GENDER

NOTES

Global Employment Gender Gaps

Diego B. P. Gomes and Dharana Rijal

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This note examines the factors behind global employment gender gaps, highlighting labor force participation (LFP) rates as a key contributor. Analysis of 2022 data shows most countries have higher employment for men than for women, driven mainly by LFP rate differences. The COVID-19 pandemic worsened these gaps, particularly through its impact on LFP rates. The study emphasizes the need for policies to boost female LFP by addressing both supply and demand issues in the labor market and supporting women's entry and retention in the workforce.

Introduction

Globally, men and women each constitute roughly half of the population, reflecting a natural balance in demographic distribution. However, this inherent parity is not reflected in the labor market, which exhibits substantial inequalities in employment opportunities and outcomes between genders. Despite the equal demographic split, a significantly higher number of men are employed compared to women, underscoring a pervasive disparity that affects economic participation and empowerment worldwide. Figure 1 tracks the men-to-women ratio for the world population and employment among individuals aged 15 and older from 1991 to 2023.[1] The population ratio remains stable and close to one, indicating a near-equal number of men and women across the years. However, the employment ratio has consistently remained above 1.5, implying that men are over 50 percent more likely to be employed than women, a disparity that has not improved over the 32-year period covered. This persistent discrepancy reveals enduring gender inequality in the global labor market, emphasizing a critical need for policy intervention and efforts to increase women's employment levels.

Closing employment gender gaps is essential for economic stability and growth. Equal workforce participation by women increases the labor supply, enriches the talent pool, fosters inclusive economic growth, and boosts productivity and innovation.[2] High-quality female employment raises household incomes and reduces inequalities, enhancing economic demand and stability. Addressing these disparities is both a matter of fairness and a strategic move for sustainable development. The effort to narrow employment gender gaps is intrinsically aligned with broader macroeconomic objectives and delineates the IMF's commitment to integrating gender considerations into economic analysis and policy advice, with the aim of assisting member countries in attaining sustainable growth and economic stability (IMF 2022, 2024).

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[1] The terms "world" and "global" in this note refer to the 180 countries included in the International Labour Organization (ILO) database that are part of the IMF membership.

[2] To gain a clearer understanding of whether gender inequalities hinder growth, Agte, and others (2024) examine an emerging literature that shows that reducing gender gaps in labor markets boosts aggregate productivity.

Figure 1. Global Gender Gaps in Population and Employment
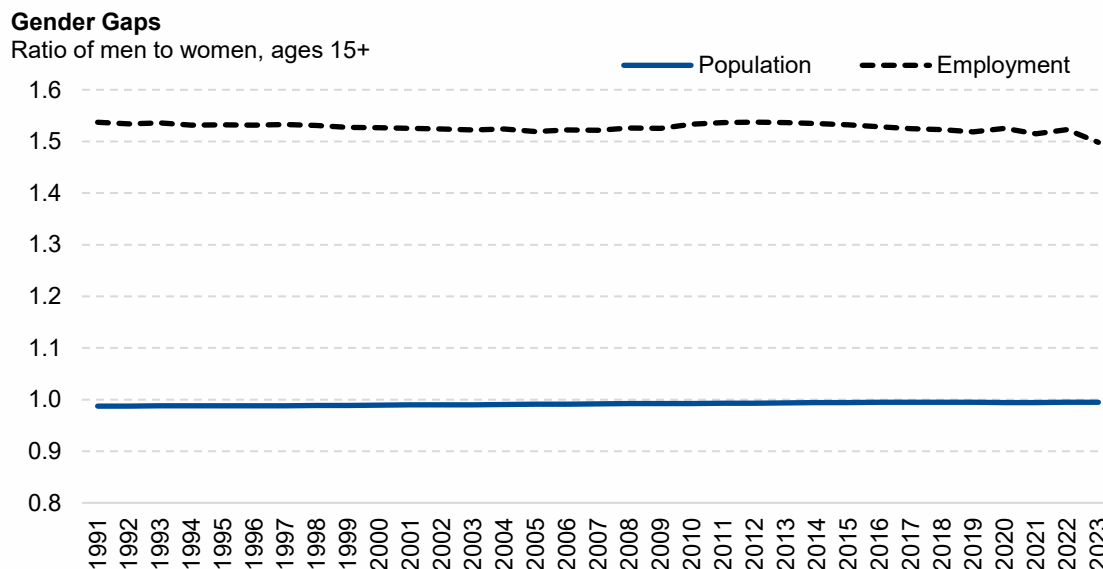
Gender Gaps
Ratio of men to women, ages 15+

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

This note uses a structured accounting framework to explore the drivers of global employment gender gaps, analyzing different income groups and geographical areas. The gaps are broken into three parts: (1) gender differences in population distribution; (2) gender differences in LFP rates; and (3) gender differences in employment rates, conditional on belonging to the labor force. By measuring these gaps as male-to-female ratios and using logarithmic transformations, the analysis can precisely quantify the factors responsible for the gap in levels and the factors contributing the most to its rate of change. Annex 1 details this framework, and Annex 2 describes the data used.

This methodology improves the understanding of key factors contributing to employment gender gaps, offering a structured approach for evaluating progress and identifying enduring challenges. It provides policymakers with detailed insights into the causes of these disparities, aiding in the development of targeted interventions. By systematically breaking down these gaps into specific components, the framework supports the creation of both reactive and proactive policy measures, preventing the worsening of disparities. Additionally, the quantitative analysis of each component's contribution to the evolution of employment gender gaps enables the strategic allocation of resources, prioritizing areas with the most substantial potential to narrow these gaps. This evidence-based approach bolsters the efficacy and sustainability of policies aimed at promoting gender equality in the labor market, aligning with the broader goals of sustainable economic development and social equity.

Globally, gender gaps in LFP rates are the primary factor contributing to employment gender gaps, accounting for nearly the entire disparity. In contrast, gaps in employment rates and population shares generally have negligible contributions. Advanced economies (AEs) show a decreasing employment gender gap over time, primarily driven by LFP rate disparities. Interestingly, population shares contribute negatively, indicating that despite a higher proportion of women in these economies, their employment rates remain lower compared to men's. Emerging markets (EMs), however, display an increasing employment gender gap, again driven mainly by LFP rate differences. In these markets, the employment rate margin often offsets this trend, with population shares having a minimal positive influence. Low-income countries (LICs) exhibit a stable employment gender gap, dominated by LFP rate disparities. Here, the employment rate margin has grown in relevance over time, whereas population shares contribute negatively, reflecting that a higher proportion of women does not necessarily translate into higher employment.

A distributional perspective of the most recent data shows that about 94 percent of countries had positive employment gender gaps in 2022, with men more likely to be employed than women. This pattern spans various income groups and geographical areas. Gender gaps in LFP rates are the main factor behind these employment gaps across all contexts. Conversely, gaps in the employment rate frequently appear as the least important factor, with gaps in population shares playing a variable but generally minor role. Moving forward, these findings emphasize the need for a better understanding of the underlying causes of LFP disparities.

The decomposition of changes in employment gender gaps was further leveraged to revisit the pandemic's effect on employment gender gaps, a phenomenon known as the "COVID-19 She-cession."[3] The onset of the pandemic in 2020 significantly widened the global employment gender gap, primarily because of changes in LFP rates, with the employment rate margin partially offsetting this widening. Between 2020 and 2021, there was a noticeable narrowing of the employment gender gap driven mainly by improvements in LFP rates, despite the employment rate margin slightly widening the gap. From 2021 to 2022, the employment gender gap increased again, driven by changes in all three margins, with the LFP rate margin being the most significant contributor. The pandemic's effect varied across different economic contexts, with AEs, EMs, and LICs exhibiting distinct patterns in the contributing factors to changes in employment gender gaps.
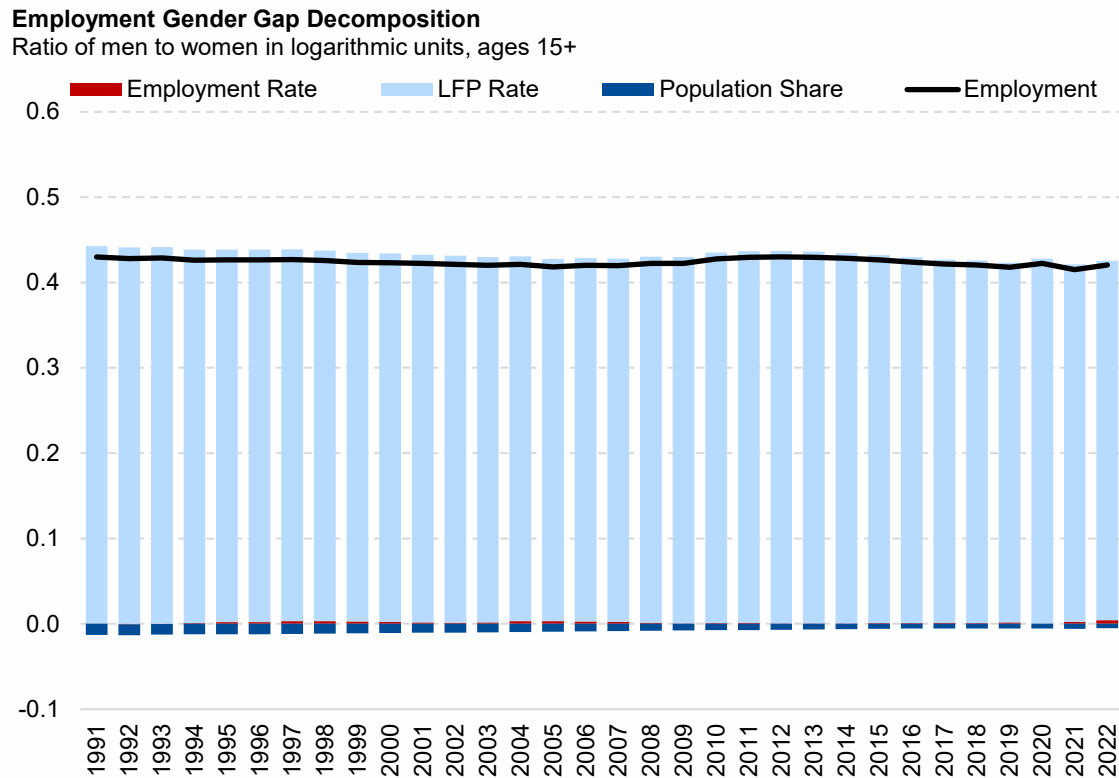
Given the critical role that gender gaps in LFP play in the results, it is essential to understand the main drivers behind the lower participation of women. A variety of barriers on both the supply and demand sides of the labor market limit women's participation in the workforce (Sahay and Rawlings 2023). On the supply side, constraints include gender differences in endowments (for example, technical and socioemotional skills, assets, and networks), time limits because of household and care obligations, and restricted mobility. On the demand side, women's participation is limited by a mismatch among skills, education, and job requirements, gender gaps and discrimination in recruiting and retention, and insufficient benefits for childcare, maternity leave, reentry programs, and career progression. Furthermore, in many contexts, a slow job creation process and a lack of business dynamism hinder the generation of new employment opportunities, which can create further disincentives for women to remain in or join the labor force. Finally, social and cultural norms, alongside restrictive policies and laws, often reinforce these barriers and severely limit women's ability to enter or reenter the labor market.

What Drives Employment Gender Gaps?

The analysis began by analyzing the global employment gender gap decomposition in levels, directly addressing the factors contributing to this disparity. Figure 2 plots the global decomposition for individuals aged 15 and older from 1991 to 2022, with the black line representing the overall employment gender gap and the bars representing its components, all in logarithmic units. The LFP rate component, represented by the light blue bars, is the most significant contributor to the global employment gender gap over the period, explaining nearly the entire disparity, indicating that differences in LFP between men and women are the primary driver of employment gaps. The employment rate component, indicated by the red bars, is negligible compared with the LFP rate, indicating that once individuals are in the labor force, the disparity in obtaining employment between men and women is less pronounced. Represented by the dark blue bars, the contribution of population shares to the gender employment gap is both minimal and negative, which is expected from a global perspective. This is consistent with the data shown in Figure 1, which displayed a steady demographic balance between men and women globally, as seen by near-equal men-to-women ratios in population across time, albeit slightly less than one. This stability indicates that demographic factors do not significantly influence the employment gender gap at the global level.

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[3] For country-specific studies on the COVID-19 She-cession, see Fabrizio, Gomes, and Tavares (2021, 2024), Albanesi and Kim (2021), Alon and others (2022a), Alon and others (2022b), Goldin (2022), Bluedorn and others (2023).

Figure 2. Global Employment Gender Gap Decomposition

Employment Gender Gap Decomposition
Ratio of men to women in logarithmic units, ages 15+

Legend: ■ Employment Rate ■ LFP Rate ■ Population Share — Employment

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

Note: LFP = labor force participation.

Next, the drivers of employment gender gaps were investigated across different groups of countries, segmented by income level, including AEs, EMs, and LICs. Distinct patterns were documented across these groups. Starting with AEs, there has been a noticeable decrease in the overall employment gender gap over time, indicated by the downward trend of the black line (Figure 3). The most significant contributor to the gender gap is the LFP rate margin, which consistently accounts for most of the disparity.[4] In contrast, the employment rate margin contributes minimally, suggesting that differences in actual employment rates between genders, once they are part of the labor force, are less significant. Furthermore, gender gaps in the population account for a larger and noticeably negative portion of the employment gap, meaning that although the number of women in these countries is higher than the number of men, women nevertheless fall well short of men in terms of total employment.

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[4] This evidence is consistent with the results in Chapter 3 of the IMF's April 2024 World Economic Outlook (WEO). The chapter demonstrates that female LFP increased significantly across several AEs from 2008 to 2021, particularly when compared with other regions. According to the chapter, this has helped AEs offset the negative effect of societal aging on LFP. It goes on to argue that this should be a strong motivator for promoting female LFP in a variety of non-advanced economies with aging populations.

Figure 3. Employment Gender Gap Decomposition for Advanced Economies

Employment Gender Gap Decomposition
Ratio of men to women in logarithmic units, ages 15+

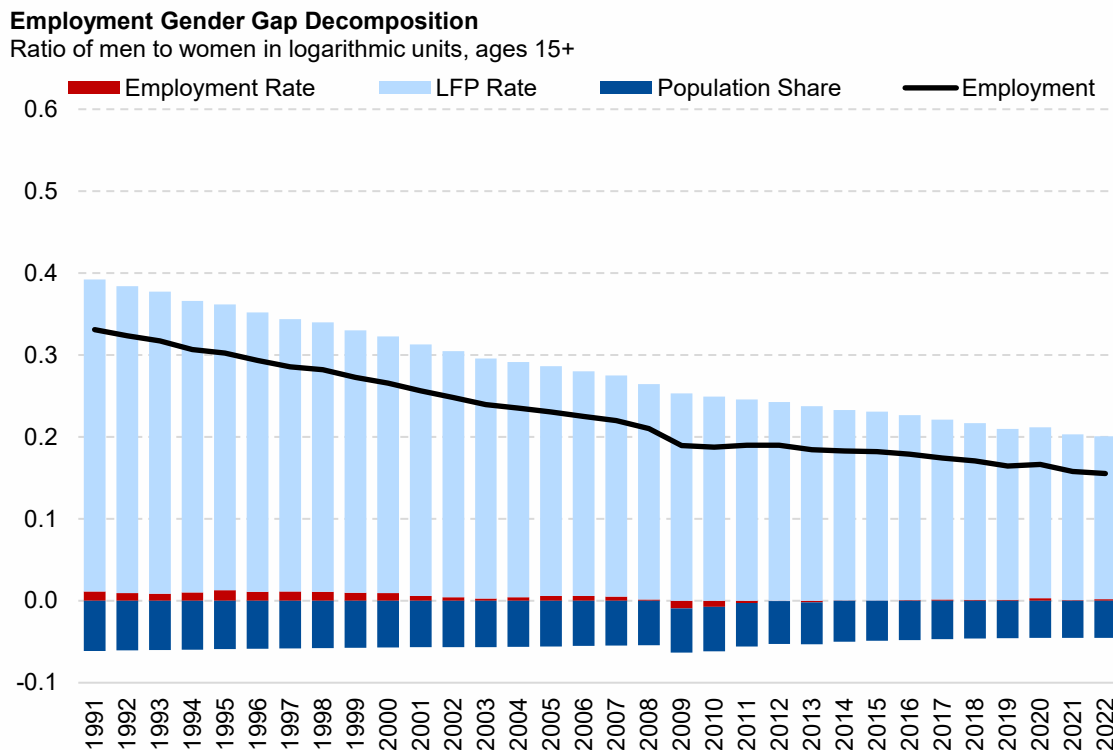Legend: ■ Employment Rate ■ LFP Rate ■ Population Share — Employment

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

Note: LFP = labor force participation.

In contrast to AEs, the employment gender gap in EMs has been increasing over time, as indicated by the upward trend of the black line in Figure 4. Again, the gender gap in LFP rates is the most significant factor, accounting for nearly the entire disparity throughout the period, suggesting that differences in LFP are the primary drivers of the employment gap in these markets. The employment rate margin is negligible and often negative, meaning that once in the labor force, the difference in employment rates between genders is minimal or occasionally even in favor of women. The contribution from population shares is very small but consistently positive, implying a slight demographic influence on the employment gap.

Figure 4. Employment Gender Gap Decomposition for Emerging Markets

Employment Gender Gap Decomposition
Ratio of men to women in logarithmic units, Ages 15+

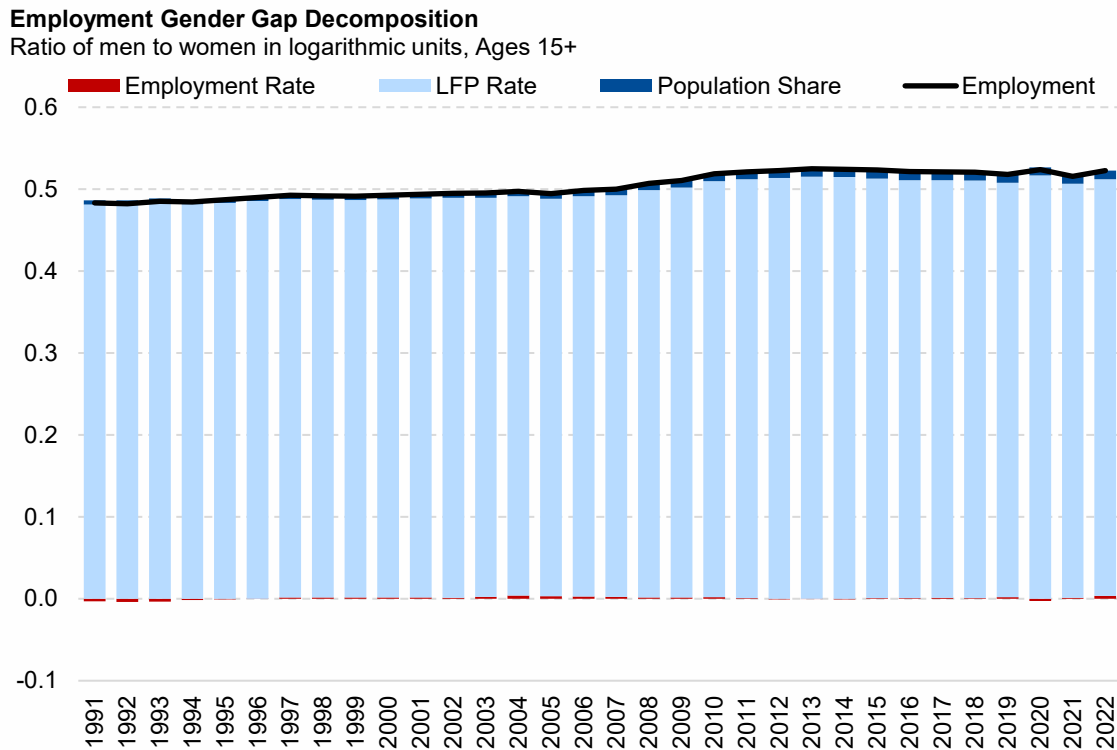Legend: ■ Employment Rate ■ LFP Rate ■ Population Share —— Employment

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

Note: LFP = labor force participation.

Unlike AEs and EMs, the employment gender gap in LICs has remained stable over time, as indicated by the steady black line in Figure 5. The LFP rate margin continues to be the most significant contributor to the employment gender gap, underscoring the persistent challenges in labor market access for women. However, the employment rate margin has gradually become more significant and positive over the years, although it remains small compared with the LFP rate margin. This indicates a growing disparity in employment rates between men and women who are active in the labor force. The population shares component shows more considerable and consistently negative contributions, indicating that despite a higher proportion of women in the population, their employment levels lag significantly behind those of men.

Figure 5. Employment Gender Gap Decomposition for Low-Income Countries

Employment Gender Gap Decomposition
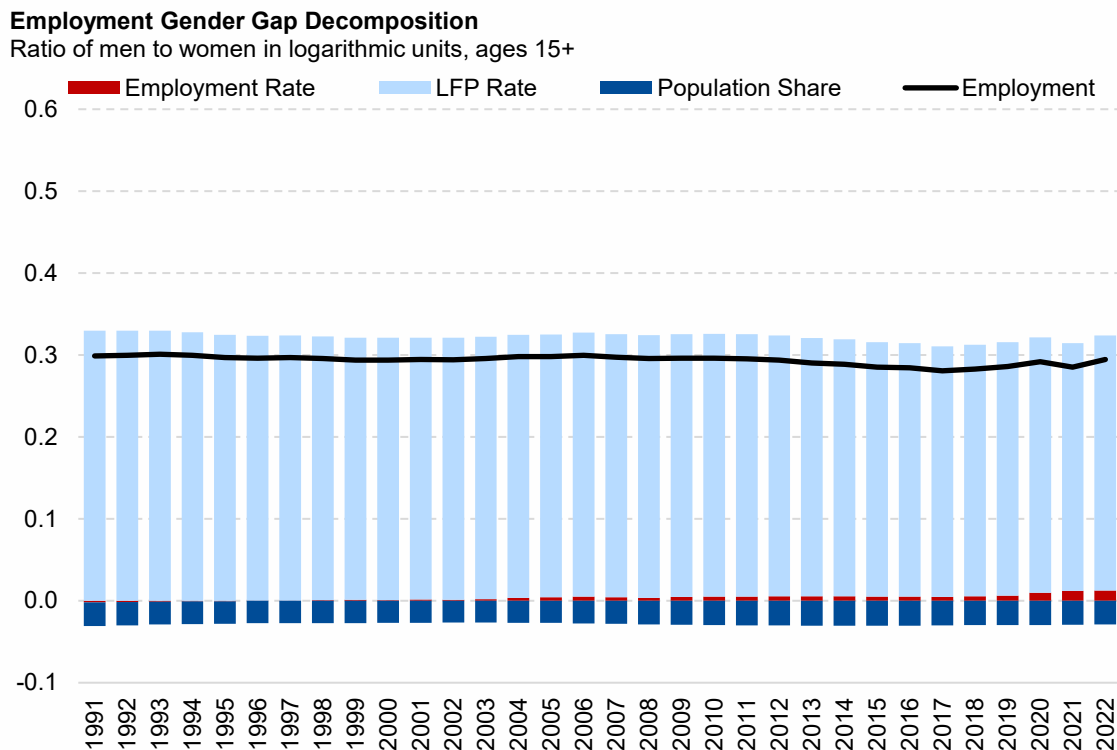Ratio of men to women in logarithmic units, ages 15+

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

Note: LFP = labor force participation.

In summary, the decomposition of the employment gender gap across AEs, EMs, and LICs reveals notable differences and similarities in the dynamics influencing gender disparities in employment. A common similarity across all regions is the significant influence of gender gaps in LFP rates and the generally small contribution of the employment rate margin to the overall gender employment gap. This underscores the universal challenge of increasing women's participation in the labor force as pivotal to reducing employment disparities, although differences in actual employment opportunities, once in the labor force, are less significant. In terms of differences, both AEs and LICs exhibit small and negative contributions from gender gaps in the population, suggesting a higher female demographic not reflected in employment figures. Conversely, in EMs, the contribution of population shares is negligible, indicating a minimal demographic effect on the employment gender gap. In addition, the employment rate component has grown in relevance in LICs while remaining relatively insignificant in AEs and EMs. Furthermore, although the employment gender gap has been decreasing in AEs, it is increasing in EMs and remains stable in LICs. These variations underscore different socioeconomic dynamics and emphasize the need for region-specific interventions to address and mitigate the underlying factors of the employment gender gap effectively.

Table 1 summarizes the major findings, highlighting the trend as well as the main and least contributing factors to the employment gender gap across different country groups over 1991–2022. In addition to the income-based groups, the table includes findings for groups based on geographical areas. Detailed charts for geographical areas are provided in Annex 3. To avoid repetition and to save on space, descriptions of the results for geographical areas are not included in the main body of the note, but they follow the same logic and mechanics as those provided for income-level groups.

Table 1. Summary of Employment Gender Gap Decomposition

	1991–2022 Trend	Main Contributor	Least Contributor
World	Stable	LFP rate	EMP rate
By income level			
Advanced economies	Decreasing	LFP rate	EMP rate
Emerging markets	Increasing	LFP rate	EMP rate
Low-income countries	Stable	LFP rate	EMP rate
By geographical areas			
Africa	U-shaped	LFP rate	EMP rate
Asia and the Pacific	Increasing	LFP rate	EMP rate
Europe	Decreasing	LFP rate	EMP rate
Middle East and Central Asia	Decreasing	LFP rate	POP share
Western Hemisphere	Decreasing	LFP rate	EMP rate

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

Note: The main and least contributors are identified based on the absolute values of all decomposition factors. EMP = employment; LFP = labor force participation; POP = population.

A Distributional View

In this section, a distributional analysis was undertaken of the main factors explaining employment gender gaps using the most recent available data from 2022. This began by examining the fractions of countries with positive and negative employment gender gaps to understand the prevailing trends and the current state of the issue. After this, share of countries where each factor emerges as the most and least important in explaining these gaps was analyzed. This analysis is conducted on a global scale and further segmented by income and geographical groups, providing a comprehensive view of the diverse dynamics influencing employment gender disparities across different contexts.

The distributional analysis of countries with positive and negative employment gender gaps in 2022 reveals a consistent global trend: the vast majority of countries still exhibit positive employment gender gaps, indicating that men are more likely to be employed than women (Table 2). Specifically, about 94 percent of countries worldwide have a positive gap, whereas only six percent have a negative gap. This pattern holds across

different income groups and geographical areas. All groups show a high prevalence of positive employment gender gaps, with more than 92 percent of countries in each category displaying this trend. These findings underscore a widespread and persistent issue of gender disparity in employment across diverse economic and regional contexts.

Table 2. Distribution of Countries with Positive and Negative Employment Gender Gaps in 2022

	Quantity			Frequency (%)		
	Negative	Positive	Total	Negative	Positive	Total
World	11	168	179	6.1	93.9	100.0
By income level						
Advanced economies	3	35	38	7.9	92.1	100.0
Emerging markets	4	79	83	4.8	95.2	100.0
Low-income countries	4	54	58	6.9	93.1	100.0
By geographical areas						
Africa	3	42	45	6.7	93.3	100.0
Asia and the Pacific	2	30	32	6.3	93.8	100.0
Europe	3	38	41	7.3	92.7	100.0
Middle East and Central Asia	2	28	30	6.7	93.3	100.0
Western Hemisphere	1	30	31	3.2	96.8	100.0

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

The analysis of the distribution of countries by most and least important factors in 2022 also reveals a clear global trend: the LFP rate is overwhelmingly the most important factor across all contexts (Table 3). Globally, and consistently across different income groups and geographical areas, the LFP rate dominates as the primary contributor to employment gender gaps. Conversely, the employment rate often emerges as the least important factor. Population share plays a variable role as the least important factor but is generally less significant compared with the employment rate. These findings emphasize the critical importance of addressing LFP disparities to reduce employment gender gaps worldwide, regardless of economic status or geographic location.

Table 3. Distribution of Countries by Most and Least Important Factors in 2022

	Most Important (%)			Least Important (%)		
	EMP Rate	LFP Rate	POP Share	EMP Rate	LFP Rate	POP Share
World	0.6	93.3	6.1	68.7	1.1	30.2
By income level						
Advanced economies	0	97.4	2.6	89.5	0	10.5
Emerging markets	0	94.0	6.0	62.7	0	37.3
Low-income countries	1.7	89.7	8.6	63.8	3.4	32.8
By geographical areas						
Africa	2.2	88.9	8.9	64.4	4.4	31.1
Asia and the Pacific	0	93.8	6.3	84.4	0	15.6
Europe	0	95.1	4.9	82.9	0	17.1
Middle East and Central Asia	0	90.0	10.0	46.7	0	53.3
Western Hemisphere	0	100.0	0	61.3	0	38.7

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

Note: The main and least contributors are identified based on the absolute values of all decomposition factors. EMP = employment; LFP = labor force participation; POP = population.

In summary, the distributional analysis of employment gender gaps in 2022 reveals consistent global trends across various economic and geographical contexts. First, most countries, regardless of income level or region, exhibit positive employment gender gaps, indicating that men are still more likely to be employed than women worldwide. Second, the LFP rate margin overwhelmingly emerges as the most important factor explaining these gaps across all groups, emphasizing the crucial role of women's participation in the labor force. In contrast, the employment rate is frequently the least important factor. Population share has a variable but generally minor role.

Revisiting the COVID-19 She-Cession

The decomposition of changes in employment gender gaps was leveraged to revisit and analyze the COVID-19 She-cession, shedding light on the factors driving the changes in employment gender gaps since the onset of the pandemic. Figure 6 presents the global decomposition of changes in employment gender gaps among individuals aged 15+ from 2010 to 2022, with the shaded area representing the pandemic and postpandemic periods. The black line indicates the overall change in the employment gender gap, whereas the bars represent the contributions of different factors, all measured in logarithmic differences.[5] For instance, the data plotted for 2020 depicts changes in the employment gender gap and its components from 2019 to 2020.

Figure 6. Global Decomposition of Employment Gender Gap Changes
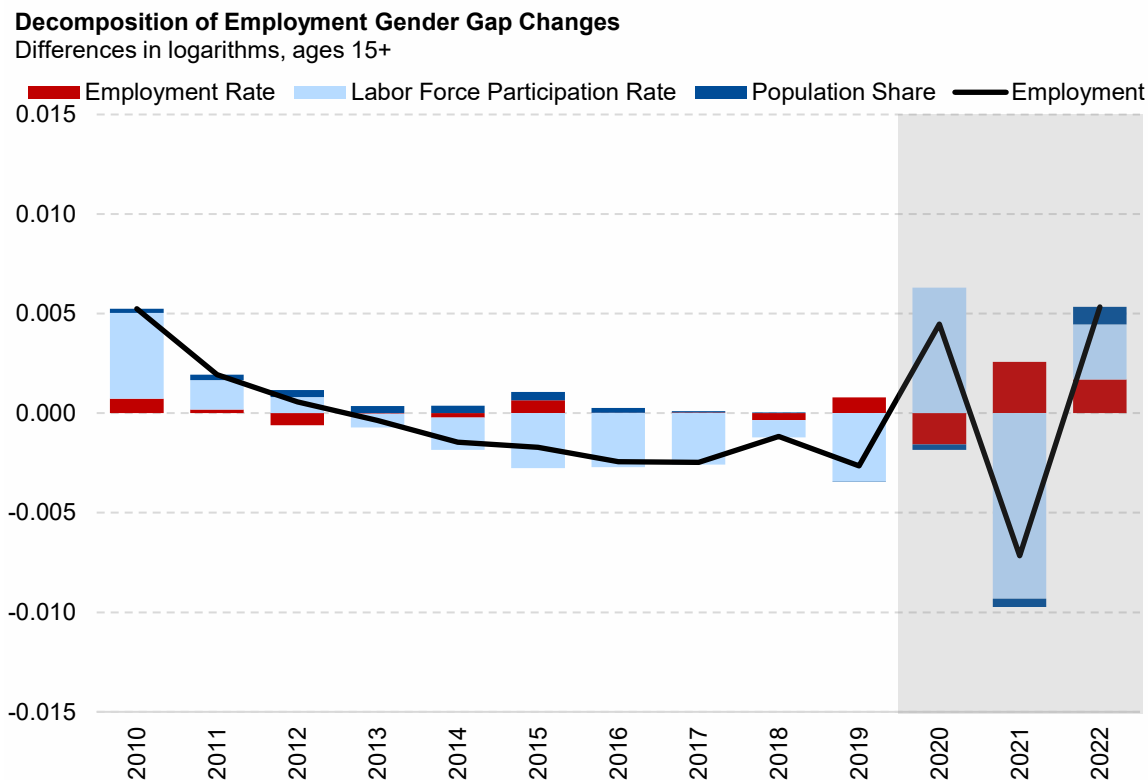
Decomposition of Employment Gender Gap Changes
Differences in logarithms, ages 15+

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

With the onset of the COVID-19 pandemic in 2020, the global gender gap in employment significantly widened. This was largely because of changes in gender gaps in the LFP rate, indicating a disproportionate initial effect on women's LFP. It is interesting that the employment rate margin contributed to the opposite direction, showing that gender gaps in employment rates decreased. This means that although fewer women remained in or joined the labor force, those who did were more likely to be employed compared with men, partially offsetting the overall widening of the employment gender gap. Moving forward, between 2020 and 2021, there was a noticeable reversal in the trajectory of employment gender gaps, with a large narrowing of the gap, primarily driven, again, by changes in gender gaps in the LFP rate. This indicates a recovery in women's participation in the labor force relative to men. However, the employment rate margin contributed to the opposite direction again, partially offsetting the overall improvement of the employment gender gap, suggesting that although more

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[5] For clarity, keep in mind that, for example, a logarithmic difference of 0.005 roughly corresponds to a 0.5 percent change.

women reentered or joined the labor force, their likelihood of being employed compared with men decreased, highlighting a nuanced recovery dynamic in the labor market during the postpandemic period. Furthermore, changes in population gender gaps explained only a small portion of the changes in employment gender gaps during the first two years of the pandemic, indicating that demographic shifts had a limited effect when compared with changes in LFP and employment rates. Finally, the final period of available data, between 2021 and 2022, shows an increase in the employment gender gap. This widening of the gap is driven by changes in all three margins, with the LFP rate margin being the most significant contributor once again.

The drivers of the pandemic employment She-cession were investigated across AEs, EMs, and LICs. Starting with AEs, the employment gender gap widened significantly between 2019 and 2020, interrupting a long sequence of improvements (Figure 7). This change of route was primarily driven by a strong and positive contribution from the employment rate margin, indicating that gender gaps in employment rates increased as men were more likely to retain or find jobs compared with women. The LFP rate margin contributed negatively, suggesting that the gap in LFP between men and women decreased slightly during this period. Between 2020 and 2021, the trend reversed with a narrowing of the employment gender gap, driven by all three margins. The LFP rate margin is now the primary contributor, showing that gender gaps in LFP rates are closing even more quickly. In addition, the employment rate margin contributed to the narrowing of the gender gap, suggesting an improvement in the likelihood of women being employed compared with men. Finally, from 2021 to 2022, the employment gender gap continued to decrease, driven primarily by the LFP rate margin, indicating ongoing improvements in women's participation in the labor force relative to men. However, the employment rate margin contributed to the opposite direction, slightly widening the gender gap, implying that the disparity in employment rates between men and women increased. The population share factor remained minor in its effect during the entire period.

Figure 7. Decomposition of Employment Gender Gap Changes for Advanced Economies
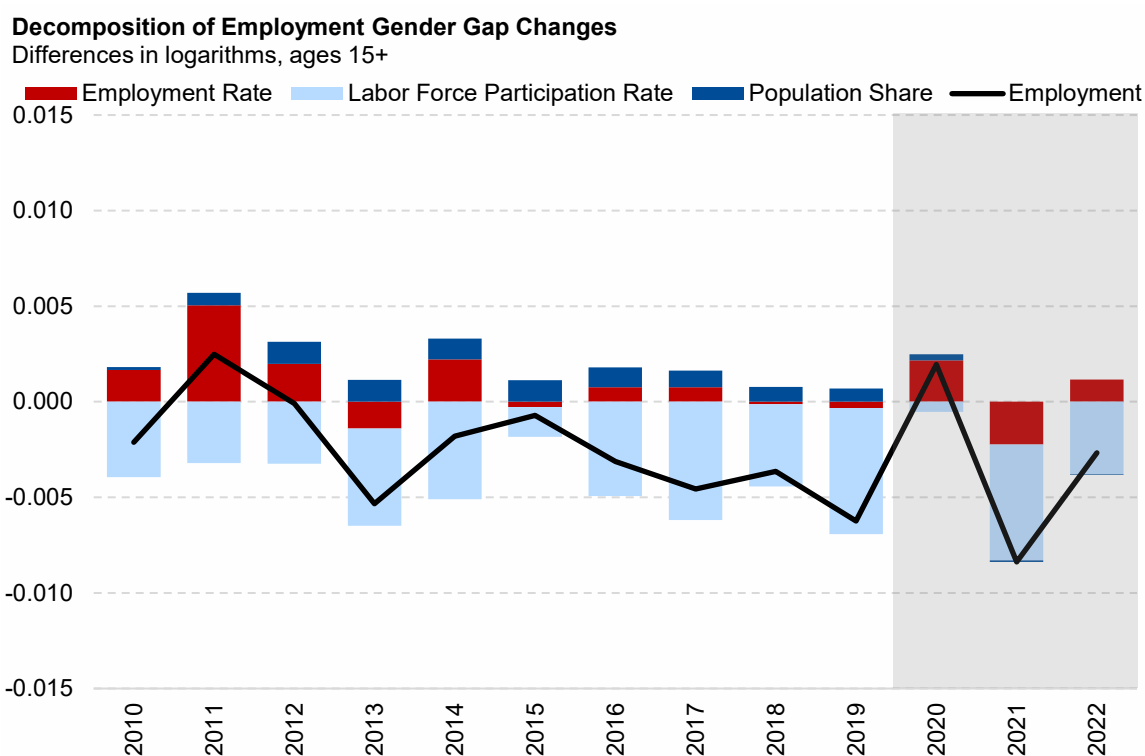
Decomposition of Employment Gender Gap Changes
Differences in logarithms, ages 15+

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

In EMs, the employment gender gap also widened significantly after the pandemic, owing mostly to a major contribution from the LFP rate margin, indicating a larger decline in women's participation in the labor force compared with men (Figure 8). It is interesting that the employment rate margin shifted in the other direction, offsetting the overall increase in the employment gender gap, because men became less likely to keep or find jobs than women. This contrasting behavior in comparison with AEs, where AEs saw a positive contribution from employment rates and a negative contribution from LFP rates, whereas EMs saw LFP rates driving the increase and employment rates mitigating it, highlights the different dynamics underlying the spike in employment gender gaps in these two groups of countries. Next, from 2020 to 2021, there was a reversal, with the employment gender gap narrowing. This was mainly because of a significant negative contribution from the LFP rate margin, indicating a recovery in women's LFP relative to men. In addition, the employment rate margin shifted in the opposite direction again, but now further increasing the employment gender gap, suggesting that women who reentered or joined the labor force had worse employment prospects compared with men. Finally, between 2021 and 2022, the employment gender gap increased again, driven by changes in all three margins. Although the LFP rate margin contributed the most, the other two margins also played an important role.

Figure 8. Decomposition of Employment Gender Gap Changes for Emerging Markets
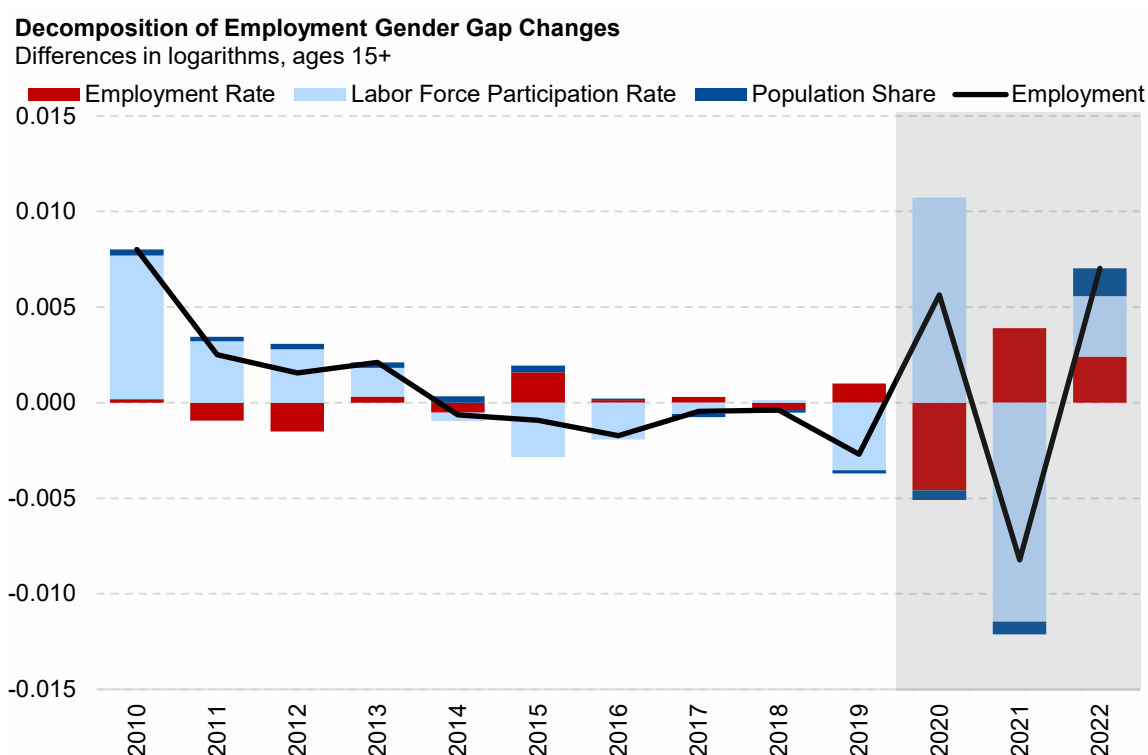
Decomposition of Employment Gender Gap Changes
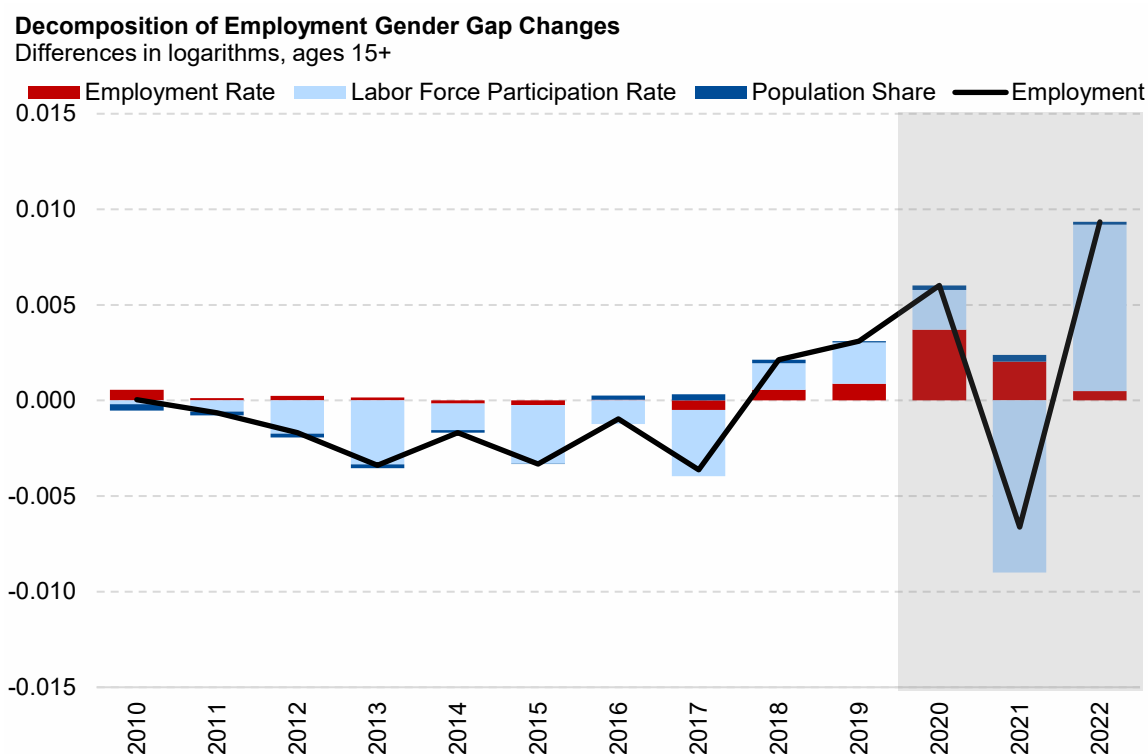Differences in logarithms, ages 15+

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

In contrast to AEs and EMs, all three margins contributed to the widening of the employment gender gap in LICs since the pandemic (Figure 9). This behavior, although more pronounced between 2019 and 2020, was already present in the most recent prepandemic period. The employment rate margin was the most important factor driving this growth, followed by the LFP rate margin and, to a lesser extent, the demographic margin. From 2020 to 2021, the trend reversed with the employment gender gap narrowing. This change was primarily driven by a substantial negative contribution from the LFP rate margin, showing a recovery in women's LFP relative to men. The employment rate margin continued to contribute positively, further increasing the employment gender gap, implying that women's job chances kept deteriorating relative to men's. The employment gender gap increased

again from 2021 to 2022, driven by changes in all three margins. This increase was primarily driven by the LFP rate margin, with the other two margins having a minor effect.

Figure 9. Decomposition of Employment Gender Gap Changes for Low-Income Countries

Decomposition of Employment Gender Gap Changes
Differences in logarithms, ages 15+

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

In summary, the analysis of employment gender gap changes across AEs, EMs, and LICs reveals both similarities and differences in the effect of the COVID-19 pandemic. A common thread across all three groups is the significant widening of the employment gender gap during the initial pandemic period (between 2019 and 2020). However, the driving factors varied: in AEs and LICs, the primary contributor was the employment rate margin, whereas in EMs, the LFP rate margin played the dominant role. In addition, in AEs, the LFP rate margin contributed negatively, suggesting a decrease in the participation gap, contrasting with EMs and LICs, where it increased the gap. Notably, although the employment rate margin was a primary contributor to the widening of the employment gender gap in AEs and LICs, it played an offsetting role in EMs. Despite these differences, all three groups experienced a narrowing of the gender gap between 2020 and 2021, driven mainly by improvements in the LFP rate margin. It is interesting that in AEs, the employment rate margin also contributed to narrowing the gap, whereas in EMs and LICs, it continued to widen it. From 2021 to 2022, the employment gender gap dynamics further diverged: AEs saw continued narrowing driven by the LFP rate margin, EMs experienced an increase driven by all three margins, and LICs also saw an increase, primarily driven by the LFP rate margin but with small contributions from the other two margins as well. These findings underscore the varied effects of the pandemic on employment gender gaps across different economic contexts and highlight the importance of tailored policy responses to address these disparities.

Table 4 summarizes the main results. Each column represents a specific period since the pandemic. In each cell, the value to the left of the comma indicates whether the overall change in the employment gender gap was positive ("+") or negative ("–") in the respective period, and the value to the right of the comma identifies the

main contributor to the overall gap changes. As before, in addition to the income-based groups a summary of the geographical areas was included, with the respective charts provided in Annex 3.

Table 4. Summary of Decomposition of Employment Gender Gap Changes

	2019–20	2020–21	2021–22
World	+, LFP rate	−, LFP rate	+, LFP rate
By income level			
Advanced economies	+, EMP rate	−, LFP rate	−, LFP rate
Emerging markets	+, LFP rate	−, LFP rate	+, LFP rate
Low-income countries	+, EMP rate	−, LFP rate	+, LFP rate
By geographical areas			
Africa	+, EMP rate	+, LFP rate	+, LFP rate
Asia and the Pacific	+, LFP rate	−, LFP rate	+, EMP rate
Europe	−, EMP rate	−, LFP rate	−, LFP rate
Middle East and Central Asia	+, LFP rate	−, LFP rate	+, LFP rate
Western Hemisphere	+, LFP rate	−, LFP rate	−, LFP rate

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

Note: In each cell, the value to the left of the comma indicates whether the overall change in the employment gender gap was positive ("+") or negative ("−") in the respective period, and the value to the right of the comma identifies the main contributor to the overall gap changes. The main contributors are identified based on the absolute values of all decomposition factors. EMP = employment; LFP = labor force participation.

The findings align with a growing body of literature that highlights how women have been disproportionately affected by the economic disruptions caused by the pandemic. Focusing on the United States, Albanesi and Kim (2021) documented substantial declines in women's employment and LFP, primarily because of reduced demand in high-contact service occupations and increased childcare responsibilities. Fabrizio, Gomes, and Tavares (2021, 2024) found that less-educated women with young children were most adversely affected, contributing significantly to the widening of employment gender gap. Goldin (2022) further emphasized that the pandemic's effect varied by education, occupation, and race, with more educated women able to work from home, whereas those in in-person service jobs faced significant employment reductions.

Alon and others (2022a) identified a global pattern of larger employment declines among women, driven by their overrepresentation in certain sectors and increased childcare needs. Alon and others (2022b) extended this analysis to developing countries, showing that although childcare demands affected women universally, sectoral employment distributions played a distinct role in different economic contexts. Finally, Bluedorn and others (2023) provided cross-country evidence from 38 AEs and EMs, revealing heterogeneity in the pandemic's effect on women's employment, with about two-thirds of the countries experiencing larger declines for women than men.

Overall, these studies collectively underscore the critical role of childcare burdens and sectoral employment distributions in exacerbating employment gender gaps during the pandemic. The analysis of the She-cession mirrors these findings, highlighting the need for targeted policy interventions to support women's LFP and mitigate the long-term effects of such economic disruptions.

Conclusion

The findings documented in this note underscore the critical importance of gender gaps in LFP rates in contributing to employment gender gaps globally, across different income groups, and geographical areas. As such, efforts should be channeled toward a deeper comprehension of the root causes that contribute to lower female LFP rates and, consequently, to the wide gender gaps in LFP. Policymakers should leverage survey microdata that contain specific questions regarding the reasons for nonparticipation in the labor force. This will provide them a clean identification of the potential causes driving individuals, particularly women, out of the labor force. Where such data are lacking, efforts must be made to integrate these questions into official surveys to uncover and address barriers to female LFP. Furthermore, policymakers should prioritize strategies that not only reactively target and enhance female LFP but also proactively prevent declines in participation. This dual approach is essential to mitigate these persistent disparities and ensure sustained progress in closing employment gender gaps. In addition, although the COVID-19 pandemic required temporary shutdowns in certain sectors for public health reasons, leading to unavoidable declines in LFP, particularly for women, it is crucial to strengthen social protection measures and ensure a sufficient fiscal space to provide targeted support for affected people in the short term. This approach can help mitigate the negative effects and facilitate a quicker recovery when such disruptions occur.

Although gender gaps in labor supply are the most prominent factor explaining gender employment gaps, addressing labor supply alone is not sufficient. The demand side of the labor market must also be targeted. Job creation is a two-sided matching process, and simply targeting the increase of women in the labor force without a corresponding increase in demand from firms will likely not lead to sustainable improvements in women's employment. Therefore, policies that foster job creation, business dynamism, and private sector development should be integrated into strategies aimed at enhancing women's employment and reducing employment gender gaps.

These policies could include tax incentives and subsidies to businesses that hire and retain female employees, especially in sectors where women are underrepresented (Rubolino 2022). In addition, promoting investment in female-led startups and small businesses can spur innovation and create job opportunities that align with women's skills and needs (Caliendo and Künn 2015). Implementing training and apprenticeship programs in collaboration with industries can help match women's skills with market demands. Enhancing access to finance for women entrepreneurs and supporting business incubators and accelerators that focus on female entrepreneurship can also drive business dynamism and job creation.

Private sector development is crucial for enhancing female LFP and reducing employment gender gaps. Attracting foreign investment can create more diverse job opportunities, particularly in sectors where women are underrepresented. This can be achieved by creating a stable and predictable business environment, reducing bureaucratic hurdles, and offering incentives for foreign companies to establish operations. Increasing investment efficiency is another key area that can directly contribute to closing the gender gap in employment by

channeling resources into sectors where women are already active or have significant potential for participation. This could be addressed by streamlining regulatory processes, improving infrastructure, and ensuring that investments are directed toward high-effect projects that generate significant employment opportunities, particularly for women.

Labor market reforms should continue to focus on making employment more flexible and inclusive. Flexible employment arrangements are crucial for proactively preventing declines in female LFP (Bloom, Han, and Liang 2022, 2024; Tito, 2024). Policies that promote flexible work schedules, work-from-home opportunities, and part-time work can accommodate the diverse needs of women, particularly those with caregiving responsibilities. This entails revising labor laws to protect workers' rights while allowing for more adaptable work arrangements that can accommodate the needs of both employers and employees. By offering more adaptable work options, employers can attract and retain female talent, ensuring that women remain active participants in the labor market.

Digitalization offers significant potential for creating new job opportunities, particularly in technology-driven sectors and remote work, which can be more accessible to women balancing work and family responsibilities (Loko and Yang 2022; Yin, Zhang, and Choi 2023; Yang and others 2024). By accelerating digitalization and investing in digital infrastructure and digital literacy programs, countries will ensure that the workforce is prepared for the demands of the modern economy, unlocking new avenues for female employment.

Finally, enhancing governance and creating a transparent, inclusive business environment are vital for creating a conducive environment for private sector growth. Ensuring that antidiscrimination laws are effectively enforced, reducing barriers to female entrepreneurship, and fostering an inclusive corporate culture are essential for making employment more inclusive. This involves strengthening institutions, improving transparency, and ensuring that anti-corruption measures are effectively implemented. Good governance builds trust and attracts both domestic and foreign investors, further stimulating economic growth and job creation.

By addressing both the supply and demand sides of the labor market and implementing comprehensive policies to enhance the job creation process, business dynamism, and private sector development, policymakers can ensure a more holistic and effective approach to closing employment gender gaps and promoting sustainable economic growth. Importantly, policies should be tailored to country-specific circumstances, and, as highlighted by Agte and others (2024), policy responses need to be sensitive to the changing nature of economic growth.

Annex 1. Description of the Framework

The goal of the framework is to identify the most important factors that account for employment gender gaps in levels and rates of change. Time periods are denoted by t and gender by g, with $g = m$ denoting male variables and $g = f$ denoting female variables. Let $E_{g,t}$ be the number of persons employed, $L_{g,t}$ the number of persons in the labor force, $N_{g,t}$ the population size, $s_{g,t}$ the population share, and N_t the size of the entire population. Based on these definitions, employment rates can be calculated as $e_{g,t} = E_{g,t}/L_{g,t}$ and LFP rates as $l_{g,t} = L_{g,t}/N_{g,t}$. In addition, population sizes can be expressed as $N_{g,t} = s_{g,t}N_t$. As a result, employment levels can be written as follows:

$$E_{g,t} = \frac{E_{g,t}}{L_{g,t}} \cdot \frac{L_{g,t}}{N_{g,t}} \cdot N_{g,t} = e_{g,t} \cdot l_{g,t} \cdot s_{g,t} \cdot N_t. \tag{1}$$

In other words, the level of employment is the product of the employment rate, LFP rate, population share, and total population size.

The decompositions consider gender gaps as measured by male-to-female ratios. Let $G_{E,t} = E_{m,t}/E_{f,t}$ be the employment gender gap, $G_{e,t} = e_{m,t}/e_{f,t}$ the gap in employment rates, $G_{l,t} = l_{m,t}/l_{f,t}$ the gap in LFP rates, and $G_{s,t} = s_{m,t}/s_{f,t}$ the gap in population shares. Using these definitions and the result of equation (1), it can be deduced that

$$G_{E,t} = \frac{E_{m,t}}{E_{f,t}} = \frac{e_{m,t} \cdot l_{m,t} \cdot s_{m,t} \cdot N_t}{e_{f,t} \cdot l_{f,t} \cdot s_{f,t} \cdot N_t} = \frac{e_{m,t}}{e_{f,t}} \cdot \frac{l_{m,t}}{l_{f,t}} \cdot \frac{s_{m,t}}{s_{f,t}} = G_{e,t} \cdot G_{l,t} \cdot G_{s,t}. \tag{2}$$

That is, the gender employment gap is the product of gender gaps in employment rates, LFP rates, and population shares.

To arrive at an expression that is perfectly additively decomposable, the logarithm of the gap variables needs to be worked with. Applying the logarithm in the result of the equation (2), finds that

$$\log(G_{E,t}) = \log(G_{e,t} \cdot G_{l,t} \cdot G_{s,t}) = \log(G_{e,t}) + \log(G_{l,t}) + \log(G_{s,t}). \tag{3}$$

The above-mentioned result allows the quantification of which factor is most responsible for the existence of the employment gender gap. Even though the decomposition is in log units, the relative contributions of each factor are preserved.

To determine which factors contribute the most to the rate of change in the employment gender gap, simply compute the difference in logarithms between two consecutive periods of employment gender gaps, which provides a good approximation for the percentage change. This log difference is denoted as $\Delta \log(G_{E,t}) = \log(G_{E,t+1}) - \log(G_{E,t})$. Using the log-difference definition and the result of equation (3), finds that

$$\Delta \log(G_{E,t}) = \Delta \log(G_{e,t}) + \Delta \log(G_{l,t}) + \Delta \log(G_{s,t}). \tag{4}$$

In other words, the rate of change in the employment gender gap can be decomposed as the sum of the rates of change of gender gaps in employment rates, LFP rates, and population shares.

Annex 2. Description of the Data

The data used in the analysis are derived from the International Labour Organization (ILO) Modelled Estimates for individuals aged 15 and older. Specifically, data on employment levels, employment-to-population ratios, labor force levels, and LFP rates were collected. The working-age population is calculated as the ratio of employment to the employment-to-population ratio, whereas employment rates are determined as the ratio of employment to the labor force. Country group aggregates are calculated by adding up the number of people to the labor force, the number of people employed, and the size of the population, by gender, for countries that fall under each region or income group. The aggregate ratios are then determined without using any weighting procedures. The employment-to-population ratios and LFP rates for individual countries are directly taken from the ILO-calculated values. The employment data used in this analysis encompass both formal and informal employment. Although not all jobs are created equal, the analysis does not include data disaggregated by hours worked (part-time vs full-time), levels of informality (formal vs informal), economic activity (sector), and so on. Annex Table 2.1 provides a detailed description of the variables. The sample covers the 180 countries included in the ILO database that are part of the IMF membership. Country groups are based on the World Economic Outlook classifications as of April 2022.

Annex Table 2.1. Labor Market Variables

Variable	Description
Employment, thousands of people	Comprises all persons of working age who, during a specified brief period, such as one week or one day, were in the following categories: (1) paid employment (whether at work or with a job but not at work) or (2) self-employment (whether at work or with an enterprise but not at work).
Employment-to-population ratio	The proportion of a country's working-age population that is employed.
Labor force, thousands of people	The sum of the number of persons employed and the number of persons unemployed.
Labor force participation rate	The number of persons in the labor force as a percentage of the working-age population.
Working-age population, thousands of people	The population above the legal working age, but for statistical purposes it comprises all persons above a specified minimum age threshold for which an inquiry on economic activity is made. To promote international comparability, the working-age population is often defined as all persons aged 15 and older, but this may vary from country to country based on national laws and practices (some countries also apply an upper age limit).

Source: ILO (n.d.).
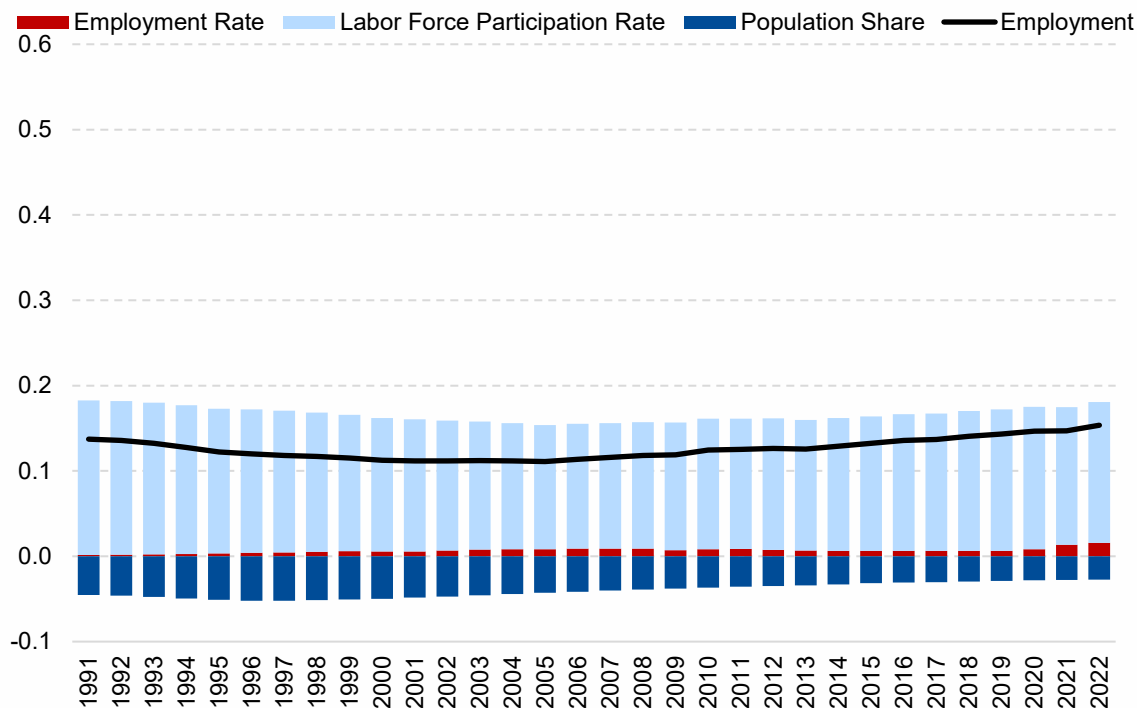
Annex 3. Charts by Geographical Area

Annex Figure 3.1. Employment Gender Gap Decomposition for Africa

1. Employment Gender Gap Decomposition

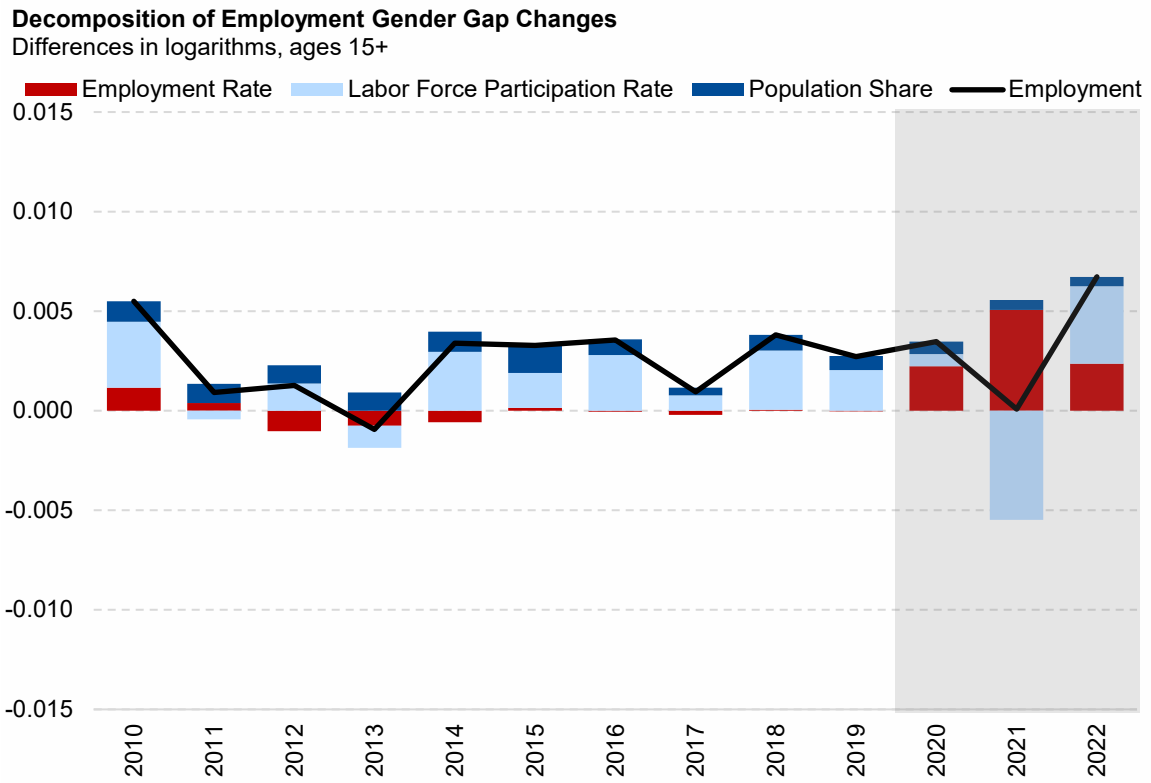*(Ratio of men to women in logarithmic units, aged 15+)*

Employment Gender Gap Decomposition
Ratio of men to women in logarithmic units, ages 15+

2. Decomposition of Employment Gender Gap Changes

(Differences in logarithms, aged 15+)

Decomposition of Employment Gender Gap Changes
Differences in logarithms, ages 15+

Legend: Employment Rate · Labor Force Participation Rate · Population Share · Employment

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).
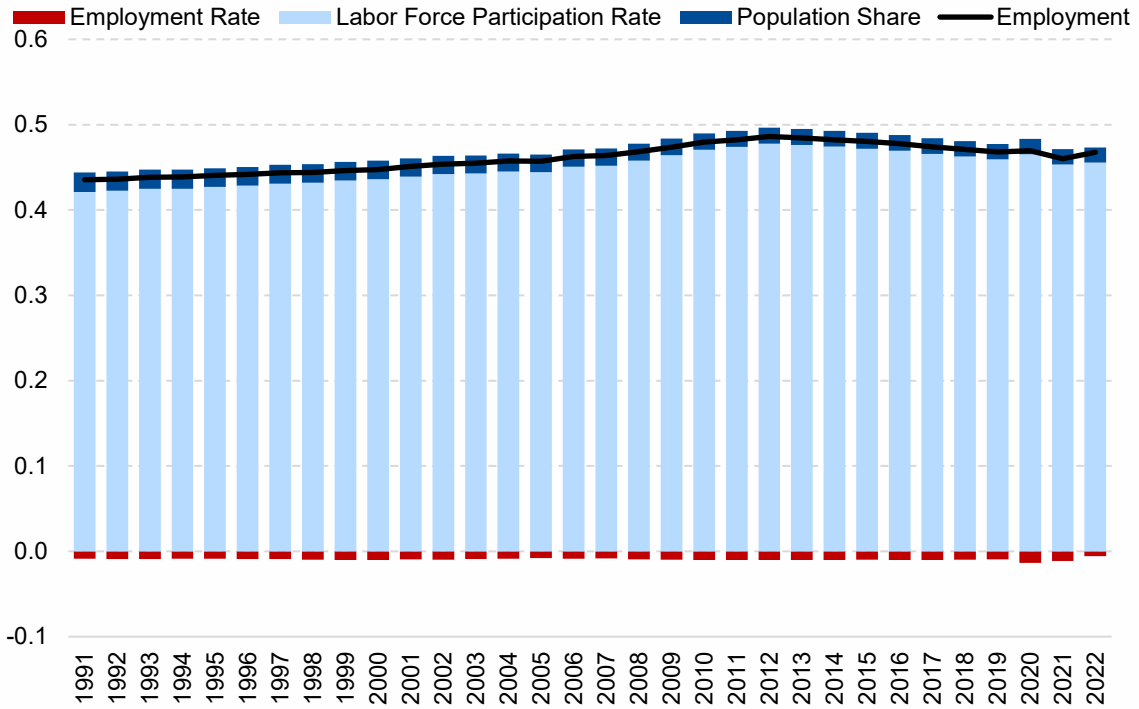
Annex Figure 3.2. Employment Gender Gap Decomposition for Asia and the Pacific

1. Employment Gender Gap Decomposition

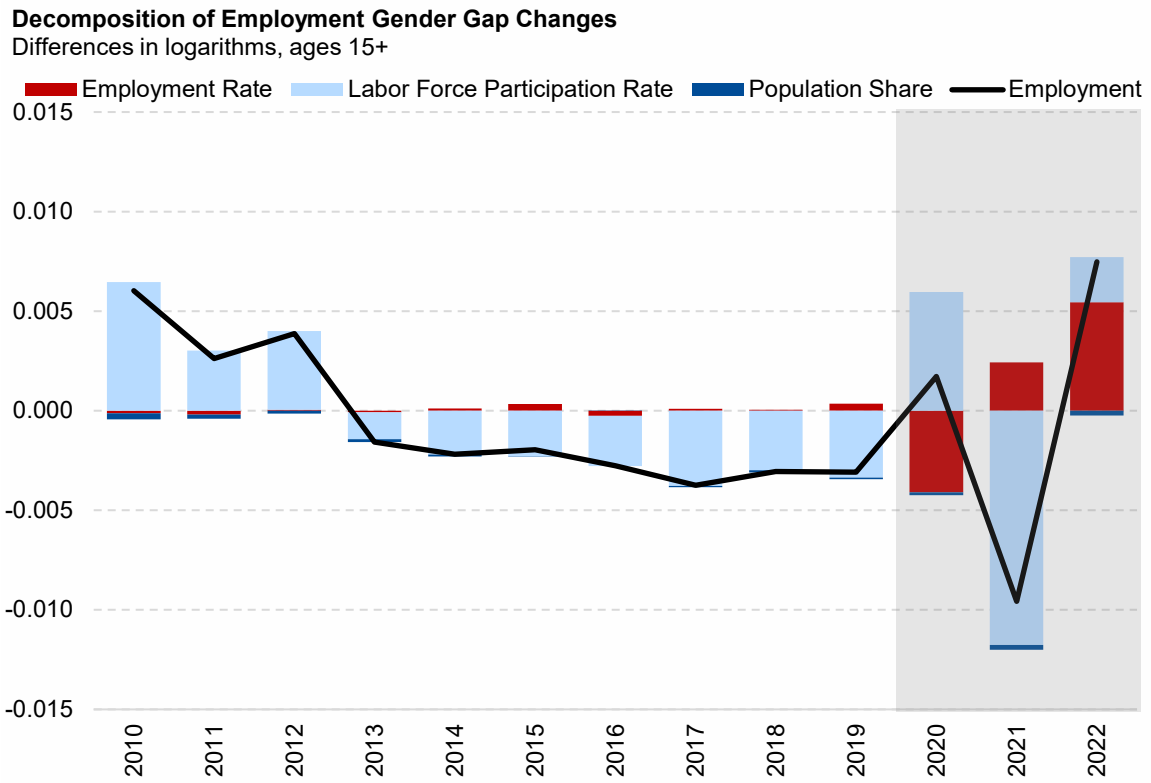*(Ratio of men to women in logarithmic units, aged 15+)*

Employment Gender Gap Decomposition
Ratio of men to women in logarithmic units, ages 15+

Legend: ■ Employment Rate ■ Labor Force Participation Rate ■ Population Share ― Employment

2. Decomposition of Employment Gender Gap Changes

(Differences in logarithms, aged 15+)

Decomposition of Employment Gender Gap Changes
Differences in logarithms, ages 15+

Legend: Employment Rate | Labor Force Participation Rate | Population Share | Employment

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).
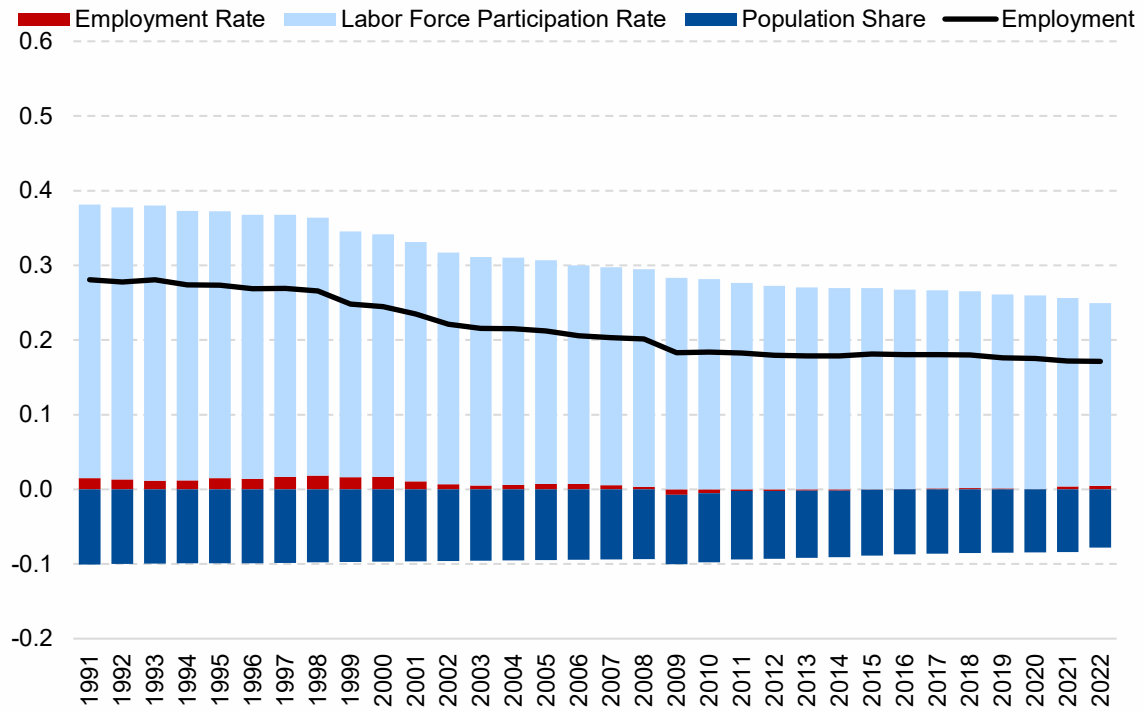
Annex Figure 3.3. Employment Gender Gap Decomposition for Europe

1. Employment Gender Gap Decomposition

(Ratio of men to women in logarithmic units, aged 15+)

Employment Gender Gap Decomposition
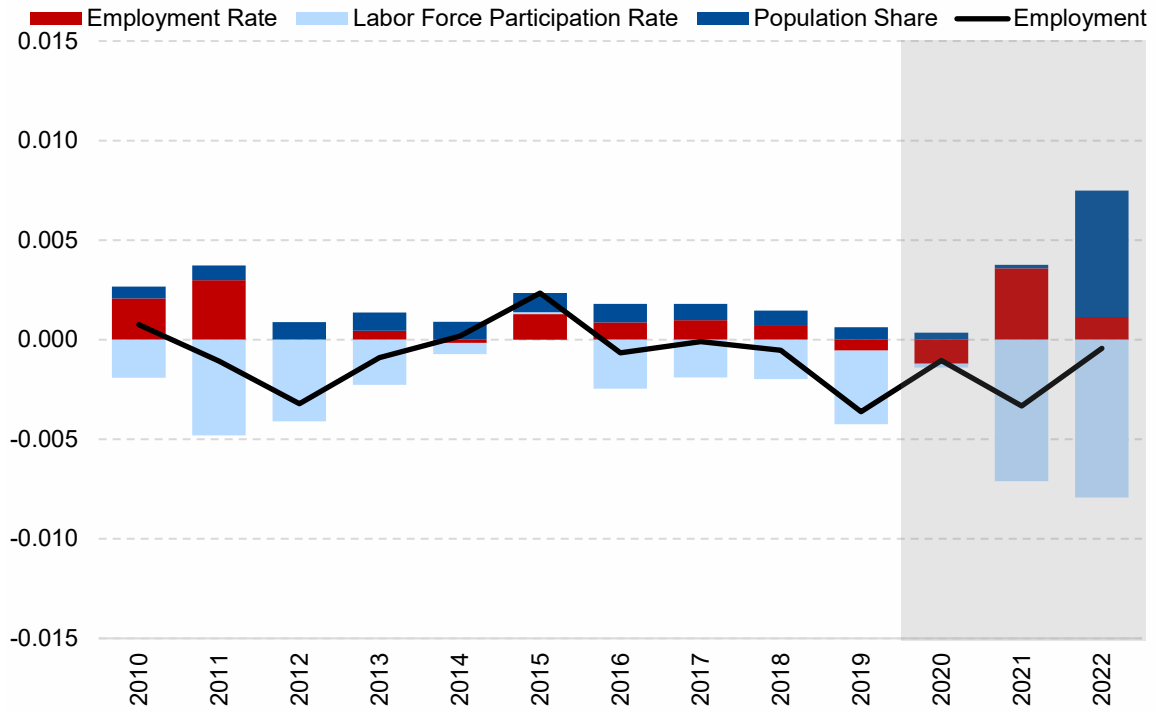Ratio of men to women in logarithmic units, ages 15+

Legend: ■ Employment Rate ■ Labor Force Participation Rate ■ Population Share — Employment

2. Decomposition of Employment Gender Gap Changes

(Differences in logarithms, aged 15+)

Decomposition of Employment Gender Gap Changes
Differences in logarithms, ages 15+

Legend: Employment Rate | Labor Force Participation Rate | Population Share | Employment

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).
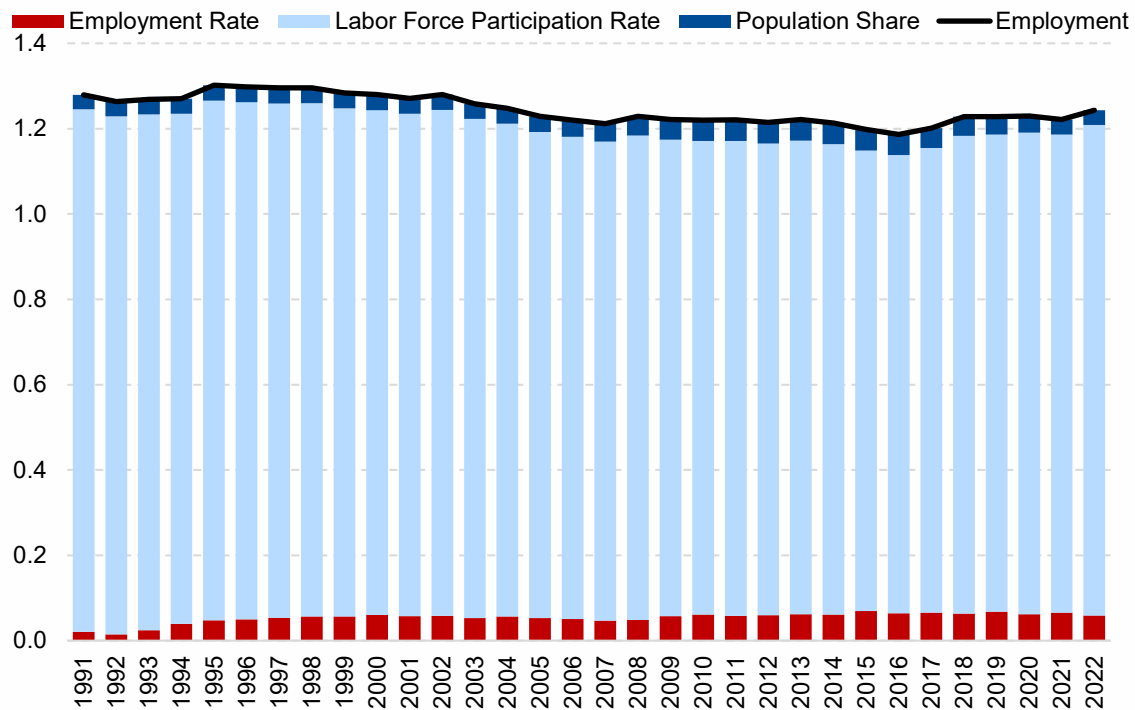
Annex Figure 3.4. Employment Gender Gap Decomposition for Middle East and Central Asia

1. Employment Gender Gap Decomposition

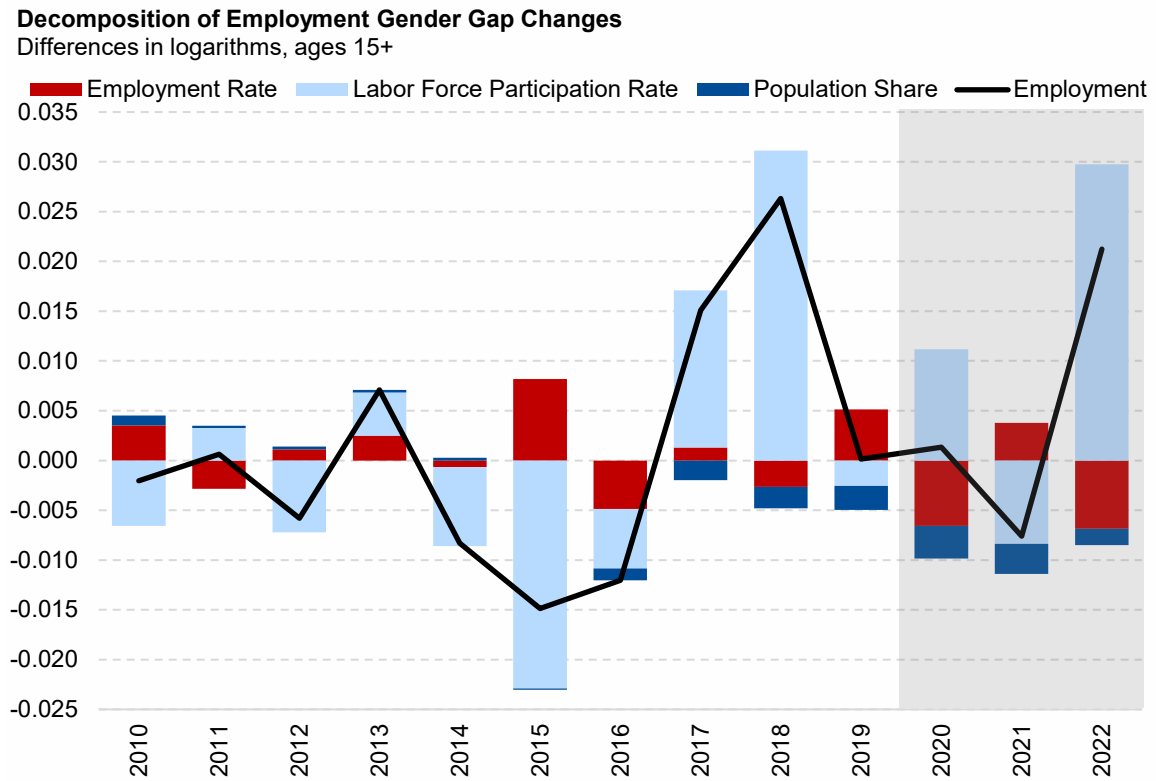*(Ratio of men to women in logarithmic units, aged 15+)*

Employment Gender Gap Decomposition
Ratio of men to women in logarithmic units, ages 15+

Legend: ■ Employment Rate ■ Labor Force Participation Rate ■ Population Share — Employment

2. Decomposition of Employment Gender Gap Changes

(Differences in logarithms, aged 15+)

Decomposition of Employment Gender Gap Changes
Differences in logarithms, ages 15+

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).
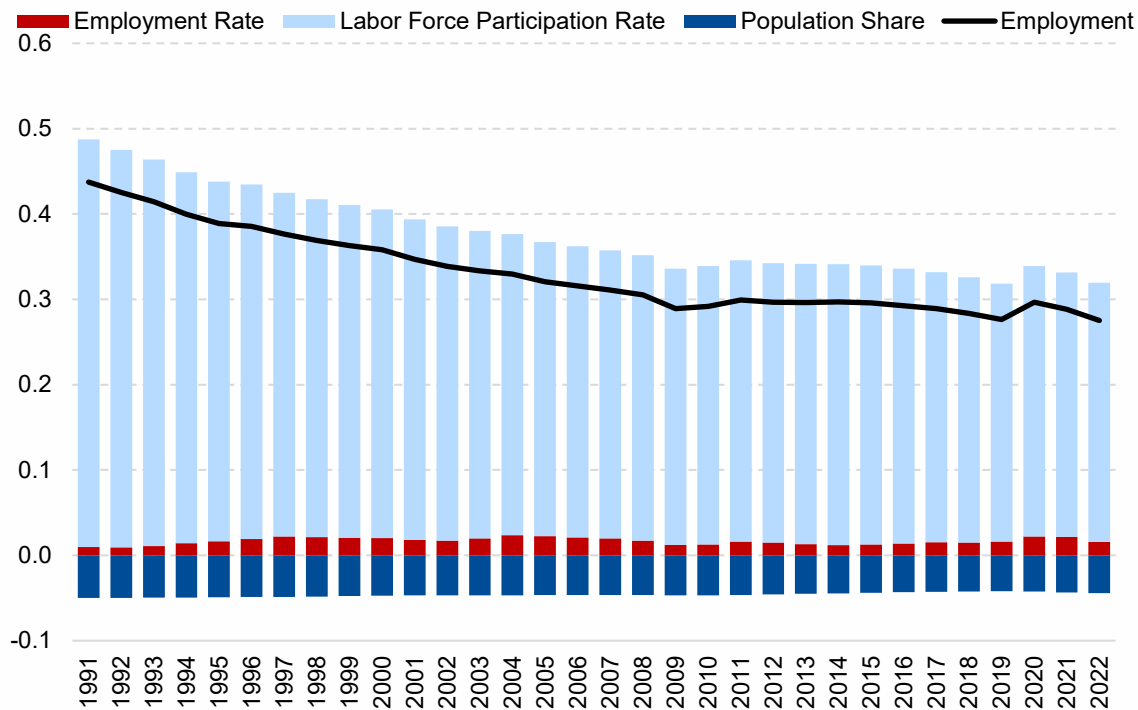
Annex Figure 3.5. Employment Gender Gap Decomposition for Western Hemisphere

1. Employment Gender Gap Decomposition

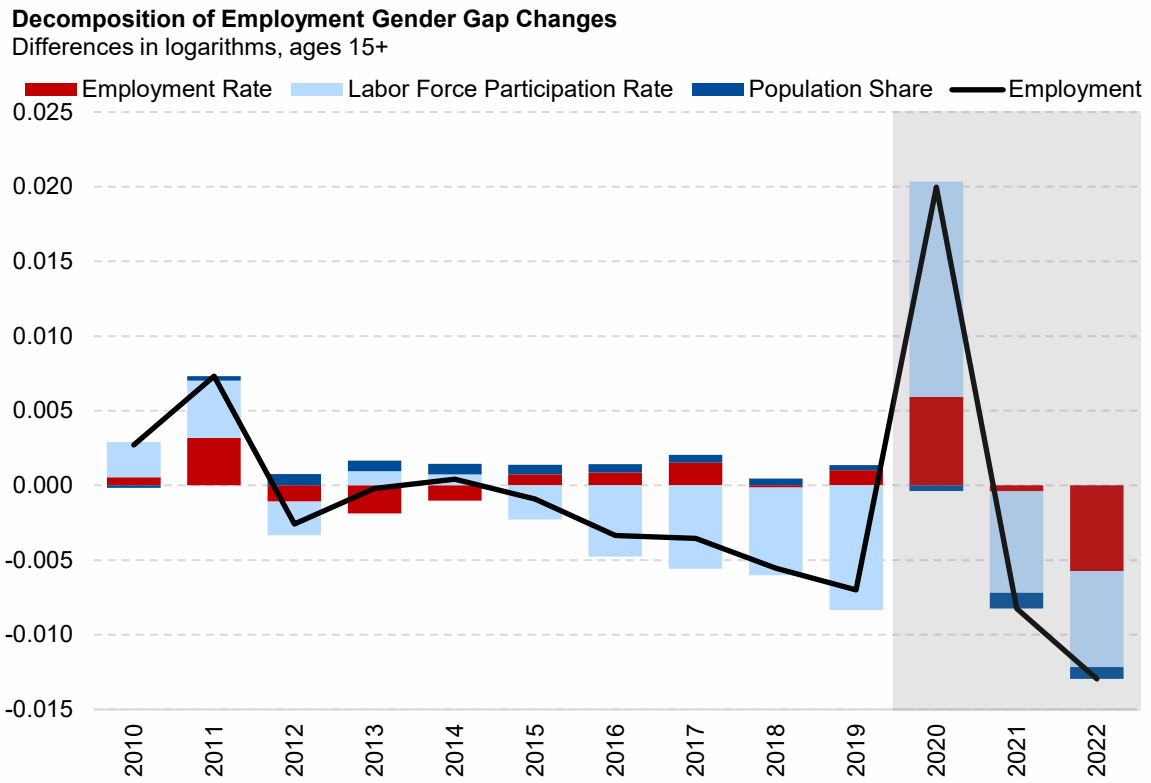*(Ratio of men to women in logarithmic units, aged 15+)*

Employment Gender Gap Decomposition
Ratio of men to women in logarithmic units, ages 15+

2. Decomposition of Employment Gender Gap Changes

(Differences in logarithms, aged 15+)

Decomposition of Employment Gender Gap Changes
Differences in logarithms, ages 15+

Source: IMF staff calculations based on data from the IMF Gender Data Hub. The original source of the data is obtained from the International Labour Organization (ILO).

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