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Items for discussion and decision: gender statistics

Background document

Available in English only

Guidance note on mainstreaming gender into business and trade statistics ¹

Prepared by the Inter-Agency and Expert Group on Gender Statistics² with inputs from Task Team on Business Dynamics, Demography and Entrepreneurship

¹ This document has not been formally edited.

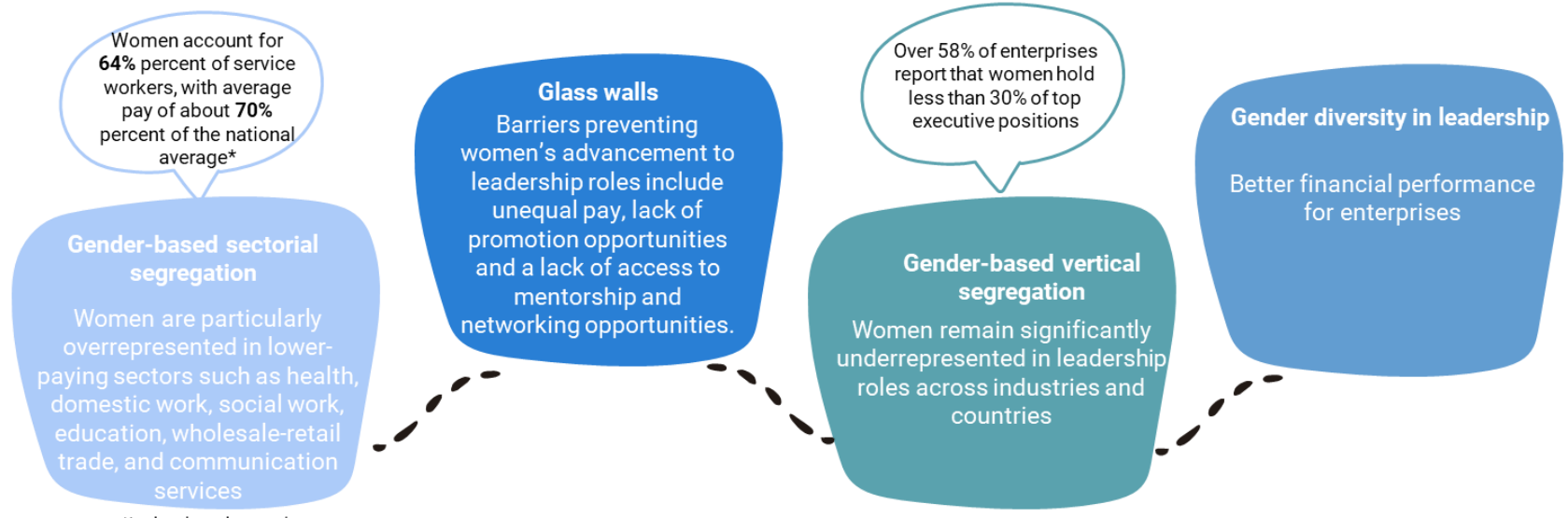
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Executive summary

Relevance of mainstreaming gender into business and trade statistics

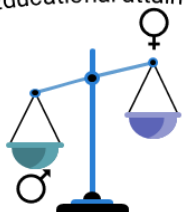


*In developed countries

Supporting women's participation in the economy is not only growth-fostering, but also diversifies economies, reduces income inequality, mitigates demographic shifts, and contributes to financial sector stability

Women's economic empowerment is crucial for realizing women's rights and gender equality and for achieving the 2030 Agenda for Sustainable Development

Educational attainment



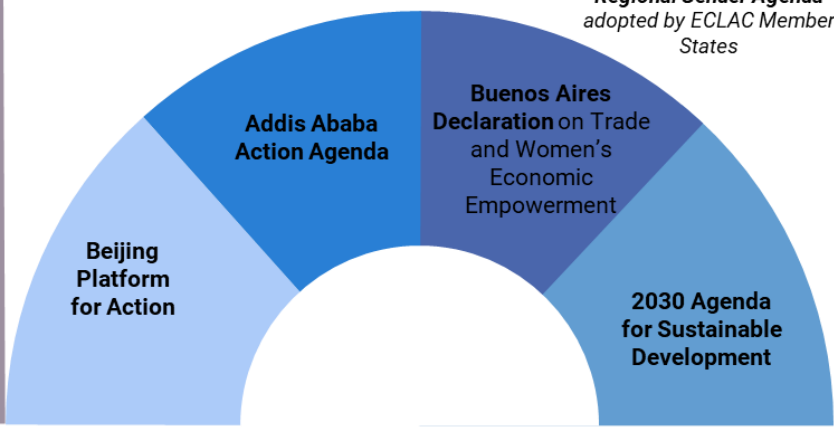
Highly inefficient
Women surpass men in educational levels and represent a formidable talent pool however are underrepresented in the labour market and other spheres of the economy

1% of female employment growth is associated with **0.16% GDP growth**

An enterprise with **3 or more women** in senior management functions scores higher in all dimensions of organizational performance

Promoting gender diversity among employees, managers, and boards could boost businesses and economies

Regional Gender Agenda adopted by ECLAC Member States



Relevance of mainstreaming gender into business and trade statistics

Promoting women's entrepreneurship to enhance gender equality

Women are underrepresented among entrepreneurs

1 out of 3 small, medium, and large businesses are owned by women

Women face more disadvantages in starting businesses

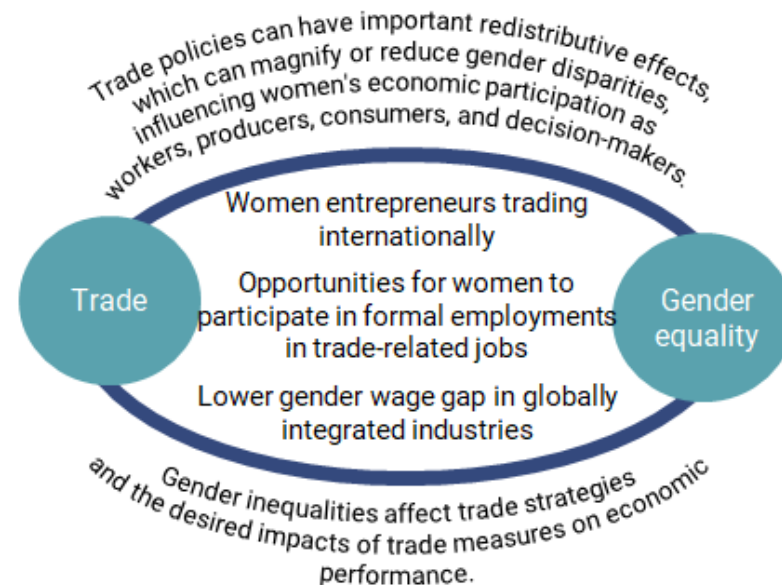
In 40% of global economies, women's early-stage entrepreneurial activity is half (or less) that of men's

Women are constrained from achieving the highest leadership positions

Only 10.4% of Fortune 500 CEOs are women

- ❑ Women-owned firms tend to be smaller, informal, and concentrated in lower-profit sectors.
- ❑ Access to finance is a major constraint for women-owned enterprises, with a significant percentage of unserved or underserved by financial institutions.
- ❑ The digital gender divide further limits women's participation in the digital economy, translating into missed economic opportunities
- ❑ Women often turn to the informal sector due to gender gaps in income, care responsibilities, and education, impacting their income-earning potential.

Supporting women's entrepreneurship is essential for job creation, poverty reduction, economic growth, and gender equality. Addressing gender gaps in entrepreneurship requires comprehensive, reliable, and internationally comparable gender data, which is currently lacking in many countries.

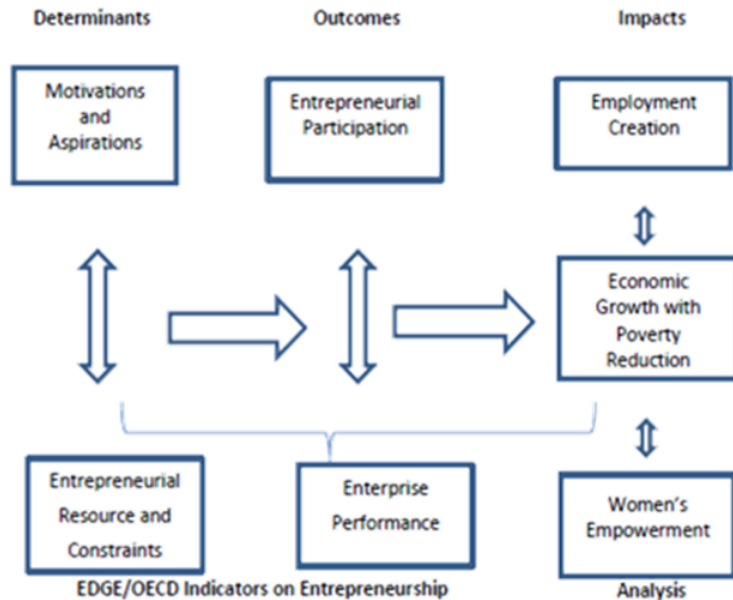


- ❑ Men dominate jobs at exporting firms, while women are more often employed by suppliers.
- ❑ Women-owned businesses, especially in manufacturing, are less likely to engage in export activities.
- ❑ Gender-specific barriers, including discrimination at borders, hinder women traders.
- ❑ Trade liberalization's impact on individual female workers varies, with some facing job loss due to foreign competition, emphasizing the need for gender-aware trade policies.
- ❑ Accurate and comprehensive sex-disaggregated data collection is crucial for evidence-backed trade policy-making and assessing the impact of international trade on women's labor market participation, quality of work, and gender gaps

Trade as a driver of gender equality

Existing conceptual frameworks

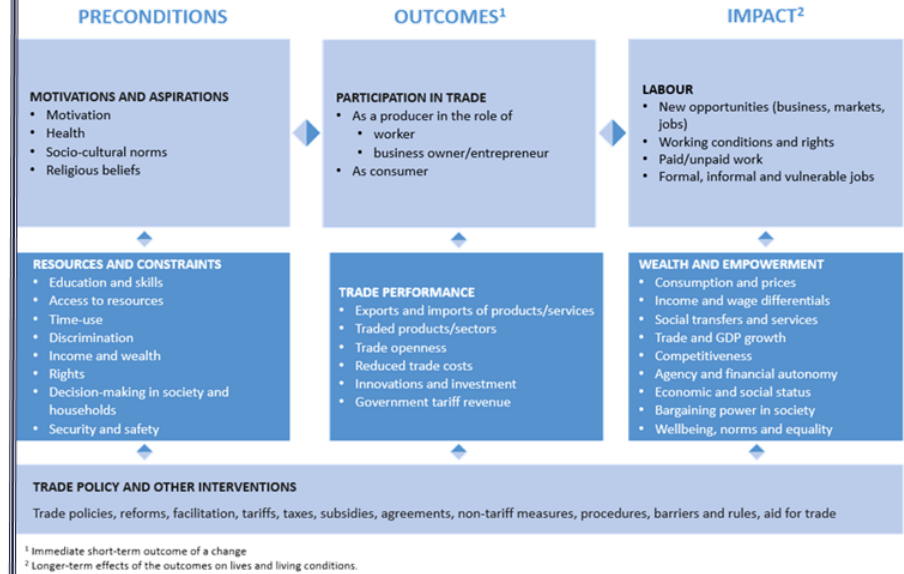
Conceptual framework for entrepreneurship indicators (EDGE project)



In 2013 the **Evidence and Data for Gender Equality (EDGE)** project initiated methodological work to develop and pilot methodologies to integrate a gender dimension into entrepreneurship data

The EDGE methodology proposes a conceptual framework that defines the objectives of the data collection as three interconnected flows, which are important in the formulation, assessment and appraisal of policy measures, namely **determinants, outcomes and impacts**

Conceptual Framework for measuring gender-in-trade (UNCTAD)

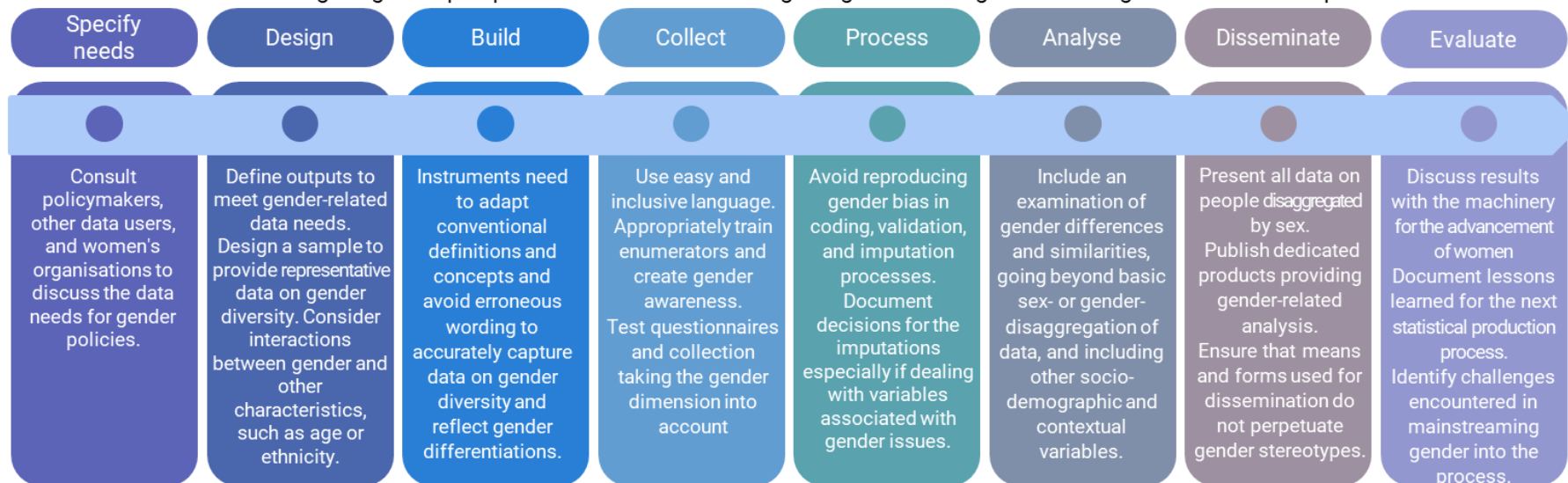


According to the conceptual framework formulated by **UNCTAD**, the following elements should be considered when measuring the interactions of gender and trade:

- **Preconditions** for the participation of women and men in trade reflecting key factors that affect entrepreneurship, like motivations and aspirations for undertaking entrepreneurial activities and resources and constraints faced during the start-up/management process;
- **Outcomes** reflecting the degree of participation and how the roles of women and men link to trade participation and trade performance;
- **Impacts** revealing contributions of trade to the economy and to overall better lives, including through economic growth, job creation, poverty reduction, and women's empowerment;
- **Trade policies** and other government interventions that may influence (intentionally or not) gender equality (such as through changes in growth and employment opportunities, competitive pressures, access to resources and services, and trading rules).

Mainstreaming gender perspective into the statistical production process

Mainstreaming the gender perspective in data involves recognizing and avoiding biases throughout the statistical process



Collaboration with women's organizations and capacity building is essential to address and prevent biases related to gender roles, stereotypes, and various social factors.



Scarcity of gender-specific data in trade and business statistics limits understanding of the economic impact on women



Statistical challenges: a lack of harmonized, regularly produced data on the intersection of trade, entrepreneurship and gender, absence of standards for data collection, and limited comparability due to diverse methodologies.



Collaboration is crucial among various entities, including National Statistics Offices, Trade Promotion Organizations, and Women's Advancement Mechanisms



Recommendations:

- ✓ Build information systems
- ✓ Incorporate sex as a minimum disaggregation variable
- ✓ Adopt intersectional approach
- ✓ Use comparable international methodologies
- ✓ Combine quantitative research with qualitative studies and impact analyses, focusing on export sectors versus import-sensitive industries.

Methods and data sources

- Analyse **enterprise-level data** from trading companies. Macro-level indicators in gender and trade emphasize industry-level aspects such as trade, employment, skills, earnings, and firm data, with the possibility of connecting to other variables produced within national statistical offices.
- **Microdata linking** trade and non-trade information, with sex-differentiated variables, is efficient but often challenging for national statistical offices, especially in developing countries.
- A high-quality **statistical business register** system is essential for gender-in-business statistics production.
- Regular **labour force surveys** offer valuable details on employment conditions not usually included in business registers.
- **Specific surveys** can illuminate the impact of trade on women and men as entrepreneurs and consumers, addressing areas with scarce data.

Introduction

The objective of this guidance note is to highlight the importance of mainstreaming gender into business and trade statistics. The integration of gender into business and trade statistics requires the collection, production, and dissemination of sex- or gender-disaggregated data, the identification of data gaps, methods, and data sources, as well as the expansion of data coverage. Mainstreaming a gender perspective into business and trade statistics also necessitates investing in capacity building to ensure that teams and experts working on statistical production possess a basic knowledge of gender issues (in order to avoid biases). More and better data are required to contribute to a meaningful policy dialogue on gender equality and to provide a solid evidence base for policy design, implementation, and evaluation.

The note aims to be used mainly as a communication document to convey the importance of integrating gender into business and trade statistics to statisticians in the National Statistical Offices (NSOs) and other data producers in the National Statistical Systems (NSSs). Analyzing business and trade statistics from a gender perspective requires close coordination and contributions from gender, trade, and business statistics experts. Adopting a multidisciplinary and multi-domain approach is crucial to promoting and fostering a constructive dialogue on the importance of adopting a gender perspective in business and trade statistics and reducing gender-specific constraints in women's full participation in the economy.

The note is structured as follows: the first part explores the gender dimensions of business and trade and highlights the relevance of incorporating a gender perspective into business and trade statistics. The second part provides an overview of existing international frameworks that link gender, business, and trade statistics. The third part offers general considerations regarding the importance of mainstreaming the gender perspective into all the statistical phases of the production of business and trade statistics and addresses some methodological challenges. Finally, the last part of the note presents real country initiatives (case studies) and best practices in mainstreaming a gender perspective into business and trade statistics.

I. The relevance of mainstreaming gender into business and trade statistics

Women's full participation in the economy can be a powerful resource, as well as a key element for women's economic empowerment³, autonomy,⁴ and social inclusion. In 2015, the Addis Ababa Action Agenda⁵ emphasized the need to "enable women's full and equal participation in the economy and their equal access to decision-making processes and leadership" because "evidence shows that gender equality, women's empowerment, and women's full and equal participation and leadership in the economy are vital to achieving sustainable development and significantly enhancing economic growth and productivity" (UN, 2015a). The Action Agenda also made a connection between international trade and gender, "recognizing the critical role of women as producers and traders" and noting the importance of facilitating "women's equal and active participation in domestic, regional, and international trade." On the same page, in 2017, the Buenos Aires Declaration on Trade and Women's Economic Empowerment highlighted the pressing need for data on gender and trade.⁶ In the Declaration, countries agreed to remove barriers and foster,

³ Women's economic empowerment is crucial for realizing women's rights and gender equality (UN Women, 2018).

⁴ Women's autonomy is the result of having the capacity to freely make decisions that affect their lives under conditions of equality (see <https://oig.cepal.org/en/autonomies-0>.)

⁵ The Action Agenda provides a new global framework for financing sustainable development by aligning all financing flows and policies with economic, social and environmental priorities. It has been adopted by the General Assembly of the United Nations on 27 July 2015.

⁶ Signed in the 11th ministerial meeting of the World Trade Organization (WTO) in December 2017 (see https://www.wto.org/english/thewto_e/minist_e/mc11_e/genderdeclarationmc11_e.pdf).

women's economic empowerment, to make trade and development policies more gender-responsive. Empowering women in the economy and closing gender gaps in the labor market are also key elements for achieving the 2030 Agenda for Sustainable Development (UN, 2015b) and for achieving the Sustainable Development Goals, particularly Goal 5, on gender equality, and Goal 8, which promotes full and productive employment and decent work for all. More recently, the Regional Gender Agenda adopted by ECLAC member States at the meeting of the Regional Conference on Women in Latin America and the Caribbean agreed on innovative policy commitments to reorient trade, investment, and development policies towards gender equality and sustainability.⁷

The importance of women's full participation in the economy

The role of women in the economy has become a topic of great interest because it is considered internationally one of the levers to give robustness to more equitable and efficient economic development. Supporting women in fully participating in the economy is not only growth-fostering, but it also diversifies economies, reduces income inequality, mitigates demographic shifts, and contributes to financial sector stability (Gonzales et al., 2015; Kochhar et al., 2017; IMF, 2018; IMF, 2020). Given that women surpass men in educational levels in many countries, they represent a formidable talent pool, and their underrepresentation in the labour market and other spheres of the economy is highly inefficient in an era of skills shortages. There is evidence at the global level that female employment growth is positively associated with GDP growth (ILO, 2019).⁸ Promoting gender diversity among employees, managers, and boards could boost businesses and economies. Enterprises greatly benefit from increasing employment and leadership opportunities for women. It is estimated that enterprise with three or more women in senior management functions score higher in all dimensions of organizational performance (Desvaux et al., 2017).

Despite the widespread presence of women in the workforce, there is much evidence of gender differences and inequalities. Around the world, women and men tend to be employed in different occupations and in different positions within the same occupational group, with women often working in lower-status and lower-paid positions. This gender-based occupational segregation varies by development level and by country: women tend to be overrepresented, relative to their share of total wage and salary employment, in lower-paying sectors and occupations. For example, in developed countries, women account for 64 percent of service workers, whose average pay is about 70 percent of the national average. Conversely, men dominate the senior official and management category in both developing and developed countries, with average earnings more than twice the national average (UN, 2016b).

Women are particularly overrepresented in lower-paying sectors such as health, domestic work, social work, education, wholesale-retail trade, and communication services, with very little change over time. Recent research forecasts that a large share of the jobs lost due to digital technologies and automation in the coming years will occur in office and administrative positions and lower-skilled labor-intensive sectors, which have a high proportion of female employees (UN Secretary-General's High-Level Panel on Women's Economic Empowerment, 2016). Furthermore, women remain significantly underrepresented in leadership roles across industries and countries.⁹ Male-dominated enterprise cultures are prevalent, while women with equal skills and qualifications face greater difficulties in reaching top management positions. Even though the

⁷ At the XIV Regional Conference on Women, Governments agreed to pursue programmes to foster the creation of quality employment for women and female-led enterprise in international trade, conducting assessments of the impact on human rights of trade and investment from a gender perspective (ECLAC, 2020, Santiago Commitment, paragraph 30) and to avoid harmful competition among countries and prevent taxation, wage-cutting, and gender inequalities such as adjustment variables to increase exports and attract investment (ECLAC, 2020, Santiago Commitment, paragraph 29).

⁸ Every 1 per cent of female employment growth is associated with, on average, annual GDP growth of 0.16 per cent.

⁹ Over 58 per cent of enterprises report that women hold less than 30 per cent of top executive positions (ILO, 2019).

benefits of having women in leadership positions have been well-documented and reported, with numerous studies finding that gender diversity in leadership results in better financial performance for enterprises,¹⁰ significant barriers still prevent women from advancing to leadership roles. These barriers include discrimination, bias, and a lack of access to mentorship and networking opportunities.¹¹ The gender division of management functions, with women concentrated in support management and men in strategic management, known as the "glass walls," hinders women's rise to top executive levels (ILO, 2019).

Having more women in leadership positions is also vital for providing role models and inspiration for future generations. Women who see other women in powerful positions are more likely to feel empowered to pursue leadership roles themselves, leading to a positive cycle of representation and diversity in the workplace.

Promoting women's entrepreneurship to enhance gender equality

Several studies show that women entrepreneurs make significant contributions to economic growth and poverty reduction (World Bank, 2014; Cirera and Qasim, 2014), not only in developing countries but also in high-income countries. However, it is recognized that women are still underrepresented among entrepreneurs in many countries¹² (UN, 2019a; Elam et al., 2019; GEM 2023), with high variability among different regions (UN, 2016b), and they face more disadvantages in starting businesses: in 40% of global economies, women's early-stage entrepreneurial activity is half or less than half that of men's (GEM, 2017). Furthermore, women are constrained from achieving the highest leadership positions: despite the positive trend in recent years, in 2023, only 10.4% of Fortune 500 CEOs are women.¹³ Thus, there exists a market failure that discriminates against women's possibilities to become entrepreneurs and to become successful. This market failure needs to be addressed by policymakers so that the economic potential of this group can be fully utilized (OECD, 2004b).

Not only are women less likely than men to become entrepreneurs, but when they do, there are structural differences between women-owned businesses and men-owned businesses (De Mel et al. 2009). Women-owned firms are more likely to be micro or small in size (OECD, 2004b; Meunier et al., 2017; UN Women, 2017), informal (UN, 2016b), and, on average, younger (GEM, 2023) than men-owned businesses. Consistent with patterns of occupational segregation, women-owned enterprises tend to be concentrated in sectors where profits and growth opportunities are lower, such as beauty, food, and other services. Because women-owned enterprises typically concentrate on less profitable activities, they often perform worse than men-owned formal firms.¹⁴ The differences in performance stem partly from differences in firm size and

¹⁰ Studies have consistently found that gender diversity in leadership results in better financial performance. For example, a report by McKinsey & Company found that companies with gender-diverse executive teams were 25% more likely to experience above-average profitability (Hunt et al., 2020). Furthermore, the same report found that companies with a higher representation of women on their boards saw a higher return on sales and higher return on invested capital than those with all-male boards. Also, according to the ILO enterprise survey, enterprises with a gender-inclusive culture are more likely to have improved business performance and more women in all management levels than those without (ILO, 2019).

¹¹ Discrimination and bias against women in the workplace can take many forms, including unequal pay, lack of promotion opportunities, and limited access to leadership roles. Another barrier to women's advancement to leadership roles is the exclusion of women from informal networks that can lead to career advancement, and fewer opportunities to form relationships with senior leaders who can provide mentorship and guidance.

¹² Globally, only 1 out of 3 small, medium, and large businesses are owned by women. This rate varies across and within regions, from a low of 18% in South Asia to a high of 50% in Latin America & Caribbean (see <https://blogs.worldbank.org/opendata/women-entrepreneurs-needed-stat>; <https://genderdata.worldbank.org/topics/entrepreneurship/>). About the attempts to estimate women's entrepreneurship, see OECD (2004b) and <https://stats.oecd.org/index.aspx?queryid=54675>.

¹³ See: <https://fortune.com/2023/06/05/fortune-500-companies-2023-women-10-percent/>

¹⁴ In Latin America, female-owned firms have lower sales and employment growth than those owned by men. In Sub-Saharan Africa, women's businesses tend to fail at a higher rate than men's (Bardasi et al., 2011).

access to capital and partly because women-owned enterprises are concentrated in sectors characterized by lower profit margins and lower returns on capital (Klappler, 2011).

Women-owned businesses may be considered riskier by banks, due to i.a. credit score disparities; historical biases towards women resulting from traditional gender roles and stereotypes influencing perceptions of women's abilities as business owners; and/or limited access to capital impacting the financial stability of a business, which in turn, may be misinterpreted as a higher risk by banks (Dassanou et al., 2014; Chaudhuri et al., 2020; Zimmerman and Scott, 2006). Hence, a major recurring constraint limiting women-owned enterprises is access to finance. An estimated 63-69 percent of women-owned small and medium-sized enterprises (SMEs) in developing economies are unserved or underserved by financial institutions (IMF, 2018).¹⁵ Evidence suggests that providing disaggregated data on business performance and entrepreneurship can significantly boost the prospects of securing funds for women entrepreneurs. Such data can help overcome biases and provide a more accurate assessment of a business's potential, thereby increasing the chances of obtaining necessary financing (Kappler & Parker, 2010).

The digital gender divide also limits women's participation in e-commerce and the digital economy. This gap translates into missed economic opportunities and may exacerbate existing gender inequalities.¹⁶ While the gender gap in internet usage has shrunk globally, it remains significant in many developing countries, particularly in the least developed countries (LDCs).¹⁷ Globally 57% of women used the Internet compared with 62% of men, according to the International Telecommunication Union (ITU). Of the estimated 2.7 billion people currently unconnected, the majority are women and girls. In the LDCs, only 19% of women use the internet, as opposed to 31% of men. Meaningful connectivity also needs to be accompanied by relevant skills, but according to UNESCO, only 35% of Science, Technology, Engineering, and Mathematics (STEM) students in higher education globally are women. So, despite the many opportunities, women entrepreneurs are much less represented in the digital economy than men. Enabling more women entrepreneurs to take advantage of the growing digital economy, breaking down barriers, and thriving in the global marketplace is critically important to fully harness digital opportunities for sustainable development and to create a more inclusive and equitable global economy that benefits everyone.¹⁸

All around the world, gender gaps in terms of income, care responsibilities (both paid and unpaid), or education level, lead women to turn to the informal sector for viable income-earning opportunities. Despite flexibility,¹⁹ the informal sector can have a negative impact on an entrepreneur's income-earning potential and hurt a firm's ability to stay competitive over time (Maloney, 2004; Ejaz, 2023). Moreover, time use surveys have shown that globally, women spend 2.8 more hours than men on unpaid domestic and care work (UN Women and UN DESA, 2023). The burden of undertaking these activities limits women's possibilities to participate in income-generating activities.

¹⁵ There is a wide literature assessing the existence of significant differences in financial structure between women- and men-owned enterprises. In particular, women-owned enterprises tend to start their business with less external funding than male-owned enterprises; they are less likely to raise capital even in matured phases of their business life cycle; they are more likely to borrow from family and friends and are less leveraged.

¹⁶ There are three key advantages that e-commerce offers to women. First, it offers lower barriers to entry than traditional brick-and-mortar businesses. This means that women entrepreneurs can start their businesses with lower start-up costs. Secondly, it can enable women entrepreneurs to reach customers all over the world. Women entrepreneurs can leverage this global reach to expand their customer base and grow their businesses beyond their local markets. And thirdly, it offers a degree of flexibility in terms of work hours and location. Women entrepreneurs who may have caregiving responsibilities or mobility constraints can greatly benefit from digital technologies.

¹⁷ In Latin-American and the Caribbean, 4 out of 10 women are not connected and/or cannot afford effective connectivity (ECLAC, 2023).

¹⁸ <https://www.weforum.org/agenda/2023/03/how-to-unlock-womens-potential-in-the-digital-economy/>

¹⁹ Many studies underlined that the informal sector is well-tailored to the needs of women entrepreneurs because it provides greater flexibility in terms of working hours, pace of work, and proximity of the job to one's home.

Finally, many barriers and constraints that women entrepreneurs experience are gender-specific and stem from cultural values, norms, and customs (Bullough et al., 2022; Anambane and Adom, 2018; Baughn et al., 2006; Khandelwal and Sehgal, 2018). Many studies have shown that people, in general, view entrepreneurship as masculine and perceive entrepreneurship to be a male domain (DiMaggio, 1997). Moreover, both the work task and the work description related to entrepreneurship, such as leadership, high commitment, risk-taking, performance and achievement orientation, independence, flexibility, a sense of adventure, and aggressiveness, do not define entrepreneurship as a task that can be seen as "feminine."

In this context, measuring entrepreneurship with a gender perspective can provide an understanding of how women and men contribute to the economy and how women's entrepreneurial activity can be fostered to promote job creation, reduce poverty, and promote gender equality and women's empowerment. The affirmation of women entrepreneurship not only brings more women to the head of an enterprise but also boosts employment by creating new jobs for themselves and others, regardless of gender, with all the positive effects in terms of the well-being of the community (OECD, 2004a; OECD, 2012; Morched and Jarboui, 2018).²⁰

Furthermore, women's entrepreneurship supports the diversification of businesses (Pimpa, 2021), stimulating innovation and diversification in management, production, and marketing practices, as well as in products and services. Women tend to provide different solutions to management, organizational, and business problems than men. In addition, women entrepreneurs often tend to bring more women than men employees with them (World Bank, 2020), thus helping to promote the full inclusion of women within the economic system.

In brief, the reduction of gender gaps in entrepreneurship could (i) sustain the creation of new jobs with improved quality of employment, especially for vulnerable micro-enterprises, (ii) support poverty reduction and economic growth by increasing the diversity of the business population and higher levels of competition, and (iii) reinforce women's empowerment through higher individual earnings of women and higher control over family enterprises and related decisions; (iv) challenge current gender stereotypes and preconceptions.

That said, one of the main challenges when considering how to boost women's participation in the economy is the lack of solid, reliable, timely, and internationally comparable data. Hence, there is a need to collect more gender-specific data in this area. For example, in many developing countries in particular, there are hurdles to quantify the magnitude of the gender gap in entrepreneurship and to assess whether it has changed over time. In fact, there are no official data collections on entrepreneurship that are harmonized across countries and conducted on a regular basis. The absence of data is partly due to the complexity of defining who is an 'entrepreneur' (Piacentini, 2013). According to the World Bank, less than one-third of countries disaggregate statistics by sex on informal employment, entrepreneurship (ownership and management of a firm or business), and unpaid work (World Bank, 2016). The absence of sex-disaggregated data at the firm level is largely due to difficulties in retrieving information about business owners from data sources on enterprises. Comparable business indicators by gender (e.g. Gender Pay Gap, Labor Force Participation Rate by Gender²¹, Gender Distribution in Entrepreneurship²²) are relatively easy to produce for sole proprietor enterprises, where women and men-owned businesses can be identified by the gender of the

²⁰ Evidence on gaps in sales and profits between female and male-owned firms suggests that many women entrepreneurs are not yet able to fulfil their productive and innovative potential (Piacentini, 2013).

²¹ Indicators on Labor Force Participation Rate by Gender are common statistic available from national statistical agencies and international organizations like the World Bank or the ILO.

²² The indicator on Gender Distribution in Entrepreneurship indicator assesses the gender distribution among entrepreneurs and business owners, which is usually sourced based on data from national business registries, industry associations, or entrepreneurship surveys.

individual owner. When there is more than one owner, additional information is needed to assess whether women or men are responsible for the business and control its activities.²³ Moreover, a challenge lies in the treatment of entrepreneurs acting as legal persons instead of as natural persons. This issue becomes particularly pertinent in cases of businesses with multiple owners, where assigning gender or sex to the company requires methodological guidelines. Addressing this challenge involves the need for support in identifying data sources and establishing procedures to categorize companies as male or female, akin to the existing difficulties encountered in obtaining gender-specific data for multi-owner businesses (IMF, 2022). Therefore, methodological frameworks and guidelines would support in bridging the gap in understanding and representing the gender dynamics within legally constituted enterprises.

Trade as a driver of gender equality

For a long time, policymakers considered international trade gender-neutral and designed policy interventions accordingly. But now it is widely accepted that international trade affects women and men differently²⁴ due to unpaid work overload for women, existing gender disparities in production and consumption, and in the labour markets, as well as disparities in access to resources and opportunities (UNCTAD, 2014).

In particular, women and men are affected by international trade in distinct ways in their different economic roles, and trade policies can have important redistributive effects, which can magnify or reduce gender disparities.²⁵ At the same time, gender inequalities affect trade strategies and the desired impacts of trade measures on economic performance: a limited number of women entrepreneurs trading internationally, fewer opportunities for women to participate in trade-related jobs, and high levels of unemployment can

²³ Data on the shares of the business stocks, assets or interests owned by the different individuals can facilitate the identification of men-owned enterprises (enterprises where one or more men control more than 50% of the shares), women-owned enterprises (enterprises where one or more women control more than 50% of the shares) and enterprises with mixed ownership. Unfortunately, data on shareholdings are rarely integrated into business registers (Piacentini, 2013), then different data sources are required to link data on the individuals who are business owners with data on the businesses (see par. “Statistical considerations”). Additionally, it is important to consider the lack of consistent thresholds for categorizing men and women-owned enterprises, as these parameters may vary in different countries. The absence of standardized criteria for classification can contribute to variations in assessments and may impact how banks perceive and evaluate the risks associated with women-owned businesses on a global scale.

²⁴ Progress in the inclusion of provisions and/or chapters on gender in free trade agreements is a way of recognizing this (ECLAC, 2021). In recent decades, the analysis of gender inequalities in the area of trade agreements has been present with different emphases at the regional and international levels. The incorporation of references to gender equality and women's rights has been promoted in the preamble of agreements, as well as in chapters and sections on labour issues, capacity building and development and cooperation, among others (ECLAC, 2019). Their inclusion has also been detected in specific articles and in parallel agreements, joint declarations, memoranda or directives. It is important to note that cooperation activities have been considered in most of the agreements and in some there is a dedicated institutional framework to enforce the commitments.

²⁵ Governments are taking important steps towards gender mainstreaming in trade policies and agreements. The Buenos Aires Joint Declaration (2017) is the first document fully devoted to gender issues in the WTO framework, and it marked a decisive step forward in putting trade and gender on the international trade agenda. Countries agreed to remove barriers to, and foster, women's economic empowerment, to make trade and development policies more gender-responsive for instance by “sharing methods and procedures for the collection of sex-disaggregated data, the use of indicators, monitoring and evaluation methodologies, and the analysis of gender-focused statistics related to trade”. On the other hand, commitments from the Regional Gender Agenda highlighting the importance of analysing the relationship between trade and gender could be mentioned. For example, the Santiago Agreement (2020) states: to “implement policies and mechanisms to promote, strengthen and increase production and international trade, with a gender approach, as a pillar of countries’ economic development, and pursue programmes to foster the creation of quality employment for women and female-led enterprise in international trade, conducting assessments of the impact on human rights of trade and investment policies and agreements from a gender equality perspective (art.30); and to promote the adoption of legislation on labour and taxation in order to operate in a coordinated manner at the regional level, avoiding harmful competition among countries, in order to prevent taxation, wage-cutting and gender inequalities being used as adjustment variables to increase exports and attract investment (art.29)”. See https://repositorio.cepal.org/bitstream/handle/11362/46469/S2000145_en.pdf?sequence=1&isAllowed=y.

have a serious impact on the economy, leading to lower consumption, higher poverty, and declining well-being for women, men, and their families. Adopting a gender perspective contributes to a deeper and richer understanding of trade and brings new insights into trade policy analysis, as highlighted in a desk study on the gender aspects of trade and trade policy for statistics by UNCTAD, UNECA, and UNECE (UNCTAD, UNECA, and UNECE, 2020).

More in detail, as workers, producers, and consumers, women perform a wide range of economic roles that determine how they are influenced by international trade. As employees or business owners, women are participants in the productive sector of economies²⁶ related to trade. Trade directly impacts women's employment, wages, and productivity through the job opportunities available. As consumers, they are affected by changes in employment, wages, and prices associated with trade openness. As decision-makers, women's use of income and the important life choices they make for themselves or their family, such as enrolling in higher education or having children, can be shaped by trade (UN, 2016b).

In general terms, it is important to recognize the dual nature of trade's effects on gender equality. While it should be acknowledged that trade can also potentially exacerbate existing gender inequalities, a preponderance of evidence demonstrates the positive impact of trade on gender equality (World Bank and World Trade Organization, 2020):

- Businesses involved in international trade employ more women. In developing countries, women make up 33 percent of the workforce in firms that engage in trade, compared with just 24 percent in non-exporting firms.
- Industries that are more integrated into the global economy have a lower gender wage gap.
- Trade creates better jobs for women. Workers in both developed and emerging economies are almost 50 percent more likely to be employed in formal jobs if they work in sectors that trade more or that are more integrated into global value chains. Formal employment also gives workers better access to benefits, training, and job security.
- Trade increases women's wages and economic equality. Globally, women take home a smaller share of wages. When developing countries double their manufacturing exports, typical for developing countries that open themselves to trade, women's share of total manufacturing wages rises by 5.8 percentage points on average, through a combination of increased employment and higher salaries.
- Trade openness can increase women's welfare. Evidence from the United States suggests that products specifically consumed by women face a higher tariff burden (Gailes et al. 2018). This higher burden is the result of higher applied tariffs and greater spending on imported goods by women consumers. A recent study for a sample of 54 developing countries suggests that eliminating import tariffs could result in a rise in real income for female-headed households relative to male-headed households in more than three-quarters of the countries considered. In countries such as Burkina Faso or Cameroon, eliminating trade policy bias would mean a gain for women equivalent to annual expenditure on education or health. International trade has a positive effect on gender equality by helping women move into the formal economy and get jobs with better conditions and benefits.
- Moreover, openness to trade in countries, as measured by their trade-to-GDP ratio, is positively correlated with gender equality and women's legal rights.

²⁶ The term 'productive sector of economies' refers to the segment of an economy involved in the creation, manufacturing, and provision of goods and services. It encompasses all activities and industries that contribute to the production and distribution of goods and services, generating economic output and income.

Even though there is consistent evidence of the positive impacts of trade on gender equality, there are also significant differences in how women and men participate in trade. According to the OECD's (2018) analysis of gender in global value chains, men's share of jobs at exporting firms is relatively high, while women are more often employed by suppliers of the exporting firms.²⁷ Women's jobs are also much more often in the service sector rather than in manufacturing (Braunstein, 2017). In developing economies, the service sector generates about 55% of national product and half of total female employment. Services also account for a significant share of exports, particularly when they are traded indirectly through their incorporation in exported goods. Although the service sector has a higher presence of women compared to other economic sectors such as manufacturing and agriculture, this pattern is not repeated in the same way between traditional and modern services.²⁸ In Latin America and the Caribbean, for example, women constitute more than 50 percent of jobs in traditional services, but around 40 percent in modern services. On the other hand, the share of female employment is about 30 percent in manufacturing and below 20 percent in agriculture (Lassman and Mulder, 2021).

Enterprises founded by men tend to be relatively more involved in export activities. The share of majority-female-owned exporters and importers is much smaller than that of male-owned traders.²⁹ Female-owned firms are less likely than their male counterparts to export, to engage in GVCs, and to be foreign-owned. The difference tends to be larger for manufacturing firms (UN, 2016b). The export gap is partly explained by gender differences in the characteristics of the firms, such as their size and sector of activity. However, women exporters often believe that gender plays a role in the operation and/or internationalization of their firm (Orser et al., 2008). Gender-specific barriers that may impede export activity include cultural and personal factors such as a perceived lack of respect by male business owners (Piacentini, 2013).

Furthermore, women traders face multiple forms of gender-based discrimination at borders, including economic, verbal, and other forms of intimidation by border officials and other traders or private individuals near boundaries (UNCTAD, 2022b).

In this view, trade policies have to take into account the diversified effects they have on women and men. For instance, trade liberalization is not universally beneficial to women.³⁰ The impact of more open trade on individual female workers can differ widely depending on where they work, where they live, and their specific characteristics. Employed women may lose their jobs if they work in industries that face foreign competition. Better technology driven by trade competition can open job opportunities for women in previously closed industries. But that same technology may also reduce the demand for low-skilled, often women, labour. The negative impacts of trade on certain groups of women demonstrate the ways that ostensibly gender-neutral trade policy, such as lowering a tariff, can affect men and women differently, depending on their roles in the economy, their skills, the sector they work in, and their geographical region.

²⁷ For example, in Germany, women's share of jobs sustained through direct manufacturing exports was just over 20% in 2014, but close to 35% of jobs that are indirectly sustained by trade (see <https://www.oecd.org/sdd/its/Women-in-GVCs.pdf>).

²⁸ Services can be classified into modern services and traditional services. Modern services (or global services) cover a wide range of areas, such as business, financial, technological, insurance, pension, professional, research and development (R&D) and telecommunications services. In contrast, some examples of more traditional services are construction, government services, transportation and tourism (ECLAC, 2017).

²⁹ An analysis of World Bank Enterprise Survey data covering over 35,000 manufacturing firms and over 31,000 services firms across 76 developing and emerging countries shows that, among exporting firms, males own 90 percent of manufacturers and 88 percent of services firms. Women-owned businesses also represent a lower share of GVC and FDI firms (World Bank & World Trade Organization, 2020).

³⁰ Trade may influence employment and business opportunities of women and men, their income, social status, welfare and equality between women and men. Trade may act as a catalyst for gender equality when trade liberalization is associated with rising employment and business opportunities for women, but it can also exacerbate existing gender inequalities and even worsen women's economic and social status (World Bank, 2012).

In brief, trade policies developed with a gender perspective can help overcome gender inequalities by opening new opportunities for employment and prosperity. However, the extent to which women can take advantage of trade opportunities depends on more than just trade policies. Investments in education, health systems, and care infrastructure can provide women with the human capital they require to benefit from trade, particularly as workers. Improving access to education, financial resources, digital technologies, and information can further reduce some of the constraints that disproportionately affect women. To facilitate evidence-backed and informed trade policy-making and to accurately measure the disproportional distribution of trade policy impact, investments in the collection and use of sex-disaggregated data remain essential.

Finally, sound policies depend on sound data. Although there has been statistical progress in estimating the potential impacts of changes to the volume and the profile of international trade on women, to understand the impact of international trade on gender gaps (see Fig. 3), it is necessary to gather new types of data, make better use of existing data, create new partnerships, and include more stakeholders. So, it is vital to ask: What data is available, and what additional data is required to assess the impact of international trade on women's labor market participation and the quality of work, as well as gender segregation in employment? Can existing data provide insights into changes in the number of opportunities for women entrepreneurs, the evolution of gender gaps, and the dynamics of the tension between paid and unpaid work for women involved in international trade? Additionally, what specific data gaps need to be closed to determine which opportunities for women entrepreneurs exist, whether gender gaps expand or contract, and to analyze the various dimensions of the tension between paid and unpaid work experienced by women engaged in international trade?

Selected national experience of Chile³¹

In Chile,³² six in-depth studies were conducted to examine the participation of women-led businesses in the country's exports (ECLAC, 2022). These studies emphasize the gender-related issues associated with the export sector and represent a significant effort in accurately depicting women's involvement in the country's exports. The commitment to refining the methodology and broadening the scope of businesses included in each report edition is maintained.

These comprehensive studies offer an analysis of women-led businesses that are registered in the information systems of ProChile. Consequently, the results cannot be considered representative of all women-led export companies in Chile. Among the findings, these studies provide information that is broken down by sector, including data on the exports of -women-led businesses in millions of dollars free on board,³³ the number of export companies, the types of products, and the export destinations.

Furthermore, some of these studies highlight gender equality mechanisms that have been implemented both within the country and internationally. For instance, they point to initiatives such as the Pacific Alliance Women Entrepreneurs Community, which is a virtual platform aimed at promoting the economic empowerment of women in the Pacific Alliance countries, as well as the Mujer Exporta (Women Exporters) program (ECLAC, 2022).³⁴

³¹ PROChile is the institution of the Ministry of Foreign Affairs in Chile that promotes the offering of Chilean goods and services worldwide. They have produced six reports based on the data available in their information systems. In their fourth report, they defined that a company is led by a woman when ProChile's information systems record a woman as the owner, founding partner, manager, or director of the company. The methodologies used in the different reports have changed; therefore, the results are not strictly comparable over time.

³² On the initiative of the former Directorate General for International Economic Relations and the General Directorate of Export Promotion (ProChile)

³³ Free on Board is a term used to indicate when the ownership of goods transfers from buyer to seller and who is liable for goods damaged or destroyed during shipping.

³⁴ Economic Commission for Latin America and the Caribbean (ECLAC), "CEPAL contribuye al debate sobre la medición y el análisis del comercio internacional desde una perspectiva de género en la primera actividad del

II. Existing conceptual frameworks

To address data and methodological gaps in measuring entrepreneurship from a gender perspective, in 2013, the *Evidence and Data for Gender Equality* (EDGE)³⁵ project initiated methodological work to develop and pilot methodologies to integrate a gender dimension into entrepreneurship data, aiming to improve the integration of gender issues into the regular production of related official statistics, with a view to better inform evidence-based policies (UN, 2019b).

From 2013 to 2018, EDGE accelerated existing efforts to generate internationally comparable gender indicators: (a) contributing to the development of the Minimum Set of Gender Indicators, disseminating gender-relevant data; (b) developing methodological guidelines on measuring asset ownership from a gender perspective; and (c) developing an initial conceptual framework to measure entrepreneurship for gender analysis.

To develop methods for measuring asset ownership and entrepreneurship from a gender perspective, the EDGE project consolidated technical inputs over a multi-year process from a wide range of stakeholders, including national statistics offices, regional and international agencies, and researchers with expertise in gender analysis and asset ownership.³⁶

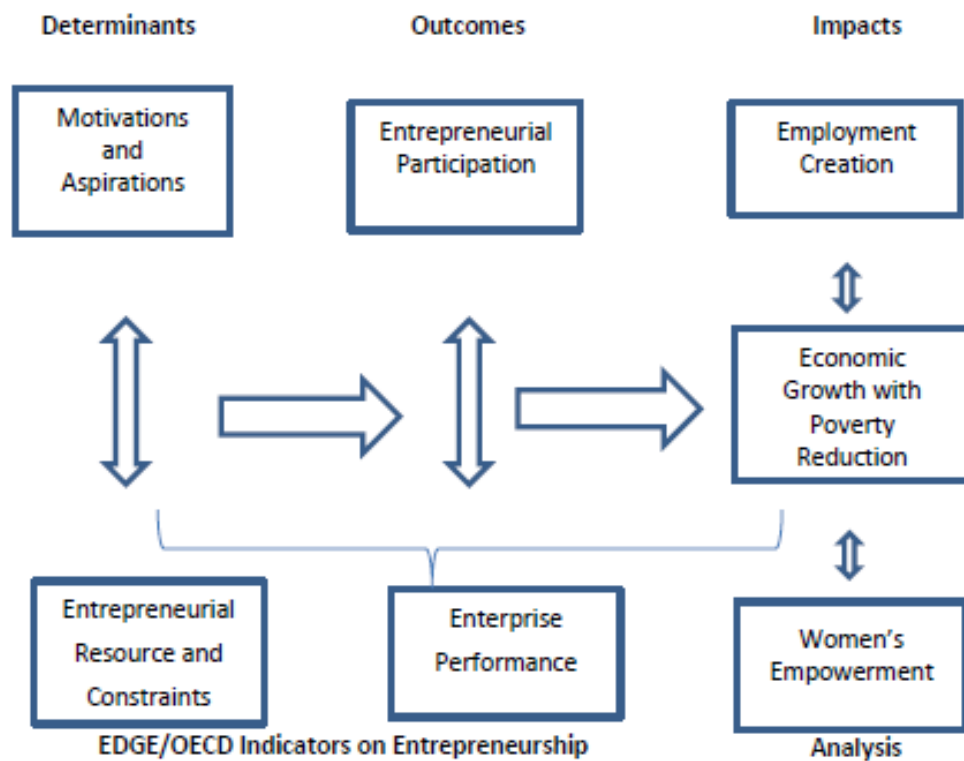
The EDGE methodology, adapting the framework of the OECD-Eurostat Entrepreneurship Indicators Programme, proposes a conceptual framework (Figure 1) that defines the objectives of data collection for measuring entrepreneurship from a gender perspective as three separate but interconnected flows, which are important in the formulation, assessment, and appraisal of policy measures, namely '*determinants*' (key factors that affect entrepreneurship like motivations and aspirations for undertaking entrepreneurial activities), '*outcomes*' (target indicators, in terms of entrepreneurial participation and performance, that may be used by policymakers to assess and monitor the results of their policies), and '*impacts*' (contributions of entrepreneurs and entrepreneurship to the economy as well as to overall better lives).

capítulo de género del acuerdo de libre comercio entre Chile y Uruguay”, Santiago, 2021 [online] <https://www.cepal.org/es/notas/cepal-contribuye-al-debate-la-medicion-analisis-comercio-internacional-perspectiva-genero-la>; *Montevideo Strategy for Implementation of the Regional Gender Agenda within the Sustainable Development Framework by 2030* (LC/CRM.13/5), Santiago, 2017; Undersecretary of International Economic Relationships/General Directorate of Export Promotion (SUBREI/ProChile), *4ta radiografía de la participación de las empresas lideradas por mujeres en las exportaciones chilenas*, Santiago, 2021; *Tercera radiografía a la participación de las mujeres en las exportaciones chilenas*, Santiago, 2019; *Segunda radiografía a la participación de las mujeres en las exportaciones chilenas*, Santiago, 2018; *Primera radiografía a la participación de las mujeres en las exportaciones chilenas*, Santiago, 2017.

³⁵ EDGE is a joint initiative of the United Nations Statistics Division (UNSD) and the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women).

³⁶ The proposed EDGE methodology based on a model survey instrument was tested and revised on the basis of the results of data collected in six pilot countries (Georgia, the Maldives, Mongolia, the Philippines, South Africa, and Uganda), over the period 2014–2016 and multiyear experts’ consultations.

Figure 1 - Conceptual Framework for entrepreneurship indicators (EDGE project)



Source: (UN, 2019b).

From the EDGE project emerged the need for a shared definition of entrepreneurship participation (still not well-established) and the need to include entrepreneurs' motivations, constraints, and performance in any initiative aiming at producing statistics on entrepreneurship from a gender perspective.

Starting from the EDGE conceptual framework for analyzing entrepreneurship, UNCTAD has launched new work to adjust and extend it for examining gender and trade. The framework aims to help policymakers identify the key issues relevant to gender and international trade measurement and support national statistical offices to review existing data.

According to the conceptual framework formulated by UNCTAD (Figure 2), the following elements should be considered when aiming to measure the interactions of gender and trade:

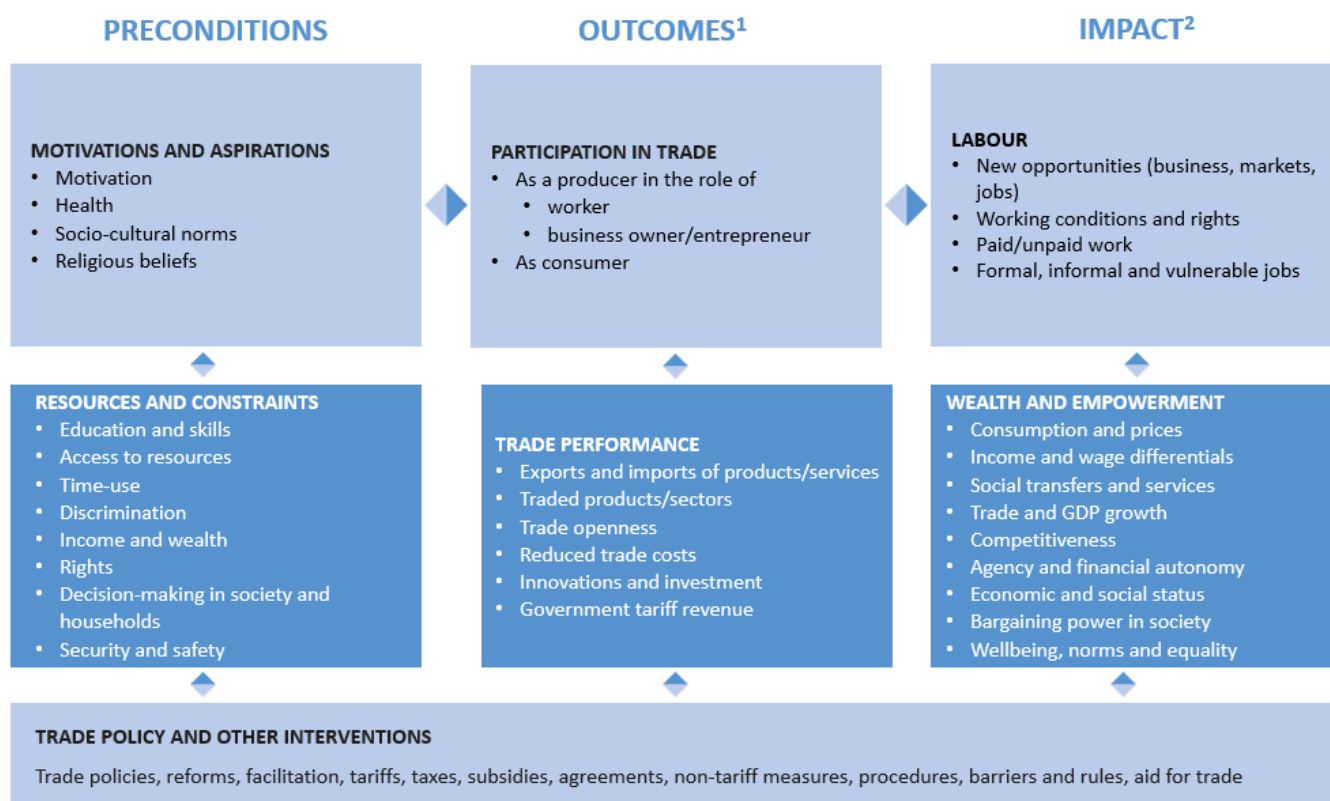
- **Preconditions** for the participation of women and men in trade, which reflect the key factors that affect entrepreneurship, like motivations and aspirations for undertaking entrepreneurial activities, but also resources for starting/growing an enterprise and constraints faced during the start-up/management process;
- **Outcomes** reflecting the degree of participation and the roles of women and men, in terms of how gender equality links to trade participation and trade performance;
- **Impacts** reflecting the contributions of trade to the economy, as well as to overall better lives, and how these can be identified in a number of ways, including through economic growth, job creation, poverty reduction, and women's empowerment;
- **Trade policies** and other government interventions that may influence (intentionally or not) gender equality. As interventions interact with socio-cultural norms, economic roles, and structures of the

country concerned, trade policies may affect gender equality in various ways – such as through changes in growth and employment opportunities, competitive pressures, access to resources and services, and trading rules.

As can be seen in Figure 2, apart from trade and business statistics data, the framework envisages the availability of a wide range of sex-disaggregated indicators from different areas of official statistics related to health, education, labor markets, etc.

However, it should be noted that, while being important elements for the gender-in-trade analysis, most statistical indicators represent contextual (background) information.

Figure 2 - Conceptual Framework for measuring gender-in-trade



¹ Immediate short-term outcome of a change

² Longer-term effects of the outcomes on lives and living conditions.

Source: (UNCTAD, 2022a).

III. Statistical considerations

Mainstreaming the gender perspective into the statistical production process

Mainstreaming the gender perspective involves acknowledging, at first, that data are the product of the context in which they are produced, as well as the result of the decisions taken throughout their collection, processing, analysis, and presentation. It is, therefore, necessary to avoid perpetuating androcentric, patriarchal, and discriminatory biases that normalize gender roles and stereotypes,³⁷ as well as prejudices linked to socioeconomic level, ethnic or racial background, age, place of residency, and disability (ECLAC, 2022; UN DESA, 2016). Ensuring that official statistics on business and trade are gender-sensitive requires action at various stages of the statistical production process,³⁸ as described by the Generic Statistical Business Process Model (GSBPM), from establishing the initial need for data to designing the collection instrument, collecting, processing, analyzing, and disseminating results (Table 1).

Mainstreaming the gender perspective in statistical production requires consultation with users and producers of information for the identification of gender gaps, including the machineries for the advancement of women and policymakers, academia, civil society, and trade unions. Surveys on enterprises should be designed to produce reliable data on women and men, using other key socio-demographic characteristics (age, education level, etc.) and paying attention to produce results within acceptable confidence ranges. In designing questionnaires, data producers should be careful to avoid that conventional definitions and concepts or erroneous wording may fail to accurately reflect gender differentiations and not capture relevant data on one or other gender. The work to mainstream gender in business and trade statistics should flow through the processing stage, and once the data are produced and ready to be analyzed, efforts should be made to ensure that the analysis is gender-focused. The analysis should include an examination of gender differences and similarities (for example, the businesses owned by women or by men), going beyond basic sex- -disaggregation of data and considering also other socio-demographic and contextual variables. At the very least, the dissemination of information disaggregated by sex and some dedicated related products constitutes a minimum for the display of gender dynamics, but adequate gender mainstreaming in statistical production requires much more. In this sense, it's vital to incorporate into the statistical production process an intersectional approach to identify the different experiences of women based on characteristics such as ethnicity, socio-economic factors, age, conditions of disability, etc.

Finally, consultation with the organizations and public offices responsible for guaranteeing gender equity, women's organizations, and other key users should be considered to discuss the results and their relevance from a gender perspective. Furthermore, it's important to take into account lessons learned for the next statistical production processes.

³⁷ Cultural beliefs about gender influence behaviours: the same types of entrepreneurs tend to create the same type of firms because they fulfil the stereotypes of who is supposed to start firms and which firms are supposed to be started (OECD, 2004b).

³⁸ Gender bias is possible in any part of the statistical process, and is not limited to activities of a technical nature. This is why joint work with the mechanisms for the advancement of women and other women's organizations, as well as capacity building, is necessary.

Table 1 - Selected elements of mainstreaming gender in business statistics³⁹

<i>Specification of needs</i>	Consult policymakers, other data users, and women's organisations to discuss the data needs for gender policies.
<i>Design</i>	Define the outputs to be produced to meet gender-related data needs. Design the sample to provide representative data on gender diversity. Interactions between gender and other characteristics, such as age or ethnicity, might have differentiated impacts on entrepreneurship and trade.
<i>Construction</i>	Evaluate the instruments to avoid that conventional definitions and concepts, or erroneous wording, may fail to accurately reflect gender differentiations and not capture relevant data on one or the other gender.
<i>Collection</i>	Avoid communication problems by using easy and inclusive language. Enumerators must be appropriately recruited and trained. Gender awareness and concerns should be an important feature of any enumerator training program. Questionnaires and collection methods should be tested, taking the gender dimension into account.
<i>Processing</i>	Avoid reproducing gender bias in coding, validation, and imputation processes. Identify and document decision-making processes for the input and replacement of missing values or for addressing data that present problems or inconsistencies, especially if dealing with variables associated with gender issues.
<i>Analysis</i>	Include an examination of gender differences and similarities, going beyond basic sex- or gender-disaggregation of data, and including other socio-demographic and contextual variables.
<i>Dissemination</i>	Ensure the dissemination of information disaggregated by sex and focus on dedicated products that provide a gender-related analysis of the results. Ensure that the means used for dissemination and the form used to communicate the content (platforms, graphic design of publications, editorial, etc.) do not perpetuate gender stereotypes.
<i>Evaluation</i>	Consult the machinery for the advancement of women to discuss the results and to take into account lessons learned for the next statistical production processes. Identify and document challenges and difficulties encountered in the process related to gender mainstreaming. Document lessons learned.

³⁹ The table reports the various stages of the data production process from survey. It is partially adapted from “Breaking the statistical silence to achieve gender equality by 2030: Application of the information systems pillar of the Montevideo Strategy for Implementation of the Regional Gender Agenda within the Sustainable Development Framework by 2030” (see <https://repositorio.cepal.org/items/07a1c2c0-8e80-4fa9-b0a8-e4835c71bf8b>). Obviously, when designing the business registers it should be considered the identification of relevant variables for gender analysis and related sources to be integrated through data linking process.

An overview of the statistical challenges

Regardless of significant progress, almost 30 years after the signing of the Beijing Platform for Action in 1995, statistics combining gender with business and trade remain scarce. Even though the economic impact of women is significant, we still lack a reliable picture describing that specific impact in detail. In particular, despite the clear policy relevance of measuring entrepreneurship from a gender perspective, there is a lack of harmonized and regularly produced official data on the nexus between entrepreneurship and gender. The absence of data is partly due to the absence of standards and methods for collecting the required information and the difficulty of implementing a statistical definition of "entrepreneurs,"⁴⁰ particularly outside OECD and EU countries. Furthermore, even when data exist, they are often not comparable across countries because the methodologies used to collect them differ in terms of the concepts and definitions used to measure entrepreneurship. Finally, only a few of the existing data are collected directly by National Statistical Systems (UN, 2016a).

To incorporate the gender perspective into the production of data on entrepreneurship and trade, it is recommended building information systems and the collection of the variable sex as the minimum disaggregation and to continue efforts to facilitate links between the macro-economy and micro-economy. In addition, it is necessary to incorporate an intersectional approach into the design and analysis, by including variables such as age, marital status, ethnicity, education level, income, and territory. It is also crucial to develop and adopt comparable methodologies at the international level and complement quantitative research with qualitative studies and impact analyses of export sectors compared to sectors sensitive to competition from imports.

To generate such information, it is vital to have coordination among information producers: National Statistics Offices, Trade Promotion Organizations, Line Ministries, and Machineries for the Advancement of Women. The partnerships between institutions producing and those using this information are fundamental to the incorporation of the gender perspective into business and trade statistics, making it possible to, among other things, identify new information requirements, as well as improving the understanding of gender-related issues and creating data exchange agreements and coordination mechanisms in the national statistical system. The information-using entities include not only public bodies that need information to implement or evaluate public policy but also civil society organizations, academia, and the general public. Their participation is essential when identifying needs and also serves to guide collection, design, creation, processing, analysis, dissemination, and evaluation processes. Furthermore, regulatory frameworks and institutional aspects can facilitate the incorporation of the gender perspective, also in the production of statistics specific to trade.

In connection with trade, the UNCTAD framework can guide national statistical offices in selecting data for analysing gender and trade at the macro and/or micro levels. Macro-level indicators on gender and trade focus on industry-level trade, employment, skills, earnings, and firm data. Such detailed statistics could reflect the situation of women and men directly involved in international trade as employees, owners, and managers of exporting, importing, or two-way trading firms. These data could also be linked to other

⁴⁰ The OECD-Eurostat Entrepreneurship Indicator Programme (EIP), which developed internationally-comparable and policy-relevant indicators of entrepreneurship and its determinants, elaborated on a "conceptual definition" of entrepreneurs, defining them as 'those persons (business owners) who seek to generate value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets'. This definition makes a clear connection between entrepreneurship and business ownership as entrepreneurs are business owners who bear the risks and face the uncertainties associated with their market activity. In October 2018, the 20th International Conference of Labour Statisticians (ICLS) adopted a new resolution concerning statistics on work relationships. The ICSE-18 identifies entrepreneurs defined as "persons who own and control an enterprise and seek to generate value through the creation of economic activity by identifying and exploiting new products, processes or markets".

variables held by statistical offices, such as education, age, occupation, earnings, and other characteristics of individuals employed by trading companies, as well as information on the company, its industry class, productivity, size, and types of products produced, exported, and imported.

Developing statistics on gender in trade, therefore, requires identifying relevant dimensions to be measured and defining related concepts (UNCTAD, 2018). Determining what should and could be measured is key to understand the gender and trade nexus, for example by identifying women's and men's constraints and access to resources, their working conditions, income, empowerment, motivations and aspirations, and, finally, trade performance and trade policy measures.

Figure 3 shows some examples of gender-in-trade indicators (based on the three flows of the UNCTAD framework) that can be used for analysing the gender and trade nexus.

Feasible methodologies and indicators vary depending on data available in the national context. The ability to examine the gender implications of trade is strongly constrained by the availability of data. Therefore, developing statistics on gender-in-trade requires identifying the data sources. Figure 4 reflects UNCTAD's work on measuring gender in trade and provides some ideas on potential statistical sources. In general, populating a full framework for the measurement of numerous interactions between gender and business and trade requires bringing together data from across statistical domains.

The primary methodological approach to gender-in-trade statistics consists of enterprise-level data analysis of trading companies. External trade data, including trade in goods and services, represent the starting point for gender-in-trade analysis.⁴¹ Also, despite the growing importance of trade in services, goods trade still accounts for almost 80 percent of global trade (UNCTAD, 2021). Given the overall importance of goods trade performed by legal businesses, enterprises represent primary units of observation for gender-in-trade statistics on international trade in goods. Thus, the analysis of trade businesses implies that gender-in-trade statistics fall into the field of trade by enterprise characteristics (TEC) statistics with the possibility of implementing gender analysis.

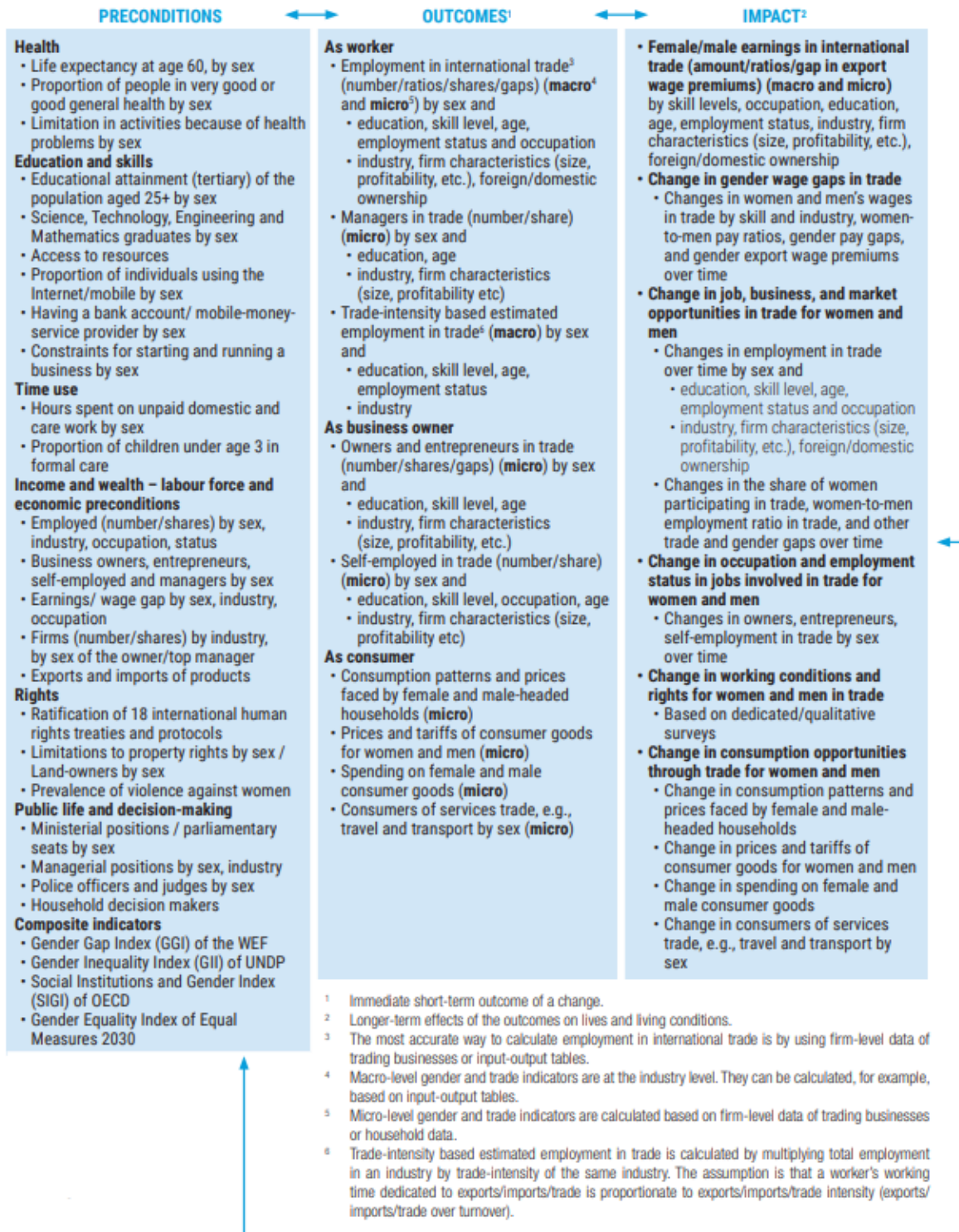
Microdata linking trade and non-trade information containing sex-differentiated variables is also considered the most efficient approach when the microdata availability from different sources is ensured and when these contain common identifiers.⁴² However, the availability of enterprise-level data often represents a significant challenge for many national statistical offices, particularly in developing countries. In some cases, the NSOs do not have access to trade in goods microdata that institutionally belongs to the customs agencies. Several specialized statistical surveys falling under the competence of the NSOs (e.g., the structure of earnings survey, international trade in services survey) are not conducted regularly, if at all, in many developing countries. Finally, a significant share of informal trade requires different approaches from enterprise-based analysis of gender equality in foreign trade (UNCTAD, 2023).⁴³

⁴¹ Although informal trade can play an essential role in some regions of the world, e.g., in Africa (see FAO, 2017 and Bouët et al., 2019), formal enterprises engaged in export and/or import of goods employ a large majority of the labour force

⁴² The enterprise-based indicator is particularly useful for gender perspective analysis because it allows for the analysis of enterprise performance in light of the characteristics (primarily gender) of their owners, and to adopt an intersectional approach that considers other sociodemographic and contextual variables. The enterprise-based approach to gender-in-trade statistics pre-determines the choice of non-trade data sources. SBR, SBS, structure and earnings surveys and tax administration records (see Table 1) typically include identifiers that allow linking them with the trade data. (UNCTAD, 2023). Furthermore, Microdata linking of ITGS data to non-trade data sources can be done at the enterprise level and at the transaction level, while the ITSS is produced from statistical surveys and is only enterprise-based.

⁴³ The alternative approaches, such as the sectoral approach to analyse exports, and ad-hoc surveys on trade topics are often motivated by the lack of enterprise-level data sources necessary for microdata linking gender-in-trade statistical analysis. A sectoral

Figure 3 – Examples of gender-in-trade indicators



Source: UNCTAD, 2023.

approach attempts to produce gender-in-trade indicators by linking export industries with sectors producing the respective goods. In addition, different types of ad hoc specialized surveys of enterprises and individuals explore various aspects of foreign trade and gender equality. Specific case studies of different methods of gender in-trade analysis are provided in UNCTAD, 2023.

Figure 4 - Key official statistical sources for gender-in-trade analysis

DATA SOURCE	KEY VARIABLES
<p>International trade in goods statistics (ITGS) are often collected by the customs authorities and record the physical movement of goods between countries covering foreign trade above set thresholds.</p>	<p>International exports/ imports, trade partners, etc., by enterprise name, ID and trading status if possible</p>
<p>International trade in services statistics (ITSS) are typically based on a survey of enterprises. Several countries in Africa have been introducing such surveys, e.g., in the UNCTAD project with the West African Monetary and Economic Union.</p>	
<p>Statistical business register (SBR) contains a limited number of key variables for the entire population of enterprises</p>	<p>Enterprise name and ID, economic activity, ownership links, ultimate controlling institutional unit, trading status, etc.</p>
<p>Foreign affiliate statistics (FATS) contain both inward and outward FATS. Inward FATS describe the ownership of an enterprise, i.e., whether an enterprise is foreign-owned or not. The ultimate controlling institutional unit (UCI) defines the country of ownership. Outward FATS detail the geographic distribution of domestically controlled affiliates abroad.</p>	
<p>Tax administration records provide additional information for identifying trading enterprises from value-added tax data.</p>	
<p>Structural business statistics (SBS) describe businesses' structure, activity, and competitiveness and include variables about companies' economic performance and productivity, including their inputs and outputs.</p>	
<p>Combined employee-employer data such as structure of earnings surveys (SES), link data about employees and employers. They are available mainly in developed countries, but also in some developing countries. The variables typically include information on the employer (economic activity, size of the enterprise, etc.) and individual (sex, age, occupation, length of service, educational level).</p>	<p>Workers, occupations, education, skill levels, earnings, etc.</p>

Source: UNCTAD, 2023.

A high-quality statistical business register system is essential for the production of gender-in-business statistics. If a recent population census has been conducted, it could also provide a source for combining data with other surveys. Even if there are data gaps, existing labour statistics offer a valuable starting point for gender-in-trade analysis. Regular official statistics on trade, income, and (un)employment are available for most developed and developing countries. They enable, at the very least, an analysis of women and men in tradable industries and could even allow for the identification of trading firms (see Luomaranta et al. 2020 for such an approach). Additionally, more sex-disaggregated data could be collected through national statistical offices by implementing relatively minor changes.

Regular labour force surveys can also provide valuable details on women's and men's employment conditions, which are usually not included in business registers. Specific surveys could similarly shed light

on the impact of trade on women and men, as entrepreneurs and consumers – areas where data are particularly scarce.⁴⁴

Selected national experience of Georgia

Given the significance of international trade to the Georgian economy, the availability of sex-disaggregated trade indicators is crucial for the country's economic and social policies. In this context, an action plan to strengthen the production of gender-specific trade statistics was implemented. This plan consisted of two main components: i) a sectoral analysis of various exporting industries and ii) the micro-linking of all available data sources related to trade.

The primary data sources utilized in this endeavor included trade data (annual, 2016-2020), structural business statistics (annual, 2016-2020), the statistical business register, and the structure of earnings survey (2017).

The initial analysis of gender aspects in trade focused on the sectoral level of exports. The sectoral approach aimed to achieve two primary objectives: i) to provide a general description of the current gender-in-trade indicators, and ii) to identify opportunities for data linking. When selecting export products for the mapping exercise, consideration was given to export value and social impact as well as practical data-related constraints.⁴⁵

As a result of the microdata linking exercise, data on business companies involved in exports and/or imports of goods was connected to structural business statistics, labor statistics surveys, and business register data. The key linking variable used was the business register ID. The findings include that women's employment in external trade remained inferior to men's, although it kept increasing over the period 2016-2020. Women's average wage in trading companies was about two thirds the level of men's.

Linking micro-data from a business register and surveys provides an obvious advantage for gender-in-trade statistics. Sector-level analysis based on aggregate data allows to gain useful insights but falls short of the level of detail needed for planning targeted policy interventions. The possibility to link external trade microdata to enterprise surveys provides a great potential for developing gender-in-trade statistics in Georgia.

Source: UNECE, 2021.

⁴⁴ Ad hoc studies and surveys in foreign trade are frequently motivated by concrete country circumstances. As an important example, the analysis of registered data on trade transactions is insufficient in countries with large informal economies. Under these conditions, specialized surveys targeting both enterprises and individuals engaged in foreign trade are designed to assess the volume of total informal trade and the gender dimensions (UNCTAD, 2023).

⁴⁵ As a result, the HS-to-NACE mapping was attempted for motor cars, grape wines, mineral waters, hazelnuts, and t-shirts and other vests. Overall, these five product groups accounted for approximately 30 percent of Georgian exports. Based on the above mapping, the available sectoral data was used to look into the gender aspects for the NACE sectors. The sectoral approach provides a general picture and shows the trends in the selected areas. However, the limitations of the sectoral approach associated with i) one-to-many and many-to-one correspondences between export products and related economic activities; and ii) inability to perform disaggregated analysis, demonstrate that the use of enterprise-level data is an obvious choice for further analysis of gender-in-trade issues.

IV. National practices

Country initiatives based on national and regional examples collected by the Advisory Group

Experience in mainstreaming gender into business statistics⁴⁶

Country	Experience	Stages of statistical production					Source(s) of data				
		Specification of user needs for data	Data collection and process	Analysis	Dissemination and communication	Links	Census	Survey	Administrative	Other	Linkages and Modeling
Brazil	Yes	X	X	X	X	X		X	X		
Canada	Yes	X	X	X	X	X		X	X	X	
Colombia	Yes	X	X			X	X	X			X
Egypt	Yes	X	X	X	X	X	X	X			
Finland	Yes	X	X		X	X		X	X		X
India	No										
Italy	Yes	X	X	X	X	X			X	X	X
Japan	No										
Jordan	Yes	X	X	X	X	X	X				
Kazakhstan	No										
Mexico	Yes		X		X	X	X	X			
Netherlands	Yes		X	X	X	X		X	X	X	X
Portugal	No		X	X	X		X		X		
Spain	Yes	X	X	X	X	X				X	X
Switzerland	No										
Uganda	Yes		X	X	X		X	X			
Vietnam	No										

⁴⁶ The results were collected based on a survey conducted among members of the Inter-Agency and Expert Group on Gender Statistics (IAEG-GS) and the Task Team on Business Dynamics, Business Demography, and Entrepreneurship (TT-BDDE) of the [UN Committee of Experts on Business and Trade Statistics](#) (UNCEBTS).

Experience in mainstreaming gender into trade statistics⁴⁷

Country	Experience	Stages of statistical production					Source(s) of data				
		Specification of user needs for data	Data collection and process	Analysis	Dissemination and communication	Links	Census	Survey	Administrative	Other	Linkages and Modeling
Brazil	No										
Canada	Yes	X	X	X					X		
Colombia	Yes										
Egypt	Yes	X	X	X	X	X	X	X			
Finland	Yes	X	X	X	X	X		X	X		X
India	No										
Italy	Yes	X	X	X	X			X	X	X	X
Japan	No										
Jordan	Yes	X	X	X	X	X		X			
Kazakhstan	Yes		X	X	X			X	X		X
Mexico	Yes	X	X	X	X	X	X	X	X	X	X
Netherlands	Yes	X	X	X	X	X		X	X	X	X
Portugal	No										
Spain	No										
Switzerland	No										
Uganda	No										
Vietnam	No										

⁴⁷ The results were collected based on a survey conducted among members of the Inter-Agency and Expert Group on Gender Statistics (IAEG-GS) and the Task Team on Business Dynamics, Business Demography, and Entrepreneurship (TT-BDDE) of the [UN Committee of Experts on Business and Trade Statistics](#) (UNCEBTS).

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