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# Fertility policy and practice: a Toolkit for the Asia-Pacific region

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# About this Toolkit

***“Fertility policy and practice: a Toolkit for the Asia-Pacific region”*** is an Economist Impact report sponsored by Merck. The Toolkit provides policymakers in the Asia-Pacific (APAC) region an evidence base that can be used when discussing policies to address falling fertility rates. While the Toolkit can be applied to all countries in the region and conclusions are applicable to countries at various stages of fertility transition, during the creation of the Toolkit we have focused on the following countries: Australia, Indonesia, Japan, Malaysia, Republic of Korea, Singapore, Taiwan, Thailand, and Viet Nam. We carried out an evidence-based literature review of global papers which analyse the impact of child-friendly policies, and held two advisory workshops with local experts.

The panel of experts represented diverse views from across the region, and helped us to understand the current fertility landscape and the difficulties faced when implementing policies. The experts also facilitated the identification of the policy ideas that should be included, where the barriers to implementation lie, and how best this Toolkit could be useful at a country level.

The majority of evidence which we have had to draw on has come from non-APAC countries. Such is the nature of the evidence-base. Nevertheless, through engagement with the advisory panel we have attempted to ensure that the Toolkit remains especially relevant to APAC decision makers.

We would like to thank the following individuals for sharing their insights in the advisory workshops:

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# Executive Summary

## Why is a Toolkit needed?

The fertility rates of many countries in the Asia Pacific region (APAC) have been drastically declining over the past 70 years. This has had an impact not only on the population size of these countries, but also on the structure of the population. South Korea has the lowest total fertility rate (TFR) in the world at 0.8, well below the replacement rate of 2.1, and Singapore and Japan are not much higher, at 1.1 and 1.3 respectively. Along with this, the population of older persons (aged over 60) in the region is expected to triple between 2010 and 2050.

Policies such as parental leave, baby bonus schemes, and assisted reproductive technology (ART) subsidies have been implemented as a way to tackle these slowing fertility rates and help couples achieve the family size they desire. But what effect do these policies have on fertility rates in practice, and how do they compare?

We have created a Policy Toolkit to present this information in a user-friendly way, where the evidence behind effectiveness is clearly explained. This Toolkit provides a menu of policy options that APAC countries can explore, allowing them to choose actions most appropriate for their economies and where they stand along the fertility transition.

## What does the Toolkit cover?

The Toolkit includes four categories of policies: childcare policies, workplace policies, financial incentives and assisted reproduction. Within these categories, we describe specific policy ideas. These are given a score based on evidence of impact on fertility rate, and a separate score showing the economic benefits of the policy. Other comparison elements include who the

policy may be more impactful for, as well as facilities and barriers. Finally we also include examples of which groups of countries should consider implementing which policies, depending on where they stand within their own fertility transition, examples of how these policies can be implemented, and other 'complementary policies'.

## What are the next steps for policy makers?

The Toolkit shows how different policies compare and how effective they might be. It is designed to be used to support discussions on which approaches to fund. The Toolkit is a basis for further discussion, and individual policy groups can add new interventions not already included in our list. Policymakers need to retain a long-term, investment mind-set, as the impact of many of these policies on fertility rates will inevitably take some time to emerge. But by exploring the evidence behind some of these policies and their success in other regions, we can begin to have faith that change will come and impact will be seen.

While this Toolkit is based on insights gained from research, many parameters need to be considered in order for specific policy decisions to be made. These will be based largely on where a country stands within its fertility transition and what its policy goals are. No policy Toolkit can replace the deliberative and consensual process of the policy cycle, and different countries will decide upon different approaches.

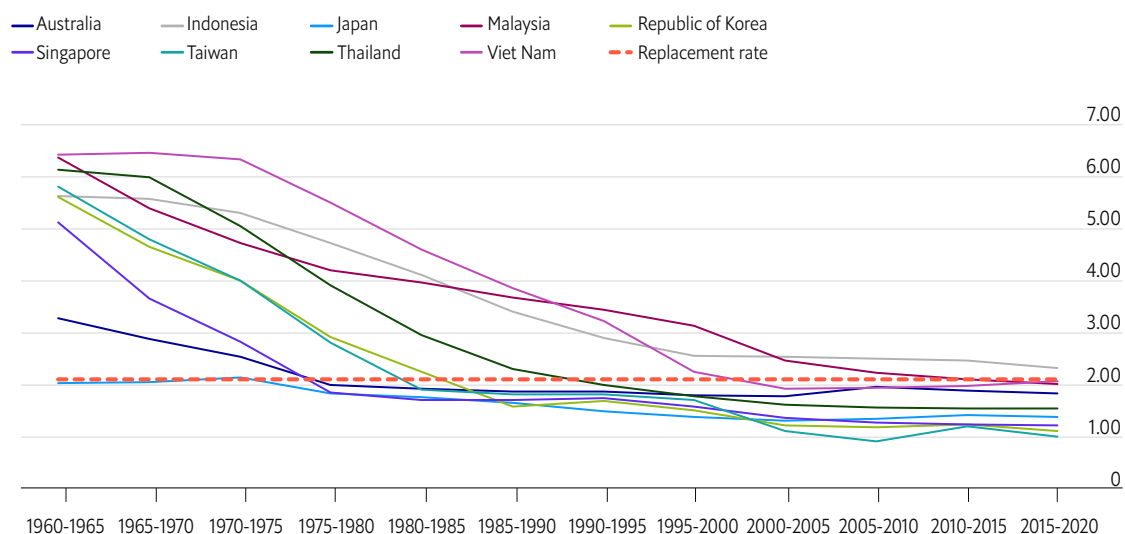
Nevertheless, we hope that this Toolkit will prove useful for policymakers in the region. Our goal is that it will help inspire the development of policy ideas to address falling fertility rates and support discussions on where funding should best be targeted.

# Why is fertility an important issue?

The population of a region and whether it grows or declines depends on the interaction of three key demographic factors: fertility, mortality and migration, out of which fertility has the largest effect on future population size. While many countries in the world are continuing to experience rapid population growth and the global human population reached 8.0 billion in mid-November 2022,<sup>1</sup> global total fertility rate (TFR), the average number of children born per woman, has more than halved since 1960. In the East Asia & Pacific region, TFR was 5.4 in 1960, but has since fallen to 1.8 in 2020.<sup>2</sup>

The trend of fertility decline is evident from Figure 1, which shows fertility rates for nine APAC countries from 1960 to 2020. Except Indonesia, which remains just above the replacement rate (shown by the red-dashed line) every country is below a TFR of 2.1 (considered as the replacement rate: the TFR at which a population exactly replaces itself from one generation to the next, without migration). The drivers of these falls are many, and covered in previous Economist Intelligence Unit reports.<sup>3-6</sup>

**Figure 1. Total fertility rate from 1960-2020 in APAC**



Source: UN World Population Prospects 2019

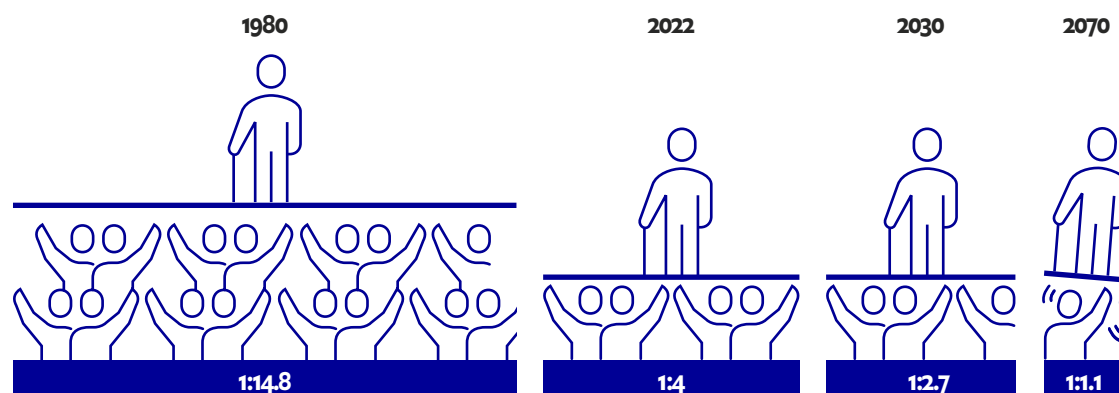
APAC is the fastest growing economic powerhouse in the world,<sup>7</sup> holding about a one-third share of global GDP.<sup>8</sup> Yet it is also the region with the biggest falls in TFR. Naturally, many celebrate the reductions in fertility rates. There are arguments to be made that it is more environmentally sustainable, and may improve standards of living, which comes from a smaller family and the resultant higher per capita income. There are two responses to this. First is that for many countries it's not about raising the population size, but slowing the pace of its decline. Second, it's about trying to maintain a sustainable relationship between generations.

Take Japan. A 2022 Economist Impact report calculated that even if the country can keep a TFR of 2.1 until 2100, which is more than the Japanese government's target of 1.8 and its current TFR of 1.3, the country's population is still expected to be 10% smaller in size than it is today.<sup>3</sup> However even with that fall, the economy of a Japan with

a TFR of 2.1 would be 63% larger (an increase of ¥456 trillion) than a Japan that remained at a TFR of 1.3. Without such investments in family-friendly policies, a shrinking GDP is expected due to lower consumption and a smaller workforce, alongside an increasingly burdened old-age support system.

Much of Asia's economic growth has been associated with its demographic dividend due to the rise in the proportion of working-age population in the 1960s to 1990s.<sup>9</sup> However, the region's ageing will impact its economic output. With an increasing old-age dependency (ratio of number of persons aged over 65 years divided by the number of persons aged 15-64 years<sup>10</sup>) there will be fewer people from the working age to support an aged person. For instance, from having almost 15 people from the working age to support one elderly person in 1980, Taiwan is projected to have just over one person's equivalent support for a person over 64 years of age by 2050.

**Figure 2. Taiwan's old-age dependency ratio**



Source: Population Projections for the Republic of China (Taiwan): 2022-2070. National Development Council, Taiwan.



While efforts should be made to support fertility levels, policymakers also need to have a plan for how to sustain the economic outcomes of a smaller population. This may include policies to increase labour productivity, invest in innovation and technology to attain higher productivity from a limited working age population, increase official retirement age, and expand education and healthcare support for all.<sup>10</sup> Our focus is on supporting couples to be able to have the children and the family size that they wish, however family-friendly policies should not be seen as a solution to long term demographic and cultural trends.

**While efforts should be made to support fertility levels, policymakers also need to have a plan for how to sustain the economic outcomes of a smaller population.**

**Box 1: Immigration and fertility rate**

The benchmark of a 2.1 replacement rate per woman assumes no net migration. In some parts of the world however, international migration is a major component of population change and is difficult to ignore. All countries have some level of immigration and emigration, and many of the economic drawbacks that come from a low TFR can be offset from a larger flow of immigrants. As immigrants are usually from younger, working age groups, they can potentially reduce the age-dependency ratio, and the evidence suggests that in general host countries gain from the net fiscal contribution from young and skilled migrants.<sup>11,12</sup> Immigrants also tend to have higher TFRs, although these often decline over time.<sup>13</sup> Nevertheless, immigration brings its own challenges and therefore, while an important consideration, immigration policy is not included in our Toolkit due to its wider contextual implications.

## How to use this Toolkit

In 2019 28% of the world's governments had policies which aimed to raise fertility, compared to only 9% in 1976. The most common policy adopted by countries was paid or unpaid maternity leave with job security followed by publicly subsidized childcare, child or family allowances, paid or unpaid parental leave and paid or unpaid paternity leave with job security.<sup>14</sup>

But how effectively do these policies work? We have provided evidence, through case studies in different countries, of how different policy options can help boost fertility rates. However, we acknowledge that a particular type of child-friendly policy may be suitable for one country or even a province within a country, but unsuitable for another. Also that single national policies may be unfeasible, particularly in APAC countries, as

different regions within a country have different fertility rates. For example, in Indonesia some provinces have falling fertility rates, while others have a growing population.\* Differences can also be seen between ethnicities within countries.

Keeping in mind this situation of 'one size doesn't fit all', a methodological Policy Toolkit is built that offers a way to present the various policies in a user-friendly way, providing a menu of options that APAC countries can explore. Intended beneficiaries of this Toolkit are those with the ability to influence, develop and implement policies and programmes to improve fertility rates in APAC. This Toolkit can be used by policymakers in their respective regions to support discussions on which approaches to fund, choosing actions appropriate for their economies.

\* Personal communication from an interview with Turro Wongkaren, Director of the Institute for Advanced Studies in Economics and Business in Indonesia



The Policy Toolkit has the following components:

1. **Policies and policy area** - we have categorised the various policies that showed impact on TFR into four policy areas: childcare; workplace policies, financial incentives, and assisted reproduction.
2. **Impact on fertility rate** - each policy area comes with a star rating to indicate the quality of the evidence-base of the respective policies, and their impact on fertility rates. The rationale behind the rating is given below.
3. **Most impactful for...** - different policies impact different segments of the population be it working mothers, parents with young children or women over 35 years of age. This section offers a guide to policymakers of who may be most impacted by the various policies.
4. **Economic benefits** - this offers a guide to the likely size and timeframe of the return on the investment for each policy area. The rationale behind the rating is given below.
5. **Facilitators** - as child-friendly policies work best in bundles, the 'facilitators' column will enable a reader to know which policies can show even better results if combined with another.
6. **Barriers** - being aware of the potential barriers for a policymaker is crucial before implementing a policy; we list potential barriers here.
7. **Country transition stage/archetype most suited to policy** - we suggest what policies may be most suitable for countries at different stages of their fertility transition.

8. **Implementation examples** - based on examples seen around the world, we provide ideas of how these policies could be implemented in practice.

9. **Complementary policies** - we list policies and approaches that are less evidence-based that could complement the policies listed.

Following on from the tabulated Toolkit, we have a section on **country archetypes**, which we hope may act as an aide in stimulating discussion on which are the most relevant types of policies for different types of countries in APAC (in particular, where each country is in its journey along the "fertility transition").<sup>15</sup>

To provide background information on the policies selected, and expand on the 'Implementation examples' section of the Toolkit, **case studies** and **short summaries** from the literature review scan are provided in the 'country case-studies for the Policy Toolkit' section. It is worth noting that while the majority of evidence cited comes from non-APAC countries (such is the nature of the evidence base) we have endeavoured to place the evidence in an APAC context.

Finally, we have also drawn together a section on complementary policies, this expands on the '**complementary policies**' section of the Toolkit. These are policies, such as on elder care or housing, which although not designed to impact fertility rates, are likely to do so in real life. It is worth keeping these in mind when considering family friendly policies.

**Rationales for “Evidence of impact” and “Economic benefits” components**

<b>Evidence of impact on fertility rate, methods note</b>	
★★★★★	Evidence of a significant, long term increase in TFR, for a wide segment of the population, from high quality experimental studies
★★★★★	Evidence of a long term increase in TFR, for a segment of the population, from experimental or observational studies
★★★	Evidence of a small, long term increase (or larger but short term increase) in TFR, for some people, from experimental or observational studies
★★	Weak evidence of an increase in TFR, or support from conjecture only
★	Little to no evidence available (either experimental or observational), or evidence of no or negative impact

<b>Economic benefits, methods note</b>	
+++	Evidence of significant, immediate positive returns on investment (increases in GDP, tax contributions)
++	Some evidence of immediate positive returns on investment, evidence of longer-term returns (due to life-time earnings and life-time tax contributions). Medium cost to implementation
+	High cost to implementation, less evidence of positive returns on investment

# The Toolkit

Policy area	Policy	Evidence of impact on fertility rate	Most impactful for...	Economic benefits	Facilitators	Barriers	Country transition stage/archetype most suited to policy <sup>†</sup>	Implementation examples*	Complementary policies <sup>^</sup>
Childcare	Increasing childcare availability	★★★★	Working parents. Contributes to better work/life balance and mothers can return to work sooner.	+++	Childcare policies work well with maternity leave, as they help alleviate the conflict between women's roles as workers and mothers.	Can be administratively complicated. Caregivers and infrastructure can be in short supply, particularly in less urbanised places and in the informal sector.	#3: Countries with sub-replacement fertility (higher urbanisation). #4: Countries with ultra-low fertility.	Expand public childcare slots for children under a certain age. Encourage workplaces to provide childcare or subsidise childcare for their employees.	Childcare in the community. Extended family as caregivers. Childcare provision in the workplace. Extended hours for schools. Domestic workers providing childcare.
	Subsidising childcare costs	★★★	Lower income working parents. Reduces financial constraints on families and can reduce social inequalities.		Improved childcare has been shown to have many social and economic benefits. It can promote child development, child well-being, and success later in life.	Families may fail to utilise childcare subsidies for which they are eligible. There may be difficulties, real or perceived, associated with accessing subsidies.	#1: Countries approaching sub-replacement fertility	Introduce a cap on child care charges and standardized fee schedules.  Introduce free public preschool for children under a certain age.	
Workplace Policies	Improving maternity leave	★★★★	Professional, college educated women. Career-orientated women are more likely to claim maternity leave, increasing the probability of having first and second births.	++	Workplace policies work well with financial incentives to reduce the financial burden which may result from taking time away from the workplace.  The reach of such provisions is ensured when it is guaranteed or mandated, e.g. as part of an act introduced by the government.	Can lead to short-run reductions in employment and earnings, and make it less likely for women to return to work. It can also make it difficult for workplaces to find cover, and is a high financial burden for employers.	#1: Countries approaching sub-replacement fertility #2: Countries with sub-replacement fertility (lower urbanisation).	Introduce government incentives to employers who provide maternity leave. Provide income replacement (maternal compensation) for time out of the labour market following childbirth. Increase the length of paid maternity leave.	Childcare provision in the workplace (note this is more likely to be a possibility in the formal sector). Lactation rooms in the workplace for mothers. Work-from-home options.
	Improving paternity leave	★★	Professional, college educated men, although uptake often remains low.			Low uptake is commonplace, may need to be mandated to have an effect. High financial burden for employers.	#4: Countries with ultra-low fertility.	Introduce government incentives to employers who provide paternity leave. Make leave exclusively reserved for fathers and non-transferable to mothers.	
	Flexible working: shortened or part-time working hours	★★	Parents with young children and with other caring responsibilities. Provides a range of options for women considering returning to the workplace.			Can be administratively complicated and expensive for workplaces to implement, and reduce advancement opportunities for women if used inequitably.	#1: Countries approaching sub-replacement fertility. #2: Countries with sub-replacement fertility (lower urbanisation).	Introduce shorter working hours for parents of children under a certain age. Encourage employers to offer more part-time roles for mothers.	
	Introducing unpaid job-protected leave	★★	Working parents who may need to take sporadic time off to look after their children.			College-educated females are more likely to take unpaid maternity leave.	#4: Countries with ultra-low fertility.		

<sup>†</sup> See section titled 'Applying the Toolkit at a country level'

\* See section titled 'Country case-studies for the Policy Toolkit'

<sup>^</sup> See section titled 'Complementary policies'

Policy area	Policy	Evidence of impact on fertility rate	Most impactful for...	Economic benefits	Facilitators	Barriers	Country transition stage/archetype most suited to policy	Implementation examples*	Complementary policies^
Financial Incentives	Introducing a baby bonus	★★★	First-time parents, particularly those on lower incomes. It can help with the initial costs of newborn babies.	+	Financial incentives work well in combination with workplace policies, to provide more financial freedom when taking time away from the workplace after childbirth.	Less cost-effective than other interventions. Susceptible to economic crises and the country's economic performance. May just have a short-term impact	#2: Countries with sub-replacement fertility (lower urbanisation). #3: Countries with sub-replacement fertility (higher urbanisation).	Provide a lump sum for new births, either for all new mothers or just for those of lower income.	Housing subsidies for families. Reduced social contributions for larger families. Subsidies for the cost of baby products/other expenses for families.
	Offering tax incentives	★★	Working parents and households with young children, particularly those on higher incomes in a higher tax bracket.		Cash transfers per child can be more cost-effective for the government if targeted only for poor households.	None reported, though any tax reform can be complicated.	#4: Countries with ultra-low fertility.		Subsidies to cover the cost of marriage.
	Offering monthly cash transfers per child	★★★	Households without workers in the formal sector. Can be particularly helpful for families or parents with lower incomes.	++		Transfers may make it difficult for poor households to escape poverty if they encourage larger families with lower family spend per child.	#2: Countries with sub-replacement fertility (lower urbanisation). #3: Countries with sub-replacement fertility (higher urbanisation).	Provide monthly payments per child.	
Assisted Reproduction	Improving public funding of IVF	★★★	Older, lower-income women with fertility issues hindering their ability to conceive.		ART policies work well when its expansion is coupled with subsidising the treatment (insurance mandates) as financial pressure can lead patients to transfer multiple embryos to maximise success from one cycle. This increases multiple births which is associated with increased health risks to mother and infants.	Could lead to an over-reliance on fertility treatment, and delays in starting a family. There may be difficulties in accessing socially and culturally appropriate fertility care.	#3: Countries with sub-replacement fertility (higher urbanisation). #4: Countries with ultra-low fertility.	Introduce free public coverage for 1-3 cycles of IVF, with or without age restrictions. Subsidise ART coverage for clinically infertile couples.	Fertility education to increase awareness of age-associated fertility decline. 'Low-cost' IVF
	Offering infertility insurance mandates	★★★	As above, older, lower-income women with fertility issues.		Increasing mandates may lead to insurance companies raising their prices.	Increasing mandates may lead to insurance companies raising their prices.	#4: Countries with ultra-low fertility.	Introduce legislation that requires health plans to provide infertility benefits.	
	Increasing the availability of IVF services	★★★	Women with fertility issues hindering their ability to conceive, particularly those who do not live in major cities.		"Low-cost" IVF innovations may help improve access, but the evidence quality remains poor.	Relies on clinics themselves to expand services. There may be a lack of trained HCPs able to provide fertility treatments.	#4: Countries with ultra-low fertility.	Encourage fertility clinics to expand beyond cities. Expand training in fertility for HCPs.	



# Applying the Toolkit at a country level

## Country archetypes

The Asia Pacific region is extremely diverse, and its countries and sub-regions vary demographically, geographically, economically, culturally and institutionally. No single comprehensive policy can address all aspects of the dynamic population and

fertility transitions that are being seen, especially as they sit at different stages within this journey.

Based on a number of impact indicators seen in Table 1, we suggest a series of archetypes for countries in the region, based on where they sit in their fertility transition: this can be seen in Figure 3.

**Table 1: Impact indicators informing country archetypes<sup>16-20</sup>**



















■ High ■ Moderate ■ Low

Country	Income Group (World Bank)	Urban population (% of total population)	Labor force participation rate, female (% of female population ages 15+) (modeled ILO estimate) (2021)	Ratio of female to male labor force participation rate (%) (modeled ILO estimate)	Age at first marriage, female (2000-2017)	Wage and salaried workers, female (% of female employment) (modeled ILO estimate) (2019)	Total fertility rate, per woman, 2015-20 (UNPD)
Thailand	Upper-middle-income economy	51%	58.2	79	22.5	49.7	1.53
Vietnam	Lower-middle income economy	37%	68.2	88	22.8	41.1	2.06
Malaysia	Upper-middle-income economy	77%	48.7	66	25.1	71.2	2.01
Taiwan	High-income economy	79.3%	51.5	76.5	30.4	44.6	1.15
Indonesia	Lower-middle income economy	57%	51.6	66	22.4	41	2.32
Japan	High-income economy	92%	51.9	75	29.2	91.6	1.37
Australia	High-income economy	86%	58.1	87	29.9	87.7	1.83
Singapore	High-income economy	100%	57	77	26.5	91.3	1.21
South Korea	High-income economy	81%	53	74	31.5	78	1.1

The archetypes are a general categorisation based on few data points. Reality is more complicated. Nevertheless, placing countries into archetype categories allows policymakers to start the process of thinking about specific policies that may suit the needs of the populations they serve. We describe below how policy may be shaped based on archetype categorisation. Importantly, the majority of the evidence used to develop this Toolkit has come from non-APAC countries, and there is a lack of reliable information directly applicable to this region. There is a need to gather more data to assess the effect of policy on fertility in the region, as well as economic impact to ensure that this is especially relevant to APAC decision makers.

Most countries follow similar strategies when it comes to their fertility rates, and there is potential for countries earlier in the fertility transition, which are approaching sub-replacement fertility and perhaps have variable TFRs across regions, to learn from the experiences of those further along, those which may have already reached ultra-low fertility. Of course a lot depends on how effectively targeted and funded policies are and how much appetite there is for them, and whether there are cultural or societal norms that prevent people from taking up the support offered by governments.

Figure 3: Country archetypes

		Fertility period Archetype				
		Approaching Sub-replacement fertility	Sub-replacement fertility	Sub-replacement fertility	Ultra-low fertility	Ultra-low fertility
		Variable TFR Across regions	Lower Urbanisation	Higher Urbanisation	Lower Gender Equality	Higher Gender Equality
						
Indicators	URBANISATION 	Low	Low	Moderate	High	High
	FIRST MARRIAGE 	Early	Early	Moderately early	Later	Later
	FEMALE WORKFORCE PARTICIPATION 	Low	Moderate	Moderate	Moderate	High
	PROPORTION OF FEMALE SALARIED WORKERS 	Low	Low	Moderate	High	High
Example countries		 Indonesia	  Thailand Vietnam	 Malaysia	  South Korea Japan	   Australia Singapore Taiwan

### **Archetype #1: Approaching sub-replacement fertility (variable TFR across regions)**

Countries in this fertility transition stage may not yet see falling fertility rates as a problem, and public funds are often understandably allocated into other more pressing areas. Additionally, TFR can often be variable across regions, meaning that policies to encourage larger family sizes may not be appropriate or necessary in those regions which continue to have a high TFR. In contrast, these regions may benefit from policies to reduce TFR. Evidence suggests that for countries at this stage, a combination of cost efficient and long-term minded policies offer the best opportunity to influence fertility rates and avoid drastic falls in birth rates in the most affected regions.

- Family friendly policies are recommended, such as parental leave, job security and workplace regulations to help balance work and family duties, boost gender equality and support women who may wish to remain in, or enter, the workforce.
- To encourage higher female workforce participation without sacrificing the option for a family, childcare cost subsidies or policies that provide free childcare should be considered. Such policies will be particularly important for lower-income families.

### **Archetype #2: Sub-replacement fertility (lower urbanisation)**

Countries in this fertility transition stage have typically seen a lot of economic growth in recent decades, much of it driven by their flexible and skilled workforce. However this workforce is at risk as the population ages and couples begin to have smaller families, partly due to urbanisation and migration from the country to the city.

- Shifts to cities mean higher costs of raising children and lack of affordable housing. Financial and tax incentives are therefore recommended, to mitigate these rising costs and encourage family building.
- As women participate increasingly in the workforce, policies to support these choices should be developed, such as flexibility in work hours to foster better work-life balance, and extended maternity leave.



### Archetype #3: Sub-replacement fertility (higher urbanisation)

Countries in this fertility transition are likely to have seen steep declines in TFR over the last decade, which is starting to dip below replacement levels. Age of marriage is beginning to increase, as more women remain in education and enter the workforce. It is important for these countries to maintain their fertility levels.

- To maintain family sizes, financial transfers per child could be encouraged, as well as tax subsidies for larger families. Decent child care and parental leave also need to be maintained.
- As these countries continue to urbanize, lack of access to ART is seen, both geographically and economically. Policies to subsidise ART through public funding therefore would provide increased options for infertile couples.

### Archetype #4: Ultra low fertility (with or without wider gender equality)

Instead of maintaining the population size, efforts should be focused on managing and slowing the decline so that it remains sustainable and not drastic. Any increase in fertility rate will be valuable, even if still below replacement levels and countries at this stage should be actively encouraging policies to encourage family-building. High urbanization and high female labour participation mean women are less likely to pause their careers to marry and start a family.

- Childcare should not be seen as a deterrent to start a family, especially in regions where women are expected to provide the majority of this, and therefore policies that increase the availability of childcare should be encouraged, so that the burden does not fall exclusively on women.
- Due to later age of marriage and therefore later age of first birth, infertility is increasingly common, meaning that policies that increase availability of fertility clinics and introducing IVF subsidies would remove this as a barrier to starting a family.





# Country case-studies for the Policy Toolkit

This section lists case studies and short summaries from the literature review scan to provide background information on the policies selected and give a rationale to the scores listed in the Evidence of impact on fertility rates column and the Economic benefits column. Additionally, we expand on the 'Implementation examples' section of the Toolkit. Most of these studies are experimental in nature, as fertility rate was measured before a policy was implemented, and again in the years following to measure the impact. It is worth noting that the majority of these case studies come from non-APAC countries as this is the nature of the evidence base, and not due to policies in this region being ineffective.

## 1. Childcare policies

The rising participation of women in the workforce is an important driver behind declining fertility rates.<sup>21</sup> Childcare services, when delivered well, can facilitate family life alongside working careers. There is much evidence from systematic and narrative reviews of the beneficial impacts of increasing childcare. Expanding childcare places together with lowering the cost of childcare increases fertility rates and reduces social inequalities.<sup>22</sup> For example, high-quality childcare has long-term positive effects on health,

educational attainment, and earnings, particularly for children from poorer families. However, while expanding childcare is beneficial for many families, reducing childcare costs will not help families with a preference for parental care over formal care.

We have subcategorized childcare policies into expanding childcare services and reducing childcare cost.

### 1.1 Increasing childcare availability

**Belgium:** A longitudinal study from 2001-2004 showed that a 1%-point increase in local childcare coverage was associated with a 10.8% increase in first birth odds among dual-earner couples.<sup>23</sup> Smaller effects for second and third births were also seen.

**Germany:** The expansion of public childcare slots for children under age 3 resulted in a 2.7% increase in birth rates per 10% point increase in slots amongst women aged 15-44 years.<sup>24</sup>

**Japan:** An increase in childcare availability in Japan from 2000 to 2010 led researchers to estimate that a universal childcare policy would increase TFR by up to 0.315.<sup>25</sup>

## 1.2 Subsidising childcare costs

**Sweden:** A Child Care Reform in 2001 imposed a cap on child care charges and standardized fee schedules across Swedish municipalities.<sup>26</sup> Average reduction in total child care costs was just over 50%, which increased fertility rates by 4–6%. Stated differently, a USD \$10,000 reduction in child care costs increased fertility by 2–3 children per 1,000 women.

**Israel:** When the government introduced free public preschool for children aged 3 and 4, preschool enrolment increased sharply. However, fertility appeared to have been unchanged in the short-run. Importantly though, the intervention increased mothers' labour force participation by 7%.<sup>27</sup>

## 1.3 Childcare economic benefit

Studies have shown that providing childcare is associated with higher female employment rates, particularly for mothers, and countries with a higher availability of affordable childcare have higher maternal labour force participation.<sup>28, 29</sup> This not only increases family income, but also increases tax contributions, ideally generating an immediate positive return. A cost-benefit study by the Institute for Public Policy Research in the UK showed that universal childcare paid a return to the government of £20,050 over four years in terms of tax revenue minus the cost of childcare for every woman returning to full-time employment after one year of maternity leave. And in Quebec Canada, a 2008 policy which introduced universal access to low-fee childcare allowed more than 70,000 additional mothers to be able to work (increase of 3.8% in women employment), increasing GDP by 1.7%.<sup>30</sup> It could therefore be argued that increasing the availability and decreasing the cost of childcare is a positive investment.

## 2. Workplace policies

While there are many direct costs incurred with having children, indirect costs also exist in the form of forgone employment opportunities. To try and compensate for these potential lost opportunities, workplace policies exist to encourage mothers to return to the workforce post-childbirth. While earlier reviews have found the evidence for parental leave to be "weak" or "mixed",<sup>31-33</sup> a recent systematic review concluded that substantial expansions of parental leave schemes do have a positive—both in terms of lasting and substantive—effect in increasing fertility, although the effect is mostly beneficial to high-earning couples.<sup>22</sup> And a 2019 UNFPA report showed that in highly developed countries, increases in fertility rates were associated with higher gender equality, including in the workplace.<sup>33</sup>

Public childcare and parental leave can help alleviate the conflict between women's roles as workers and mothers. When implemented together, they allow parents to retain their jobs while they care for their newborn, and then go back to paid work when their child is ready to be cared for by others. However, there is a concern that very long compensated parental leave may cement traditional gender roles.<sup>34</sup> In order to overcome some of the stigma fathers' face in taking voluntary paternity leave, some jurisdictions have also started to introduce periods of mandatory paternity leave.<sup>35</sup> Time will tell what impact these may have on fertility rates.

We have subcategorized these policies into maternity leave, paternity leave, the offering of flexible working options, and unpaid job-protected leave.

## 2.1 Improving maternity leave

**Germany:** A 2007 maternity leave reform in Germany substantially changed maternal compensation for time out of the labour market following childbirth, providing income replacement of at least 67% of annual pre-birth earnings, with a maximum 3,600 EUR. The General Fertility Rate (GFR) of the 15–44-year-old group increased from 2.12 births per 1000 women per month in April 2006 to 4.20 in August 2007.<sup>36</sup>

**Germany:** Another study to assess the impact of the maternity leave reform in Germany in 2007 (as mentioned above) reported that the policy induced highly educated women to give birth to 8.5 additional children per 1,000 women in a given year over the 5 years post reform.<sup>37</sup>

**Austria:** In 1990, the Austrian government doubled paid maternity leave from one to two years. An analysis of this reform showed that it led to an increase in short-run fertility (5 additional children per 100 women within three years) and long-run fertility (3 additional children per 100 women within ten years).<sup>38</sup> Increasing leave reduced the cost of childcare, encouraging mothers to give birth to about 7 additional second children per 100 women.

## 2.2 Improving paternity leave

**Norway:** In 1993 Norway introduced a four-weeks' father quota. A study compared families with children born up to three months before and after the reform, relative to the same pre-/post-reform difference.<sup>39</sup> It found that the reform neither affected fertility rates nor affected fathers' work hours and yearly earnings. Even with the reform only 24.6% fathers of children born in April 1993 took leave.

**Spain:** In 2007 a reform of the family benefit system extended the sixteen weeks of paid parental leave by two additional weeks exclusively reserved for fathers and non-transferable to mothers.<sup>40</sup> This substantially increased the take-up rate of fathers (by as much as 400%), but delayed higher-order births and reduced subsequent fertility among older women by about 15%.

## 2.3 Shortened or part-time working hours

**Japan:** In 2009, the Japan government announced that workers with children under three could request shorter work hours (e.g., six hours a day). The policy increased rates of first child birth by 33%, although no significant effect on overall fertility was observed.<sup>41</sup>

**Europe:** a study analysing the relationship between availability of part-time work and fertility for eleven European Community countries found that for working women, the part-time schedule affected fertility positively in Belgium, Germany, Ireland, Italy and The Netherlands - women that made use of this possibility were more likely to have a child.<sup>42</sup>

## 2.4 Introducing unpaid job-protected leave

**USA:** The Family and Medical Leave Act (FMLA), 1993, introduced 12 weeks of unpaid job-protected leave to employees who have worked for at least 12 months. A study comparing changes in birth rates between women eligible for leave and a control group of women not eligible for such leave showed that it increased the probability of having a first and second birth by about 1.5 and 0.6 % per annum, respectively.<sup>43</sup> Compared to other women, eligible women gave birth to the first child a year earlier and to the second child about 8.5 months earlier.

## 2.5 Workplace policy economic benefit

There is evidence that offering paid leave is generally good for female employment as it encourages women to enter work before childbirth and it facilitates re-entry after childbirth.<sup>44</sup> Implementation of paid leave programmes have been shown to increase female employment rates by 1.5-2.5% relative to male rates.<sup>45, 46</sup> When introducing paid leave, there can be financial and administrative costs for employers to hire replacement workers or retrain existing workers; on the other hand it means better employee retention as workers return after leave, and it could enhance employee loyalty, productivity, and morale. Particularly in Asia, it has also been shown that higher female labour force participation leads to better economic development, and it is important to have policies in place to overcome constraints that can reduce the level of women's participation in work.<sup>45</sup>

## 3. Financial Incentives

Financial incentives can support families by reducing the direct monetary cost of raising children, improving the financial standing of the household, and creating better conditions for children.<sup>33</sup> Transfers given as a result of new births, or on a regular basis throughout a child's life, have been shown to help increase fertility rates, primarily amongst lower income households. However, financial incentives are likely to just have a transitory impact on fertility compared to childcare services or parental leave.<sup>22</sup>

We have subcategorized financial incentives into baby bonuses (one-off payments at birth), monthly cash transfers, and tax credits for families with children.

### 3.1 Introducing a baby bonus

**Spain:** In 2007, a lump-sum universal child benefit of 2500 EUR was introduced for all new mothers—although the policy was cancelled in 2010 following the 2008 economic crisis. A study that tracked birth rates during the time of the introduction and cancellation of this policy concluded that the introduction of the 2007 policy led to a 3% increase in birth rates and the cancellation in 2010 to a 6% drop.<sup>47</sup>

**Canada:** An allowance for Newborn Children introduced in 1988 in Quebec, Canada, paid up to Can\$8,000 to families after the birth of a child.<sup>48</sup> The fertility of those eligible was estimated to have increased by 12% on average, and up to 25% for families eligible for the full amount. A Can\$1,000 increase in first-year benefits was estimated to increase the probability of having a child by 16.9%.

**Australia:** A study estimated a 12.8% increase in birth rates in Australia following a baby bonus maternity payment introduced in 2004.<sup>49</sup>

### 3.2 Offering tax incentives

**Spain:** In 2003 a Spanish income tax reform introduced a tax credit for working mothers with children under the age of three, while also increasing child deductions for all households with children. A paper in 2010 concluded that this reform led to a 5% increase in fertility.<sup>50</sup>



### 3.3 Offering monthly cash transfers per child

**Argentina:** In 2009 Argentina introduced a poverty-alleviation program (AUH) providing monthly cash transfers per child to households without workers in the formal sector. A comparative study between the probability of having a new child among eligible and ineligible mothers both before and after the program inception found that fertility increased by about 2% in households with at least one child.<sup>51</sup>

### 3.4 Financial incentive economic benefit

Child allowances and cash transfers have been shown to also affect female employment but this time negatively so, with a study conducted in Japan and Korea showing that regular female employment declined with more child allowance, as child cash allowances discouraged women from taking up regular employment.<sup>52</sup> Additionally, a study conducted in Quebec, Canada which examined the labour supply and fertility effects of fertility incentives found that while increases in parental leave benefits substantially increased birth rates and increased female employment, cash-transfer incentives only slightly increased birth rates and decreased female labour supply. And the net government cost of each additional birth due to an increase in parental leave was \$15,828, compared to \$223,625 for the cash-transfer fertility incentives. The conclusions of this study were that offering paid parental leave was a more cost-efficient way to increase fertility compared to cash-transfer incentives.<sup>53</sup>

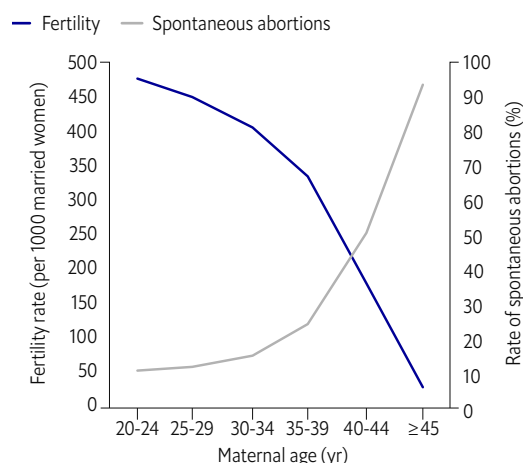
## 4. Assisted Reproduction

The increase in women's education and employment has meant that age of marriage and age of first birth have increased in many APAC countries. As more births occur in a woman's 30s than ever before, the potential need for assisted reproductive technologies has also been increasing.<sup>33</sup> A systematic review concluded that cheaper health services in general and cheaper assisted reproduction in particular have a positive effect on fertility.<sup>22</sup> However, this conclusion was based on findings from the United States, and it remains a question whether this would apply elsewhere.

So called "low-cost" IVF services have been described in some resource poor settings that promise improved access because of the lower cost base.<sup>54</sup> However, while some of these innovations have been described in feasibility or efficacy studies, most of these studies have been of low quality.<sup>55</sup> We have therefore not included low-cost IVF as a separate policy category.

We have subcategorized assisted reproduction policies into the provision of public funding for ART, increasing its availability, and introducing infertility insurance mandates.

**Figure 4: Fertility and miscarriage rates according to maternal age**



Source: Advanced Maternal Age — How Old Is Too Old?  
Linda J. Heffner, M.D., Ph.D. The New England Journal of Medicine 2004



#### 4.1 Improving public funding of IVF

**Australia:** Medicare, a national health insurance scheme in Australia, subsidises ART treatment which is considered clinically necessary without any age limitations or restrictions based on number of prior cycles performed and parity. A study to explore the impact of having an expanded ART coverage without any age restrictions found that between 2010 and 2017 TFR increased by 4 to 5% per annum.<sup>56</sup>

**Canada:** For 5 years (2010 to 2015) the Quebec government initiated public coverage of ART. A study of the impact of this public health coverage showed that more than 9232 babies were born as a result of the programme.<sup>57</sup>

#### 4.2 Offering infertility insurance mandates

**United States:** In 2003 legislation was introduced at the federal level in the United States that required health plans to provide infertility benefits. The mandates were shown to have significantly increased first birth rates for women over 35 by 32%.<sup>58</sup>

#### 4.3 Increasing the availability of IVF services

**United Kingdom:** A study in 2006 investigating whether ART should be made part of population policies found that if the UK increased its access to ART from 625 cycles per million women to 2106 cycles, it would increase TFR by 0.04.<sup>59</sup>

**Western countries:** Based on the data from Netherlands in 2002 for the age at which women start trying for their first child, a computerised simulation study explored the impact of increased IVF access on TFR.<sup>60</sup> It analysed the effect of full access to three cycles of IVF given during a 12-month period after 1 or 3 years of trying to conceive unsuccessfully. The findings suggested that full access to IVF after 3 years would increase the TFR by 0.08 children and applying IVF after 1 year would lead to an additional TFR increase of 0.04, with double the number of IVF cycles and twin and triplet children, and a shift from naturally conceived children to IVF children.

#### 4.4 Assisted reproduction economic benefit

Perhaps the majority of studies diving into return on investment of fertility policies are those involving assisted reproduction. A study assessing long-run economic benefits of a UK state-funded IVF programme found that the investment needed to achieve an IVF singleton (£12,931) is worth 8.5 times this amount to the UK Treasury in discounted future tax revenue over the resulting child's lifetime.<sup>61</sup> Similarly, a study in Sweden found that investing 205,000

SEK (the average investment costs required to conceive a child by IVF) resulted in approximately a 24% return on capital<sup>62</sup> and a study in South Africa found that based on the average IVF investment cost needed to achieve one live birth, the fiscal return on investment would be 5.64.<sup>63</sup> In Singapore, analysis has suggested that increasing public reimbursement for assisted reproduction from \$3,000 to \$5,000 per cycle for up to 3 cycles would mean an additional 825 live births per year, which can generate an additional \$293 million in discounted net taxes for the government.<sup>64</sup>

#### Box 2: Which metrics should be used to monitor the impact of policies?

After implementation of a policy or package of policies it is necessary to track outcomes to see if it is having the desired effect. However, measuring the impact of policies on fertility, particularly in the short term, is a challenging business: it is often as much a question of modelling as of empirical measurement.<sup>65</sup> It can be seen in the case studies above that a myriad of different metrics have been used. Useful metrics to track, if possible, are TFR and the mean age of mothers at birth. However, we recommend working with an institute of demography to ensure the most relevant measurements are being collected in each individual case.

**1) Total fertility rate:** The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. TFR is directly calculated as the sum of age-specific fertility rates (usually referring to women aged 15 to 49 years), or five times the sum if data are given in five-year age groups.<sup>66</sup>

**2) Mean age of mothers at birth:** The average age of women at childbirth. The mean age of mothers at birth can be calculated both for all births and also for first births only.<sup>67</sup> The countries with TFR below replacement rate generally has the highest mean age of childbearing, and a higher mean age at childbirth increases the generation gap and reduces the size of the future population growth.<sup>68</sup> Postponement of family formation partly drives this increasing trend of mean age of mothers at childbirth, which ultimately impacts the age-specific fertility rates.<sup>67</sup>

## Complementary policies



It is important to consider how other strategies could work in combination with the family-friendly policies that are covered in this Toolkit. These are policies, ideas and approaches that do not necessarily have the strong evidence base as has been seen in the more conventional policies listed, and therefore are not as easily comparable as their direct impact on fertility rates is hard to measure. They may also be approaches that are not specifically designed to have an impact on fertility rates, but are likely to do so in real life particularly in the Asia Pacific region. Although these policies are not listed in our Toolkit and we have not provided an impact rating for them, it is worth keeping these in mind when considering family friendly policies.

**“I think to increase fertility,  
it has to be multifactorial.”**

P C Wong, Emeritus Consultant, Division of Reproductive Endocrinology and Infertility, National University Hospital, Singapore

“I think to increase fertility, it has to be multifactorial”, says Dr P C Wong, Emeritus Consultant in the Division of Reproductive Endocrinology and Infertility at National University Hospital, Singapore. “You have to look at the whole process, it’s not a single sector.” In this section we will discuss the policies, issues and approaches that could complement family-friendly policies.



## Parents, grandparents and community support

Multi-generational families are common in APAC. As life expectancy increases, so does the overlap of lifespan between generations, leading to a greater chance of intergenerational co-residence.<sup>69</sup> Living with a child or with extended family members is the most common form of living arrangement among people aged 65 years or over in APAC.<sup>70</sup> This can be both a helper and a hindrance for the younger generation, since while older people can provide care and domestic support to the family, potentially relieving work-life conflicts, they may need care and support themselves.<sup>71</sup> In Taiwan, for example, there are many families simultaneously taking care of children and of elderly parents. “Maybe we should be promoting elder care policies simultaneously with child care policies” says Professor Lih Rong Wang of the National Taiwan University’s Department of Social Work, who believes the growing number of “sandwich families” is discouraging couples from having children. Demographer Nai Peng Tey of the University of Malaya in Malaysia, suggests that tax incentives could be provided to couples residing with older parents, and it is important to ensure that there are adequate rooms to accommodate them “In this way, we can provide care and support for older people, and this will not be a reason for people to have less children. So this is a way to promote the value of children rather than the cost of children” he says.

In Indonesia, extended families are often the caregivers, says Ir. Dwi Listyawardani, Acting Deputy Chairman for Population Management in the National Population and Family Planning Board (BKKBN), and this is something that should be considered as well as formal childcare facilities. Turro Wongkaren, Director of the Institute for Advanced Studies in Economics and Business in Indonesia, agrees: “the government should create policies that make it possible for childcare to happen more easily among families”. Indeed, studies have shown that grandparents do provide substantial support to their adult children, especially those in the workforce.<sup>72,73</sup> The idea of unconventional childcare can also be extended further, says Dr Tey “I think community support is important, and community centres can also serve as daycare facilities where neighbours and older people who are available can come help out, whether it's for free, or with some allowances”.

**“I think community support is important, and community centres can also serve as daycare facilities where neighbours and older people who are available can come help out, whether it's for free, or with some allowances.”**

Nai Peng Tey, Demographer and former associate professor of Statistics, University of Malaya, Malaysia

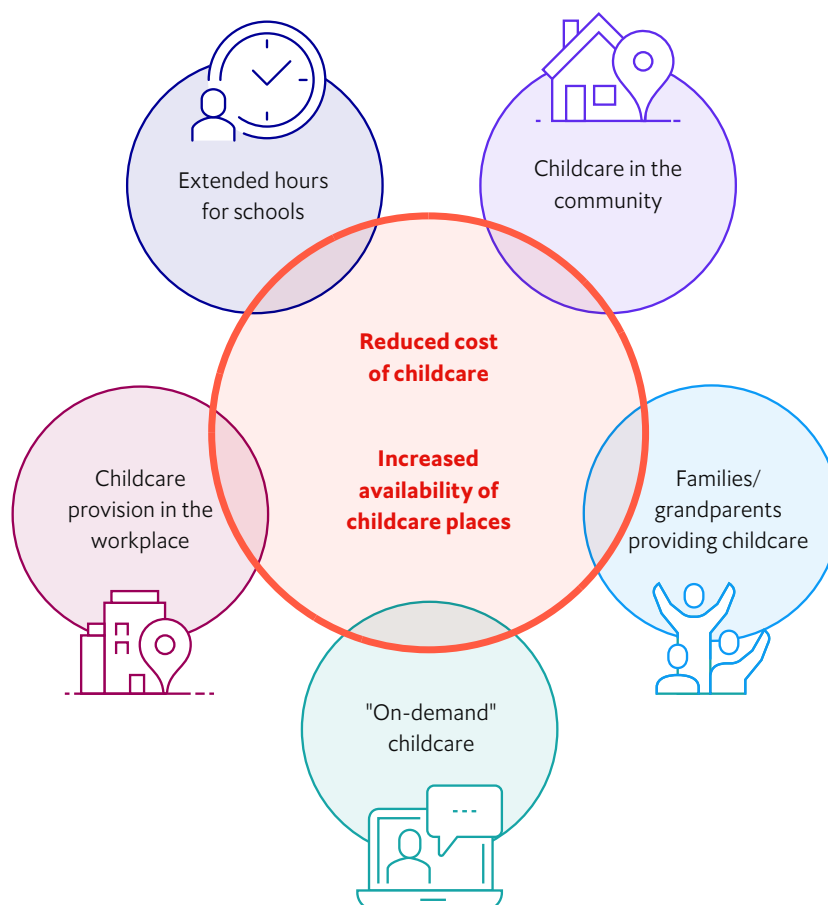
Some countries in APAC such as Singapore, Korea and Japan also have a culture of employing foreign domestic workers or 'helpers' to aid in childcare and some studies have shown that this can have

time-saving effects in the hours spent on and childcare. However even with live-in help, many working parents still tend to spend significantly more time on childcare and managing helpers.<sup>74</sup>

**Figure 5. Examples of complimentary childcare policies:**

The central circle shows the two core policies relating to childcare (as described in the Toolkit table above).

The overlapping circles show example contextual societal, cultural and economic policies that may work alongside the core policies.



### The inclusive workplace and affordable housing

Similarly, childcare should also be offered in the workplace, says Dr Wong. “Places that have many employees, for instance large offices, hospitals, schools, factories, should have childcare facilities on-site so that parents can drop off their kids, then they go upstairs to work, then at lunchtime, they can pop in just to see what's happening. And they should also have lactation rooms for nursing mothers; many offices in Singapore are beginning to have that now”. In Korea, The Equal Employment Act 1987 obliges employers to provide facilities for childcare at workplaces,<sup>75</sup> but despite this, workplace childcare constitutes only 1% of the total number of such facilities, and employer conformity with the legislation has been low.<sup>76</sup> However importantly, workplace-based childcare may only be a possibility in the formal employment sector or within larger enterprises, whereas many women work in more informal roles where provision of childcare is rare and would be difficult to implement.

Housing can play a vital role in shaping fertility decisions. Expensive housing, particularly in densely

urbanised cities, significantly increases the cost of child rearing, leading many couples to keep their family size small.<sup>77</sup> In Korea, for example, it has been shown that housing type and housing expenses have a significant influence on marriage and fertility.<sup>78</sup> Ha Anh Duc, Chief of Cabinet Office at the Ministry of Health in Vietnam, thinks couples looking to start a family should be prioritised if they are looking to buy a house or apartment. Such couples should be considered for reduced pricing and reduced social contributions. “If couples have a second child, their social contribution should also be reduced” he suggests. A recent study in Singapore found that each unit increase in the price of flats reduced TFR by 0.0036.<sup>77</sup> It is not only the cost of housing however that has an impact on decisions, cost is a burden throughout a child's life, from having to purchase specialist baby products, food and furniture, as well as educational costs throughout early and teenage life.<sup>79</sup> Policies that help alleviate some of this more overshadowed costs would be welcomed in APAC according to our experts.



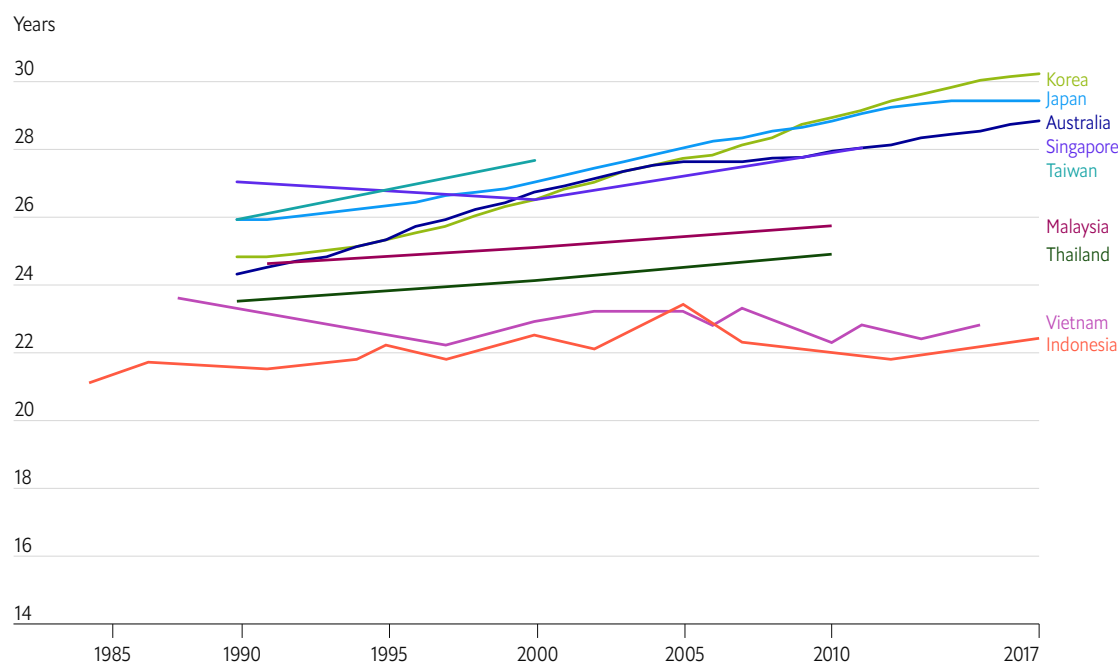
## From first-date nerves to married with children

One of the biggest factors contributing to the low birth rates in many countries in Asia is the late age of marriage, as this contributes to a later age of childbearing. In Taiwan, the average age of marriage is now 31 for women, much higher than it used to be according to Dr Wang. Involuntary non-marriage is more common in Pacific Asia than in Western countries, and resultant involuntary childlessness plays a substantial role in observed low fertility rates.<sup>80</sup> In Thailand the prevalence of delayed childbearing has been doubling since 1998, and this is leading to age-related fertility decline and higher incidence of infertility, miscarriage and pregnancy related complications.<sup>81</sup> There may therefore be room to expand policies which focus on encouraging marriage and childbearing at an earlier age. An example can be found in Singapore, where the Social Development Network exists to coordinate and facilitate dating activities for single people. “They call it the government matchmaking service,”

says Dr Wong. “And they have a lot of activities to encourage single men to meet single women”.

Later age of marriage is also a significant contributor to fertility decline in Malaysia, according to Dr Tey: “the leading factor for marriage postponement is financial constraints, including the high costs of marriage - men will postpone or forego marriage until they are financially stable and able to afford the high costs of marriage and to support and family.” He goes on to say that “for highly educated women, the inability to find a suitable partner is also an important reason because in our culture, there is this tendency for a woman not to marry downwards, so they must find someone of at least equal educational level - and there are significantly more women in higher education than men.” Such cultural norms are difficult to manage at a policy level, but the state can support marriage through a variety of means.<sup>79</sup>

**Figure 6. Average age of women at marriage in APAC**



Source: UN World Data (2019) and OECD (2017)



### Knowledge before success

Involuntary childlessness may also be caused by a lack of awareness of fertility issues, and especially of fertility decline in women. Evidence suggests that although people are generally aware of risk factors associated with age for fertility, they overestimate the potential of ART to compensate for age-related fertility decline.<sup>82, 83</sup> A study conducted with Chinese university students found that a large proportion of them underestimated the age-related fertility decline (92%) and overestimated the fertility treatment success rate (66%).<sup>84</sup>

Such findings suggest that fertility awareness campaigns from a young age for both sexes may help. “What’s really lacking in our country” says Professor Georgina M Chambers, Director of the National Perinatal Epidemiology and Statistics Unit at the University of New South Wales in Australia, “is education around fertility, and around when the best time is to access something like fertility treatment, because almost undoubtedly, many women who turn up at the fertility clinic have a higher opinion

of how that’s going to help them than it really will. And that education needs to happen from a young age”. Dr Wongkaren agrees, saying that the Indonesian government “wants to implant the norm to younger generations that having a plan is important”. Dr Listyawardani adds that “we are trying to promote the value of family to the younger generation”. It is important to note, however, that while important, educational campaigns are a long-term policy investment.

**“What’s really lacking in our country is education around fertility, and around when the best time is to access something like fertility treatment.”**

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# Afterword

The Asia Pacific Region has recently been undergoing major demographic changes. While countries may have competing priorities, the importance of ensuring sustainable fertility rates should not be neglected. Early intervention is important, as the impact of policies on fertility rates will inevitably take some time to emerge. Governments need to retain a long-term, investment mind-set.

Policies such as those outlined in this Toolkit also play an important role at the global level. Take the United Nations Sustainable Development Goals (SDGs), for example. Many of the goals and targets deal with factors that directly or indirectly influence fertility and population growth. Target 1 calls to end poverty in all its forms everywhere. With the ageing population, the workforce is shrinking, and this is liable to cause significant economic challenges. Women are a crucial part of any country's economy, and providing increased incentives for women to remain in the workforce, for instance through improved workplace policies and childcare, would significantly contribute to a country's available work force and help limit poverty. These policies would also help countries meet target 5, which calls for greater gender equality and empowerment for women. Target 10 also calls for reduced inequality, this time within and among countries. Enforcing into law some of

the policies explored in this Toolkit, for instance parental leave, would ensure equal opportunity; these should be seen as a basic necessity. Finally and perhaps most relevant, target 3 calls for ensuring healthy lives and promoting well-being for all at all ages. Within this, 3.7 calls for universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes; this may include addressing the need for improved access to ART.

This fertility Policy Toolkit comprises a comprehensive set of policy recommendations that are based on insights gained from research. However, many parameters need to be considered in order for specific policy decisions to be made. These will be based largely on where a country stands within its fertility transition and what its policy goals are. No Policy Toolkit can replace the deliberative and consensual process of the policy cycle—and different countries will decide upon different approaches.

Nevertheless, we hope that this Toolkit will prove useful for policymakers in the region. Our goal is that it will help inspire the development of policy ideas to address falling fertility rates and support discussions on which approaches to fund.

\* For more details about the UN's sustainable development goals, see <https://sdgs.un.org/#goal> section or <https://www.globalgoals.org/>



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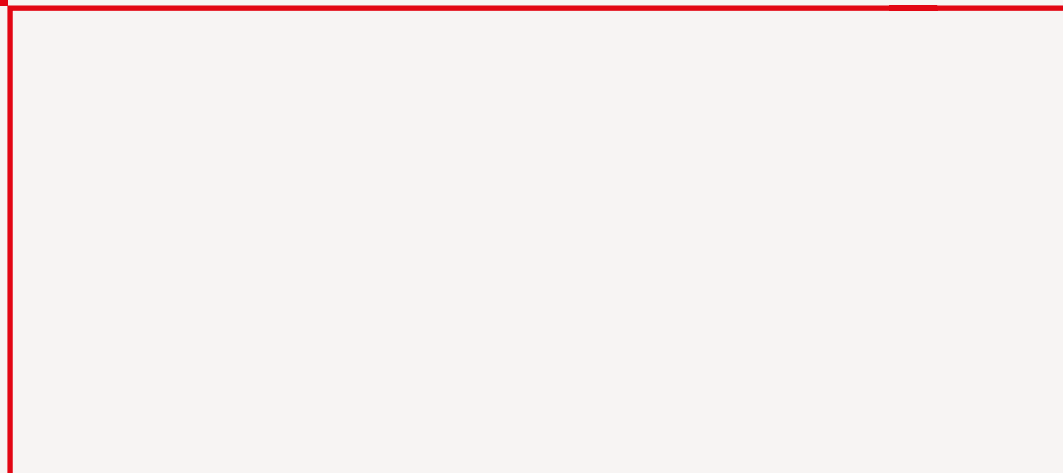
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