Have global economic changes affected women and men differently? A structural decomposition analysis based on a Socio-Economic Satellite Account (1995-2020)

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The global economic system has changed profoundly since the early 1990s: globalization, technological advances, population growth, ageing society, consumption increases and shifts and more recently tariffs and geopolitical tensions. These developments have had profound impacts on employment, gender-roles, working hours, labor income and other socio-economic phenomena. While a growing body of literature has examined trends in working hours, global labor transfers between the Global North and Global South, and gender wage inequality, the gendered impacts of global economic change on working hours across sectors and regions has not been explored. Existing socio-economic datasets are often fragmented and lack a consistent framework to analyze labor dynamics across countries, sectors and demographic groups.

This study aims to fill this gap by addressing two research questions. First, how have working hours changed for women and men across sectors and regions over the past three decades? Second, what economic factors have driven these changes (technology, globalization, demand, gender shares per industry)?

To answer the first question, we propose a methodology which uses the philosophy of the System of National Accounts to create a unified accounting structure which uses a stock-flow framework to balance inconsistent population, labor and time use data from different sources. The integrated socio-economic accounting framework uses balancing identities for people, time, and money and disaggregates the data according to gender (2), age categories (3), educational attainment (3), employment status (3) and industry (14). The numbers between brackets indicate the number of categories within each variable. We create these accounts for 189 countries for the period 1995-2020 under varying data availability per country. The dataset can be linked to the Multi-Regional Input-Output (MRIO) databases, including GLORIA, EXIOBASE, FIGARO, TiVA and MARIO. This compatibility enables the integration of labor accounts with global production and trade structures.

To analyze the drivers of changes in working hours by gender, we employ a Structural Decomposition Analysis (SDA). Using gender-disaggregated working-hour accounts by industry together with the OECD-ICIO tables, we use a structural decomposition analysis to analyze and estimate the contribution of the driving forces in working hours over 1995-2020. In this process, we consider multiple contributing factors, such as population growth, technological change, production structures, consumption patterns and international trade patterns. For some countries there is enough time use data to also analyze the non-working hours, which enables us to look at women and menâ€™s quality of life in a more holistic way.

This study contributes to the literature in two main ways. First, it introduces a novel global socio-economic satellite accounting framework that integrates demographic and labor information into a consistent accounting structure compatible with MRIO systems. Second, it provides new empirical insights into how global economic transformations have affected men and women in terms of working hours across sectors and regions; we expect differences by gender. For example, a shift from manufacturing to services might have led to relatively more working hours for women and fewer for men. By revealing the economic mechanisms behind these gendered labor dynamics, the

findings offer valuable evidence for policies aimed at promoting inclusive and sustainable development.