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**Macroeconomic policy and its potential for valuing, reducing, and redistributing poor women’s unpaid labour**

\* The views expressed in this paper are those of the authors and do not necessarily represent those of the United Nations.

## Introduction

### 1. A snapshot of the progress on reducing women's unpaid labour

**Table 1. The progress of achieving SDG 5.4 [Indicator 5.4.1]**

Sub-regions/ Level of Assessment	Central and Southern Asia	Eastern and South- Eastern Asia	Northern Africa and Western Asia	Latin America and the Caribbean	Europe and Northern America	Sub-Saharan Africa
	Very far	Very far	Very far	Far	Moderate	--
<b>Countries Very far from target</b>	India Iran (Islamic Republic of) Pakistan	Cambodia Japan	Algeria Armenia Egypt Iraq Morocco Palestine (State of) Tunisia Turkey	Dominican Republic Ecuador Guatemala Honduras	Albania	Madagascar Malawi
<b>Far from target</b>	Bhutan Kazakhstan	China Hong Kong (China SAR) Korea (Republic of) Malaysia Mongolia Thailand	Azerbaijan Oman Qatar	Argentina Brazil Chile Costa Rica El Salvador Mexico Panama Paraguay Peru Uruguay	Belarus Bulgaria Greece Hungary Ireland Italy Latvia Lithuania Luxembourg Malta North Macedonia Romania Russian Federation Serbia Spain	Cameroon Ethiopia Ghana Lesotho Liberia Mauritius South Africa Tanzania (United Republic of)
<b>Moderate distance to target</b>	Kyrgyzstan			Bolivia Colombia Cuba	Austria Canada Estonia France Germany Netherlands Poland Portugal Republic of Moldova Slovenia Switzerland U.K. U.S.A.	Réunion Uganda
<b>Close to target</b>	Lao PDR				Belgium Denmark Finland Norway Sweden	

Source: UN Women (2021).

Note: Sub-Saharan Africa's trend assessment was not reported due to insufficient data. Oceania is not included in the table due to insufficient data; Australia and New Zealand have a moderate distance from the target, while Fiji is far from the target.

Halfway to the 2030 endpoint for the Sustainable Development Goals (SDGs), Asia and Northern Africa are very far from achieving SDG Target 5.4, “recognize and value unpaid care and domestic work through the provision of public services, infrastructure, and social protection policies and the promotion of shared responsibility,” while Latin America and the Caribbean is also far from the target (Table 1). Those sub-regions (and Sub-Saharan Africa) lack time-use data for measuring achievement. Less than half of the countries in each sub-region, except Europe and Northern America, have valid time-use data for assessment. If government officials do not ‘recognize’ how much time that women and men spend on unpaid domestic and care work at home, they will not be able to propose any practical ideas to ‘reduce’ and ‘redistribute’ unpaid domestic and care work between them and among families, state, market, and non-profit sector. Table 1 also shows that the governments that recognize the many hours women and men spend on unpaid domestic and care work each day need to be faster to provide better public services and social protection to achieve sustainable development.

This paper urges all governments, particularly those in Central and Southern Asia and Eastern and South-Eastern Asia, to quickly enhance social infrastructure and public care services to avoid care crises partly stemming from demographic crises. The number of countries listed under Central and Southern Asia and Eastern and South-Eastern Asia in Table 1 is small. However, these sub-regions collectively house over half of the world population, with a significant portion experiencing one of the most rapid ageing trends ever recorded in human history. The paper also argues that social provisioning of care would create millions of jobs for women and men with various educational backgrounds. Therefore, smart investment is a public investment in care sectors, which helps countries to achieve SDG 5 on gender equality as well as SDG 1 on poverty eradication, SDG 8 on the promotion of inclusive and sustainable economic growth, full and productive employment and decent work for all and SDG 10 on reducing inequality, among others.

## **Situation Analysis**

### **2. Demographic Change: Asia is ageing rapidly**

The world population, currently over 8 billion, could continue growing due to partly increased life expectancy levels at birth, and the average fertility stood at 2.3 births per woman over a lifetime (UNDESA Population Division, 2022a). However, the world population's growth rate is decreasing as the world, except for Sub-Saharan Africa, is rapidly ageing (Table 2).

The United Nations defines an ‘ageing society’ as a society in which more than 7% of the total population is 65 years older, an ‘aged society’ as a society in which more than 14% of the total population is 65 years older, and a ‘super-aged society’ as a society in which more than 21% of the total population is 65 years older.

As of 2022, Europe and Northern America share the highest ageing rate of 19%, followed by Australia/ New Zealand. However, the UN estimates that the other regions will experience a 2 to 3-fold growth of the elderly population, resulting in four-fifths of the senior citizens residing in the current developing regions in 2050.

Countries in Europe and Northern America, Australia, and New Zealand took 40 to 120 years to transition from an ageing society to an aged society. They took (or will take) between 20 and 50 years to become a super-aged society (UNDESA, 2023a). Nevertheless, in other regions, the ageing trend is much faster.

Table 2: Ageing rates and the number of elderly populations, 2022-2050 (estimates)

Sub-regions	2022		2030		2040		2050	
	%	in 1,000	%	in 1,000	%	in 1,000	%	in 1,000
Europe and Northern America	19	211,367	23	250,531	26	282,283	29	303,475
Australia/New Zealand	17	5,270	20	6,588	23	7,956	26	9,103
Oceania (excluding Australia and New Zealand)	4	546	5	808	7	1,193	9	1,623
Latin America and the Caribbean	9	60,745	12	81,726	16	110,638	21	142,020
Eastern and South-Eastern Asia	13	304,228	17	395,171	24	533,991	28	597,870
Central and Southern Asia	6	134,664	8	184,582	11	257,794	15	350,228
Northern Africa and Western Asia	6	30,776	7	44,298	10	67,898	14	98,196
Sub-Saharan Africa	3	35,402	3	46,807	4	68,019	5	100,427
World	10	782,999	12	1,010,511	15	1,329,772	18	1,602,943

Source: UNDESA, Population Division. 2022b. File POP/03-1: Total Population by Select age group, region, subregion and country, annually for 1950-2100.

Note: Ageing rate (%) = the number of elderly populations (ages 65+)/ total population, given estimates with low fertility variant.

In Japan, the world's most elderly country, the 65 years and older share accounted for 7% in 1966, 14% in 1993, 21% in 2005, and 30% in 2020. It took 39 years to become a super-aged society from an ageing society. The Republic of Korea is expected to reach the share of the elderly population 21% in 2025, 37 years after reaching 7% in 1988 (UNDESA Population Division, 2022b).

China, the 2022 most populous country, is one of the fastest ageing societies in the world. The population ages 65 and above reached 7% of the total population in 2000 and 14% in 2022 (World Bank, 2023). It is expected to reach 21% as early as 2033, just 33 years after becoming an ageing society. China's 2022 share of senior citizens is less than half of Japan's, but the number of people ages 65 and above was about 200 million, 5.7 times more than Japan's elderly population. The total population of China could experience a decline as early as 2023 (UNDESA Population Division, 2022b). The total fertility rate (live births per woman) being as low as 1.0, the elderly share can reach 30% as early as 2045, with more than 375 million senior citizens (ibid). Is China ready for such rapid ageing?

The total population has been declining in Japan since 2011 and the Republic of Korea since 2021 (ibid). However, both countries are now member states of the Development Assistance Committee (DAC) and have at least financial resources to support their ageing societies.

In addition, Japan, for example, has had a universal healthcare and pension system since 1961, when the country was still a developing nation, and the share of senior citizens was 5.8%. A long-term care insurance system started in 2000. Medical care, long-term care, childcare services, and pension schemes have been under the national welfare system. Therefore, hiring private babysitters or domestic helpers is not common in Japan.

On the other hand, China was under the economic transformation to a market-based economy in 1994 when the elderly share of the total population turned 5.8%. Between the early 1980s and

the mid-1990s, the state had privatized state-owned enterprises (SOEs) and township and village enterprises (TVEs). These market reforms abandoned the enterprise-based system of social benefits and elder- and childcare services (Dong and MacPhail, 2023). As a result, care responsibility returned to the family, specifically women. With the promotion of industrialization, many women and men migrated to cities to find paid jobs. Still, more married women and mothers returned to their rural homes than their male counterparts to undertake elder- and childcare (ibid). When the households in urban areas needed care assistance, they had no choice but to hire domestic workers. In 2019, China alone hired 22 million domestic workers, accounting for about 30% of the total domestic workers globally (ILO, 2021).

China started new institutional arrangements for social security and care provisions after the mid-2000s (Dong and MacPhail 2023), but perhaps it was too late to implement. China's current retirement age is 60 for men, 55 for women in white-collar jobs, and 50 for women in blue-collar jobs. As the baby boomers started retiring, the old-age dependency ratio (the ratio of working-age populations to seniors) is expected to drop from 2.26 in 2022 to 1.25 in 20 years (Tabeta et al., 2023). The lack of pension funds and other resources for social welfare becomes an issue. Raising the retirement age is an option that other advanced economies would consider, but the soon-to-be seniors and youths do not welcome the policy. The youth unemployment rate was reported as high as 20-25%. Neighboring South-Eastern Asian countries are in a similar situation, too. In short, China and most South-Eastern Asians will likely get old before getting rich.

Central and Southern Asia, the world's second most populous sub-region, has 2.1 billion people, 26% of the world's total population. India alone has more than 1.4 billion population (UNDESA Population Division, 2022a). India is now an ageing society; the population ages 65 and above reached 7% of the total population in 2022 (World Bank, 2023). The rate is much lower than in China, but nearly 100 million are aged 65 and above, nearly three times more than in Japan. India and nearby South Asian countries also lack public support for the elderly and childcare services. The public-supported care provisions, which help create millions of jobs, will be much needed in ageing Asia.

### **3. Inequality in care: A case of domestic workers**

Many households across the globe overcome the shortage of public care services by hiring domestic helpers and caregivers privately. For some households, hiring domestic workers has been somewhat traditional; over the generations, the family has hired multiple domestic workers, from a cleaner to a driver. For others, hiring a part-time helper or babysitter is common among working parents who are coping with their work-life balance.

In 2019, at least 75.6 million aged 15 and over were employed as domestic workers (ILO, 2021). About three-quarters of them were women. One in every five domestic workers is a migrant. Domestic workers are equivalent to 4.5% of total employees, yet over 81.2% of domestic workers are informally employed (ibid). More than half of all domestic workers are employed in Asia-Pacific, mainly in China, while another 23% are in North America, Latin America, and the Caribbean.

There is a substantial gender division of labour among domestic workers. Women are domestic helpers, cleaners, and caregivers, whereas men are drivers, cooks, gardeners, security guards, and building maintenance men. Technological advancement could eliminate some jobs. As time-use data show, washing machines, dishwashers, cookers, microwaves, and the availability of ready-to-eat meals have already eased women's time to cook and clean at home. In Japan, robotic vacuum cleaners become commonly available. Soon, self-driving cars may replace private drivers.

As a result, domestic workers who provide direct care services will be more in demand. However, this is more than just a changing occupation from one to another. As feminist economists pointed out, direct care is not only about changing diapers and feeding meals. On top of the professional knowledge and techniques, caregivers pay attention to emotional and interpersonal needs and must be capable of acting upon their needs (Nelson, 1999). Care work is demanding and inflexible (Tronto, 2013). It is a professional job that deserves a decent work environment and remuneration.

When affordable public and private care services are unavailable, relatively wealthy families hire domestic workers to ease their unpaid care work burdens. 'Privileged irresponsibility' is what Joan Tronto refers to as how the "division of labor and existing social values allow some individuals to excuse themselves from basic caring responsibilities because they have other and more important work to perform (Tronto, 2013, p. 104). A breadwinner man does not think it is his responsibility to directly care for his family and let his wife manage the household. She then hires, for example, a babysitter to ease her unpaid care work burden and pursue her career.

Not all have the same privilege. Such a private arrangement is possible because employers of domestic workers let somebody remain poor (like paying little); otherwise, they cannot afford to hire them. Or they wish to hire migrant workers who would do the same tasks at a cheaper rate. This is a factor behind persistent inequality within and across countries. It widens income inequality between the rich and poor, between men and women, and between women, given that most caregivers are women. Women and men who do not have the means to reduce their unpaid domestic and care work end up working longer hours to handle both paid and unpaid work. As a result, the income-poor remains time-poor. "(I)nequality in care creates a vicious circle" (Tronto 2013, p. 106). Therefore, provisioning of public care services is essential to eradicate poverty and reduce inequality.

Women live longer than men. Women earn less than men, on average. As a result, the amount of pension women receive is lower than that of men. Elderly women who live alone tend to be poorer than their male counterparts or women who live with children. In Japan, nearly two-thirds of senior citizens (64.1%) who lived alone in 2021 were women (MHLW, 2022). As of 2021, the total number of senior citizens was 35 million, of which 6.88 million required some care assistance and support.

Nearly 2.15 million licensed care workers engaged in long-term care, including home-visiting care work, belong to long-term care institutions and establishments governed by the national scheme (Cabinet Office, 2023). However, 83% and 69% of the institutions and establishments surveyed said there was a shortage of home-visiting care workers and long-term care workers at

nursing homes, respectively (Care Work Foundation, 2022). The shortage was estimated to be about 200,000 workers.

The number of senior citizens in China is approximately 200 million. It is forecasted to rise to 350 million in 2038/2039, just 15 years from now, according to the estimate by UNDESA, Population Division (2022b). Between now and 2027, 5 million, on average, join the cohort of senior citizens yearly. Between 2027 and 2037, 11.5 million, on average, will join the cohort of senior citizens yearly. From Japan's data, one can forecast that an additional 330,000 to 800,000 long-term care workers alone will be needed annually to meet the needs of an ageing society, not to mention other professions such as nurses and social workers.

Chinese families cannot simply rely on domestic workers. There won't be enough domestic helpers to assist the senior citizens who require care. Sourcing care workers from neighboring Asian countries is not feasible given the large number of workers required, and the neighboring countries also face their ageing issues. Unless the Chinese government starts investing in the social provisioning of affordable care services, from medical to long-term care, the country will face a care crisis due to a shortage of care workers.

#### **4. Millions of jobs needed: Youth unemployment, underemployment, and NEET**

With ageing trends, care burdens on working-age populations will increase, as the old-age dependency ratios indicate. Across the globe, women have been primary care providers for family members. SDG Target 5.4 has called for reducing and redistributing women's care work by providing public services, infrastructure, and social protection policies and promoting shared responsibility in society. As feminist economists have shown empirically (see below), public investment in care sectors is the most suitable investment for achieving sustainable development and growth. Investing in human care services is an excellent social and environmental investment, as it will create many jobs while helping those needing care support, and it will not create damage on Earth.

Countries across the globe face high youth (15-24 years old) unemployment and NEET (not in education, employment, or training). Even when the youth find jobs, many engage in informal and vulnerable employment. In countries where the data is available, the youth unemployment rate is typically two to three times higher than the total unemployment rate and is growing. Youth who are NEET are at a higher risk of becoming involved in military or armed conflict for an extensive period and becoming victims of illegal migration or trafficking. Among adolescent mortality, violence is a particular problem among boys (UNDP, 2016).

Several countries listed in Table 1 have two-digit youth unemployment rates, and some have a significant gender gap (Table 3). The proportion of youth NEET is higher than unemployment in all countries except Japan. Gender gaps in NEET in India, Pakistan, Guatemala, and Honduras have close to or over 30 percentage points. Young girls and women in those countries may engage in unpaid domestic and care work at home, helping lower unemployment in respective countries.

Technological advancements, such as the development of automation, robotics, and Artificial Intelligence (AI), may further increase youth unemployment and NEET if countries do not increase public investment in education and provide vocational training that meets the needs of job markets.

**Table 3. Youth unemployment rates and NEET (%) by sex, selected countries listed in Table 1**

	Central and Southern Asia			Eastern and South-Eastern Asia				
	India (2020)	Iran (2020)	Pakistan (2021)	Cambodia (2019)	Japan (2022)	China (2021)	Korea, Rep (2022)	Thailand (2021)
Unemployment								
Female	25.5	35.9	14.4	1.5	4.2		6.2	7.3
Male	24.2	21.2	10.0	1.7	5.1	14.2	7.3	4.7
NEET					(2019)		(2019)	
Female	45.6	41.4	56.4	12.5	3.7	n/a	15.6	18.2
Male	17.6	18.2	13.5	10.0	2.7	n/a	25.7	11.3
	Northern Africa and Western Asia				Latin America and the Caribbean			
	Algeria (2017)	Armenia (2020)	Egypt (2021)	Turkey (2021)	Dominican Rep (2021)	Ecuador (2021)	Guatemala (2019)	Honduras (2020)
Unemployment								
Female	45.5	22.1	42.5	28.6	25.6	12.8	5.6	27.5
Male	25.6	25.4	12.8	19.3	11.5	6.8	4.0	10.9
NEET								(2019)
Female	31.6	23.3	42.1	32.3	33.5	27.1	45.7	40.9
Male	10.9	28.6	16.7	17.4	21.1	9.9	9.5	12.2

Source: UN (2023); Indicator 8.5.2 (13<sup>th</sup> ICLS).

Recently, China reported that youth unemployment was greater than 20% in early 2023. Over 11 million graduate from universities yearly, but 2 million or so cannot find a job upon graduation. High school graduates are in a worse situation. To reduce youth unemployment, the Chinese government has announced a 10% increase in new army entrants (Chan, 2023). However, the total number of China's army personnel is just over 2 million; a 10% increase in new recruitment will not reduce youth unemployment, particularly young women's unemployment, significantly.

## **Recommendations**

### **5. Call for more public investment in the care sector: Toward a care-centered economy**

To support ageing societies, each working-age population needs to engage in economic activities to generate financial resources and fulfill the gap in the labour force. AI, robotics, and automation will reduce labour demand in manufacturing factories, agricultural fields, wholesale and retails, and hospitality industries. Then, where is the demand for labour? It is in the care sector. In the 21<sup>st</sup> century, only care sectors can create millions of jobs for women and men with various educational backgrounds.

In Japan, the services sector accounts for a significant share of employment, and the healthcare and long-term care sector is one of the few that displays constant employment growth. Another



one is the IT sector; yet, job opportunity is not available for everyone but for highly educated youths.

De Henau et al. (2016, 2017) estimated the employment impact of investing 2% of GDP in social infrastructure, specifically health and care services, and in physical infrastructure, specifically construction, for seven OECD member states (Australia, Denmark, Germany, Italy, Japan, UK, US) and six emerging economies, Brazil, Costa Rica, China, India, Indonesia and South Africa. If 2% of GDP were invested in the care and construction sectors, the care sector would generate more jobs than the construction sector in all 13 countries except India and South Africa. However, investing 2 % of GDP is estimated to create jobs of 414,300, a 1.2% growth of employment for South Africa, and over 11 million jobs (1.4%) for India. Investing 2% of GDP in China's care sector is estimated to create about 24 million jobs, and women are expected to engage in more than half the new care jobs generated.

De Henau et al. (2016, 2017) argue that prioritizing construction projects for the care sector would help. Building hospitals, clinics, nursing homes, nurseries and daycare centers that working parents can use are essential physical investments to assist the growth of care industries. The macroeconomic simulations show that suitable public investment creates jobs and enhances a sustainable economy by bringing gender equality to society. New jobs created vary from professions that require national licenses and certificates to general workers such as cooks and cleaners.

For the care economy to grow, the state must guarantee a decent work environment for all care workers. Japan has an excellent national care system, yet there is a persistent labour shortage in the care sector. On the one hand, vacancy rates for health care, long-term care, and childcare workers are three times higher than the industry average. On the other hand, more than a million persons with national licenses are not working as nurses, long-term care workers, and nursery teachers. A mainstream economic model informs us that a labour shortage will increase wages (prices). However, the state is not following the model only in care sectors.

MHLW (2017) forecasted that a shortage of nurses in Japan would reach 130,000 in 2025. However, about 700,000 people with national licenses are not working as nurses now because the pay for such a demanding job is low. If nurses with licenses return to work, the problem of labour shortage will be solved. The same can be said for long-term care workers and childcare workers. The same complaints are heard elsewhere; care workers took strike actions in the U.K. and U.S.A. Without professional care workers, all of us, young or old, cannot have a high quality of life. If the state expects people to fill the care gap with unpaid care work, it will deplete human capabilities and may have harmful spillover effects on the next generations.

Based on Japanese statistics, nurse's starting salary is no different from other occupations with similar educational backgrounds. The salary for regular workers will not increase much even if they work 15 years or more compared to school teachers who enjoy civil servant status. The same can apply to preschool or nursery teachers and long-term care workers. Common characteristics among care workers are female-dominant, and the government sets fees per service in the industry. The fees are covered partly through insurance programme and out-of-

pocket expenses and by taxpayers. The government hesitates to raise care workers' salaries as it implies tax hikes, which is unpopular before elections.

However, there are no excuses here; public school teachers' salaries increase as per the rules of civil servants, although taxpayer's money covers their salaries. Given increasing geopolitical tensions, almost all governments worldwide have increased their budgets for military expenses, even though the citizens will bear heavier tax burdens. So why do the states assume taxpayers will be upset with an increased budget for care sectors? Providing decent pay and work conditions to all care workers will do as they are providing essential services to society as any civil servants do.

For many countries, social provisioning of care services under the government's leadership and responsibility might be the first step to reducing and redistributing women's care work. However, that is not enough. The following step must ensure that all care workers are entitled to decent work conditions, including decent pay and full social security coverage. The government is responsible for providing care services based on people's needs. Based on mid- and long-term visions for sustainable development, the government should work on a sound financing plan for such policies and programmes. Enhancing paid care sector will create millions of jobs and contribute to economic growth as people with stable jobs and income will spend more on consumption and contribute to tax revenues. A macromodeling simulation for Austria informs us that an increase in tax revenues will exceed the initial investment required for expanding the paid care sectors in just five years (AK Europa, 2013).

The government should not constrain the amount of services available in the market because women will bear unmet care needs by spending hours on unpaid work. Given demographic change patterns and persistent youth employment, underemployment, and NEET, investing in the care sector is the only way to create millions of jobs for women and men with limited education attainment and those with higher education.

## References:

AK Europa. 2013. Social Investment, Growth, Employment and Financial Sustainability: Economic and Fiscal Effects of Improving Childcare in Austria. AK Europa.

Cabinet Office (of Japan). 2023. [\*Annual Report of the Ageing Society FY 2023 \(in Japanese only\)\*](#) , accessed on 29 September 2023.

Care Work Foundation. 2022. [\*Fact-finding survey of long-term care work 2022\*](#) (in Japanese only), accessed on 29 September 2023.

Chan, Minnie. 2023. "Can China fix youth unemployment woes with military recruitment drive?," [\*South China Morning Post\*](#) (July 24), accessed on 29 September 2023.

- De Henau, Jerome, Susan Himmelweit, and Diane Perrons. 2017. [\*Investing in the Care Economy: Simulating employment effects by gender in countries in emerging economies.\*](#) Brussels: International Trade Union Confederation, accessed on 11 November 2018.
- De Henau, Jerome, Susan Himmelweit, Zofia Lapniewska, and Diane Perrons. 2016. [\*Investing in the Care Economy: A gender analysis of employment stimulus in seven OECD countries.\*](#) Brussels: International Trade Union Confederation, accessed on 29 December 2017.
- Dong, Xiao-yuan and Fiona MacPhail. 2023. “Women’s Work in Post-reform China,” in G. Berik and E. Kongar (eds.) *The Routledge Handbook of Feminist Economics*, pp. 243-253. Taylor & Francis.
- International Labour Organization (ILO). 2021. [\*Making decent work a reality for domestic workers: Progress and prospects ten years after the adoption of the Domestic Workers Convention, 2011 \(No. 189\).\*](#) Geneva: ILO, accessed on 26 September 2023.
- Ministry of Health, Labour, and Welfare (MHLW) of Japan. 2022. [\*Comprehensive Survey of Living Conditions 2022 \(in Japanese only\)\*](#), accessed on 29 September 2023.
- MHLW. 2021. [\*Survey of Institutions and Establishments for Long-term Care\*](#) (in Japanese only), accessed on 29 September 2023.
- MHLW. 2018. [\*About policies for obtaining long-term care workers \(a meeting note, in Japanese only\)\*](#), accessed on 29 September 2023.
- MHLW. 2017. [\*Kouseiroudou \(February 2017, in Japanese only\)\*](#), accessed on 29 September 2023.
- Nelson, Julie A. 1999. “Of Markets and Martyrs: Is it OK to Pay Well for Care?,” *Feminist Economics* 5(3), pp. 43-59.
- Tabeta, Shunsuke, Iori Kawate, and Noriyuki Doi. 2023. [\*Nikkei Asia\*](#) (March 18), accessed on 26 September 2023.
- Tronto, Joan C. 2013. *Caring Democracy: Markets, Equality, and Justice*. NY: New York University Press.
- United Nations, Department of Economic and Social Affairs (UNDESA). 2023a. [\*World Social Report 2023: Leaving no one behind in an ageing world.\*](#) NY: UNDESA, accessed on 10 October 2023.
- UNDESA, Population Division. 2022a. [\*World’s Population Prospects 2022: Summary of Results.\*](#) UN DESA/POP/2-22/TR/No.3, accessed on 26 September 2023.
- UNDESA, Population Division. 2019. [\*World’s Population Prospects 2019: Volume I: Comprehensive Tables\*](#), accessed on 26 September 2023.

United Nations Development Programme (UNDP). 2016. *How Changing Demographics Can Power Human Development*. NY: UNDP.

UN Women. 2022. [\*Progress on the Sustainable Development Goals: The Gender Snapshot 2022\*](#). NY: UN Women, accessed on 26 September 2023.

**Database:**

MHLW. 2023. *Basic Survey on Wage Structure*, [www.e-stat.go.jp](http://www.e-stat.go.jp), accessed on 29 September 2023.

UNDESA, Population Division. 2022b. [\*World's Population Prospects Data Portal\*](#), accessed on 26 September 2023.

UNDESA. 2023b. [\*SDG Indicators Database\*](#), accessed on 29 September 2023.

UN Women. 2021. [\*SDG 5 tracker data sheet\*](#) for Progress on the Sustainable Development Goals: The gender snapshot 2021, accessed on 29 September 2023.

World Bank. 2023. *Databank*, <https://data.worldbank.org/> accessed on 26 September 2023.