direction of correlation, the coefficient is used as a supplement value to measure the intensity of correlation. For all three charts, the same procedure was used for calculating. The resulting coefficients are used to express the descriptive correlation in numerical terms, which is a quantitative method to show the intensity level between the previously mentioned indicators. Furthermore, the correlation intensity has been calculated and the interpretation of results is below each of the three charts.

In the scatter chart (Graph 4), there is an interaction between the SDG Gender Index of Equal Measures 2030 (2024) and GDP per capita for the sampling countries during the analyzed period. According to the trend line, gender equality and GDP per capita have a very strong positive correlation, which suggests that measures that promote gender equality can improve economic strength.

Graph 4: Scatter chart of the SDG Gender Index versus GDP per capita in 2022



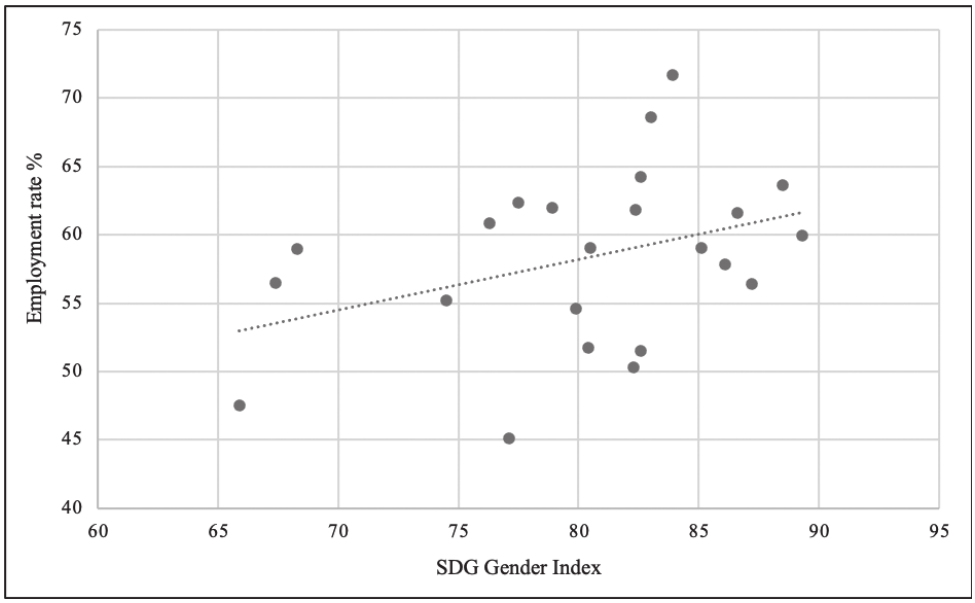
Source: Authors' calculations based on data from World Bank Group (GDP per capita in current US$; World Bank national accounts data and OECD National Accounts data files, 2025) & Equal Measures 2030 (2024 SDG Gender Index [Data file], 2024)

This kind of very strong correlation suggests that higher gender equality in countries can increase economic prosperity for each resident. This link depicts that actions to boost gender equality, such as creating a legal framework, enforcing government regulations, re-

ducing the wage gap, and providing tax incentives in various areas, can cultivate an environment conducive to the growth of welfare residents. When businesses operate within a stimulating and secure environment with predictable outcomes, management in-charge makes more decisions in areas of investing, innovation, and expansion. Personal satisfaction and work productivity are influenced by these actions, which ultimately lead to an increase in GDP per capita.

In the chart below (Graph 5), a logarithmic scale is utilized to display the relation for the SDG Gender Index of Equal Measures 2030 (2024) and the employment rate for analyzed countries and period of time, both the same as in the previous graph. The graph's trendline indicates that gender equality and employment rate are positively correlated, resulting in that policies that support efforts in decreasing gender inequality can be a valuable component in boosting employment rates.

Graph 5: Scatter chart of the SDG Gender Index versus the employment rate in 2022

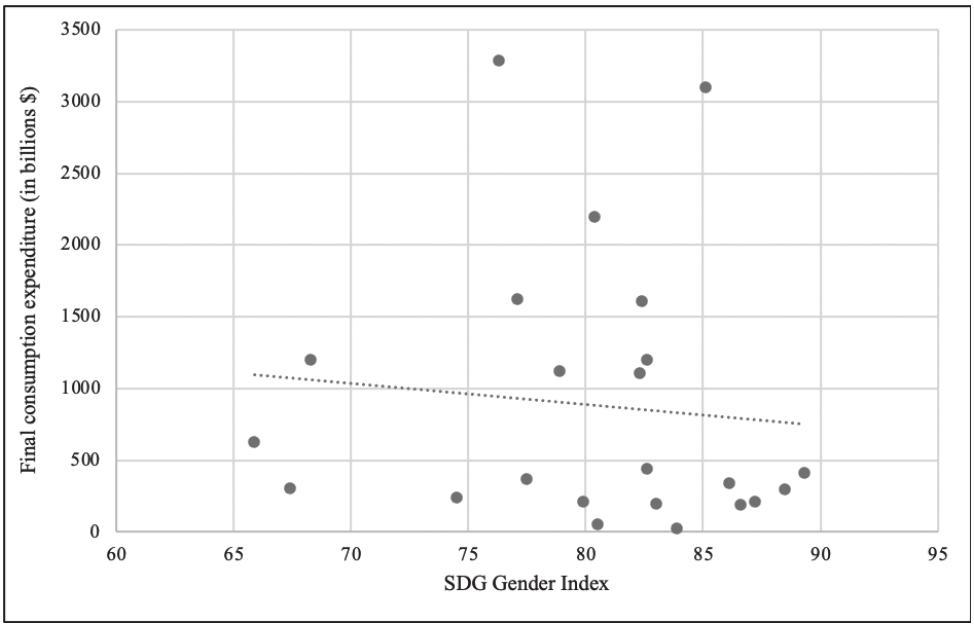


Source: Authors' calculations based on data from World Bank Group (Employment to population ratio, 15+, total (%); World Bank national accounts data and OECD National Accounts data files, 2025) & Equal Measures 2030 (2024 SDG Gender Index [Data file], 2024)

This correlation's positive indication proves that countries in which there is higher gender equality are more likely to increase employment opportunities. In the context of the analysis results, the positive coefficients reflect a direct relationship between measures to bolster gender equality (public awareness campaigns, financial incentives, educational activities, safeguarding gender rights and scrutiny activities) and growth of employment rate, especially among women. The growth of the employment rate among women can lead to increased economic outturn, which can consequently result in a higher employment rate among men as well.

Using the identical methodology as the previously sampled countries during the analyzed period, the following scatter chart (Graph 6) reveals the relation between the SDG Gender Index of Equal Measures 2030 (2024). The trendline indicates that there is no correlation between gender equality and final consumption expenditure, suggesting that policies fostering gender equality do not increase overall expenditure.

Graph 6: Scatter chart of the SDG Gender Index versus the final consumption expenditure in 2022



Source: Authors' calculations based on data from World Bank Group (Final consumption expenditure in current US$; World Bank national accounts data and OECD National Accounts data files, 2025) & Equal Measures 2030 (2024 SDG Gender Index [Data file], 2024)

The absence of correlation in the scatter chart suggests that achieved conditions of higher gender equality will not contribute to increased final consumption expenditure. This is because of the essence of gender equality policies, whose main goal in most of the analyzed countries is higher levels of employment. The most challenging aspect of gender budgeting is raising the income of the lower-paid gender. The lack of income growth at the required level especially affects household final consumption expenditures. Even in the case of a higher employment rate (Graph 5), there is also no guarantee that income will be higher, especially substantially higher. Beside private household consumption, final consumption expenditure also includes general government final consumption expenditure, which is generally not gender-sensitive.

5. CONCLUSION

In developed countries, during the planning of tunnel or bridge construction, there needs to be stronger awareness of the negative effects on women, who are already in a weaker position in rural areas, but also in urban areas, and on the ways to mitigate them. This is especially important due to the propensity to commute, as highly educated workers and men are more inclined to travel longer distances for the same type of job compared to less educated workers and women. Therefore, it is necessary to carry out comprehensive gender impact analysis for every major infrastructure project related to the construction of bridges or tunnels. Through changes in the income tax system, primarily with regard to income tax deductions that generally favor the higher income partner, the total income of married couples would be adjusted in the short term, but in the long term it would contribute to increasing the income of the lower income partner, and ultimately to economic gender equality.

Gender budgeting generates comprehensive and purposeful effects on increasing gender equality, as proven by the positive correlation between the OECD Gender Budgeting Index and the SDG Gender Index. Between the SDG Gender Index and the most important macroeconomic indicators, there are mainly positive results. The correlation coefficient between the SDG Gender Index and GDP per capita is 0,765514428, while between the SDG Gender Index and two other also very important indicators, the correlation coefficient is 0,374167323 (the employment rate) and -0,100021564 (the final consumption expenditure). The outcomes of other studies prove the accuracy of the findings in this work paper in terms of positive correlations for GDP per capita and the employment rate.

Regarding guidelines for policymakers, it is necessary to continue with the implementation of successful examples of practice and innovative approaches that can be quickly initiated, which is especially important for developing countries. Concerning further analyses of the gender budgeting, future research should focus on analyzing specific policy provisions in depth to provide a deeper understanding of how municipal policies can address gender equality, by analyzing the political and social characteristics, target populations, and specific mechanisms. Furthermore, researches should encompass more than just analyzing policy priorities and conducting policy analyses at the local level. The focus should be on exploring innovative and specialized methods of implementation, emphasizing the role of community-based organizations as non-governmental entities in the creation of municipal policies. By using this approach, future policy design, implementation, accountability, and gender equality could be improved. Lastly, future research needs to examine practical methods for including gender in decision-making and implementation at the local level, with gender budgeting practices being a key example of this.

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