

Fertility policy and practice: the APAC Fertility and Family Scorecard

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About this report

“Fertility policy and practice: the APAC Fertility and Family Scorecard” is a report produced by Economist Impact, supported by Merck. In this report, which is a continuation of a previously released fertility Toolkit, family-friendly and fertility-focused policies are examined in nine countries in the Asia Pacific (APAC) region: Australia, Japan, Indonesia, Malaysia, Singapore, South Korea, Taiwan, Thailand and Vietnam. The research examines the current fertility landscape in each country, priorities, and the quality of policies and programmes that have been implemented to help encourage family building and raise fertility.

The research uses a comparative scorecard model allowing stakeholders to assess different policies relative to their peers and prioritise key steps to improve. Economist Impact conducted an evidence review, convened an advisory board and interviewed experts to inform the design of the Scorecard and validate findings. We would like to thank the following experts who contributed to the research (in alphabetical order):

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Executive summary

In recent years, low fertility has become a global policy concern, with the rate of population growth falling below 1% for the first time since 1950. This decline is primarily due to low fertility levels in many countries, resulting in each new generation being smaller than the previous one. The global average total fertility rate (TFR) has decreased significantly, from 5.29 children per woman in the 1960s to 2.74 in the 2010s, with some countries in the Asia Pacific (APAC) region experiencing ultra-low fertility rates (below 1.5). This is leading to rapidly aging populations and various accompanying challenges.

To address these challenges and to help boost fertility rates, many governments have adopted and expanded their family-friendly policies. These policies have been shown to positively impact fertility rates, with factors like maternal workforce participation and childcare costs influencing fertility decisions. Different types of policies, such as childcare support, parental leave, tax incentives and funding for assisted reproduction have varying effects on fertility rates and may be more suitable for specific countries or regions, depending on resources and where the countries sit within their fertility transition.

To understand and compare family-friendly policies in the region, we created the APAC Fertility and Family Scorecard, focusing on nine countries with varying income levels and policy

priorities (Australia, Indonesia, Japan, South Korea, Malaysia, Singapore, Thailand, Taiwan and Vietnam). The Scorecard assesses policies across four domains: childcare, workplace, financial incentives, and assisted reproduction. It provides insights into how these countries are addressing falling fertility rates in terms of their national policies, and offers recommendations for improvement at a regional and country level.

Efforts to tackle declining birth rates differ across the region, and there are noticeable gaps in the approaches of some countries. Although each country has its own strengths and weaknesses, there is a shared set of actions that can assist them in preparing for the unavoidable demographic transition occurring in the region, to help slow the population decline.

1. Recognise falling fertility as a key policy and economic issue

The dramatic fall in birth rates that is being seen in leading emerging markets is expected to persist. This will lead to unavoidable economic challenges owing to a smaller workforce, potentially slowing economic growth and straining social welfare systems. To combat this, falling fertility must first be recognised as a key policy issue with economic consequences, and a comprehensive approach is needed.



This includes long-term and cost-efficient policies supporting families, work-life balance and women's empowerment, which are all crucial for sustainable economic development amid this demographic shift.

2. Reduce the opportunity cost of childbearing through workplace and childcare policies

Raising children carries not only monetary costs but also opportunity costs, which become more significant as economies develop and wages increase; cost and conflicting career priorities can mean that fewer women choose to take time away from work to start a family. To address this, policies such as professional and subsidised childcare, paid parental leave, employee protection, and flexible working options can enable parents to balance work and child-rearing effectively without sacrificing career continuity.

3. Focus on cultural change to slow the decline

Countries that have already reached the stage of ultra-low fertility rates have implemented longstanding policies to boost birth rates, but these policies have had limited impact on their TFRs. Although most countries employ similar strategies, there can be variations in their effectiveness, and cultural and societal norms can deter parents from using government support such as parental leave. Younger generations' decisions to not have children can be influenced not only by cost concerns but also by lifestyle choices, career ambitions and persistent traditional gender roles, highlighting the need for tailored approaches to address these concerns.

4. Combat involuntary childlessness

To further support parenthood, efforts to help those who want children but face infertility challenges could be improved. Infertility is a growing concern in the APAC region, partly owing to delayed childbearing. Access and funding for assisted reproduction services can be limited in many countries, which could consider expanding funding for assisted reproductive technology, perhaps using a means-tested system to prioritise those in need, while also promoting newer technologies like egg freezing to prevent future fertility losses.

The APAC region is characterised by significant diversity in terms of geography, language, culture and fertility rates, leading to varying policy responses to declining fertility. Policies aimed at providing stability and support for families, facilitating employment through parental leave and childcare, and reducing financial burdens on parents also offer multiple benefits beyond increasing fertility rates. Previous research indicates that these policies do impact fertility rates to varying degrees, with effectiveness influenced by regional, cultural factors and a country's specific fertility transition stage. The APAC Fertility and Family Scorecard highlights that most countries in the region have adopted similar approaches to managing fertility rates, offering valuable insights for countries at different stages of the fertility transition to enhance their policies and address their own unique demographic challenges.

Introduction

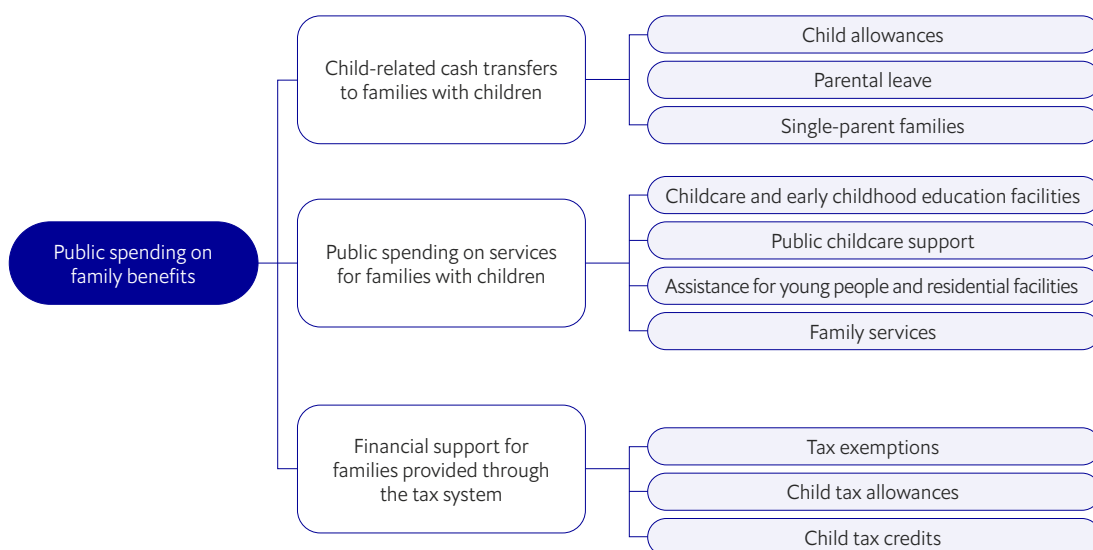
In recent years, low fertility has emerged as a policy issue. In 2020, for the first time since 1950, the global rate of population growth fell below 1% per year, and it is projected to continue to slow in the next few decades through to the end of this century, in large part owing to low levels of fertility.¹ In many countries around the world, each new generation is less than three-quarters the size of the preceding one. The global total fertility rate (TFR), the average number of children born per woman, has been decreasing steadily, falling from 5.29 in 1960-69 to 2.74 in 2010-20.² Ultra-low fertility, which is defined as a TFR of 1.5 or less, is a reality for many countries in Asia, including Japan (1.31) and Singapore (1.04) and, at the more extreme end, Taiwan (0.87) and South Korea (0.78). This has resulted in a rapidly ageing population in the region, which leads to challenges for governments, economies and the sustainability of social security systems.³

The global total fertility rate (TFR), average number of children born per woman, has been decreasing steadily.

In order to boost fertility rates and address the challenges of long-term population decline, many governments have been increasingly adopting policies designed to support women and families.⁴ Although such policies were first implemented to help female employees balance work and family, and allow them to remain in the workforce, many additional benefits have been gained, and in the long-term, they have been shown to pay off in the form of healthier, better-educated children, greater gender equality and sustainable economic growth, and they are linked to better workforce productivity and the ability to attract, motivate and retain employees.^{5,6} Family benefit policies can be categorised into three major types. The first category is cash benefits to support families, which can include child allowances, benefits provided during parental leave and assistance for single-parent households. The second category includes services and subsidies for childcare and early education, and public spending on family services. The third category is related to tax incentives, which can include tax exemptions, child-related tax deductions and child tax credits (see figure 1).⁷



Figure 1: Examples of family benefit policies



Today, there are six main objectives of family-friendly policies:

- 1. poverty reduction and income maintenance;**
- 2. direct compensation for the economic costs of children;**
- 3. fostering employment;**
- 4. improving gender equality;**
- 5. supporting early childhood development; and**
- 6. increasing fertility.⁸**

One of the strongest and most talked about benefits that has emerged from family-friendly policies is that they have been shown to help raise fertility rates. The ability of mothers to remain in the workforce and the cost of childcare have been shown to be important considerations when it comes to fertility decision-making, and policies that help to counteract these effects can enable more families to choose to have children.⁷ Previous research conducted by Economist Impact in the form of a Fertility Toolkit has shown that policies such as those related to childcare (for example, increasing childcare availability and affordability), the workplace (parental leave and flexible working), financial incentives (baby bonus and tax incentives) and assisted reproduction (improving public funding of in vitro fertilisation) have a positive impact on fertility decisions.⁹ We provided evidence through case studies of how effective these policies are in helping to boost fertility rates and assist couples to have the family size that they desire. However, we also acknowledged that while a particular type of policy may be suitable for one country or even a province within a country, it may be unsuitable for another. And a single national policy may be unfeasible, particularly in APAC countries such as Indonesia, as different regions within a country have different fertility rates and different priorities.

While our previously released Fertility Toolkit presents the various policies in a user-friendly way and provides a menu of options that APAC countries can explore, it is also helpful to know what policies are being implemented in practice in the region, in order to inspire progress for individual countries, and suggest opportunities for the way forward.

The APAC Fertility and Family Scorecard

To understand and compare the different policies that are in place around the region, Economist Impact has created a unique tool, the APAC Fertility and Family Scorecard. This Scorecard focuses on nine countries across the APAC region, which range from high income (Australia, Japan, Singapore, South Korea and Taiwan) to upper- and lower-middle income (Indonesia, Malaysia, Vietnam and Thailand), as defined by the World Bank.¹⁰

The Scorecard features four domains, each with multiple indicators. It was first informed by a literature review that identified existing policy frameworks and assessments. We subsequently developed a novel set of indicators that were reviewed and refined by an advisory board and interviews with experts from across the region. Table 1 below illustrates the four domains and provides examples of selected indicators for each domain.

Table 1: Fertility and Family Scorecard domains

Domain	Selected indicators
Childcare policies	<ul style="list-style-type: none"> • Childcare enrolment in pre-primary education • Childcare availability • Pre-primary childcare allowance/subsidies
Workplace policies	<ul style="list-style-type: none"> • Maternity leave and payment • Working hours and flexible working • Employee protection and discrimination
Financial incentive policies	<ul style="list-style-type: none"> • Availability of baby bonus and child allowance • Tax credits for dependent children • Tax benefits for working mothers
Assisted reproduction policies	<ul style="list-style-type: none"> • Coverage and accessibility of assisted reproductive technologies • Availability of public funding

For each domain, data were collected on indicators chosen to best reflect the national situation. The Scorecard presents the best information available for assessing how the study countries are doing compared with their peers, and the individual country sections included later in the report are essential for getting a fuller understanding of the situation in each. Countries received a score of red, yellow or green to indicate their current state of progress relative to one another based on the project's research. The appendix of this report contains a more detailed description of the methodology.

In this report, we first describe in detail the four domains and indicators within them, and explore regional trends and how countries compare in their implementation of different policies and programmes. There are nine sections covering the nine countries in the Scorecard, where the history of falling fertility and the status of fertility policy are described, and top opportunities for the way forward are suggested, reflecting on where countries do well and where they could do better to help improve birth rates in the respective countries.



Domain 1: Childcare policies

	AUS	IDN	JPN	KOR	MYS	SGP	THA	TWN	VNM
Childcare policies (0-11)	8	5	8	6	6	8	3	6	5

Key:



Historically and culturally, childcare has been viewed as an informal, unpaid task provided by mothers rather than a service provided by governments. However, as women’s participation in the labour force has increased, there is an important need to find other options. The provision of childcare reduces the high opportunity costs that might come from parenting, including lost wages and loss of skill development, and allows women to more easily re-enter the workforce.¹¹ Childcare services, when delivered well, can facilitate family life alongside working careers, and evidence has

shown that policies that expand the provision or lower the cost of childcare can have a longer lasting impact on fertility compared to policies such as financial transfers.¹²

In this domain on childcare policies, we measure the extent to which governments in Asia provide childcare and early education to their populations, and the effect that these policies may have on fertility rates. Australia, Japan and Singapore are the top countries for childcare policies. Thailand, Indonesia and Vietnam have the most room for improvement.

Women in the workforce

The global labour force participation rate for women is just over 50%, compared with 80% for men, but women are an integral part of any country’s workforce.¹³ In OECD countries in 2022, the employment rate for women was 62.5%, compared with 76.7% for men.¹⁴ As women constitute a significant portion of the population, their participation in the workforce is essential for economic growth and stability, and their labour force participation adds to a country's overall productivity and GDP. They can also help

countries to meet labour demand, contribute more diverse skills and talents, and contribute to higher household incomes, which, in turn, can improve the overall wellbeing of families. Overall, their participation not only drives economic growth but also fosters social progress, reduces gender inequalities and contributes to the overall well-being of society. Women should be encouraged to remain in and re-enter the workforce after having children. To facilitate this transition, sufficient and affordable childcare is key.

Availability and affordability

Globally, average government spending on education is 4.3% of GDP, while for OECD countries it is 4.8%.¹⁵ This is higher than the majority of the countries included in this Scorecard, which range from as low as 2.8% (Singapore) to 6.1% (Australia).¹⁶ Childcare availability (pre-primary) is lacking in most countries included. Although childcare is generally available, it is not meeting local needs and there are many reports of long waiting lists. In Australia, families can wait three to six months depending on where they live and which childcare services are available in their area.¹⁷ Singapore also has a mismatch in demand and supply, with some areas having waiting lists of more than a year.¹⁸

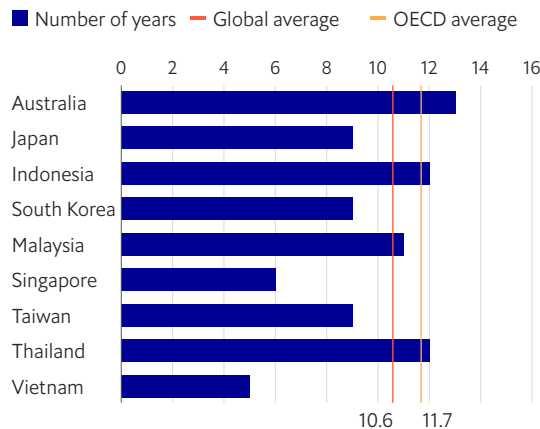
In lower-income countries in the region, it is common for early childcare to take place in the home. In Indonesia, government investment in early childhood education is extremely low, meaning that children who benefit from early childhood services tend to be from high-income groups only.¹⁹ In Thailand, there is a lack of childcare services for children under three, and where they are available, they operate in an unregulated environment and vary in terms of quality. Accessing early childcare is particularly challenging for poorer families in urban areas, and many working parents leave their children with grandparents or other extended family.²⁰ Japan is one country where waiting lists have been decreasing, with the number of children on waiting lists for places at day-care centres dropping by 52.3% in 2021-22, according to the Ministry of Health, Labour and Welfare.²¹ This may be partly due to the government making pledges in the late 2010s to cut childcare waiting lists to zero.²²

In terms of affordability, there is variation in the region. When education is affordable, families are more likely to make use of it, freeing up time for parents. Entering the workforce or returning to work is easier for mothers, and lower-cost formal childcare have been shown to positively influence families' decisions to have children.²³ Japan has operated the "Free Early Childhood Education and Care" programme since 2019, and free early childhood education and care is a universal legal entitlement for children aged 3-5 years.²⁴ The government has also recently announced a plan to double childcare spending by the early 2030s, to help mitigate the decline in the country's birth rate.²⁵ Taiwan also provides subsidies regardless of income; for children aged 0-2 attending public and quasi-public care centres, these are, as of 2024, NT\$7,000 and NT\$13,000 (US\$218 and US\$406) respectively.



For children aged 2-6, tuition fees are capped. Other countries in the region provide some cost coverage, which is dependent on family income and the work status of parents. For example, in Malaysia, parents can receive a childcare fee subsidy based on their income for children aged 2-4 years in children’s nurseries (taskas), and in Vietnam, there are fee exemptions or reductions for lower-income households with children in preschool education aged 3 months to 6 years.²⁶ When children enter school, the years of free primary and secondary education guaranteed in legal frameworks also vary vastly in the region, ranging from between 5 years in Vietnam to 13 years in Australia. This is compared to a global average of 10.6 years and an OECD average of 11.7 (see figure 2).²⁷ In some countries, such as Taiwan, secondary school years are subsidised. Compulsory education is divided into two stages, the first six years at the elementary school level and the latter three in a junior high school. For senior high school education, tuition is waived under specific conditions, for instance for those in technical high schools, as part of the “basic education” plan.²⁸

Figure 2: Number of years of free and compulsory primary and secondary education guaranteed in legal frameworks²⁷



Extended family as caregivers

In many Asian countries, it is common for grandparents to co-reside with grandchildren and provide care; extended or intergenerational families are more prevalent in the APAC region than in any other.^{29,30} Traditionally, this is due to the Asian culture of taking care of family. However, more recently, economic development, lack of public childcare and more women entering the workforce have motivated grandparents to be more involved in childcare.³¹ This is usually thought of positively. “The recent Malaysian Ageing and Retirement Survey showed that 54% of people aged 60 and over have taken care of their grandchildren, either full-time or part-time,” says Nai Peng Tey, a demographer and former associate professor of statistics at the University of Malaya. “Among them, half felt it was their responsibility to help, and they felt this allowed them to be closer with their children and grandchildren.”

To encourage this practice, some countries in the region have introduced policies for grandparent carers. In Australia, grandparent carers can receive extra assistance in the form of Family Tax Benefit if they care for a child at least 35% of the time.³² In Singapore, Grandparent Caregiver Relief is given to working mothers who engage the help of parents or grandparents to take care of their children.³³ Regional policies also exist, for instance in Seoul, the capital of South Korea, which provides a monthly subsidy of ₩300,000 (US\$235) per child if grandparents provide care for more than 40 hours every month.³⁴ Though not intended as an alternative to investing in formal childcare, policies such as these could be considered as complimentary in other countries where multi-generational families are common.



High expectations

One argument that has been made is that in East Asia in particular, ultra-low fertility rates can be partially explained by parents' wishes to have successful children. High investment in child education and the notion of “quality over quantity” may mean that many parents cannot afford to have more than one or two children.³⁵ This is particularly true in South Korea, which has the lowest fertility rate in the world. “Parents invest a lot of money into providing private education and afterschool activities,” says Andrew Eungi Kim, professor at the College of International Studies at Korea University. “The fact is that the more money they spend, the better chance they have of sending their kids to more prestigious universities, and live a better life.”

High investment in child education and the notion of “quality over quantity” may mean that many parents cannot afford to have more than one or two children.

Some countries in the region provide government-organised extracurricular activities to engage pre-primary or primary-aged children after school finishes, such as Japan, Singapore, Malaysia and Indonesia.^{36,37,38,39} However, it is important to note that too much time away from parents can also be detrimental. “A recent study found that 60% of Singapore children aged 3-6 are spending more than 40 hours in day care a week because parents’ work hours can be so long”, says Wei-Jun Jean Yeung, professor in the Department of Paediatrics at Yong Loo Lin School of Medicine, National University of Singapore, and founding Director of the Center for Family and Population Research. “But we found this to be too long, and over 40 hours a week can have a negative impact on children's development before the age of six—we also need to be careful about how long centre-based care should be.” There can be pros and cons of any policy, and it is important to consider this when taking action.

Childcare policies, in particular those that offer affordable, dependable, formal childcare can help to alleviate the conflict between women's roles as workers and as mothers, and remove one of the biggest barriers that may be preventing women from returning to work following childbirth. It is therefore important to implement these policies in tandem with those that provide workplace benefits to women, as described in the following section.

Domain 2: Workplace policies

	AUS	IDN	JPN	KOR	MYS	SGP	THA	TWN	VNM
Workplace policies (0-14)	11	10	11	12	8	11	5	10	11

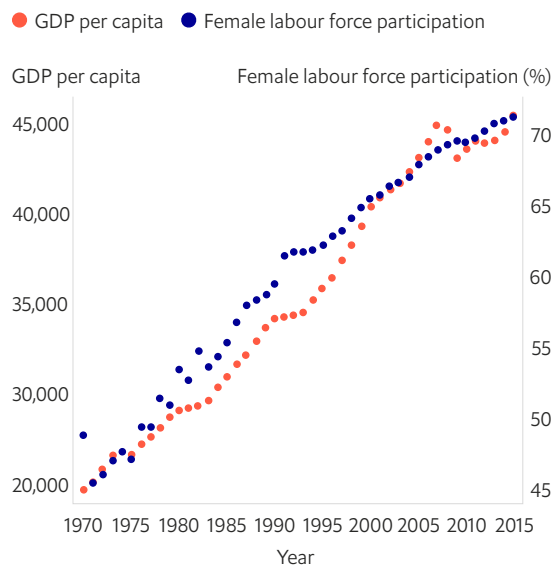
Key:



Gender inequity, and more specifically the gender imbalance of domestic and formal labour in a country, has been shown to be a key driver of low fertility.⁸ Workplace policies such as parental leave and employment protection can potentially help to equalise this balance, ultimately promoting fertility.⁴⁰ The purpose of these policies is to allow parents to be able to care for their children without the worry of losing their job, and allow women the option of remaining in the workforce. Policies such as parental leave mean

that parents can take leave from their job with the confidence that they will be able to return following the period of leave. When parental leave is paid, it also compensates for income that may be lost during time out of work, which reduces the opportunity cost of childbearing. When workplaces provide options for flexible working and adjusted working hours, as well as ensuring health protection, providing support for mothers and ensuring there is protection against discrimination, this can better support more women to enter, return to, remain and progress in the workforce. More generous workplace policies have been associated with increased female labour force participation (leading to an increase in the size of the workforce), which has also been shown to increase a country's GDP (see figure 3).⁴¹

Figure 3: GDP per capita and female labour force participation, 1970–2015 (Higher income OECD countries)



Although there are harder-to-measure factors that may hold parents, especially women, back in the workforce (such as gender bias, discrimination and the gender-wage gap), some policies have been shown to positively improve the work environment for parents and address some of the barriers that exist for returning to work. In this domain, we measure the national policies that exist in the APAC region related to the workplace, which aim to support childbearing and return to the labour force. Countries in the region score generally well in this domain, with only Malaysia and Thailand scoring medium, and no countries scoring low.

Parental leave

Leave policies were first introduced in the early 20th century, in the form of maternity leave. The goals of maternity leave at this time were to give mothers the right to return to work after a period of absence, and to protect the health of infants and mothers.⁴² Since then, other benefits have been identified, including greater gender equity, poverty reduction and income maintenance, and increased fertility.⁴³ According to a 2021 systematic review of 35 studies, expanding parental leave schemes was found to have a positive effect in increasing fertility, especially for high-earning couples.¹²

All countries in the Scorecard offer maternity leave to some extent, though the length of paid leave that is guaranteed varies. The International Labour Organization (ILO) standards mandate a minimum maternity leave period of 14 weeks and recommend increasing this to at least 18 weeks.⁴⁴ In 2021 the duration of maternity leave was at least 14 weeks in 120 countries globally. In the countries represented in this Scorecard, the length of leave ranges from eight weeks guaranteed in Taiwan under the Labour Standards Act to six months (26 weeks) guaranteed in Vietnam under the Law on Social Insurance.^{45,46} Across OECD countries, statutory rights to paid maternity leave are provided with an average length of 18.5 weeks.⁴⁷

Figure 4: Number of weeks of maternity leave guaranteed for female employees



Regarding payment during maternity leave, only Japan and Australia provide compensation that is below 75% of normal pay (67% of normal salary in Japan, 43.1% of normal salary in Australia).⁴⁷ All other countries represented in the Scorecard provide maternity leave pay at 75% of normal salary or higher, including Singapore, where employers must pay the full monthly salary during the leave period, and Indonesia, where under the labour law employers are required to pay full wages during maternity leave, which lasts for three months (1.5 months before giving birth and 1.5 months after childbirth).^{48,49}

Paternity leave has been shown to also help increase fertility (though to a lesser extent than maternity leave) by promoting a more equitable division of paid and unpaid work within a couple and increasing the participation of fathers in childcare activities.⁵⁰ However, some studies have found that the increasing opportunity cost to fathers of taking paternity leave may reduce their fertility intentions.⁵¹ Other benefits also arise from paternity leave, with a survey-based study in Singapore finding that longer paternity leave increases the bond between father and child, reduces family conflict, increases marital satisfaction and is associated with improved socio-emotional outcomes in early childhood.⁵⁰ In APAC, while paternity leave is offered in all the countries represented in the Scorecard apart from Thailand (where it is only offered to workers in the public sector), the length of the leave varies significantly, from two days in Indonesia, to seven days in Malaysia and four weeks in Japan (though this is only since 2022).^{52,53} Yet many fathers in APAC countries do not take the leave they are entitled to. In South Korea, recent statistics suggest that only 2% of fathers take paternity leave.⁵⁴ In Japan, the number was 14% in 2021, and in Australia it was 25%.^{55,56} In Singapore, government-paid paternity leave has been in place since 2013, and since then uptake has gradually increased to approximately 50%.⁵⁷



Low uptake in Asia can be attributed to fathers being unaware of the policy, the preponderance of traditional gender roles within the family and unsupportive company culture.⁵⁰ To increase uptake, paternity leave could be made statutory or more similar in length to maternity leave. Perhaps more importantly, culture and workplace norms will need to change to be more understanding of shared parenting. “Employers need to start understanding that allowing people to take leave will lead to them to become better employees in the long run,” says Professor Yeung. “And what is needed is a change of culture and society. In Singapore, we want to change the social norm, we want men to be involved, and we are encouraging employers to be more open minded, to share costs, and so on. These are very important efforts if we want the culture to change.”

The low uptake of paternity leave in Asia is a contrast to what has been observed in other countries globally, particularly in Europe. Some countries have begun successfully implementing policies in which leave is shared jointly by both parents, though a certain amount of parental leave must be used by fathers; in the Nordic region, a “use it or lose it” provision mandates fathers to take a designated portion of parental leave.⁵⁸ These policies have demonstrated

tangible impacts, both in terms of fathers actively using their leave entitlement but also in boosting women's participation in the workforce.⁵⁹ In Sweden, the proportion of fathers taking leave increased from 44% to 77% after the introduction of the quota.⁶⁰ In Singapore, if there is mutual agreement, a husband can share up to four weeks of his wife's 16-week government-paid maternity leave, which must be taken within 12 months from the day of the birth.⁶¹

Hours and flexible working

Many countries in the region have implemented policies to ensure that women are supported once they return to the workforce. Japan, Australia, Taiwan, Indonesia and South Korea stipulate that working hours must, in principle, not exceed 40 hours per week (excluding overtime). In Thailand and Vietnam, this is 48 hours.^{62,63} In South Korea, pregnant employees can apply for a reduction in working hours of two hours per day.⁶⁴

“In Singapore, we want to change the social norm, we want men to be involved, and we are encouraging employers to be more open minded, to share costs, and so on. These are very important efforts if we want the culture to change.”

Professor Wei-Jun Jean Yeung, National University of Singapore and Center for Family and Population Research



Some countries in the APAC region also have policies in place that allow employees to request flexible working arrangements. In Japan, the Charter for Work-Life Balance aims to reduce working hours and promote the use of flexible working hour systems. It also aims to promote teleworking and working at home. Laws include the Labour Standards Act, the Shorter Working Hours Promotion Act and the Part-Time Act.⁶⁵ In Australia, parents of a child who is school age or younger can request flexible working arrangements if they have worked with the same employer for at least 12 months.⁶⁶ In Malaysia, the Employment Act mandates that employees can apply in writing for flexible work arrangements from employers, and employers must respond with a decision within 60 days.⁶⁷ Contrary to this, in Taiwan there is no statutory right for employees to request to work flexibly. For Thailand and Vietnam, we found no publicly available evidence regarding national policies related to flexible working hours. Most likely, flexible working is based on policies of individual companies.

Countries in the region do well regarding protection for pregnant employees and avoiding discrimination, with almost all countries making it unlawful for employers to dismiss women during pregnancy, while on maternity leave or nursing (unless for unrelated reasons), and almost all provide guarantees that women can return to

the same position or an equivalent position with equal pay after maternity leave. This is usually covered in an Equality Act or a Sex Discrimination Act. Singapore is one of the few countries that has not adopted specific legislation that prohibits pregnancy discrimination in hiring practices, during employment and after maternity leave.⁶⁸

Breastfeeding support for mothers

Recently, there has been an increase in global efforts to promote breastfeeding in the workplace, with more than 65% of countries around the world having some sort of legislation entitling mothers to nursing breaks. However, nearly a quarter of all countries still do not provide breastfeeding breaks in the workplace, especially in Asia.⁶⁹ In the countries represented in the Scorecard, policies vary. In Taiwan, female employees are entitled to an extra 60 minutes per day for breastfeeding or breast milk collection, and breastfeeding rooms are required to be equipped with armchairs, tables and electrical outlets.⁷⁰ In Vietnam, female employees nursing a child under 12 months of age are also entitled to 60 minutes off for every working day, and if an employer employs 1,000 female employees or more it must install breastfeeding facilities in the workplace.⁷¹ Malaysia and Thailand lack such policies, and there are no specific rights for lactation breaks or breastfeeding facilities for new mothers.^{72,73}

Domain 3: Financial incentive policies

	AUS	IDN	JPN	KOR	MYS	SGP	THA	TWN	VNM
Financial incentive policies (0-7)	3	2	4	5	4	7	4	5	5

Key:

Low	Medium	High
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Many countries offer financial benefits in the form of “baby bonuses” or “birth grants”, sometimes known as child benefits. Though the primary aim of these transfers is to support families with the direct cost of raising children, thereby reducing child poverty and improving the standard of living for families with children, they have also been shown to have an influence on fertility rates, as they can reduce some of the financial burden that comes with having children.⁴

In the Scorecard we measure the benefits that governments offer their populations, in terms of cash payments, allowances, tax credits, benefits and subsidies. The scores for countries in the region fall within a large range, with only Singapore scoring high, Indonesia scoring in the lower range, and the remaining countries achieving medium scores. As discussed, these policies can help to slow the decline of fertility rates, which is one of their objectives. Although this is not necessarily perceived as a major concern in these countries (and public funding tends to be allocated to other priorities), the other objectives of these policies, such as poverty reduction and fostering employment, also contribute to the long-term economic prospects of a country, and should be considered when implementing these policies.

There are many different types of financial child benefits, which usually fall within a country’s social expenditure. Globally, 30.6% of the working-age population is legally covered by comprehensive social security systems that include many benefits, from child and family benefits to old-age pensions. On average, countries spend 12.9% of GDP on social protection (excluding health), but there are large variations around the world. In the APAC region this ranges from as high as 16.5% in Japan and 9.4% in Australia to only 1% in Singapore and 1.3% in Indonesia.⁷⁴ High-income countries on average spend six times as much as lower-middle-income countries and 15 times as much as low-income countries.⁷⁴

The baby bonus boom and child allowance

One-off cash transfers when a child is born can support individuals in their childbearing decisions, but their long-term impact on fertility is small, owing to the fact that financial transfers, even when generous, cover only a small proportion of the costs of having children.⁴ However, they have been shown to help alleviate fertility inequalities.⁷⁵ Some of the countries included in the Scorecard have a long history of providing baby bonuses to mothers, while some are yet to introduce this. Figure 5 shows how bonus payments compare to the average monthly income around the region.

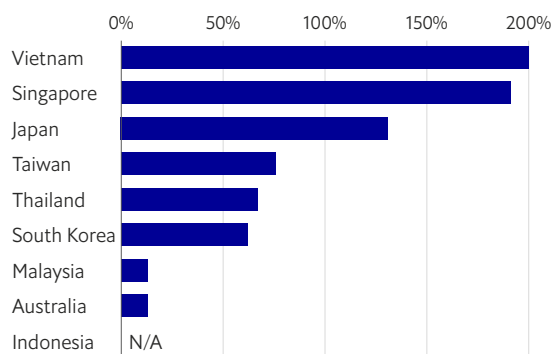
Vietnam, Singapore and Japan are the most generous: in Singapore, under the enhanced Baby Bonus Scheme, parents can receive S\$11,000 (US\$8,074) in cash for their first and second child, and S\$13,000 (US\$9,542) for their third and subsequent children.⁷⁶ In Japan, new parents receive a one-off payment of ¥420,000 (US\$2,883) when a child is born. The Ministry of Health, Labour and Welfare has proposed that this figure be increased to ¥500,000 (US\$3,432).⁷⁷ In Vietnam, female employees giving birth or adopting are entitled to a lump-sum allowance equivalent to two times their basic monthly salary.⁷⁸ Australia also offers a Newborn Upfront Payment of A\$641 (US\$409) per child; the bonus used to be as high as A\$5,000 (US\$3,190), but this was abolished in 2014 and replaced with smaller supplementary payments.^{79,80} There is no evidence of a baby bonus scheme in Indonesia, where more effort is provided to maintain or reduce the growth rate. Malaysia offers a small sum of M\$500 (US\$108) at birth to women from households receiving Bantuan Keluarga Malaysia (Malaysia Family Assistance); this was established in 2023 by the Ministry of Finance to help increase the birth rate in the country and reduce the problem of children with stunted growth.⁸¹

Child allowance in the form of monthly or yearly transfers is more common across the region, and has been shown to also help increase fertility by increasing income without altering the opportunity cost of time spent childrearing.⁷⁵ All countries in the study offer some sort of monthly allowance for children, though for some it is means-tested. Indonesia offers a conditional cash transfer known as Program Keluarga Harapan, which provides cash transfers to poor households with children or pregnant women and is linked to use of health services and enrolling children in school.⁸² In Japan, child allowance is received until junior high school, and is dependent on the income threshold of the parents, though policies are currently being drafted to allow child allowance to be offered to all households regardless of income, and extended to cover children of high-school age.^{83,84} In Thailand, all parents receive a monthly payment that differs depending on whether they are insured through the formal-sector programme or through the informal-sector programme.⁸⁵ In Australia, benefits are calculated according to the age of the child, the number of children and the income level of the parents.⁸⁶

Tax credits and benefits

In many countries, family benefits are designed as a way to ensure a minimum standard of living to families and children, although more recently these are also being seen as a way to raise fertility and bring countries closer to the replacement rate.⁸⁷ It is common to offer tax exemption for dependents, and subsidising children can create an incentive for increased births, especially as it is well established that people respond to tax incentives. Receiving a subsidy for a dependent directly lowers the cost of having a child relative to the cost of other goods; to encourage families, many governments support increasing the amount that is tax-exempt as a means of lowering the cost of having a child.⁸⁸ All countries in the Scorecard provide a tax subsidy for dependents.

Figure 5: Baby bonus payments relative to average monthly income



- In Taiwan, parents can receive tax credits for preschool children of NT\$150,000 (US\$4683) per child.⁸⁹
- In South Korea, tax credits amount to W150,000 (US\$112) per child aged 7 or older for up to two children and W300,000 (US\$224) for a third child, and tax credits are also available for education.⁹⁰
- In Malaysia, there is a tax credit for each unmarried child under the age of 18 years old.⁹¹
- In Vietnam, the tax credit is monthly at D4.4m (US\$184) per dependent, per month.
- In Thailand, the tax credit for a second child was raised from Bt30,000 (US\$846) to Bt60,000 (US\$1692) in 2018 as a way to encourage married couples to have more children.⁹²
- In Indonesia, parents can claim up to Rp4.5m (US\$293) per dependent, up to a maximum of three.⁹³

Some countries have also introduced a tax credit for working mothers to encourage their return to the workforce. One study in Spain found that a 2003 reform that introduced a tax credit for working mothers with children under the age of three significantly increased both fertility (by almost 5%) and the employment rate of mothers (by 2%).⁹⁴ In the APAC region, Singapore and Malaysia are two countries that offer this. In Singapore, women may claim Working Mother's Child Relief if they are married, divorced or widowed, have a taxable earned income, and have a child who is a Singapore citizen.⁹⁵ In Malaysia, a women-centric career comeback incentive entitles eligible women returnees to income tax exemptions for five years.⁹⁶

Cost of living and affordable housing

Various studies have shown that the housing market plays an important role in fertility decisions, and that increases in housing prices can result in a decrease in fertility rates.⁹⁷ One study conducted in China between 2013 and 2017 showed that there was an approximately 0.94% decrease in the probability of having a child under two when housing prices increased by 1%, while a study in Singapore found that a set increase in the price of flats reduced the TFR by 1%.^{98,99}

"Challenge number one when it comes to preventing fertility from falling further to an ultra-low level is the rising cost of living and housing, especially after the covid pandemic," says Dr Tey. "Many young people choose not to marry because of the costs, and to help with this, governments could consider providing waivers in stamp duty and other processing fees, as well as a subsidised loan payment to enable newlyweds to buy a house and begin family formation."





The same is true in higher-income countries. “In Australia we have a housing crisis at the moment, both in terms of the cost of buying a house and also the cost of renting; there is a lack of affordable housing, particularly for people on low incomes,” says Janeen Baxter, director of the Australian Research Council Centre of Excellence for Children and Families over the Life Course, and professor of sociology in the Institute for Social Science Research at The University of Queensland. “These are real financial barriers to people having children, and getting into suitable housing is likely a big barrier for couples planning their first child.”

“[Housing costs] are real financial barriers to people having children, and getting into suitable housing is likely a big barrier for couples planning their first child.”

Professor Janeen Baxter, ARC Centre of Excellence for Children and Families over the Life Course, Institute for Social Science Research, University of Queensland

Some governments in the region have begun to think of how housing affordability could be used as a factor to help drive up fertility rates. In South Korea, a policy in Seoul allows young married couples of lower income to receive benefits from the city in the form of financial aid or access to public housing.¹⁰⁰ Globally, housing benefits are often offered only to those in lower-income brackets, though housing is

often also unaffordable for those in the middle-income bracket who may not be eligible to receive income-based subsidies but who may also benefit from them. In Taiwan, the Ministry of the Interior implemented the first “subsidy for unmarried young people to encourage marriage and childbirth” in 2019. Under this plan, young single renters, couples in their first two years of marriage, and families with young children can receive subsidies to rental costs independent of their income (though many landlords are unwilling to allow their renters to apply for this subsidy, meaning that it is often out of reach for those who need it).¹⁰¹

In Singapore, under the Parenthood Priority Scheme expectant parents and married couples with children have priority when applying for a subsidised government flat. Under the Married Child Priority Scheme parents can apply to live near or with their married child, and under the Third Child Priority Scheme larger families have access to priority housing.¹⁰² A counterargument has also been suggested, however, claiming that having housing policies such as these may reinforce the idea that couples must first own their own home before starting a family, and therefore policies could look instead to “decouple” housing and marriage/parenthood to encourage family formation.⁹⁹ However, it is clear that to help with the rising costs of housing, particularly in densely urbanised cities, policies that prioritise the needs of young married couples could be explored in more APAC countries.

Domain 4: Assisted reproduction policies

	AUS	IDN	JPN	KOR	MYS	SGP	THA	TWN	VNM
Assisted reproduction policies (0-14)	11	6	10	12	7	11	8	12	8

Key:



Globally, approximately 17.5% of the adult population (one in six people) are affected by infertility, showing the urgent need to increase access to affordable, high-quality fertility care for those in need.¹⁰⁴ In many countries around the world, the mean age of marriage and the mean age at first birth are increasing. In OECD countries, the average age of women at childbirth increased by between two and five years between 1970 and 2021, and in most countries the average age at first birth is 30 or above.¹⁰⁵ In the APAC region, the average age at childbirth ranges from 27.7 years in Vietnam to 32.5 years in South Korea (Singapore and Taiwan are not far behind, at 32 years).¹⁰⁶

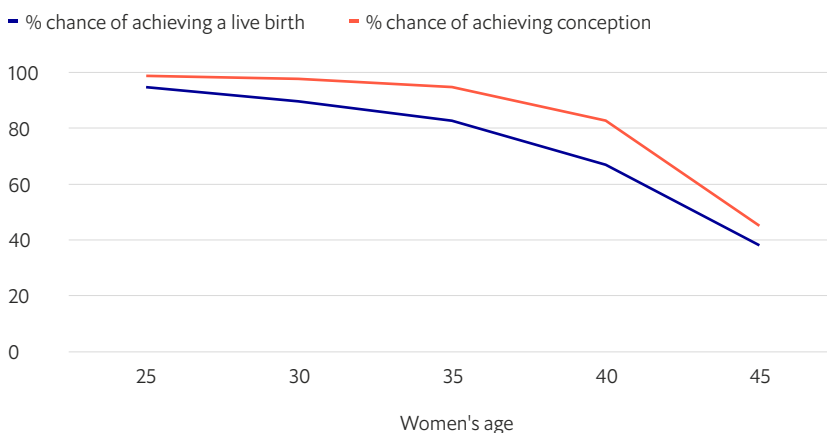
“In Taiwan, women are delaying marriage and having children, which means that an increasing number of women may suffer the problem of infertility in the future.”

Dr Mei-Jou Chen, National Taiwan University School of Medicine

This shift to births at older ages has been accompanied by a decline in family size, partly owing to the fact that fertility reduces with age. Spontaneous cumulative pregnancy rates start to decline in women at 31-35 years old, and by 35-39 years old one-third of women experience difficulty conceiving (see Figure 6).¹⁰⁷ This means that as women delay having children until older ages there may be a decrease in the number of children that they can have, which leads to smaller family sizes or involuntary childlessness.

“In Taiwan, women are delaying marriage and having children, which means that an increasing number of women may suffer the problem of infertility in the future” says Mei-Jou Chen, director of the Division of Reproductive Endocrinology and Infertility, Department of

Figure 6: Probability of being able to achieve conception, and being able to achieve a live birth by woman's age¹⁰³





Obstetrics and Gynaecology in the Faculty of Medicine at the National Taiwan University School of Medicine. “It is important to help them understand and increase their awareness of this, to increase their willingness to receive treatment and [undergo] examination earlier.”

Infertility is also increasing among young couples, in part due to declining sperm counts, decreasing testosterone levels, and endocrine disruption due to the increasing presence of hormone-altering chemicals, as well as lifestyle factors such as poor nutrition, increased body mass index, smoking, and excessive alcohol and drug use.^{108,109}

Because of this, there are an increasing number of couples turning to assisted reproductive technology (ART) treatments which, due to advancements in medicine, have become technological enablers to reproduction. In vitro fertilisation (IVF) is the most common and effective type of ART, and can sometimes use donor eggs, donor sperm or previously frozen embryos. IVF may also involve a surrogate or gestational carrier. Traditional IVF using the gametes (reproductive cells) of the husband and wife is the most common form of ART, especially in Asia.¹¹⁰ Egg freezing has also more recently emerged as proactive treatment to help delay future infertility.¹¹¹ The first IVF birth in Asia was in 1983 in Singapore, and since then there have been enhancements in technology, affordability and access to the masses. This technology plays an especially crucial role in boosting fertility in countries where marriage age is rising. Within this domain, we look at the number of institutions in a country, the existence of legislation and clinical practice

guidelines, the accessibility of ART, the availability of public funding, the existence of national financial subsidies, and the availability of egg freezing. Higher-income countries in the region (Taiwan, Korea, Australia, Japan and Singapore) score highly in this domain, and the middle-income countries score in the medium range.

Availability and affordability of ART

Access to infertility treatment can be inaccessible for many people in low- and middle-income countries, primarily because of high cost. The direct medical costs paid by infertility patients can far exceed annual average income, making it financially out of reach for many. In South-East Asia, the average costs are on average as much as 200% of GDP per capita. In contrast, in the Americas and the Eastern Mediterranean regions, where there are regulations governing ART and more generous government financing mechanisms in place, the relative costs are lower.¹¹² Public funding is provided to varying extents in 39 of 44 European countries.¹¹³

ART services are available in all the countries in the Scorecard, although the distribution varies considerably. Whereas Japan has 600 centres for a population of 126m (0.477 per 100,000 population), Vietnam has 52 centres (0.052 per 100,000 population) and Indonesia has 42 centres (0.015 per 100,000 population).¹¹³ The urban/rural divide can also be a factor—in Thailand three-quarters of infertility clinics are located in urban areas, limiting accessibility for those living in more rural areas.¹¹⁴ Also notable is that in some countries, Indonesia being one example, fertility rates tend to be higher in rural

communities than in urban ones, and couples have children at an earlier age, meaning that there is less demand for services.¹¹⁵ However, lack of access in rural areas still has an effect. “Vietnam has many IVF centres in large cities like Hanoi and Ho Chi Minh, which couples can easily access,” says Ha Anh Duc, chief of the Cabinet Office in Vietnam’s Ministry of Health. “But for couples or people living in the rural areas, it can be very expensive to access IVF services.”

The private clinic model dominates the supply, and public clinics that provide ART services are not common in some countries. In Indonesia, Thailand and Vietnam, legislation either restricts or prohibits public funding of ART services, and procedures are paid out-of-pocket. These countries have a lower age of first birth, meaning that demand for ART services may also be lower. On the other end, some countries, particularly the high-income subset, provide extremely comprehensive coverage for their infertile populations. In Taiwan for example, as of July 2021, a maximum subsidy of NT\$100,000 for the 1st cycle and NT\$60,000 for the 2nd-6th cycle (US\$3,138 and US\$1,882, approximately 50% of the cost) is available for households with regular income, and NT\$150,000 (US\$4,705) is available for low-income households. This subsidy can be

claimed for up to six cycles if the woman is 39 years of age or younger, and up to three times if the woman is aged 40-44.¹¹⁶ In South Korea, as of 2019, health insurance is available for up to seven fresh embryo transfers, five frozen embryo transfers and five artificial insemination procedures, and there is no age limit.¹¹⁷

In some countries in the region, public funding exists but is rare. This is the case in Malaysia, where it is only available in four out of 14 state hospitals or major tertiary hospitals. “These centres provide subsidised advanced fertility treatments, though patients must still pay a significant proportion of the cost out of pocket” says Nasuha Yaacob, an obstetrics and gynaecological reproductive medicine specialist in Malaysia’s Ministry of Health. “The majority of patients are kept on a long waiting list, which is our greatest challenge. The government could have better policies in place and provide more centres with subsidised programmes, or increase these subsidies to provide patients better access to treatment. Now, we are seeing that it is only the more financially stable who are able to access treatment faster and more efficiently at private centres.”

Regulation of ART

Having regulations in place for ART is important to provide oversight and ensure safe clinical practice.¹¹⁸ Most countries in the APAC region have some regulation governing the use of ART services. However, the legal mechanisms vary across the nine countries we assessed. In Japan, South Korea, Australia, Singapore and Vietnam there are specific regulations, with national laws and professional organisation standards and guidelines in place to regulate assisted reproduction. However, sometimes laws can also be overly restrictive. This is the case in Vietnam, where only specialised establishments such as hospitals are allowed to perform IVF,

“The majority of patients are kept on a long waiting list, which is our greatest challenge. The government could have better policies in place and provide more centres with subsidised programmes, or increase these subsidies to provide patients better access to treatment.”

Dr Nasuha Yaacob, Obstetrics and Gynaecological Reproductive Medicine, Ministry of Health Malaysia



which means that this tends to be restricted to large tertiary centres that are located only in urban centres. In Malaysia, there are no specific laws or regulations for IVF, though guidelines are issued by the Ministry of Health and the Malaysian Medical Council.¹¹⁹ The health ministry published a national ART policy in 2021, though it has yet to be enforced or implemented actively, according to experts in the country.

Barriers to access

There are sometimes legal and socio-cultural barriers to accessing ART services in the region, with some countries restricting access to ARTs for certain groups of people. Among the nine countries analysed, only Australia and Vietnam make embryo transfer available for single people (in all other countries, couples must be married to access treatment), and only Australia makes it available for same-sex couples. Globally, 54% of countries limit access to ART services to couples in recognised heterosexual relationships.¹¹³

Egg freezing has emerged as a potential “solution” for preserving fertility, allowing women to delay childbearing for non-medical reasons.¹²⁰ Trends show that more women across Asia are exploring

egg freezing, allowing them time to pursue personal and career goals prior to motherhood. But despite negative population growth in many parts of the region, there still exist various restrictions around egg freezing or using frozen eggs.¹¹⁹ In Malaysia, single Muslim women cannot by law freeze their eggs before marriage.¹²¹ In Singapore, Indonesia, Thailand, Taiwan and South Korea, while single women may freeze their eggs, they can only use them once they are legally married, preventing single women and same-sex couples from having children from their thawed eggs.^{122,123} Single women in Singapore only gained the ability to freeze their eggs in early 2023 (previously only married women could do so), though an upper age limit of 37 years old remains in place.¹²⁴ Australia allows single women to freeze and use their eggs with a donor, and the average age for egg freezing is 37; women have ten years to use them after the freezing process.¹²⁵ As egg freezing becomes more accepted, normalised and safe, some countries may start to see it as a potential solution to demographic decline; however, it is important to remember that medical technology does not present the ideal solution to what is, at heart, a social problem.

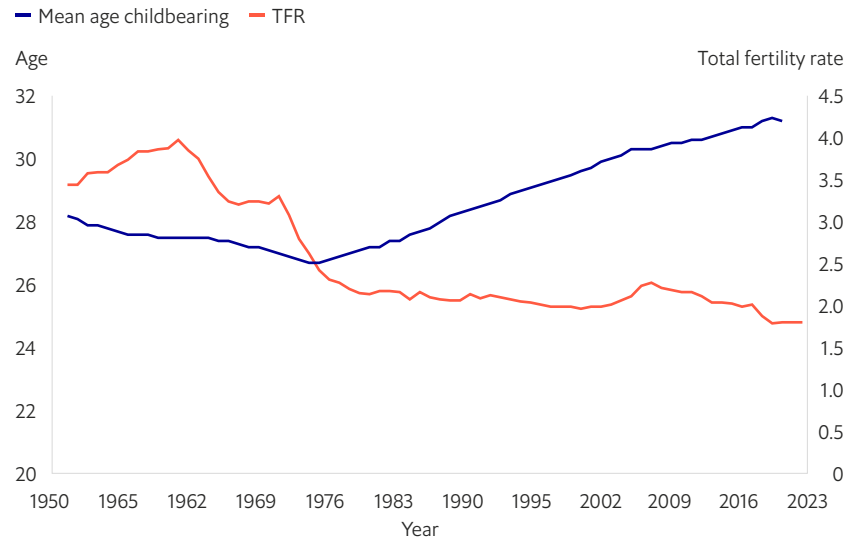
The Scorecard

Domain	Indicator	Description	AUS	IDN	JPN	KOR	MYS	SGP	THA	TWN	VNM
1. Childcare policies	1.1 Government expenditure on education	Government expenditure on education as a % of GDP.	6.1%	3.5%	3.4%	4.7%	3.9%	2.8%	3.1%	4%	4.1%
	1.2 Childcare enrolment	Ratio of total enrolment to the population of the age group that officially corresponds to pre-primary education <75% (0), 75-90% (1), >90% (2)	2	0	1	2	1	2	0	1	2
	1.3 Childcare availability	Lack of appropriate childcare facilities, long waiting lists (0), formal childcare available but not meeting needs, shorter waiting lists (1), childcare available for all children, no waiting lists (2)	1	1	2	1	1	1	0	1	1
	1.4 Pre-primary childcare allowance/subsidies	No cost coverage or special allowances (0), some cost coverage, cost of care depends on family income and work status of parents (1), good cost coverage / subsidies independent of income (2)	1	1	2	1	1	1	1	2	1
	1.5 Free education	No free primary and secondary education guaranteed in legal frameworks (0), <10 years of free primary and secondary education guaranteed (1), ≥10 years of free primary and secondary education guaranteed (2)	2	2	1	1	2	1	2	1	1
	1.6 Grandparents caregiver incentives	No policies or subsidies to encourage and help grandparents have a role in childcare (0), existence of regional policies or subsidies to encourage and help grandparents have a role in childcare (1), existence of national policies or subsidies to encourage and help grandparents have a role in childcare (2)	2	0	1	1	0	2	0	1	0
	1.7 Afterschool activities	Existence of government organised extracurricular activities and/or if there are nationally-organised programmes in place to engage pre-primary or primary-aged children after school finishes.	NO	YES	YES	NO	YES	YES	NO	NO	NO

Domain	Indicator	Description	AUS	IDN	JPN	KOR	MYS	SGP	THA	TWN	VNM
2. Workplace policies	2.1 Female labour participation	Female labour force participation rate (%), annual.	62.3%	52.5%	54.2%	55%	55.4%	63.9%	59.9%	51.5%	68.5%
	2.2 Maternity leave	No universal entitlement to maternity leave (0), paid leave up to 14 weeks guaranteed (1), paid leave more than 14 weeks guaranteed (2)	2	1	2	1	1	2	1	1	2
	2.3 Maternity leave payment	Maternity leave is unpaid (0), maternity leave is paid at < 75% of normal pay (1), maternity leave is paid at > 75% of normal pay (2)	1	2	1	2	2	2	2	2	2
	2.4 Paternity leave	No universal entitlement to paternity leave (0), paid leave up to 2 weeks guaranteed (1), paid leave more than 2 weeks guaranteed (2)	1	1	2	1	1	1	0	1	1
	2.5 Paternity leave payment	Paternity leave is unpaid (0), paternity leave is paid at < 75% of normal pay (1), paternity leave is paid at > 75% of normal pay.	1	2	1	2	2	2	0	2	2
	2.6 Working hours and flexible working	Existence of policies that: (1) Restrict working hours to <=40 hours/week and (2) Provide subsidies or incentives to help employees offer flexible working arrangements / employees can request flexible working. None of these = 0, one of these = 1, both of these = 2	2	1	2	2	1	1	0	1	0
	2.7 Employment protection and discrimination	Existence of policies that: (1) Make it unlawful for employer to dismiss a woman during pregnancy, whilst on maternity leave or nursing (unless for unrelated reasons) (2) Provide guaranteed right to return to the same position or an equivalent position with equal pay and (3) Protect against discrimination in employment (eg. hiring policies) on grounds of maternity. None of these = 0, one of these = 1, all of these = 2	2	1	2	2	1	1	1	1	2
	2.8 Health protection and support	Existence of policies that: (1) Protect pregnant and nursing women from being obliged to perform work that is assessed as detrimental to the mother or child (eg. night shifts) (2) Give a right to daily breaks for breastfeeding/lactation and (3) Mandate/ incentivise employers to maintain physical infrastructure at work location for parents with young children (eg. creche facilities, breastfeeding rooms). None of these = 0, one of these = 1, all of these = 2	2	2	1	2	0	2	1	2	2
3. Financial incentive policies	3.1 Government expenditure on social/family protection	Government expenditure on social/ family protection as a % of GDP.	9.4%	1.3%	16.1%	6.3%	4.2%	1.0%	3.0%	11.2%	4.3%
	3.2 Baby bonus	No baby bonus (0), baby bonus < one time average monthly salary at birth (1), baby bonus > one time average monthly salary at birth (2)	1	0	2	1	1	2	1	1	2
	3.3 Child allowance	No universal child benefits (0), yearly universal benefits provided to parents with children (1), monthly universal benefits provided to parents with children (2)	1	1	1	2	1	2	2	2	2
	3.4 Tax credits for dependent children	Existence of tax rebates/credits for dependents.	YES	YES	YES	YES	YES	YES	YES	YES	YES
	3.5 Tax benefits for working mothers	Existence of tax benefits for working mothers / mothers returning to the workplace after leave.	NO	NO	NO	NO	YES	YES	NO	NO	NO
	3.6 Housing subsidies for married couples	Existence of priority housing or subsidies for married couples.	NO	NO	NO	YES	NO	YES	NO	YES	NO
4. Assisted reproduction policies	4.1 Availability of family planning and reproductive health services	Governments provide no family planning services to their populations (0), provide indirect family planning services through non-governmental organizations (1) provide family planning services directly through public programmes (2)	1	2	0	2	2	2	2	2	2
	4.2 ART facilities	Number of assisted reproductive institutions per 100,000 population.	2	0	2	2	1	1	1	2	0
	4.3 Regulation of ART	Existence of: (1) Regulations (2) National Laws/ Statutes/Ordinances/Policies and (3) Professional Organization Standards/Guidelines. None of these = 0, one of these = 1, all of these = 2	2	1	1	2	1	2	2	2	2
	4.4 Accessibility of ART	ART is not available (0), ART is limited to married heterosexual couples (1), ART is available for single people or homosexual couples (2).	2	1	1	1	1	1	1	1	2
	4.5 Availability of public funding	No public funding for ART for individuals (0), government funding available in some public hospitals (1), government funding is available nationwide (2)	1	0	2	2	1	2	0	2	0
	4.6 National financial subsidies	No national financial subsidies for ART for individuals (0), national financial subsidies exist to cover a portion of costs (1), costs of ART are fully covered by national financial subsidies (2)	1	0	2	1	0	1	0	1	0
	4.7 Egg freezing	Not available/permitted (0), available/ permitted only for married women (1), available/ permitted for all women, including single (2)	2	2	2	2	1	2	2	2	2

Australia

Total fertility rate (2023)	1.6
Old age dependency ratio (2022)	26.0
Mean age at first child (2015-20)	31.0
Mean female age at first marriage (2021)	29.4
Mean male age at first marriage (2021)	30.8
Policy concerning current fertility level	Maintain



Sources: The World Bank population statistics,¹²⁶ UN World Population Policies 2021,¹²⁷ UN Data Portal,¹²⁸ Australian Institute of Family Studies.¹²⁹

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies

Low	Medium	High
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Encouraging and supporting families

After experiencing a long baby boom that culminated in a TFR of 3.56 children per woman in 1961, the TFR in Australia started to fall sharply during the early 1960s as contraception became more available. Today, it is at its lowest, at 1.6, mostly owing to a combination of short- and long-term factors: the age at which women have children has been increasing over time, and the total number of children per family has been falling over time.¹³⁰

Several agencies work together to develop and implement policies and programmes aimed at supporting families and promoting reproductive health. The Centre for Population is responsible for understanding and communicating the nuances of population change, and releases the latest data, research and analysis on fertility trends, while the Australian Bureau of Statistics is the primary source of fertility statistics. Women were first entitled to equal pay for equal work in 1972, and family allowance was

first introduced by the government in 1976 through universal per-child cash payment to the principal caregivers.¹³¹ A report released in 2008 by the government concluded that a combination of approaches was needed to help increase the fertility rate in the country, based on the recognition that a low fertility rate is not due to a “lack of wanting children”. This included policies that lower the direct and indirect costs of raising children, and that allow women to combine paid employment with childrearing.¹³²



Strengths: generous childcare and strong employee protection

Australia scores well in its provision of childcare and early education. The government spends the most on education out of the countries analysed in this study (6.1% of GDP).¹⁶ The country has a long history of providing formal childcare, the use of which has increased significantly in line with women’s increased labour force participation.¹¹ Early childhood education and care is subsidised by the Australian Government through the Child Care Subsidy (CCS); this is paid directly to approved providers and passed on to families as a fee reduction. In 2022, 49% of children aged 0-5 and 34.4% of children aged 0-12 received approved CCS care.¹³³ For

lower-income families, the Additional Child Care Subsidy is also available, which usually covers all of a child’s fees. Additional services exist, including the Community Child Care Fund, which helps early childhood education and care services to address barriers to participation, and the Inclusion Support Programme, which helps services to care for children with additional needs.¹³⁴ Thirteen years of primary and secondary education are guaranteed in legal frameworks, which is the most across the countries in the Scorecard. As the cost of education is also often an important consideration when growing a family, Australia scores very well in this domain. However, the country has room for improvement when it comes to providing adequate childcare spaces for children, with some parents struggling to find a place at early childhood education facilities; families can wait three to six months, depending on where they live and which services are available in their area.¹⁷ As well as affordability (which may increase demand), better physical access to early childhood education should be a core policy for the government.

Australia also provides women with strong employment protection when they take time off to start a family, and studies have found that an increase in employment protection for workers positively affects total fertility.¹³⁵ This is in part because it allows women to take time away from work to have a child without worrying about returning to the same position. Women in Australia cannot be discriminated against by employers because they are pregnant, meaning that they cannot be fired, demoted or treated differently from other employees owing to pregnancy. A woman who returns to work after maternity leave has the right to return to the same or similar job she had before going on leave, and it is against the law for employers to directly discriminate against a person because of his or her family responsibilities.¹³⁶ Employers in Australia also are required by law to support employees who are breastfeeding by providing appropriate facilities and allowing adequate breaks.¹³⁷

Providing support and protection to women after they return to work can help to reduce the opportunity costs that come from time away from work, and other countries in the region could do well to implement similar policies.

Weaknesses: low pay for parental leave and a lack of public funding for assisted reproduction

Australia scores lower in its offering of paid parental leave. The country has a hybrid system of unpaid leave available through labour law, a government-funded scheme and employer provided paid parental leave company policy. Maternity leave was first introduced in Australia in 1973 for federal public servants, and later extended to casual employees in 2006. Today, women in Australia are entitled to 12 weeks before the expected due date and six weeks after the birth (for a total of 18 weeks). In 2010 leave was extended to men, who are entitled to two weeks' paid paternity leave.¹¹

At 43.1%, the pay received during leave is low relative to the living wage, compared to both the other countries in the region and other OECD countries.⁴⁷ The recommendation from the ILO is that cash benefits provided to women during maternity leave should amount to at least two-thirds of their previous earnings, and in Australia publicly funded parental leave is paid at a flat rate based on National Minimum Wage rather than a percentage replacement wage.¹¹ The 18 weeks offered in Australia for women is also slightly lower than the OECD average of 19 weeks.⁴⁷ "At the moment, leave is only paid at a basic wage level, which is quite low for a lot of people to move on to compared to their normal income," says Prof Baxter. "Some employers—for example, universities and public sector employers—can top that up to more of a replacement wage, but for blue-collar workers, for example, that doesn't happen. So there's a barrier for those employees".

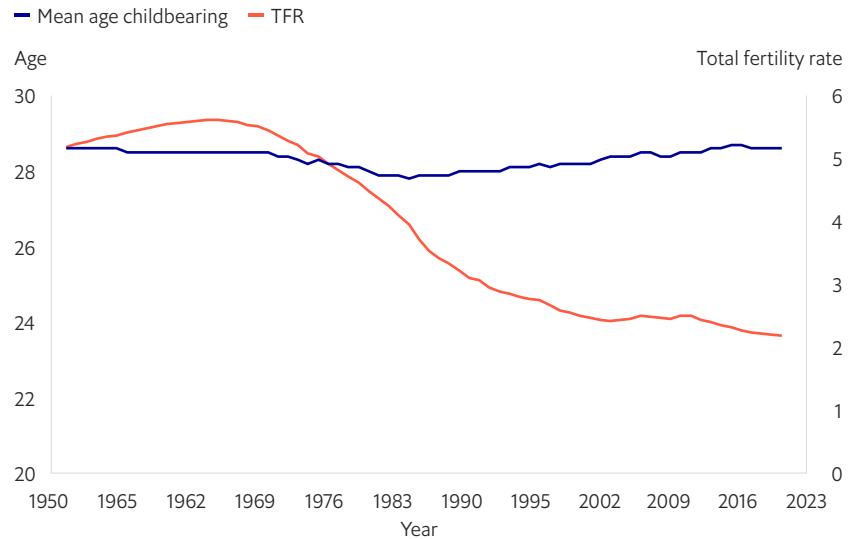
Since reforms that have increased the generosity of parental leave have been accompanied by increased birth probabilities, Australia should consider raising the payment rate and duration of publicly funded maternity leave to be more in line with women's regular incomes.

Australia's scores in the domain of assisted reproduction could also be improved. In 2019, 51% of first births in Australia were to women aged over 30, representing a significant rise from 23% in 1991 and 37% in 2001.¹³⁸ Later entry into parenthood is associated with women having fewer children, meaning that policies that provide women with an increased chance of a successful later-aged birth, such as policies related to assisted reproduction, could be effective in Australia.¹¹ However, while a proportion of the cost of IVF is publicly funded, there are often still significant out-of-pocket costs, even in "low-cost" clinics. Truly "public" care is currently available only for a limited number of those who need it, and cost is often cited as one of the major barriers to commencing and continuing treatment.¹³⁹ This is especially the case for Aboriginal and Torres Strait Islander people.¹⁴⁰ To improve access and affordability to infertility care and services, especially for low-income individuals and couples, Australia could consider providing more generous public financing, either through insurance reimbursement, government-sponsored IVF clinics or an increase to Medicare rebates.

At 43.1%, the pay received during leave is low relative to the living wage, compared to both the other countries in the region and other OECD countries.

Indonesia

Total fertility rate (2023)	2.13
Old age dependency ratio (2022)	10.1
Mean age at first child (2015-20)	28.2
Mean female age at first marriage (2017)	22.4
Mean male age at first marriage (2017)	27.1
Policy concerning current fertility level	Lower



Sources: The World Bank population statistics,¹²⁶ UN World Population Policies 2021,¹²⁷ UN Data Portal,¹²⁸ World Bank gender statistics.¹⁴¹

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies

Low	Medium	High
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A large population but slowing birth rates

The TFR of Indonesia stands at 2.18 as of 2021, which is above the replacement rate. However, the TFR in the country has been declining over the past 50 years. Nevertheless, being the world's fourth most populous country, Indonesia has mostly seen policies focusing on controlling its population, especially during the 1960s and 1970s with the onset of a family planning programme, the National Population

and Family Planning Board (BKKBN).¹⁴² The BKKBN was very successful in reducing the fertility rate, and had the twin goals of "a small, happy, and prosperous family" and to reduce fertility through promotion of contraceptive use.¹⁴³ Today, the BKKBN's vision is "Balanced Growth Population" with the mission of realising population-oriented development and creating happy, prosperous small families.¹⁴² Owing to the continued decline in TFR that is being seen across the country, the Indonesian government can take steps to safeguard itself for future declines.



Strengths: strong workplace policies and protection for women

Policies to support women in the workplace is the area where Indonesia has achieved its highest scores. Statutory maternity rights, introduced in 2003, provide a right to three months of fully paid maternity leave for female workers, and knowledge of this is high; a recent survey found that almost 95% of women in Indonesia are aware that employers have an obligation to grant maternity related leave.¹⁴⁴ However, the same survey indicated that many women only have partial knowledge of what the leave entitlements are.

Indonesia's maternity protection scheme is fully funded by employers and not based on social security, which means that there can be issues with compliance by employers, with a gap between policy and practice. A survey conducted in 2023 found that out of 479 respondents, 64 (13.4%) worked for employers who did not provide them with maternity leave as required by law, and of the ones who did take maternity leave, only 44.1% of respondents received the full salary that they were earning before they gave birth, including allowances; this shows that the country's employer liability scheme does not always allow women workers to enjoy their rights.¹⁴⁴

"In Indonesia, the law often does not differentiate between formal and informal employment, and the government has difficulty even in monitoring the formal sector, whether companies actually observe the policies," says Turro Wongkaren of the Faculty of Economics and Business at Universitas Indonesia. "And in the informal sector, there are no tools for them to monitor, and women tend to leave work." Consideration could therefore be given to improving the enforcement of statutory requirements concerning maternity leave and to establishing maternity benefits within the social security system.

In addition to leave, women are also provided with good employment protection in Indonesia, with laws that prohibit terminating the employment of a worker who is absent from work owing to pregnancy, delivery, miscarriage or breast-feeding, and that also prohibit any discrimination on the basis of a woman's pregnancy.¹⁴⁵ The 2023 survey showed that more than 80% of women who took maternity leave were able to resume their position with the same salary after returning to work. Companies are also required by law to provide dedicated lactation rooms for nursing workers, in addition to two breastfeeding breaks of 30 min per day.¹⁴⁶ However, despite the relevant policies being in place to support breastfeeding, monitoring and implementation is still sometimes ineffective.¹⁴⁷

Weakness: a lack of financial incentive policies and a relatively small female labour force

Given Indonesia's continued population growth, financial incentives attached with child birth such as baby bonuses are absent, which is understandable given other economic priorities in the country. Therefore, Indonesia does not score well in the domain related to financial incentives. However, although directed towards poverty alleviation, the government has implemented a conditional social protection programme since 2007 that provides assistance to poorer families. Families can access conditional cash transfers, and there are separate components for pregnant women and those with preschool-aged children.¹⁴⁸

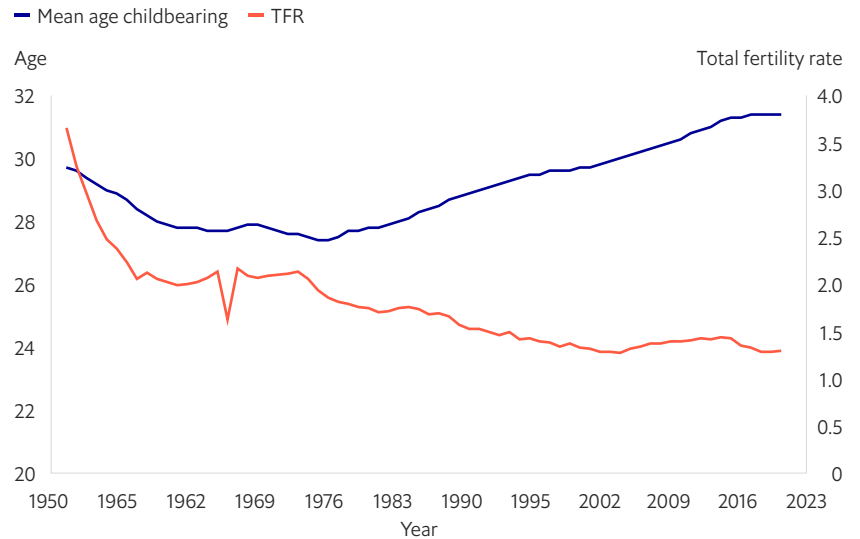
Indonesia's female workforce participation has stood at around 50% for the last 20 years, significantly below the 80% participation of males, and lower than in neighbouring countries such as Vietnam and Thailand.¹⁴⁹ Childbearing and domestic duties have both been shown to encourage women to leave the workforce; women bear the brunt of unpaid care work, with more than 90% of female aged 18-40 doing domestic work.¹⁵⁰ To increase participation, there may be a need to shift social norms away from the idea that women are better carers and men are better primary breadwinners.

Although Indonesia is the world's fourth most populous country, the population has been growing at a slower rate in recent years, rising by 1.25% annually between 2010 and 2020, compared with 1.49% per year in 2000-10; those aged 60 or older now account for 10% of the population (the threshold for becoming an aged society).¹⁵¹ As Indonesia is currently in a period of rapid economic growth, the country should be mindful of the need to ensure that birth rates are sustainable and do not fall to the levels seen in neighbouring countries. Solutions may be flexible work for women, financial incentives, provision of childcare and parental leave, though addressing social norms could also be key.



Japan

Total fertility rate (2023)	1.31
Old age dependency ratio (2022)	51.2
Mean age at first child (2015-20)	31.5
Mean female age at first marriage (2021)	29.5
Mean male age at first marriage (2021)	31.0
Policy concerning current fertility level	Raise



Sources: The World Bank population statistics,¹²⁶ UN World Population Policies 2021,¹²⁷ UN Data Portal,¹²⁸ Japan Ministry of Health, Labour and Welfare.¹²⁹

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies

Low	Medium	High
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A long history of low fertility

Japan’s fertility rate has been declining steadily and fell to below 2 for the first time in 1975. The current birth rate of 1.31 is well below the 2.1 necessary to keep the population stable. Births outside of marriage are very low in Japan (around 2% of all births since the 1950s), and the decline in Japan’s fertility rate is mainly due to fewer women getting married, or women getting married at a later age.¹⁵³ This is partly because of the rapid improvement of women’s educational

and economic opportunities, but also due to the persistence of traditional domestic gender roles in Japan, where there is a heavier burden on women to manage housework and childcare.¹⁵⁴

Though the decline in fertility was considered temporary at the time, the government first began assisting couples in raising children in the 1990s with the introduction of more convenient day-care centres, and payments to support childrearing.¹⁵⁵ In the 2000s and 2010s, low fertility became an integral part

of Japan's overall public policy direction.¹⁵³ A dedicated minister was appointed with an aim to raise birth rates, and the Ministry of Health, Labour and Welfare introduced the Revised Child Care and Family Care Leave Law to help ease childbearing burdens for families.¹⁵⁶

“The government’s way of thinking is to suppress the decrease as much as possible and to fulfil the wishes of young people, so that those who want to get married can get married, and those who want children can have children.”

Miho Iwasawa, National Institute of Population and Social Security Research Japan

“The government’s way of thinking is to suppress the decrease as much as possible and to fulfil the wishes of young people, so that those who want to get married can get married, and those who want children can have children,” says Miho Iwasawa, director of the Department of Population Dynamics Research at Japan’s National Institute of Population and Social Security Research.

Strengths: generous financial transfers and funding for assisted reproduction

Financial transfers are often provided by governments to help reduce the direct costs of raising children. In Japan, these policies receive top marks in the Scorecard. Income-based benefits for parents were first introduced in Japan in 1972, as part of the Child Benefit Act.

Since then the payments have gradually grown, as has the eligibility criteria, with more families being eligible to receive benefits.¹⁵⁷ At present, all new parents in Japan, regardless of income status, receive a one-off payment when a child is born, and this is expected to be increased.¹⁵⁸ In addition, a child allowance exists depending on the age of the child and family income. Despite these transfers, however, studies have shown that they contribute little to the poverty reduction of households with children. This is partly due to their size, but also low take-up (investigations have found that low take-up is partly due to the complexity of the application process, which must be done in person, but is also simply due to parents not knowing about the benefits).¹⁵⁷

Among the countries in the Scorecard, Japan also scores highly in access and funding of ART. As of 2022, 600 fertility clinics exist in the country, the most per 10,000 population in the region, and Japan has the highest number of cases of infertility treatment in the world.^{113,159} Since 2022, all basic treatments including insemination and in vitro fertilisation have been covered by insurance for up to six cycles for women under 40 and three for women aged 40-43.¹⁵⁹ This is the most generous coverage in the region. Egg freezing is also permitted in Japan, including for unmarried women. However, it is important to note that ART remains unavailable to most single people or same-sex couples in Japan, nor is egg and embryo donation or surrogacy allowed.¹¹³ Adoption and fostering are also restricted to married, heterosexual couples. More inclusive policies for same-sex couples and single parents should be considered to provide increased options to form families and have children.



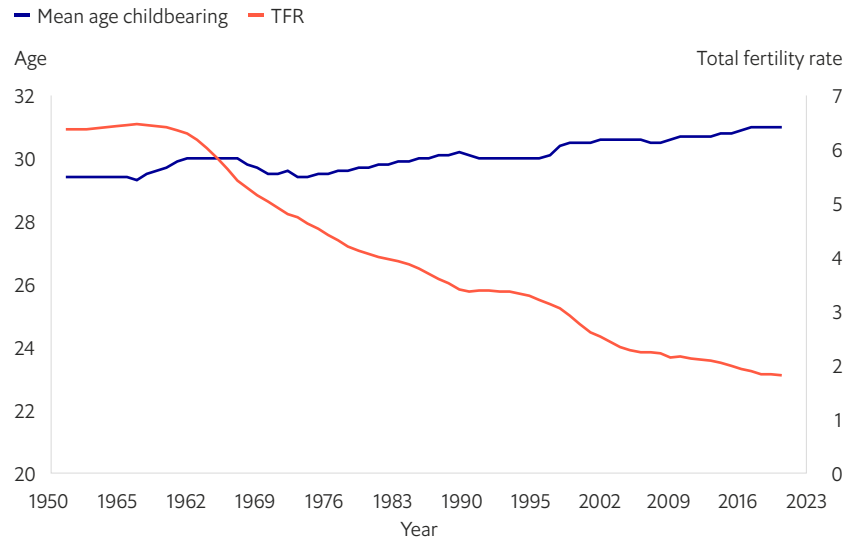
Weaknesses: low pay for (and uptake of) leave and a gap in infertility knowledge

The idea of parental leave was first introduced in Japan through The Labour Standards Act in 1947. As of 2022, female employees are entitled to six weeks of maternity leave before their expected due date, and eight weeks after the birth—a total of 14 weeks, compared with the OECD average of 19 weeks.⁴⁷ Male employees are entitled to four weeks' leave, an allowance introduced in 2022. For both mothers and fathers, leave allowance is paid at two-thirds of normal monthly salary, which is lower than in other countries in the region of similar income levels such as Singapore, South Korea and Taiwan. In addition, uptake of leave is low, especially as it is neither mandatory nor enforced. In 2020, 12.7% of fathers working for a company took child care leave, compared with 81.6% of mothers.¹⁶⁰ The government is aiming to lift this ratio; increasing the length and amount paid would help with incentivisation.

National population policies and family planning programmes often go hand in hand, however Japan is the only country represented in our scorecard which does not provide direct or indirect support for family planning.¹²⁷ Additionally, though services for assisted reproduction are covered by the government, knowledge of fertility remains low in Japan. A survey of 79 countries showed that fertility knowledge is lower in Japan than in any other developed country, which could be playing a role in fertility trends. This can be attributed to social taboos against referring to sex or age, and also to the fact that education tends to focus on prevention of pregnancy and sexually transmitted infections.¹⁶¹ Infertility treatment in Japan is also sometimes met with stigma, and there can be a lack of awareness regarding success.¹⁵⁹ “Awareness and education would make a lot of difference in terms of how you increase the success rate of IVF,” says Osamu Ishihara, professor of clinical medicine and the director of the Nutrition Clinic at Kagawa Nutrition University.

Malaysia

Total fertility rate (2022)	1.6
Old age dependency ratio (2022)	10.7
Mean age at first child (2015-20)	30.9
Mean female age at first marriage (2020)	28.1
Mean male age at first marriage (2010)	28.0
Policy concerning current fertility level	No policy



Sources: The World Bank population statistics;¹²⁶ UN World Population Policies 2021;¹²⁷ UN Data Portal;¹²⁸ Department of Statistics Malaysia (DOSM).¹⁶²

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies

Low	Medium	High
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Shifting priorities

In 2021 there were almost 7% fewer births in Malaysia than in 2020, the highest decrease in a decade. Over the past five decades, TFR has declined significantly, from 4.9 children per woman of childbearing age in 1970 to 1.6 in 2022; the TFR for all major ethnic groups in Malaysia declined in 2011-21.¹⁶² The continuing decline in fertility has resulted in labour shortages and rapid population ageing, and the rapid rise in old age dependency poses a great challenge to the social security system.

Malaysia first introduced population control programmes in the 1960s in the form of the National Family Planning Programme, which had the goal of lowering the population growth rate. In the 1980s the programme was renamed the National Population and Family Development Board to recognise the inter-linkages between population and development processes, and there was a review of policies that encouraged small family sizes.¹⁶³ There have been multiple studies to evaluate the effectiveness of population policies, which found

that focus should be given to producing a quality population and strong family institutions.¹⁶³ Population policies shifted towards sustaining population growth in balance with resources and development, with a focus on enabling couples to plan families based on their resources, but also suggested interventions to address unmet needs for contraception, and to introduce paid paternity leave.¹⁶³

Strengths: expanded workplace policies and flexible working

With recent amendments in 2022 in its Employment Act, Malaysia performs well in the workplace policies domain of the Scorecard. The amendments extended the maternity leave duration from 60 to 98 days and made paternity leave a statutory right for men, although allowing only seven days.⁵³ During maternity leave, allowance is paid at the ordinary rate of pay.¹⁶⁴ In addition to the paid leave, amendments in the Employment Act also restrict the maximum number of working hours to 45 (down from 48), have provisions to enable employees to apply for flexible work arrangements (which can cover changes in working hours, working days and also the place of work) and make it an

offence for an employer to terminate a female employee's employment when she is pregnant.⁵³ However, Malaysia is one of the few countries in the region in which there is no policy around employees' breastfeeding rights, and lactation breaks at workplaces are not provided for by law. In the absence of workplace support, it is difficult to combine breastfeeding and work, which may deter women in Malaysia from returning to work after having a child.¹⁶⁵

Weakness: lack of financial incentive policies and support for ART

Despite the presence of the means-based family assistance scheme, Bantuan Keluarga Malaysia (BKM), through which families receive payments dependent on marital status, income and number of children, the score in this domain is low for Malaysia owing to cash transfers being insufficient in their amount, and because there are no universal child benefits in Malaysia. Since children are one of the most important resources for driving Malaysia's future growth and children are disproportionately affected by poverty, introducing a universal child benefits scheme could help to alleviate the financial pressures on parents and help to

Malaysia is one of the few countries in the region in which there is no policy around employees' breastfeeding rights, and lactation breaks at workplaces are not provided for by law.

break the poverty cycle, as well as minimising the administrative costs needed to target “eligible” beneficiaries.¹⁶⁶ The one-off baby bonus currently provides a M\$500 (US\$104.6) payment to mothers giving birth in 2023; this amounts to less than 8% of average monthly salary in Malaysia.⁸¹ The government has been making several amendments to the BKM programmes to expand both amount and coverage, which could help to strengthen financial policies and their role in encouraging childbearing.¹⁶⁷

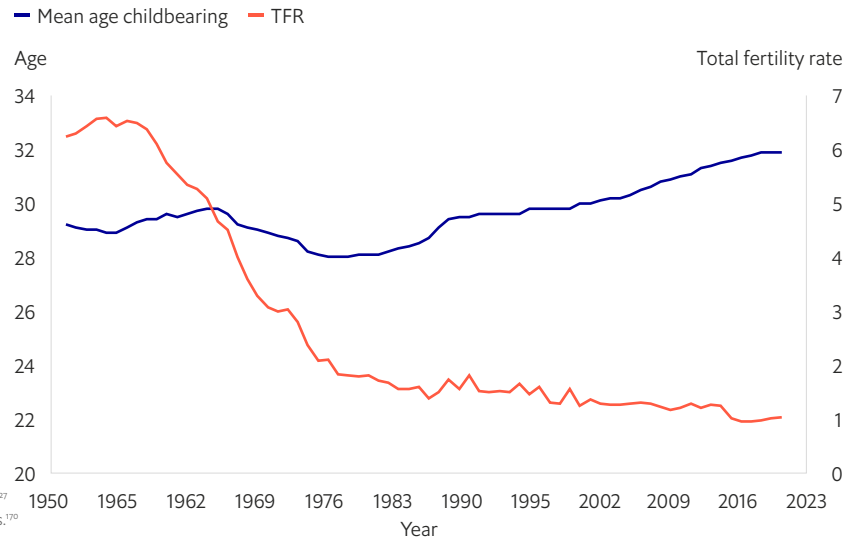
Malaysia also has room to expand its policies relating to assisted reproduction, and it scores relatively low in this domain. Access to ART is

confined to couples within a legal heterosexual relationship or marriage, which is unlikely to change, owing to cultural sensitivities.¹⁶⁸ The cost of IVF in Malaysia at a good clinic starts from around M\$18,000 (US\$3,880), which can be out of reach for many couples, and government subsidised treatment is only available in a few publicly funded hospitals.¹¹³ However, the government has recently announced that citizens will be able to use funds in their Employees Provident Fund, the workplace pension scheme, for IVF.¹⁶⁹ This was introduced as a way to help raise birth rates in the country, though more can be done to help infertile couples in Malaysia.



Singapore

Total fertility rate (2023)	1.04
Old age dependency ratio (2022)	20.7
Mean age at first child (2015-20)	31.3
Mean female age at first marriage (2021)	29.1
Mean male age at first marriage (2021)	31.5
Policy concerning current fertility level	Raise



Sources: The World Bank population statistics,¹²⁶ UN World Population Policies 2021,¹²⁷ UN Data Portal,¹²⁸ World Bank gender statistics¹²⁹, Singapore Department of Statistics.¹³⁰

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies

Low	Medium	High
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A history of generous policies

Today, Singapore has some of the most longstanding and comprehensive policies to encourage marriage, boost fertility and provide support to families of any country in Asia. However, it also has one of the lowest fertility rates in the world.¹⁷¹ The TFR in Singapore was at a high level of 5.76 in 1960 but started to decline alongside rapid industrialisation and improved work opportunities for women. In 1975 the TFR fell to 2.07 (below the replacement level).

Despite this rapid fall in birth rates, the Singapore government was slow to start introducing policies and programmes to address it, with the first pro-natalist policies introduced in 1987.¹⁷² In 2001 a package of incentives was introduced and further enhanced over the years. Currently, the package includes paid maternity leave, childcare subsidies, tax relief and rebates, one-time cash gifts, and grants for companies that implement flexible work arrangements. Despite these efforts, the fertility rate has continued to fall, although probably at a slower rate.¹⁷³ Declining fertility

rates and increasing life expectancy (both at birth and during old age) have led to changes in the age structure of the population. This has resulted in population ageing, labour force shortages and increasing elderly dependency ratios. This has important implications for the resources needed for retirement and healthcare.¹⁷⁴



Strengths: strong financial incentives and long maternity leave for Singaporeans

Singapore scores very well in its provision of child-related financial incentives to its populations. Since April 2001 large one-off cash gifts have been provided on the birth of a child, totalling S\$11,000 (US\$8,135) for a first and second child, and S\$13,000 (US\$9,614) for a third child. The government also provides a universal co-saving scheme for each newborn baby (a “Child Development Account”), with an initial deposit.⁷⁶ There are also generous parenting tax incentives, as well as tax relief for working mothers. As of 2013, a family with two children could enjoy benefits of about US\$118,000 by the

time both children turned 13. These cash transfers are the most generous in the region. However, the total financial cost of raising a child to age 18 would cost somewhere between US\$177,000 and US\$248,000, and beyond age 18 university fees add considerably to this cost. Therefore, even the most generous financial incentives may not be enough to fully cover the cost of having a child.

Important also is that family benefits are not equally extended to unwed parents, as parenthood within marriage remains the prevailing norm.¹⁷⁵ In 2001 the government introduced the Marriage and Parenthood (M&P) Package to encourage and support Singaporeans’ decision to marry and have children. This package has been progressively and significantly enhanced over the years: between 2001 and 2017 annual budget commitments to the M&P Package have more than quadrupled from S\$500m (US\$365m) to S\$2.5bn (US\$1.8bn).¹⁷⁵

Singapore also offers its employees favourable parental leave, and scores well in the workplace policies domain. Working mothers have been entitled to up to 16 weeks of paid maternity leave since 2008, and two weeks of paid paternity leave has been available for working fathers since 2017 (this is due to be raised to four weeks in 2024, although the additional two weeks are subject to employer approval, and it is voluntary rather than mandatory for employers).¹⁷⁶ Parents can also take up to six days of paid childcare leave annually before the child turns seven and six days of unpaid infant care leave for children aged below two.⁴⁸ During the leave period, employers must pay the usual monthly salary. More generous leave policies for both mothers and fathers have been shown to increase domestic gender equity, which can help to drive fertility.⁸ However, the durational disparity of leave for men versus



women still establishes the mother's role as the primary caregiver. Work culture will need to change to encourage men to take their leave more freely, as there can be hesitancy to make full use of it owing to pressures in the workplace. One option to help with this could be to make the upcoming four-week paternity leave mandatory.

Weaknesses: availability of affordable childcare and free education

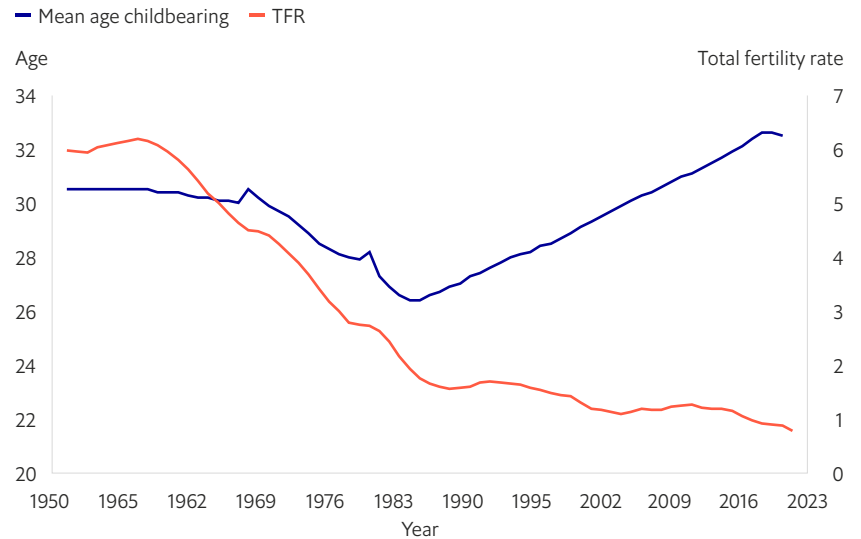
Though still in the highest band, Singapore's scores are weaker in the domain on childcare. Of all the causes of low fertility rates, the economic burden of children's education and childcare has been cited as one of the main causes and Singapore spends only 2.8% of GDP on education, compared with the global average of 4.3%.^{16,177} For primary and secondary education, the country guarantees only six years of free education, whereas other countries in the region guarantee an average of 9.5 years. However, school fees are heavily subsidised by the government and therefore are highly affordable for locals (they pay a monthly fee of S\$6.50 (US\$4.75) for primary school, and S\$15 (US\$11) for secondary school). In 2023 the average total cost of education

for a Singapore citizen from early childcare to university was estimated to be S\$71,409 (US\$52,300), with S\$30,201 (US\$22,120) of this being for pre-primary infant and childcare (after subsidies with the median household income).¹⁷⁸

In terms of availability of pre-primary childcare, before children are enrolled in full-time school, there can be a shortage of places for infants up to four years old and a mismatch in demand and supply, with some areas having waiting lists of more than a year.¹⁷⁹ To help parents return to work after having children, the country will need to improve the distribution and affordability of childcare centres. "In many countries in Western Europe, childcare services are easily available," says P C Wong, emeritus consultant in the Division of Reproductive Endocrinology and Infertility at the National University Hospital in Singapore. "We need that in Singapore, maybe [we should] even encourage employers of a reasonable size to provide childcare within their facilities. In Singapore we need more readily accessible and more affordable childcare facilities."

South Korea

Total fertility rate (2023)	0.78
Old age dependency ratio (2022)	24.8
Mean age at first child (2015-20)	32.3
Mean female age at first marriage (2021)	31.3
Mean male age at first marriage (2021)	33.7
Policy concerning current fertility level	Raise



Sources: The World Bank population statistics,¹²⁶ UN World Population Policies 2021,¹²⁷ UN Data Portal,¹²⁸ World Bank gender statistics⁴¹, Statista Korea¹⁸⁰

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies
Medium	High	Medium	High

Low	Medium	High
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A dramatic decline in fertility

After hovering around zero growth in the mid-1990s, South Korea’s population has been shrinking since 2013, with the decline accelerating in recent years; South Korea has had the lowest fertility rate in the world since 2013. The country’s population shrank for the first time on record in 2021 and is projected to fall further, to 38m by 2070.¹⁸¹ In 1981, to combat high birth rates, the government first set a target

of a two-child, “replacement” level fertility with a programme of economic incentives, and the target was met quickly with the TFR falling to as low as 1.74 by 1984, leading to thoughts that the population policies were working too well. By 2005 the TFR reached a historic global low of 1.08, and laws were passed to include provisions to provide a more favourable environment for childbearing.¹⁸² This has been renewed every five years since 2006 and many policies



have been implemented. Despite all these efforts, the fertility rate seems far from ready to bounce back.¹⁸³ The Korean government is persistent, however, and has allocated W39.8trn (US\$30.6bn) in the country's annual budget to encourage more births in 2024.¹⁸⁴

Strengths: generous child benefits and public funding for assisted reproduction

The Korean government has established various policies to counter the low fertility rate, including many financial incentives, and the country scores well in this domain. Families receive W700,000 (US\$528) in cash per month for infants up to the age of 1 and W350,000 (US\$264) per month for infants under 2, with the payments set to rise in 2024. A further monthly amount is provided for children up until elementary school age, with additional payments available for low-income households and single parents.¹⁸⁵ In a district in Busan, South Korea's second-biggest city, a separate bonus for giving birth three or more times was recently increased from W500,000 (US\$377) to as much as W10m (US\$7,552).¹⁸⁵ Despite these incentives, women across South Korea are choosing to have fewer children or none

at all, partly owing to the rise in the cost of living that has hit young people disproportionately hard; they find it difficult to afford a place of their own and, subsequently, start a family.¹⁸⁶

Another way that the Korean government has been proactive has been in the provision of subsidised ART, for which the country also scores highly in the Scorecard. The number of people diagnosed with infertility in South Korea increased from 185,000 in 2010 to over 230,000 in 2019. Against this backdrop, the government first introduced a national policy that provides financial support and health insurance coverage for ART treatment for infertile couples in 2006.¹⁸⁷ The country today provides a federal reimbursement programme for as many as nine cycles of IVF, which is the most in the region.¹⁸⁸ A 2023 Korean study on the impact of the ART health insurance coverage policy on pregnancy and childbirth found that the increased coverage led to higher rates of multiple pregnancies and births, and the decline in total birth rate may have been slowed down slightly by the policy. The study suggests that policies that support infertile couples should be developed and implemented to overcome the problems of low birth rates and population decline.¹⁸⁷

Weaknesses: lack of family ambition and high education and tuition fees

Surveys have shown that there is a lack of ambition for young people in South Korea to marry and start families. The average age of the first marriage is 33.7 for men and 31.3 for women, the highest in the region. According to statistics from a 2022 survey conducted by the Korean Women's Development Institute, 55.2% of men and 64% of women answered that "marriage is burdensome".¹⁸⁹ 52% of South Koreans in their 20s do not plan to have children when they get married, a massive jump from 29% in 2015, according to a survey conducted in 2020 by the Ministry of Gender Equality and Family.¹²² These are opinions that are unlikely to be changed simply owing to the implementation of policies, and thus South Korea should look into the social and cultural issues that may be influencing these decisions.

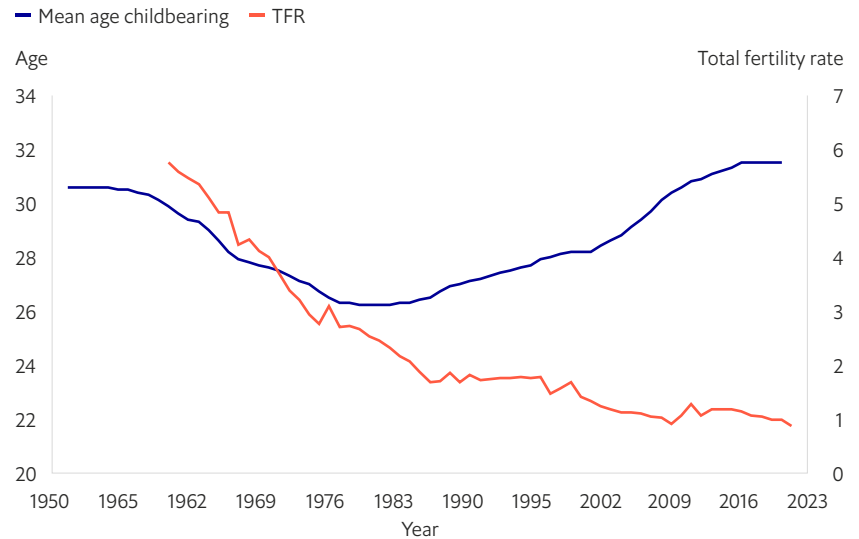
52% of South Koreans in their 20s do not plan to have children when they get married, a massive jump from 29% in 2015, according to a survey conducted in 2020.

Ministry of Gender Equality and Family

South Korea also scores more poorly in the childcare domain. One of the most significant causes of low fertility is academic credentialism and factors related to childcare and education environments. Koreans want their children to be well educated and graduate from prestigious universities, which can be a major cost constraint.¹⁹⁰ According to a survey conducted by the Korea Institute for Health and Social Affairs, the biggest reason for low fertility rates is economic instability (40%), while the second biggest reason is the burden of childcare and education expenses (20%).¹⁸⁹ In 2019 South Korea spent US\$8,601 on pre-primary educational institutions, which is below the OECD average, with 16% funded by private sources. Government spending on education as a percentage of GDP was 4.7 in 2019, similar to the global average. Policies to lower education costs could be effective at raising fertility rates, especially those that control private education expenses, which are a large burden for households and one of the major barriers to having children.

Taiwan

Total fertility rate (2022)	0.87
Old age dependency ratio (2022)	25.0
Mean age at first child (2015-20)	31.4
Mean female age at first marriage (2022)	30.7
Mean male age at first marriage (2022)	32.6
Policy concerning current fertility level	Raise



Sources: Taiwan National Development Council,¹⁹¹ Taiwan Health Promotion Administration,¹⁹² UN World Population Policies 2021,¹⁹⁷ UN Data Portal.¹⁹⁸

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies

Low	Medium	High
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A quick decline in fertility levels

After peaking in 1951 at a rate of just over 7 children per woman, Taiwan’s TFR has declined dramatically over the past 70 years to 0.87 in 2022, well below the replacement rate of 2.1. The number of Taiwanese citizens aged 65 or older surpassed the number of citizens under 15 years old for the first time in 2017, according to data from the Ministry of the Interior.¹⁹³ The government introduced the national family planning policy in 1964, focusing primarily on the increased use of contraception, along with expanded work opportunities, which was the

key reason for Taiwan’s slowing fertility rate in the second half of the 20th century.¹⁹⁴ Taiwan joined the group of low-fertility regions—that is, those at the sub-replacement level—for the first time in 1984. The government first began to target the issue of low birth rates in 2006, with the implementation of the Mega Warmth Social Welfare Program: this included maternity leave benefits, a childcare subsidy system, and early childhood education and care.¹⁹⁵ Since 2011 the government has allocated an annual budget around NT\$10bn (US\$340m) to boosting fertility.¹⁹⁶

Strengths: generous parental leave payments and comprehensive cover for ART

Taiwan scores well in the workplace policies domain owing to its generous provision of parental leave. Parental leave has been in effect in Taiwan at least in some provinces since 1997.¹⁹⁷ The allowance is paid at 80% of the insured person's average monthly insurance salary, and for each child the parent may receive a maximum of six months' allowance.¹⁹⁸ In 2022 the Ministry of Labour increased paid parental leave and implemented other family-friendly policies under the Act of Gender Equality to allow pregnant employees to take up to seven days of paid leave for prenatal health checks, and the number of subsidised obstetric appointments was raised from ten to 14.¹⁹⁹ Employees working at companies with fewer than 30 employees are also able to request more flexible working hours if they have children under the age of three years old.¹⁹⁹ The various policies in Taiwan regarding leave and flexibility mean that the opportunity cost for women is lowered, as they can feel more supported as they take leave away from work.

Following expansion of the IVF treatment subsidy programme, the cumulative number of babies born through subsidized IVF increased from 6,545 in 2021-2022 to 15,106 by December 2023, more than doubling in growth.

Taiwan also scores well in the domain on assisted reproduction. The age of first birth has been increasing in Taiwan, and the percentage of births by ART increased from 0.9% in 1998 to 4.3% in 2016, with an annual increase of 41.2%.²⁰⁰ Health officials estimate that there are about 400,000 couples affected by fertility problems. The Ministry of Health and Welfare has been subsidising fertility treatments since 2015 to help these couples, beginning with those in mid-to-low-income households.¹¹⁶ In 2021 this was expanded to all households. Any couple can apply for the subsidy, and it is estimated that this will benefit 23,000 to 28,000 infertile couples each year. The subsidies can be claimed up to six times if below 39 years of age, and up to three times if between 40 and 44 years of age. According to official data, following expansion of the IVF treatment subsidy programme the cumulative number of babies born through subsidized IVF increased from 6,545 in 2021-2022 to 15,106 by December 2023, more than doubling in growth. This tells us that subsidies help remove barriers to accessing fertility treatment, and may help increase birth rates in the country.^{201,202}

Weaknesses: shorter maternity leave and inconsistent childcare

Of the countries represented in the Scorecard, Taiwan provides one of the shortest periods of maternity leave. Pregnant employees are entitled to a total combined period of eight weeks of maternity leave, spanning the period before and after childbirth.⁴⁵ This is in comparison to the ILO recommendations of a minimum of 14 weeks.⁴⁴ Though maternity leave is well paid, having longer leave would benefit mothers who wish to spend more time at home with their child.

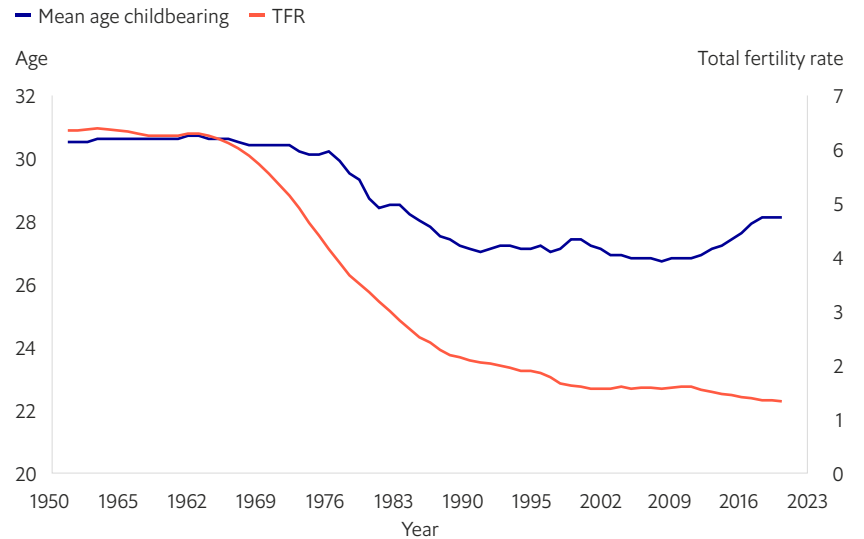
Childcare centres are often overcrowded, as there are no government restrictions on the number of children accepted.²⁰³ Many families use in-home childminders as a form of childcare; however, recent reports by the Childcare Policy Alliance, a group advocating for a national childcare policy, say that about 5,000 nannies are expected to retire over the next four years, while only 592 people became nannies between 2018 and the end of last year, meaning that there will soon be a shortage.²⁰⁴ The labour force participation rate of women with children under the age of three rose from 46% in 2000 to 52% in 2022; thus, there is a growing number of families needing help with childcare.²⁰⁵ In recent years Taiwan has made efforts to increase the number of childcare

facilities and improve accessibility to address the needs of working parents, and the government has implemented policies to encourage the establishment of more childcare centres and provide subsidies to families for childcare expenses.²⁰⁶ Since 2021, tuition and fees for public and quasi-public preschools have been in the process of being reduced, with more benefits for families with two or more children, while children from low- and middle-income families are exempt from school fees. These measures are designed to reduce the childcare burden on parents and increase the overall enrolment rate.²⁸ Despite these initiatives, there are still challenges in meeting the demand for childcare services, especially in densely populated urban areas.



Thailand

Total fertility rate (2023)	1.32
Old age dependency ratio (2022)	22.0
Mean age at first child (2015-20)	27.3
Mean female age at first marriage (2012)	22.5
Mean male age at first marriage (2012)	28.5
Policy concerning current fertility level	Raise



Sources: The World Bank population statistics,¹²⁶ UN World Population Policies 2021,¹²⁷ UN Data Portal,¹²⁸ World Bank gender statistics¹⁴¹

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies

Low	Medium	High
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A shift from a growing population to a falling one

Thailand has seen a significant shift in its demographic structure over the past 40 years, and it is also now preparing for a shrinking labour force and ageing population. As a response to high population growth in the 1960s, Thailand introduced a national campaign to promote family planning, which led to a significant decrease in the number of births. In 1974 Thailand's population growth rate was 3.2% and the number of births

per year was over 1m. With the success of the family planning campaign, the number gradually dropped to below 1m births annually from 1984 onwards.²⁰⁷ The country hit a TFR below the replacement rate in 1990, and it has now gradually fallen to 1.33 (in 2021). Starting in 1997-2001, Thailand stopped having a target for reducing population growth rates and instead focused on maintaining appropriate family size and a well-distributed population. A span planning 2002-06 had a goal to maintain fertility at replacement level while improving reproductive health and

family planning programmes, public health and education, regional population distribution, and migration management. The more recent plans prioritise preparing for an ageing population and improving labour productivity and social services for the elderly.²⁰⁸ “The challenge in Thailand is the need to raise the awareness of every stakeholder to the problem of declining birth rates, as many people still do not really see the problem,” says Kamthorn Pruksananonda, professor of obstetrics and gynaecology and reproductive medicine at Chulalongkorn University, and chairman of the Reproductive Medicine Subcommittee at the Royal Thai College of Obstetricians and Gynaecologists.

Strengths: Workplace policies and financial incentives

With six in ten women in Thailand participating in the labour force, the country performs well in offering statutory maternity leave and allowances. The Social Security Act was first introduced in 1990, providing medical benefits for prenatal, childbirth and postnatal care.

Since then, the benefits have been expanded.²⁰⁹ Women are provided with 90 days fully paid maternity leave, and talks are ongoing to expand this to 98 days.²¹⁰ Paternity leave for new fathers is a recent concept, and though Thailand does not have mandatory paternity leave for all fathers, 15 days of leave is available to those working in the public sector.²¹¹ In terms of support and protection of pregnant and nursing women, Thailand’s Labour Protection Act prohibits pregnant employees from working late hours and overtime, and protects them from employment being terminated on the basis of pregnancy.²¹²

Thailand also scores well in its provision of financial incentives for children. Workers in the formal sector covered by social insurance receive a lump sum of Bt13,000 (US\$372) for the birth of each child, which is more than the average monthly wage in the country. Insured parents employed in the formal and informal sectors also receive a monthly sum for child allowance for every child under 6 years old. These benefits could go a long way in helping parents to provide for their children.

“The challenge in Thailand is the need to raise the awareness of every stakeholder to the problem of declining birth rates, as many people still do not really see the problem.”

Professor Kamthorn Pruksananonda, Chulalongkorn University and Royal Thai College of Obstetricians and Gynaecologists.



Weaknesses: insufficient childcare policies and lack of coverage for assisted reproduction

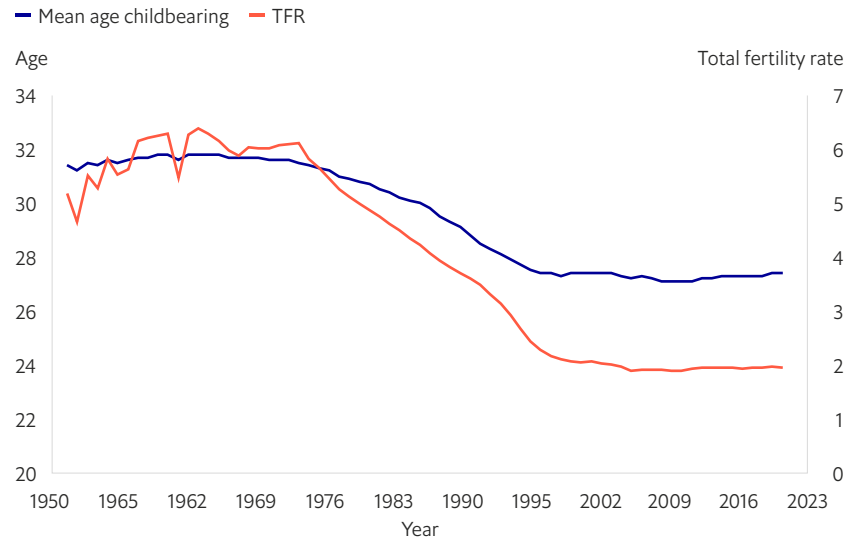
Thailand scores the lowest in the region for its childcare services. The country spends 3.1% of GDP on education, one of the lowest levels in the region, and pre-primary school enrolment is also low, at 72% in 2022.^{16,213} Many working parents in Thailand leave their young children with grandparents and other extended family members owing to a lack of services. Since existing services for the 0-3 age group operate in an unregulated environment and vary across the public, private and non-governmental sectors, there are inconsistencies in caregiver training and qualifications, which can have an impact on children.²⁰ However, the country has made good progress in providing grants for caregivers to try to help with the cost of childcare, which has increased since 2015, although it is still considered relatively low at Bt600 (US\$18) per child under six, per month.²¹⁴ Positively, there is an ongoing initiative with UNICEF, which is working with four key ministries in Thailand to

implement the Early Childhood Development programme.²⁰ This programme aims to provide quality, affordable childcare for all children under 3 in the country, prepare children for school, and coordinate and improve policies for better early childhood outcomes.²⁰

There is no public insurance or health scheme coverage available for infertility treatment, partly owing to the country not recognising infertility as a disease or illness.²¹⁵ ART is not widely practised, and an analysis from the Reproductive Health Survey in 2006 showed that only 29.1% of reproductive-age women facing infertility sought treatment information and services.²⁰⁶ Although ART services are generally available, cost and lack of awareness the largest barriers, and those who do not have the required financial resources may not have the opportunity to take advantage of these reproductive options.²⁰⁶ In addition, three-quarters of infertility clinics are located in urban centres, limiting physical accessibility for rural populations.²¹⁴ This highlights a gap in Thailand, and a need to help the infertile population access necessary services.

Vietnam

Total fertility rate (2023)	1.93
Old age dependency ratio (2022)	13.3
Mean age at first child (2015-20)	27.6
Mean female age at first marriage (2021)	24.1
Mean male age at first marriage (2021)	28.3
Policy concerning current fertility level	Maintain



Sources: The World Bank population statistics,¹²⁶ UN World Population Policies 2021,¹²⁷ UN Data Portal,¹²⁸ General Statistics Office, Vietnam.²¹⁶

Scorecard results

Childcare policies	Workplace policies	Financial incentive policies	Assisted reproduction policies
Low	High	Low	Low

Low	Medium	High
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A well planned slowing growth rate

Between 1980 and 2000, the population of Vietnam continued to grow, although at a decreasing rate. By the end of the 1990s, the growth rate had declined to its lowest point since 1975, at 1.4% per year in 2000 (compared with 2% at the beginning of the 1990s).²¹⁷ This reduction in growth rate can be traced to couples limiting their family size to one or two children, although there remain wide regional disparities, with birth rates lower in urban areas than in rural areas.²¹⁶

Vietnam was one of the first Asian countries to implement population and family planning programmes in the 1960s, to increase the use of birth control and increase participation in family planning; the goal at this time was to decrease fertility.²¹⁸ In 1993 a one- to two-child policy was formalised, and the first National Strategy on Population and Family Planning was launched with the goal of reducing TFR to 2.9 by the year 2000.²¹⁷ There was a drop in TFR from 3.8 in 1991 to 2.3 in 2000, 0.6 lower than the target, and the priorities of the policy shifted from “controlling



population size” to “improving population health.” These policies are ongoing in the country, but as well as government policies, a combination of factors such as urbanisation and rapid economic development has also led to women choosing to delay or forgo having children in order to pursue their careers—along with the overall socioeconomic achievements gained since the mid-1980s, women’s status and gender equality in Vietnam have also been greatly improved.²¹⁶ In 2020, a programme was introduced (Decision 588) which set the target of maintaining a TFR of between 2 and 2.2 per woman nationally, decreasing it in high-fertility areas while boosting it in low-fertility areas, while also encouraging people to have their first child before 30.²¹⁹

Pregnant female employees can also take five days of leave for prenatal check-ups, and two additional days if they live further away from health establishments or have an abnormal pregnancy.

Strength: parental leave policies and inclusive assisted reproduction

With seven out of ten women participating in the labour force, Vietnam performs well in the workplace policies domain.²²⁰ According to a study conducted by the General Confederation of Labour in 2011, almost 90% of female workers in the country who had children were in favour of increasing the length of maternity leave, and consequently leave was expanded from four to six months in 2013, a decision backed by 91% of Vietnamese legislators.²²¹ Vietnam’s maternity leave allowance is one of the longest in the region, providing working mothers with more flexibility on their return to work, and it is fully covered by social insurance. Pregnant female employees can also take five days of leave for prenatal check-ups, and two additional days if they live further away from health establishments or have an abnormal pregnancy.²²² Paternity leave came into effect in 2016, entitling husbands to 5-14 working days’ leave. Similarly, the country also protects pregnant employees from discrimination, restricts them from working at night or overtime, and employers are encouraged to provide breastfeeding facilities for new mothers.⁷¹

Compared to other countries in the region, Vietnam scores higher in the inclusivity of its policies related to assisted reproduction. It is one of the only countries to allow access to artificial insemination for single women, which was implemented in 2019.²²³ Vietnamese law also allows surrogacy when the wife is unable to carry a pregnancy and give birth.²²⁴ However, the country does not recognise same-sex marriage, and there are therefore no laws that recognise the same-sex partner of a person who has used assisted reproduction as a legal parent of the resulting child.¹¹³ Therefore, there remains an opportunity for Vietnam to increase the inclusiveness of its policies.

Weaknesses: financial incentive policies and lack of coverage for assisted reproduction

Despite the presence of both a baby bonus scheme and a monthly child allowance for children of up to 6 years of age, Vietnam has scope to strengthen its financial incentive policies, especially with regard to government spending on social and family protection, which is low, at 4.3%.²²⁵ Under Decision 588, incentives for couples having two children are being offered in a pilot project such as offering a personal income tax rebate, exemption, or reduction, allowances for purchasing or renting social housing, and financial support for tuition fees,²¹⁷ which is promising. With the lowest fertility rate in the country, Ho Chi Minh City is also pursuing introducing incentive policies for married couples to have at least two children, including support for social housing and payment of hospital fees to reduce child-raising costs.²²⁶ With female workforce participation of almost 69%, the government would also benefit from analysing the benefits of introducing tax benefits for mothers returning to the workplace after leave, which currently do not exist.

Although there has been a rise in clinics and infertility services in Vietnam since the late 1990s, many barriers remain, including economic and supply hurdles; patient demand currently outpaces supply.²²⁷ This is partly due to the rising incidence of fertility issues and the rising risk of infertility in the country.²²⁸ However, it is also due to restrictions in the privatisation of the medical services industry; since IVF is largely limited to the public sector, this can restrict access,²²⁶ as well as the fact that IVF centres tend to be concentrated only in larger cities. The cost of performing IVF is lower compared to many other APAC countries and around the world, which makes it an attractive place for foreign patients. However, the cost remains very high for domestic patients, and is not covered by health insurance.^{113,229} Therefore, there is room for improved funding for patients undergoing assisted reproduction in Vietnam to help alleviate some of the financial burden. Knowledge could also be improved; a survey conducted in 2020 concluded that it would be helpful for the government to launch information, education, and communication campaigns to raise awareness of the benefits of having children before the age of 30, as well as the fertility issues that may be encountered by delaying childbearing, and these campaigns should be directed at both males and females.²¹⁷



Conclusion

It is well known that fertility rates have been declining in high-income countries, which have TFRs below the replacement level required to replace the previous generation (2.1). In more recent years, this trend has also been seen in upper-middle- and lower-middle-income countries; of all the countries represented in this study, only Indonesia has a TFR higher than the replacement rate, though at 2.13 it is predicted to fall below this very soon.²³⁰

In this Scorecard, we have explored countries' implementation of different policy ideas, including those that lower the direct costs of having children (such as cash transfers), the indirect costs (such as parental leave, which compensates for lost income, or child care provision that supports working parents), as well as other options such as increasing access to ART, which is emerging as a key policy consideration to help increase birth rates by reducing involuntary childlessness due to infertility.

Efforts to address falling birth rates vary in the region, with important gaps being seen in some countries. However, policy changes in this space move very quickly, with many new policies being implemented just in the past year. Although each country has different strengths and weaknesses, a common set of policies could help to prepare them for the inevitable demographic transition that is happening in the region—and ultimately slow the population decline.

1. Recognise falling fertility as a key policy and economic issue

Countries in the region vary in their response to falling birth rates, with some not yet seeing it as a problem, and often public funds are allocated into other priority areas such as poverty reduction. However, birth rates have also fallen sharply in many of the world's leading emerging markets, and there are increasing signs that they will continue to fall in the coming years. As the demographic landscape shifts, this will increasingly lead to significant economic challenges, as a declining population can lead to a shrinking workforce, potentially hampering economic growth and straining social welfare systems. With fewer young people entering the workforce, there may be an increased burden on the elderly population, impacting pension systems and healthcare services. To combat this, falling fertility must first be recognised as a key policy and economic issue, and a multifaceted approach is needed. This should encompass long-term, cost-efficient policies that support families, work-life balance and women's empowerment, all of which play pivotal roles in promoting sustainable economic development in the face of this demographic shift. If not yet seen as a priority, countries that are on their way to ultra-low fertility should take lessons from those that are experiencing it.



2. Reduce the opportunity cost of childbearing through workplace and childcare policies

In addition to monetary costs, children also come with an opportunity cost. As countries develop and wages rise, the opportunity cost of raising children and spending time away from work grows larger, making it more expensive to raise children. This is especially the case in countries experiencing high urbanisation, such as Malaysia, Thailand and Vietnam. To counteract these losses, policies such as the implementation of more professional and subsidised childcare would allow parents to work and raise children at the same time. Providing paid parental leave, employee protection and options for flexible working would also help parents to take the required time off while ensuring that they can return to their same career after having a child.

3. Focus on cultural change to slow the decline

In countries facing ultra-low fertility such as Japan, South Korea, Singapore and Taiwan, policies designed to raise birth rates have been in place for long periods of time with little impact on TFR. Most countries follow similar strategies, with differences being seen in how effectively targeted and funded the policies are, and whether there are cultural or societal norms that prevent people from taking up the support offered by governments, such as parental leave. Some of the younger generations are choosing not to have children, not solely because of cost, but also due to lifestyle choices, ambition and career pressures, and persisting traditional gender roles, such as the idea that women take on most childcare duties. Although we did not delve into cultural attitudes for the Scorecard, as it was not within the scope for this report, countries should focus on what might work best for their own populations to combat some of the apprehensions of the younger generations.

3. Combat involuntary childlessness

As it may be harder to encourage those who do not want children to change their minds, efforts may be better spent helping those who do want children to be able to do so. Infertility is a growing problem in much of the APAC region, partly as couples wait longer to have children. However, accessing services for assisted reproduction can be a problem for many people, particularly in countries where there is no financial support for treatment, such as Indonesia, Malaysia, Thailand and Vietnam. Alongside family-friendly policies, countries could consider extending their funding of ART, perhaps using a means-tested system to prioritise those who need it most, so helping families to achieve the family size that they desire. Increasing access to newer technologies such as egg freezing could also help to prevent future losses in fertility.

The APAC region is extremely diverse in terms of geography, language and culture, but it is also diverse in terms of fertility rates and, therefore, policy responses to falling fertility varies. Policies that provide stability and support for raising children, enable participation in employment through parental leave and child care, and reduce the financial costs for parents have many benefits beyond raising fertility rates, and have become a core part of national social protection systems around the world, including in the APAC region. Previous research has concluded that these policies do have an impact on fertility rates to various extents, although some are sometimes more impactful than others in certain regions and depending on where a country might stand within its own fertility transition. When considering which policies to implement, countries should respond to the various needs of their individual populations, and their diverse life situations.

This Scorecard has also shown us that most countries have adopted comparable approaches in managing their fertility rates, offering an opportunity for countries in the initial stages of the fertility transition, those nearing sub-replacement fertility and those experiencing differing TFRs across regions, to gain insights from the practices of those in more advanced stages, including those that have already reached the threshold of ultra-low fertility. The Scorecard should serve as a guide to help policymakers know where the biggest opportunities lie when it comes to implementing fertility and family-friendly policies in their respective countries.



Appendix

Scorecard methodology

Literature review

The first step in the development of the Scorecard was a rapid review of the key literature around addressing falling fertility in nine Asia-Pacific countries: Australia, Indonesia, Japan, Malaysia, Singapore, South Korea, Taiwan, Thailand and Vietnam. The literature review was designed to inform the development of the Scorecard and white paper by understanding the current fertility situation in these countries, and current policy efforts to help mitigate falling fertility rates. We searched Embase and Medline using relevant subject headings and free text terms relating to fertility, combined with terms relating to Asia-Pacific in general and the nine countries that we are studying. In addition to database searching, we searched the grey literature using a similar searching approach and keywords to identify media articles, policy documents and information not included in databases.

Scorecard development

Previous Economist Impact work, supplemented by the literature review, identified four key policy areas that became the domains for the Scorecard:

1. **Childcare policies**
2. **Workplace policies**
3. **Financial incentive policies**
4. **Assisted reproduction policies**

Each domain is made up of indicators that measure each country's performance in implementing fertility and family friendly policies. The Scorecard indicators are a series of questions that seek to assess and reflect how well each economy is responding to the challenges identified in the literature review. The process of selecting indicators is pragmatic and partly driven by the availability of comparable data across all or most of the countries included. Insights from interviewees were also used to validate and supplement some data points. Some issues are not easily translated into indicators; therefore, not all issues can be addressed directly in the Scorecard, although we aim to reflect the findings of the literature review as closely as possible.

Advisory board and interviews

Following the development of the draft Scorecard framework, an advisory board was held with experts from the region, who reviewed and advised on the development of the indicator framework and the domains chosen. In addition, interviews were held to gain in-country insights on fertility issues and the policy landscape.

Scoring

The information necessary to answer the indicator questions came from a range of sources: national and international statistics, policy and legislative documents, the white paper interviewees, articles, and academic literature. Indicators were populated using the most up-to-date, reliable and internationally comparable information available. There are a total of 28 indicators, distributed across the four domains. Indicators are scored on a 0-2 scale, with 0 being the lowest score, 1 an intermediary (for example, “partial”) score and 2 the maximum score. The scores are also colour-coded. In the case of binary indicators, the indicator response is “no” or “yes”, which equate to 0 and 1 when calculated. There are three non-scored

indicators, where indicator data is presented in its raw form rather than translated into a score, as scoring would not have been appropriate in these cases because there is not a clear indication of what is “better” or “worse” in terms of responses. Each individual domain is also given a score and colour-coded to compare how the countries are performing across these domains.

Scoring judgements were made based on the best publicly available information. Because of the nature of scoring, where complex matters are converted to simple scores, we note that not all readers will agree with all scores. In addition, in some instances, publicly available supporting information could not be found. Economist Impact retained editorial independence throughout the process.

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