



# Female Job & Growth Setback

## COVID-19 to Erode Female Labor Force Participation Gains

The loss of jobs across the globe as a result of COVID-19 has been astounding. Almost 44 million employees could ultimately experience a layoff and this is without taking into account the loss of jobs in China.

But the layoffs aren't affecting men and women equally. Preliminary data suggest that women are already bearing more of the burden of layoffs, and we forecast women could account for ~31 million of the total layoffs vs. ~13 million for men. In the U.S. data already show that among seven sectors affected by the coronavirus, the number of women laid off were almost double that of men.

The difference has to do with the sectors most affected by COVID-19. Women are overrepresented in six sectors that are the most vulnerable to COVID-19 layoffs: Business & Administrative, Hospitality, Retail & Customer Service, Personal Care & Services, Health Care, Education, and Legal, Social & Cultural. Women are also more likely to be caretakers both of children and adult dependents and take on more unpaid work than men.

With 220 million women estimated to be in the workforce across the globe, the loss of 31 million equates to a decline in global GDP of ~\$1 trillion. This represents 1.2 percentage points of the 3.2 percentage point drop in GDP we're expecting for 2020.

The loss of women in the workforce isn't just a matter of inequality, it equates to real global GDP losses. In order to mitigate those losses, decision-makers must take women into account in policies intended to address COVID-19 economic disruptions.

May 2020

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## COVID-19 to Erode Female LFP Gains

Women are likely bearing more of the brunt of layoffs than men during the COVID-19 outbreak

COVID-19 is imposing a major setback to gains in female labor force participation (LFP), and thereby global growth. We have argued in past research that enhancing female LFP is a key element of generating global growth. Limitations to mobility and shutdowns of places of employment in response to the coronavirus have led to an unprecedented number of job losses spanning the globe. However, preliminary data suggest that women likely are bearing somewhat more of the brunt of layoffs than are men. This is largely due to the segmentation of female laborers into sectors that are the most negatively affected by coronavirus disruptions. This, along with the greater prevalence of female caretakers and the increased propensity of women to be vulnerable to unemployment risk and poverty, means that COVID-19 may erode many positive gains towards closing gender gaps and the potential for women to be sources of significant global growth generation.

Female job cuts might top 31 million, with women in the Americas and Europe highly vulnerable to job cuts

We estimate that more than 220 million women spanning the globe are in sectors vulnerable to job loss due to the coronavirus pandemic. The retail, professional & businesses services, financial services, education & health, leisure & hospitality, other services, and government sectors, where women are most likely to work, are the most likely to shed the greatest number of women from payrolls. Female job cuts might top 31 million. Women in the Americas and Europe are highly vulnerable to job losses. Emerging Market, Southern European, Japanese, and U.S. women are also more likely to fall into poverty on account of joblessness.

Female job cuts in six key sectors might slash \$1 trillion from global GDP, or 1.2% from global growth

Meanwhile, lingering challenges that hampered female LFP before the coronavirus may be further exacerbated by the pandemic. Returning to work and/or seeking employment may be inhibited as the responsibility of caring for family members stricken with the virus, and/or caring for the roughly 1.5 billion children subject to school closures may largely fall to women. Female job cuts in six key sectors might slash \$1 trillion from global GDP, or 1.2% from global growth.

Policies that promoted female labor force participation before the pandemic are even more relevant and suitable in a post-pandemic world

Many of the policies that promoted female LFP pre-coronavirus are even more suitable in a post-pandemic world. Policies include: incentivizing employers to provide paid leave and flexible working arrangements; subsidizing private and public child care options; the provision of unemployment insurance to non-traditional workers; financial support for small & medium-sized enterprises (SMEs); direct cash payments to affected workers; suspension of evictions; deferrals of mortgage and utility payments; training and political support for small firms and entrepreneurs; ensuring that all policy and structural adjustments to support sustainable recovery go through robust gender and intersectional analysis; and the collection and reporting of statistics related to public and private efforts to support female LFP.

Figure 1. Women Across the Globe Are More Likely to Work in Sectors that Are Severely Impacted by COVID-19-Related Job Cuts



Source: International Labor Organization (ILO), Citi Research

Figure 2. Nearly Half of U.S. Workers Are in Sectors that Are Vulnerable to COVID-19-Related Job Cuts

U.S. Sectors by Vulnerability to COVID-19 Layoffs	Total Employment	Share of Total Employment
All Occupations	144,731,220	
Employed in Occupations at 'Low Risk' of Layoff	77,944,910	54%
Employed in 'Essential' Occupations	24,840,280	17%
Employed in Occupations Possible to Work from Home	48,204,920	33%
Employed in Other Salaried Occupations	4,899,710	3%
Employed in Occupations at 'High Risk' of Layoff	66,786,310	46%
Food Preparation and Serving-Related Occupations	13,374,170	9%
Sales and Related Occupations	10,443,460	7%
Production Occupations	8,313,750	6%
Installation, Maintenance and Repair Occupations	5,628,890	4%
All Other 'High-Risk' Occupations	29,026,040	20%

Source: "COVID-19: Which Workers Face the Highest Unemployment Risk?," Charles Gascon, St Louis Fed, 24 March 2020

### How Will COVID-19 Affect Women Workers?

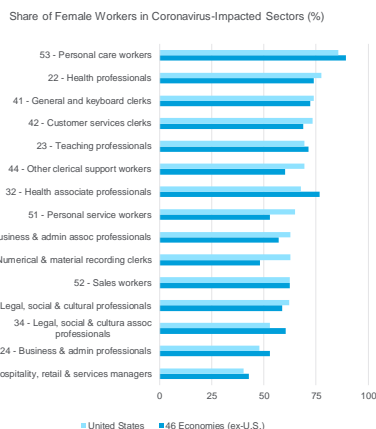
Early evidence in the U.S. highlights that key sectors where women are the most concentrated are also suffering from the most COVID-19 layoffs. Over the March-April 2020 span, a net 21.3 million jobs were lost in the United States. Of that figure, 11.7 million of those positions were held by women, compared to 9.6 million that were held by men. In other words, 15 percent of female employees who were employed as of January this year lost their jobs, compared to 13 percent of male employees. The COVID-19 impact is starker at the industry level. Job losses for men were material among goods producing sectors — especially construction and manufacturing, but job losses among women in the services sector was 1.4 times that of men. Female education and health services payroll reductions were five times that of males. The number of female layoffs was roughly double that of males in other services and government sectors. Retail trade cuts for women were just shy of double the number for men. More women also lost jobs in the leisure and hospitality, financial services, and business and professional services sectors. Among these seven sectors, 11 million women were laid off compared to 7 million men. The staggering losses are a testament to the impact of COVID-19 on the economy. However, the fact that women tipped the scales in these select sectors is unsurprising as U.S. women tend to dominate these professions.

Figure 3. In the United States, Women Were Particularly Hard Hit by COVID-19 Layoffs

	Thousand Net Payroll Gains (Mar, Apr 2020)		Percent of January 2020 Population	
	Male	Female	Male	Female
<b>Total Nonfarm</b>	<b>-9,625</b>	<b>-11,745</b>	13	15
Total Private	-9,237	-11,125	14	18
Government	-388	-620	4	5
<b>Goods-Producing</b>	<b>-1,867</b>	<b>-562</b>	11	12
Mining & Logging	-55	-2	9	2
Construction	-908	-100	14	10
Manufacturing	-904	-460	10	12
Durable Goods	-696	-238	11	12
Nondurable Goods	-208	-222	7	13
<b>Service-Providing</b>	<b>-7,758</b>	<b>-11,183</b>	13	16
Private Service-Providing	-7,370	-10,563	15	18
Trade, Transportation & Utilities	-1,422	-1,689	9	15
Wholesale Trade	-230	-136	6	8
Retail Trade	-836	-1,316	11	17
Transportation & Warehousing	-355	-236	8	16
Utilities	-3	0	1	0
Information	-155	-103	9	9
Financial Activities	-129	-136	3	3
Professional & Business Services	-1,054	-1,143	9	12
Education & Health Services	-443	-2,202	8	12
Leisure & Hospitality	-3,722	-4,430	47	49
Other Services	-445	-860	16	27
Government	-388	-620	4	5

Source: Bureau of Labor Statistics, Citi Research

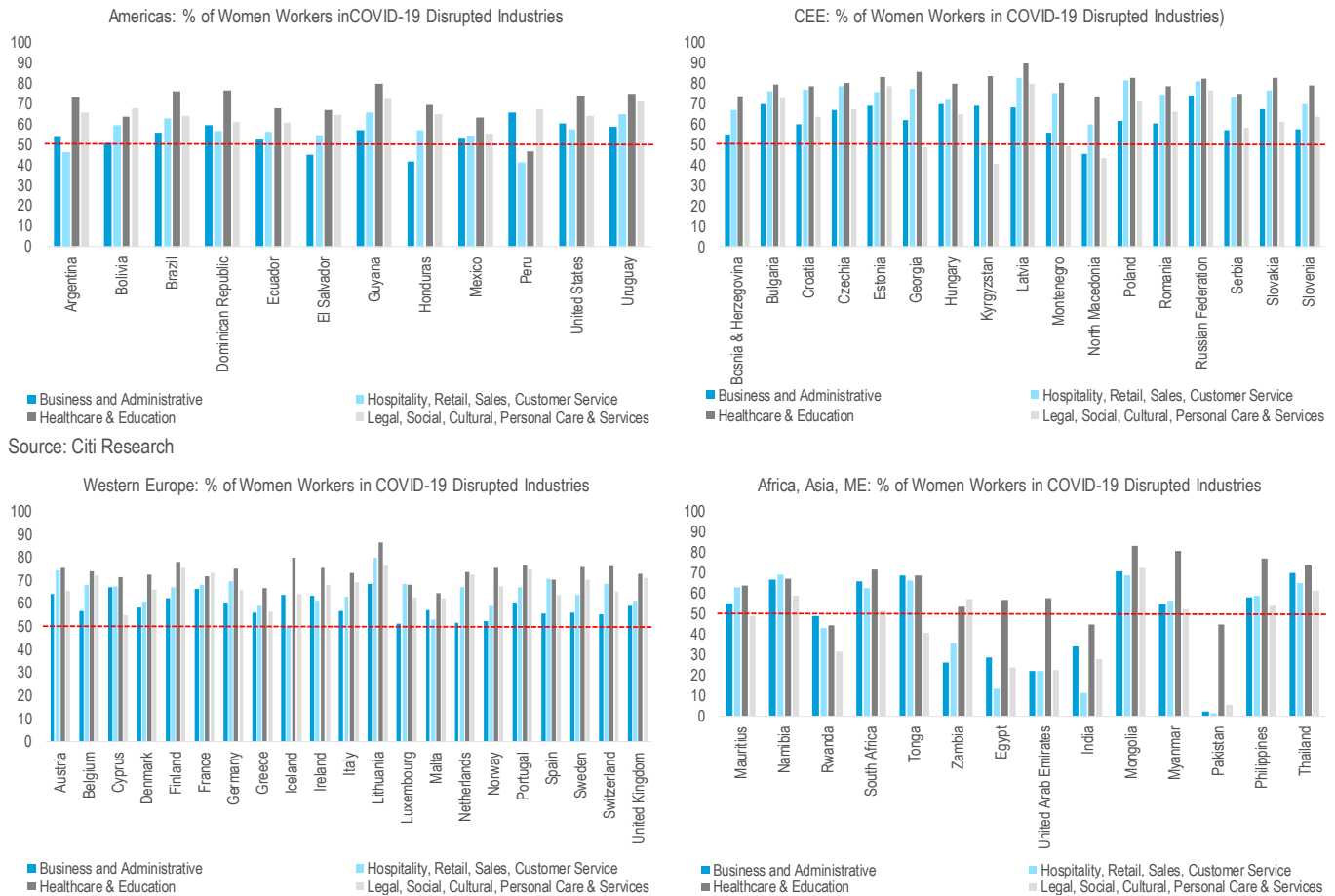
Figure 4. Women Heavily Concentrated in COVID-19 Affected Sectors



Source: ILO, Citi Research

The outsized presence of women in sectors that are the most heavily impacted by COVID-19 disruptions is not unique to the United States. The International Labor Organization (ILO) tracks the share of women versus men by sector. Among the sectors that are experiencing the greatest number of layoffs, women tend to occupy 50 percent or more of those jobs. For example, women in both the U.S. and the rest of the world occupy 75 percent or more of the jobs in the personal care, health care, and clerical professions. Roughly 70 percent of persons in education are women. Hospitality and retail is one of the rare exceptions to the rule among industries heavily impacted by coronavirus-related layoffs, where women in the U.S. and across the globe have a smaller share of positions relative to men. Nonetheless, jobs related to retail and hospitality, including customer service clerks and sales workers, overwhelmingly tend to be women. Figure 5 reveals that for several broad sectors – business and administrative; healthcare and education; hospitality, retail, sales and customer services; and legal, social, cultural, personal care and services – that are most likely to experience coronavirus-related layoffs, in the Americas, all of Western Europe, most of Central & Eastern Europe (CEE), and parts of Africa and Asia, women represent outsized shares (i.e., greater than 50 percent) of workers. Among a subset of major economies (excluding China due to lack of data), we estimate that roughly 220 million women work in sectors that are highly vulnerable to COVID-19-related job cuts. The figures are likely significantly higher if we were to fold in China.

Figure 5. Percentages of Women Working in Industries that Are Highly Vulnerable to COVID-19 Disruptions by Economy



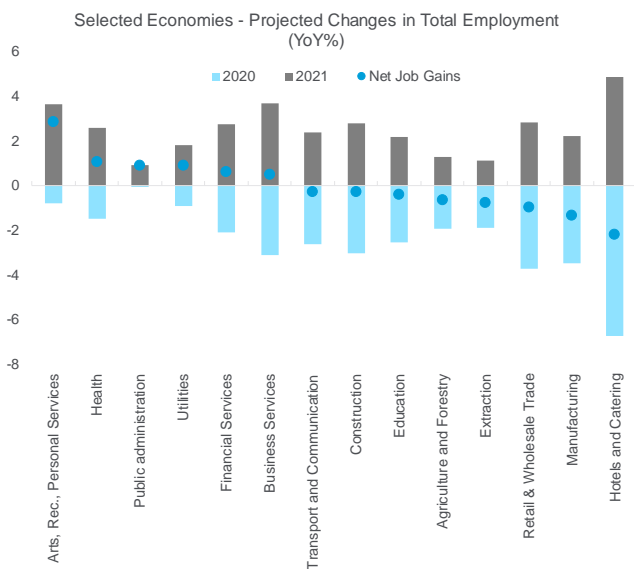
Source: Citi Research

Source: International Labor Organization, Citi Research estimates

Sectors dominated by women are not only experiencing payroll cuts during the pandemic, they may also be more vulnerable to job losses in the post-pandemic world

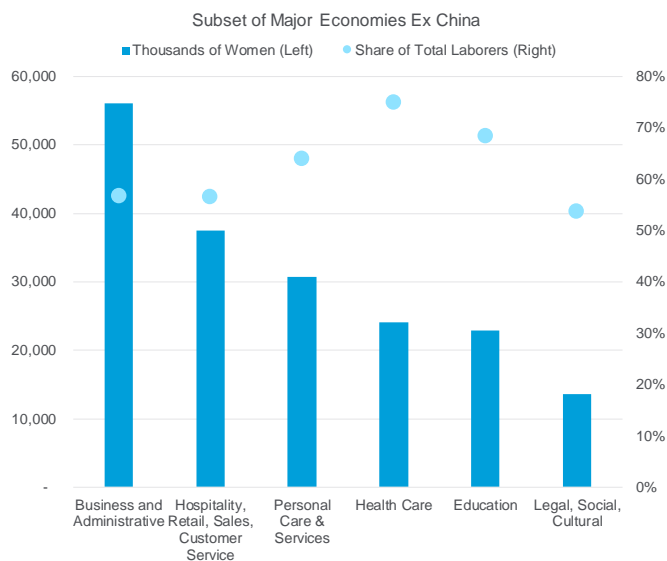
Sectors dominated by women may not only experience steep payroll cuts, but may also not recoup all jobs lost during the recovery from the pandemic. We inputted Citi’s May 2020 base case expenditure-based GDP projections into the Oxford Economics (OE) Global Economic Model (GEM), which feeds into the OE Global Industry Model (GIM). The model suggests that in 2020, sectors that might lose the most jobs globally on account of the coronavirus include retail and wholesale trade, agriculture and forestry, hotels and restaurants, manufacturing, and business services. Education, health, and transport and communication may also shed outsized numbers of workers (Figure 6). However, the sectors that may not rehire or replace all of these workers through 2021 include education, retail and wholesale trade, and hotels and restaurants, which tend to employ large numbers of women (Figure 7). Our model estimated that for a subset of major economies (excluding China due to a lack of data), total job losses (male and female) in 2020 might top 34 million. However, ‘back of the envelope’ estimates using ILO data and U.S. male-female shares of layoffs-to-date suggest that among this same subset of economies (also excluding China due to lack of data), layoffs could ultimately top 44 million in sectors most affected by the coronavirus, with women (~31 million layoffs) suffering the brunt of job cuts compared to men (~13 million). These estimates are imperfect, but nonetheless provide policymakers with a framework for the magnitude of loss women might endure (see Job Cut Estimates).

Figure 6. Women Abound in Sectors that Might Not Recoup Jobs



Note: Select economies include United States, Japan, Germany, France, Italy, United Kingdom, Argentina, Australia, Austria, Belgium, Brazil, Canada, Czech Republic, Denmark, Hungary, India, South Korea, Malaysia, Mexico, Netherlands, Poland, Russia, Slovakia, Spain, Sweden, Switzerland, Taiwan.  
Source: International Labor Organization, Citi Research

Figure 7. Women Prevalent in Sectors Projected for Steep Job Losses

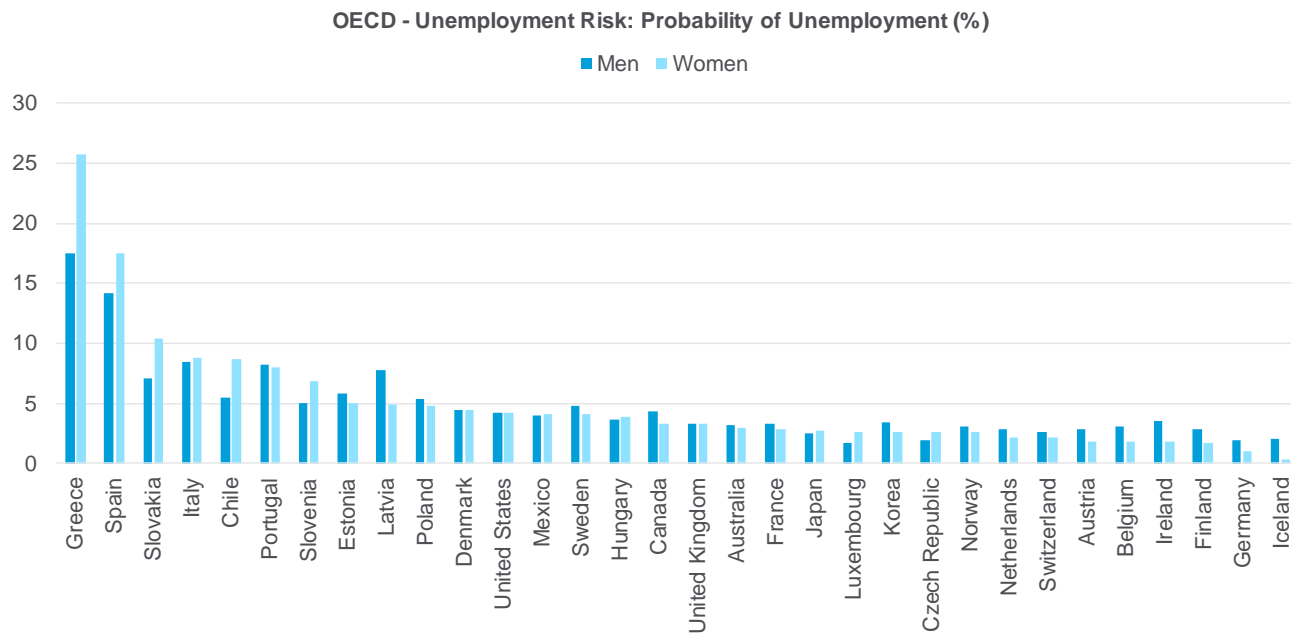


Note: Select economies include United States, Germany, France, Italy, United Kingdom, Argentina, Austria, Belgium, Brazil, Czech Republic, Denmark, Hungary, India, Mexico, Netherlands, Poland, Russia, Slovakia, Spain, Sweden, Switzerland.  
Source: International Labor Organization, Citi Research

The risk of unemployment in a post-COVID-19 world is higher for females vs. males, which could also lead to higher rates of poverty for females

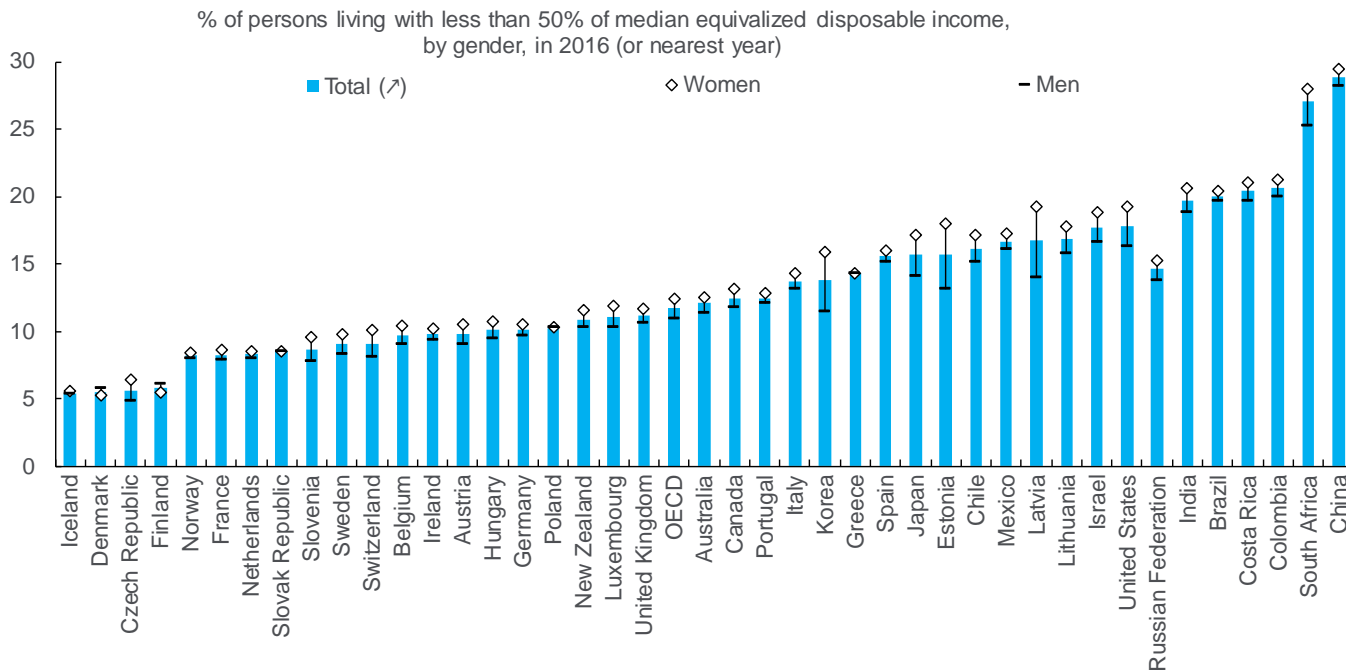
In the wake of the coronavirus pandemic, unemployment and poverty risks for women may rise. Prior to the COVID-19 outbreak, the risk of unemployment for women across advanced economies and upper- and middle-income emerging markets, with a few exceptions (e.g., Greece, Spain, Slovakia, Chile, Latvia), was little different from that of men (Figure 8). However, as women are more likely to work in sectors that are highly vulnerable to coronavirus-related job cuts, their risk of unemployment is quite likely to rise. Indeed, women in emerging markets, and Southern Europe are more likely to be poor, and poorer than men. Surprisingly, even in wealthy economies like Japan and the U.S., female poverty rates are elevated and the gap with poor men is quite wide (Figure 9 **Error! Reference source not found.**).

Figure 8. COVID-19-Related Job Cuts May Shift the Balance of Unemployment Risk Towards Women



Note: Unemployment risk is measured as the monthly unemployment inflow probability times the expected average duration of unemployment spells (in months). Unemployment inflow probability: the ratio of unemployed persons who have been unemployed for less than one month over the number of employed persons one month before. Expected unemployment duration: the inverse of the unemployment outflow probability where the latter is defined as one minus the ratio of unemployed persons who have been unemployed for one month or more over the number of unemployed persons one month before.  
 Source: OECD Job Quality Database <https://www.oecd.org/statistics/job-quality.htm>.

Figure 9. Women Are Likely to be More Impoverished than Men; Poverty Gaps Between Men and Women Can be Significant

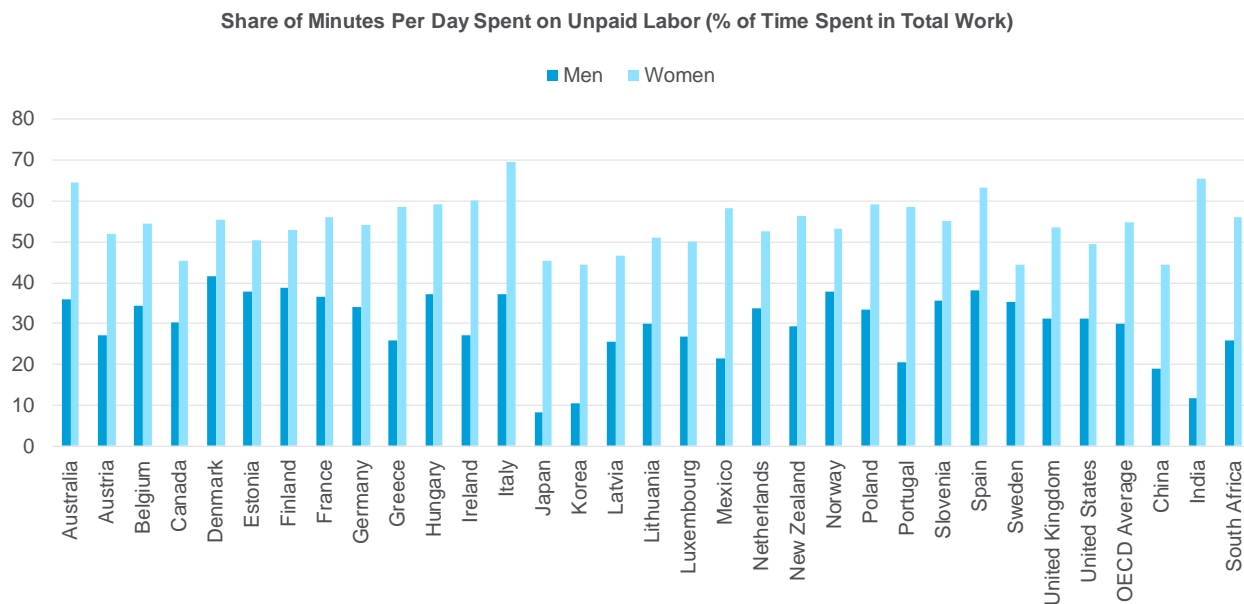


Source: OECD Income Distribution Database (<http://oe.cd/idd>).

Women’s ability to work is also hampered by cultural and family dynamics, such as home schooling and caring for sick family members

Cultural and familial dynamics compound the risk of decreased female LFP post-pandemic. Adding to the layoff risk, there are myriad factors that may inhibit women’s ability to return to work once businesses reopen or find new employment if their previous positions are no longer available. In every economy for which the OECD provides data, women spend more minutes of total work per day on unpaid versus paid labor compared to men (Figure 10). This unpaid labor can include housework, child care, and dependent adult care. Women are also more likely to undertake the responsibility of caring for sick family members and children. Data out of Europe reveal that women are more likely to adjust their labor force activities (e.g., cut hours, take family leave, change jobs) to accommodate child care than are men (Figure 11). Presently, there are roughly 1.5 billion children, globally, who are learning from home due to shutdowns (Figure 12). In Europe, women were also reported to care for incapacitated adult relatives more often than were men (Figure 13). These figures are unlikely to be unique to the European experience.

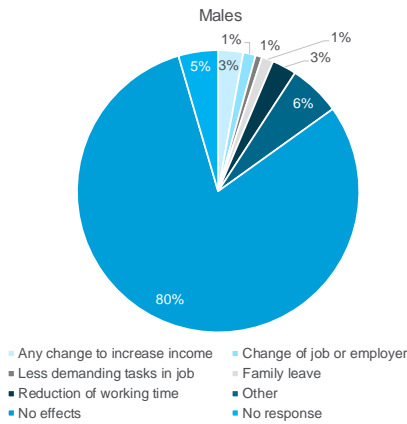
Figure 10. Women Spanning the Global Typically Spend More Time Per Day on Unpaid Labor than Men



Source: OECD Employment Database

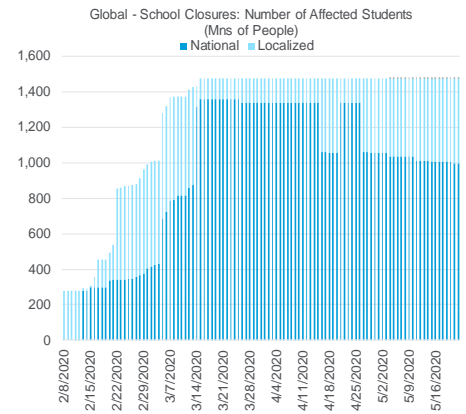


**Figure 11. In Europe, Women Are More Likely to Make Adjustments to Accommodate Childcare than Men**



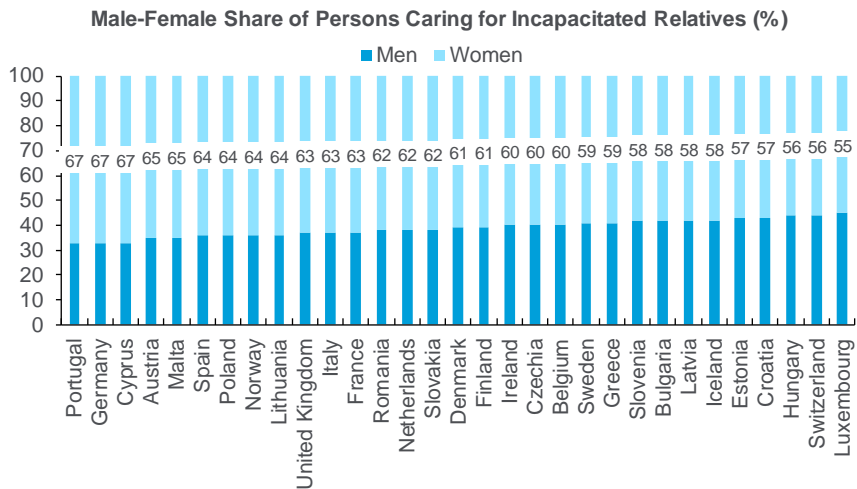
Source: Eurostat, Citi Research

**Figure 12. 1.5 Million Children Are at Home Due to COVID-19-Related School Closures**



Source: UNESCO, HDX, Citi Research

**Figure 13. In Europe, Women Are More Likely to Care for Adult Dependents**

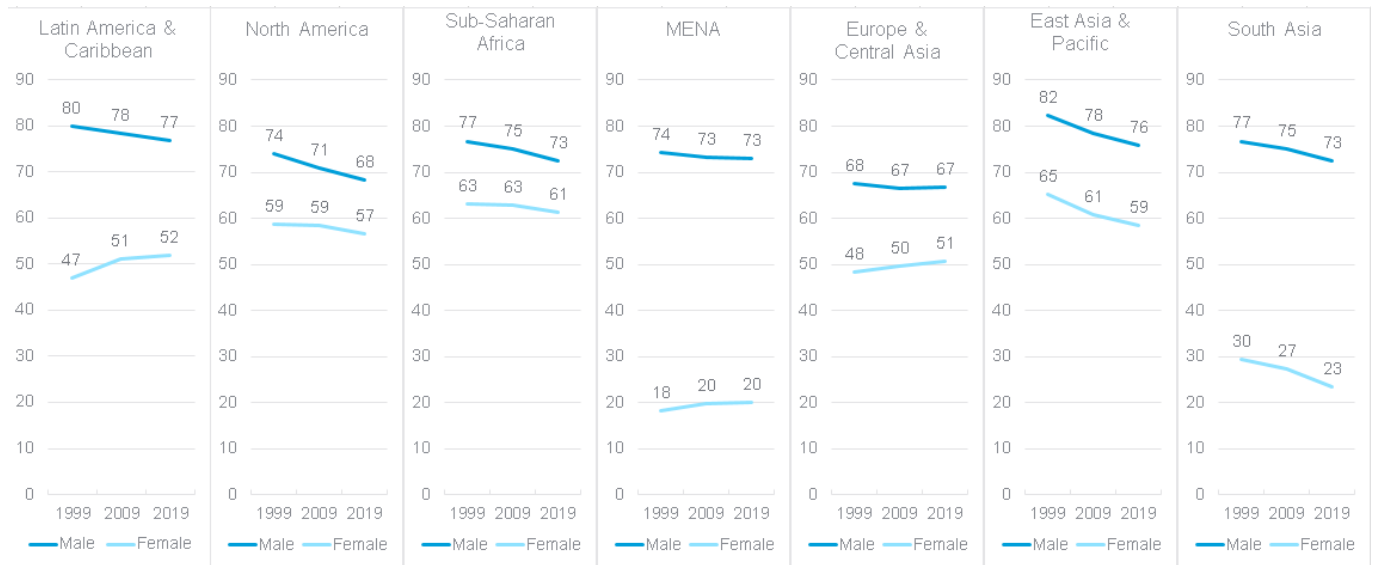


Source: OECD, Citi Research

Reductions in female LFP and employment due to the coronavirus pandemic may notably reduce global GDP growth if not mitigated. Over the last 20 years, public and private policies have helped to narrow gaps in female and male labor force participation rates, with increased female LFP, especially in Latin America and the Caribbean, the MENA region, and Europe and Central Asia (Figure 14). Even in regions that experienced declines in LFP for both men and women, the gaps between them have either narrowed or have at least not worsened (North America, Sub-Saharan Africa, East Asia and Pacific). In past research, we have shown the direct linkages between female labor market indicators (e.g. LFP, employment rate, wages, etc.) and global GDP growth, plus how bolstering female labor market activity can be an important driver of global growth.<sup>1</sup> If roughly 31 million women in the six sectors highlighted in Figure 7 lost their jobs, then the equivalent loss to real global GDP (~\$84 trillion) might sum to as much as \$1 trillion (Figure 17) or represent 1.2 of the 3.6 percent YoY drop in 2020 global GDP growth we expect.

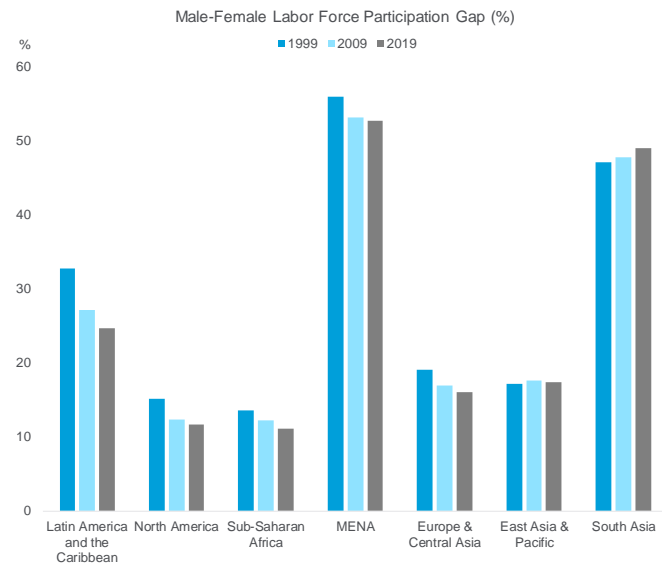
<sup>1</sup> From the supply side, where output is a function of capital, labor, and total productivity inputs.

Figure 14. Women Have Made Some Strides in Narrowing Labor Force Participation Gaps with Men in Select Regions



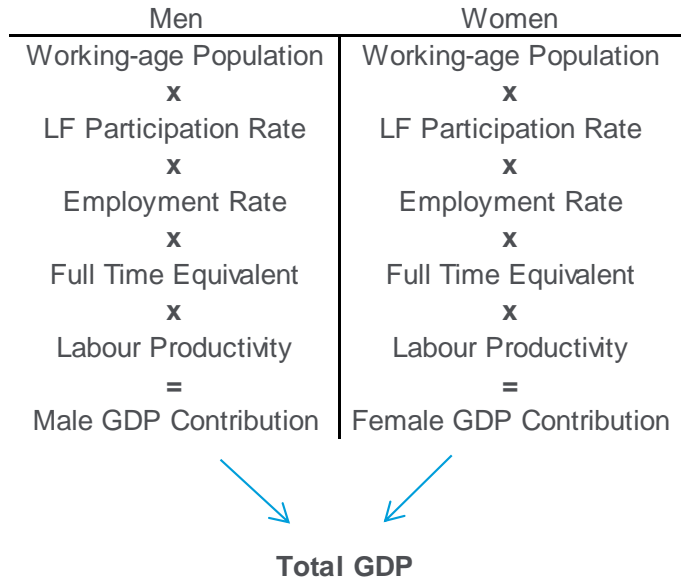
Source: World Bank, ILO, Citi Research

Figure 15. Strides in Narrowing Female-Male LFP Gaps



Source: World Bank, ILO, Citi Research estimates

Figure 16. How Do Women Contribute to Global GDP Growth?



Source: Citi GPS: Women in the Economy II

**Figure 17. Estimated Effects of Potential Female COVID-19-Related Job Losses in Six Sectors on Global Real GDP Level and Growth Rate**

	<b>2019</b>	<b>2020</b>
Global Real GDP	\$ 84,124,445,600,000	\$ 84,124,445,600,000
Female Working Age Population	2,481,608,000	2,481,608,000
Female Employment in 6 sectors	184,914,000	154,203,000
Change in Female Employment		(30,711,000)
Female Emp/Pop in 6 Sectors	7.5%	6.2%
Global Real GDP x Emp/Pop in 6 Sectors	\$ 6,268,430,684,330	\$ 5,227,353,347,046
Global Real GDP Effect		<b>\$ (1,041,077,337,284)</b>
	<b>2019</b>	<b>2020</b>
GDP Growth Rate, YoY% (Citi Estimate)	2.7%	-3.6%
Contribution to Percent Change in growth rate		<b>-1.2%</b>

Source: Oxford Economics, United Nations, International Labor Organization and Citi Research estimates

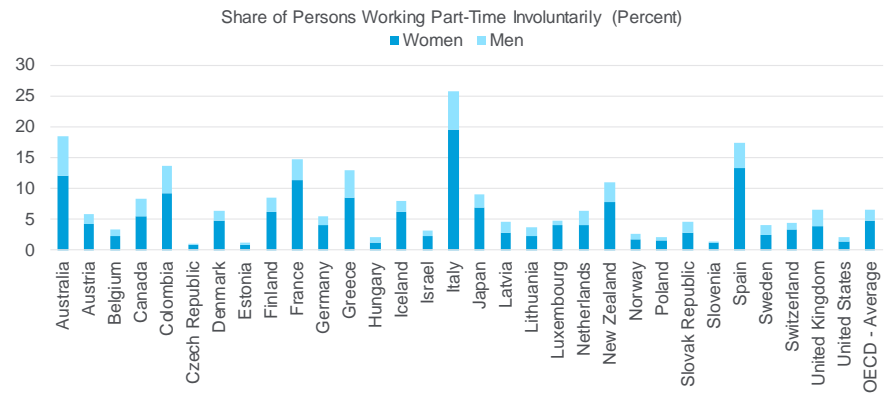
Decision-makers must take women into account in policies that address COVID-19 economic disruptions to help mitigate further GDP losses

To help mitigate job, and ultimately global GDP losses, decision-makers must also take women into account in policies intended to address COVID-19 economic disruptions. Indeed, many of the public and private policies highlighted by the United Nations' Sustainable Development Goals (SDG), and echoed by both the United Nations and the OECD in their work about the impact of the pandemic on women, are the same vital policies that supported female LFP and employment prior to the coronavirus shock. We note several here from the OECD's report "Women at the core of the fight against COVID-19 crisis":

■ **Policy options to support women, workers, and families with caring responsibilities.** We note that women are more likely to work part-time involuntarily, due to a combination of factors, including economic and familial, than are men (Figure 18). The body of literature overwhelming supports the conjecture that policies aimed at encouraging and supporting full-time employment help narrow female labor force and earnings gaps.

- Offering public childcare options to working parents in essential services, such as health care, public utilities, and emergency services.
- Providing alternative public care arrangements.
- Offering direct financial support to workers who need to take leave.
- Giving financial subsidies to employers who provide workers with paid leave.
- Promoting flexible working arrangements that account for workers' family responsibilities.

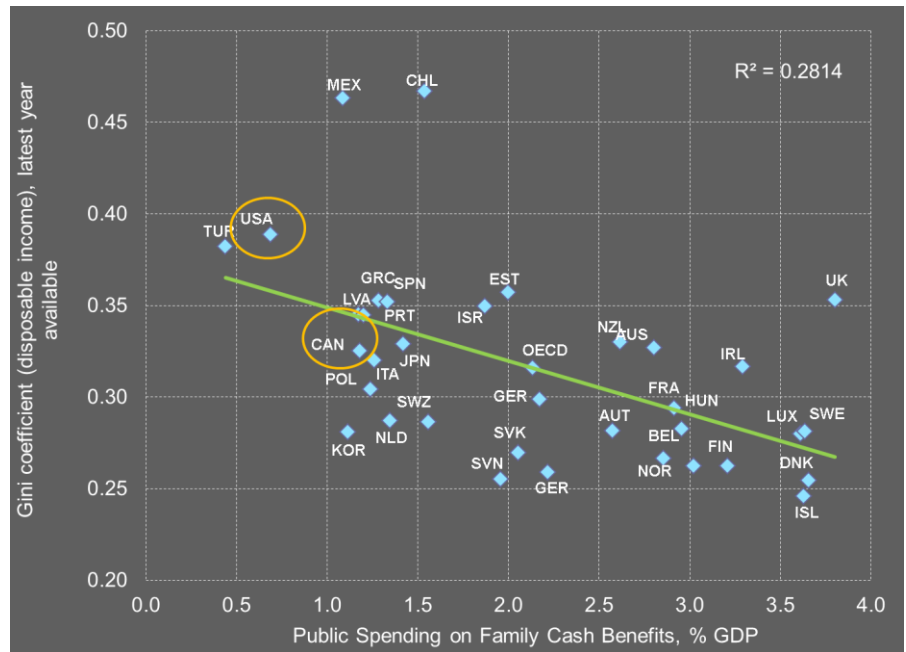
Figure 18. Women Across the OECD Are More Likely to Work Part-Time Involuntarily Than Men



Source: OECD, Citi Research

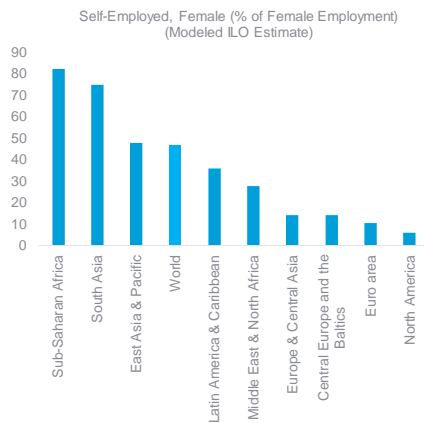
- **Policy options to support women, workers, and families facing job and income loss.** We note that fiscal policies spanning the globe are already implementing some of the prescribed measures, including expansion of unemployment benefits to non-standard (e.g., self-employed) workers, and direct cash outlays to families, which, when applied more broadly helps to reduce poverty (Figure 19). Central banks are providing loan facilities to help financial institutions that might suffer financial losses from consumer and corporate bankruptcies and delayed credit and mortgage payments. Moreover, regional and local governments, as well as some private sector entities, are implementing measures to provide forbearances for workers impacted by job losses to prevent home evictions and utility service cuts.
  - Extending access to unemployment benefits to non-standard workers.
  - Providing easier access to benefits targeted at low-income families, in particular single parents, who are predominantly female.
  - Considering one-off payments to affected workers.
  - Reviewing the content and/or timing of reforms restricting access to unemployment benefits that are already scheduled.
  - Helping economically insecure workers stay in their homes by suspending evictions and deferring mortgage and utility payments.

Figure 19. Public Spending on Cash Outlays to Families Can Help Reduce Income Inequality



Note: A low GINI denotes less income inequality  
 Source: OECD, Citi Research

Figure 20. Women More Likely to be Self-Employed in Emerging Markets



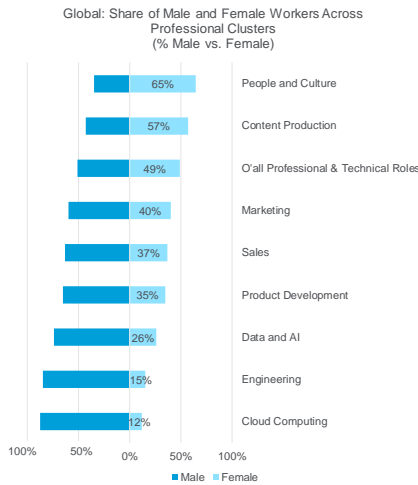
Source: World Bank, ILO, Citi Research

■ Policy options to support entrepreneurs and small-business owners

**(SMEs).** We note that the governments of the United States, United Kingdom, Japan, Canada, and South Korea have all established programs (e.g., forgivable loans) to assist SMEs amid coronavirus-related economic disruptions. SME supports would be extremely important for women-owned businesses in emerging markets in Africa and Asia, where the likelihood that a woman is self-employed tends to be higher (Figure 20).

- Actively inform firms about how to reduce working hours, provide relief for workers, and manage redundancy payments related to temporary layoffs and sickness. Set up dedicated financial facilities to help small businesses address the short-term consequences of the outbreak – including, for example, temporary tax relief, dedicated loan programs and direct financial support. Ensure that the self-employed can access emergency financial measures, especially those who do not qualify for employment insurance.
- Introduce mediation measures concerning procurement and payment delays.
- Consider more forward-looking support measures to strengthen business resilience, e.g. training or mentoring programs to help SMEs assess and manage the financial impact of the crisis, go digital, or find new markets.
- Ensure an inclusive public-private dialogue so that women business owners can voice their concerns and priorities when public policy reforms are being envisaged.

**Figure 21. Women are Underrepresented in ‘Frontier’ Sectors**

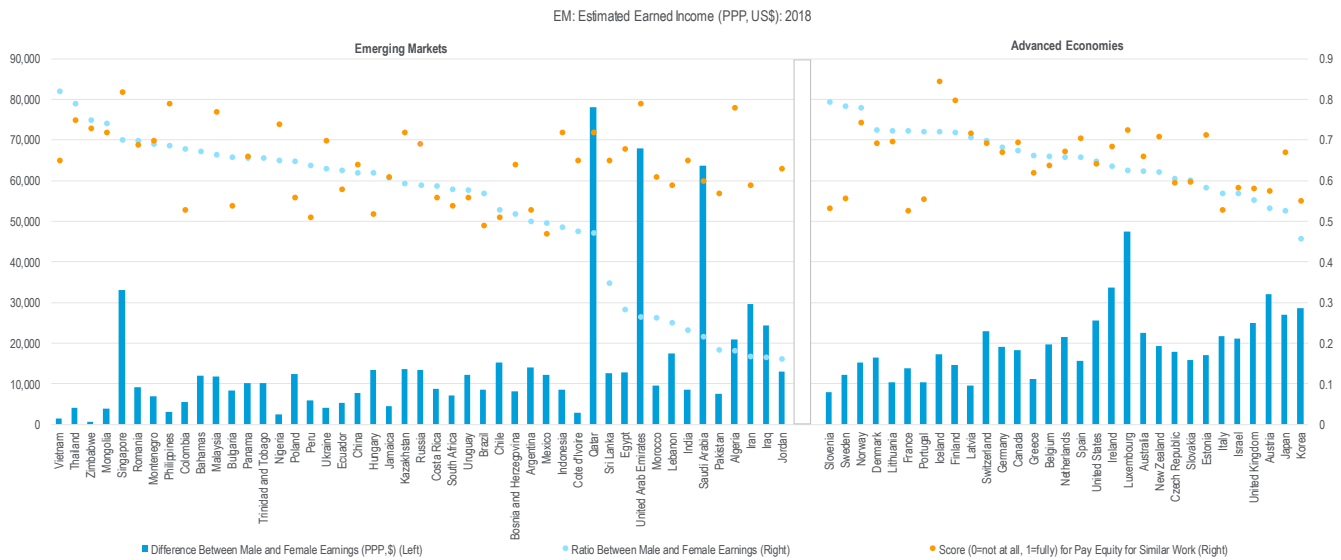


Source: WEF Global Gender Report, ILO, LinkedIn, Citi Research

■ **Other policies include, but are not limited to:** (1) direct aid to impoverished persons and those likely to easily fall into poverty; (2) proper gender-based data collection and analysis; (3) including women in policymaking regarding the coronavirus response and recovery; (4) protecting women from gender-based violence; and (5) continuing to pursue public and private policies that support closure of gender labor force participation and wage gaps. Policy (5) includes pay-equity regimes; steering women towards ‘frontier’ and high-wage sectors; and passing laws that prohibit discrimination in employment, retirement benefits, taxation, and pay. Indeed, earnings gaps remain wide across the globe, even among a number of Advanced Economies (Figure 22).

- Providing immediate cash transfers and food aid, to mitigate the economic impact of COVID-19 and to prevent the most vulnerable – primarily women and children – from falling into poverty.
- Ensuring that data collected on the impact of the crisis are systematically sex-disaggregated to measure the effects of the outbreak on SDGs through a gender lens. Ensuring that all policy and structural adjustments to support sustainable recovery go through robust gender and intersectional analysis.
- Stepping up measures to increase the role and numbers of women and women’s agencies in decision-making processes, including around prevention and response to COVID-19.

**Figure 22. Gender Earnings Gap Remains Wide Across the Globe, Even Among Advanced Economies**



Source: World Economic Forum, Citi Research

## Concluding Thoughts – Outsized Impact

COVID-19 is imposing a major setback to gains in female labor force participation, and thereby threatening their important contribution to global growth.

Layoffs could ultimately top 44 million in sectors most affected by coronavirus pandemic-related disruptions among major economies, with women (~31 million layoffs) suffering the brunt of job cuts compared to men (~13 million). This is excluding China. Adding China, the figure is likely to be even greater. Indeed, preliminary data suggest that women are already bearing more of the burden of layoffs than are men: for example, 1.6 times more in the United States.

More than 220 million women spanning the globe are in sectors vulnerable to job cuts due to the coronavirus pandemic. If approximately 31 million women in six key sectors lost their jobs on account of COVID-19, then the equivalent loss to real global GDP might sum to as much as \$1 trillion, or represent 1.2 percent of the 3.6 percentage point drop in 2020 global GDP growth we expect.

The greater vulnerability of women to job losses is due to the segmentation of female laborers into sectors that are the most negatively affected by coronavirus disruptions. Moreover, women are more likely than men to be caretakers and vulnerable to unemployment risk and poverty, which limit LFP.

To help mitigate job, and global GDP losses, decision-makers must take women into account in policies intended to address COVID-19 economic disruptions. Many policy prescriptions predate the pandemic, and are even more suitable now.

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