



# Demographic and social anxieties: the second demographic transition in Asia

Stuart Gietel-Basten<sup>1,2</sup> 

Received: 23 September 2022 / Accepted: 29 September 2022 / Published online: 25 October 2022  
© The Author(s) 2022

## Abstract

Asia is now, predominantly, a continent of ‘low’ fertility—one of the features of the Second Demographic Transition. Across the continent, this feature of our population has sprouted concern and anxiety, primarily expressed in macroeconomic terms. Low fertility is directly linked to the twin challenges of population aging and stagnation/decline. We know, however, that maximizing human capital and institutional reform is a much more effective way of responding to these two ‘grand challenges’ in the short- and medium-term. Why, then, is there such a panic about the lack of babies? In this commentary, I argue that much of the concern is grounded in a ‘fear’ of some of the features of the Second Demographic Transition (SDT)—or, at least, a caricatured version of it—taking root in Asian societies. But how concerned should they be? The papers in this special issue clearly demonstrate that the pathway towards ‘full SDT’ has developed in a very uneven way, perhaps so much so that some may argue the SDT is not a viable tool for understanding family change in (much of) Asia. However, this caricature of what the SDT ‘is’ can be unhelpful. There is no doubt that ideals and attitudes are changing (even if many others are not). Therefore, if we rather consider the SDT as a “general narrative that leaves room for many sub-narratives”, the evidence from Asia clearly demonstrates that there are many sub-narratives operating within a general transition towards some of the key societal and familial features of the SDT.

**Keywords** Asia · Family · Fertility · Second Demographic Transition · Postmodern

---

✉ Stuart Gietel-Basten  
stuart.gietelbasten@ku.ac.ae

<sup>1</sup> Department of Humanities and Social Science, Khalifa University of Science and Technology, Abu Dhabi, United Arab Emirates

<sup>2</sup> Center for Aging Science, The Hong Kong University of Science and Technology, Hong Kong SAR, People’s Republic of China

## 1 Anxieties about babies and older people

Across the continent, there is no doubt that a sense of anxiety reigns regarding demography. This takes various forms. Arguably, though, the predominant anxiety regarding the “fertility factor” across the continent is that it is just too *low* (Basten et al., 2014; Dorling & Gietel-Basten, 2017). Demographically, most people in the continent live in an environment of below-replacement fertility (when considered at the regional level) (Gietel-Basten and Scherbov 2019a, 2019b; UNPD, 2019). In some senses, the anxiety might appear misplaced. Except for Japan where fertility decline began in earnest much earlier, most of Asia has transitioned from “high” to “low” fertility in a phenomenally short period of time. While in many settings, coercive policies played a significant role in pushing down fertility rates, we should not ignore the other determinants of such a revolution: dramatic improvements in health; robust and comprehensive family planning programmes; industrial development and urbanization; access to, and greater equality in, education; improved rights for females (Gietel-Basten, 2017). Coupled with a contraceptive revolution which has enabled most women in low fertility Asia to be in control of their reproductive careers, this should be a “good news” story of social, human, and economic development. Yet, somehow or other, the opposite appears to be the case.

Outwardly, the concerns expressed by policymakers, commentators—and some scientists—across the region are grounded in economics: primarily, the dual consequences of low fertility and population aging and, ultimately, population stagnation and decline. Without a doubt, these macro-trends have already brought about tremendous challenges in states such as Japan and several European countries which have gone through a prolonged era of low fertility (coupled, in some cases, with high degrees of emigration). *Ceteris paribus*, rapid population aging will lead to increased pressure on public expenditure—especially in countries with developed health, pension and social security infrastructure. Public expenditure, welfare, health and social care systems will need to be reoriented to cater for the changing demands of a new demographic reality. Special efforts will need to be made to promote inter-generational equity, not only to negate conflict, but also to prevent an orientation of resources *away* from younger people, which could result in a “low fertility trap” (Lutz et al., 2006).

Population stagnation and, ultimately, decline will also bring significant challenges (van Dalen & Henkens, 2011). It is often argued that a shrinking workforce can be a drag on GDP and others classical measures of economic growth. At a local level, declining populations could mean not only challenges in the provision of public services (through both declines in tax revenue, but also a more spread out population) and the maintenance of intangible cultural heritage. According to the most extreme voices, the extinction of nations, even civilizations, is on the cards.

Rational heads would look at these claims, take a deep breath, reappraise them and work away at identifying possible solutions. Japan and her population will *not* go extinct any time soon; with “soon” meaning the next few hundred years. For sure, demographic momentum means that it will be harder for a declining population to stabilize and/or grow in the future. But, it is beyond comprehension that the current

circumstances which are leading to such low fertility in things will remain constant as they are for such a long period of time, and that no feedback effects will kick in (as they do in many other biological species under conditions of population decline).

Where pension, health and welfare systems are unsustainable, they can be “fixed” through paradigmatic and parametric reform. Where such systems are nascent—as they are in many Asian settings—their development can be made sustainable by design, through learning the lessons of countries which have aged before them. Making the most out of every person’s potential contribution to society and the economy is essential. Coupled with economic reform, there is still so much potential for the tremendous gains in education and skills to be translated into productivity gains. Investing in lifelong learning, gerontechnology, active aging, closing the digital divide, reducing inequalities, community engagement, policies to support and train carers—all these changes will inevitably offset some of the challenges brought about through aging and population decline. Yes, it will be complicated. Yes, it may be expensive. And yes, it may well be politically unpopular. But it is certainly possible through institutional reform, delivered in a holistic manner.

Despite this, the overwhelming narrative across the region is that “we need more babies”. From Japan to Russia; from South Korea to Singapore; from Thailand to Iran, governments, stakeholders and commentators are relentlessly pushing a pronatalist line. While family policy instruments (such as improving childcare and parental leave and rights) as well as “baby bonuses” and other hand-outs may make the lives of citizens seeking to start and grow a family easier, there is little doubt that a pronatalist motivation lies behind many such interventions. All of this is, of course, somewhat odd when we look at the “challenges” and “solutions” to aging and stagnation seen above. Beyond reconceptualizing and remeasuring aging to more accurately reflect reality (Basten, 2013; Gietel-Basten et al., 2015; Scherbov et al., 2016), the institutional reforms proposed above will generate a near immediate return which, when coupled with a constant reappraisal of the underlying systemic changes, would stagger into medium- and long-term improvements in sustainability. Such pronatalist policies have been shown to deliver limited success, especially in terms of increasing *cohort* trends in fertility. Even if they *were* to be successful, however, any “new” babies born would not be entering the workforce for another 20 years or so. Any impact on the old age dependency ratio would be negligible even for decades after that.

Given the relative contribution of institutional versus demographic change to offsetting some of these “anxieties” why, then, is so much attention paid to the latter as opposed to the former? In a sense, the obvious answer is that it is “easier”—logically and, in theory, in practice. According to this logical flow: “Aging and decline is “bad”; aging and decline is caused by low fertility; we don’t want more migrants<sup>1</sup>; people should have more babies; people complain it is too expensive and difficult to have kids and juggle a life; here is some money to have kids and some policies to support you (oh, and some posters and adverts to scold/encourage you along the way). Comparing this to raising the pension age, reforming retirement, fixing social

---

<sup>1</sup> That’s another story.

care, developing community-level systems, building age-friendly cities, repurposing hospitals, reforming the labor market, investing in infrastructure (etc.)—it is no surprise that a demographic solution (limited to increasing fertility) is preferable—even if an institutional response makes much more sense and will be much more effective (Gietel-Basten, 2021).

## 2 Anxieties about new roles, new families, new ideas

I suspect, however, that there other elements at work beyond the narrative and logical simplicity of the “increase fertility” argument. Ethnonationalism and a “bigger is better” view of the relationship between population and geopolitical might is clearly visible not only across the continent but in other parts of the world. This is, arguably, why the “extinction” narrative manages to get such traction. There is, however, another “anxiety behind the anxiety”. Anxiety about people (especially women) and their behavior. This anxiety concerns the breakdown of moral and cultural codes which have, it is argued, prevailed for centuries. In this “socio-demographic fever dream”, the institution of marriage is eroded through lower preferences to wed, rising divorce rates, co-habitation and childbearing out of wedlock. Traditional families are being undone by new living arrangements (such as “living apart together”), a rejection of filial piety, nuclearization (culminating in single and DINK households), and the rising acceptance of marriage and childbearing among sexual minorities. Once rigid lifestyles and life courses are now more flexible. Women are giving up on their demographic “obligation” to “seed” the next generation by remaining childless. Those of a misogynist bent resent increasing female autonomy in both the public and private sphere. Younger people are rejecting expected norms, and embracing individual autonomy, self-actualization and self-expression. When they do not get their own way, they pout—“sā jiāo” in China. In doing so, authority figures (including past generations, and the state itself) feel undermined. All these impulses, in this toxic narrative, lead to a feckless, entitled, selfish, individualistic, ungrateful, spoilt generation (or two) who value selfies, avocados and soya flat whites over marriage, and (cultural and demographic) reproduction. A society of women suffering from a “princess syndrome” (“gōng zhǔ bìng in Chinese) (mis)matching with “little emperors”. In South Korea, they are a “samposedae” giving up on courtship, marriage and childbirth. In Japan, “grass-eating males” are shadows of the men of former generations. In China, young people are simply “lying-down”. The result: low fertility. The response: castigate, blame, stigmatize; and tell people to get married and have more kids (Gietel-Basten, 2019).

This “demographic fever dream” is then, to all intents and purposes, not just a fear of low fertility per se, but rather a (performative) fear of the full-blown westernization/hyper-modernization of society in which low rates of marriage and reproduction are collateral damage. In other words, this is a fear of the Second Demographic Transition (SDT)—or, at least, a, caricatured representation of it.

### 3 The reality: new family sizes, familiar processes of family formation

The excellent papers in this special issue are unified by one common theme: the demographic characteristics associated with the “classical” SDT of the “fever dream” above, has certainly not arrived *in toto* in Asia. Low fertility does not automatically go together with childlessness, childbearing outside of marriage, high levels of divorce and lifetime non-marriage. As the paper by Visaria (2022) points out, this is certainly the case with India. The country is now almost certainly at, or below, the replacement level of fertility. Indeed, some parts of the country are characterized by fertility rates as low as those in East Asia and Southern Europe (Government of India, 2022, A192). There is also a strikingly high number of women who state a preference to have just one child (Gietel-Basten & Mamta, 2018; Basu & Desai, 2012). Despite this, there is “virtually no increase in the divorce rate, cohabitation, or voluntary childlessness, except for some anecdotal evidence from metro cities” (Visaria, 2022, 1).

To be sure, some of the demographic characteristics associated with the SDT are to be seen across the continent (and explored in the papers). These include postponement of childbearing and later ages of marriage, for example. However, in common with other locations of low fertility in the region such as Hong Kong (Gietel-Basten & Verropoulou, 2018, 2021), the twin notions of marriage as a precursor to childbearing, and childbearing being a standard consequence of marriage are still found to be prevalent in the papers on China (Yu & Xie, 2022), Japan (Raymo, 2022) and Indonesia (Utomo et al., 2022). Divorces are certainly increasing across the region, but stability within marriage still appears to be the norm.

We might be able to conclude that as far as the *demographic* features associated with SDT are concerned, the *numbers* have changed—how many children, age of childbearing/marriage—but the *nature*—particularly the link between childbearing and marriage—much less so, especially when compared to European settings. I have argued elsewhere that while the demographic ‘hardware’ of family size (and, of course, mortality) has change beyond recognition; changes in the ‘software’ – in terms of processes of family formation and other social norms and expectations – have lagged behind somewhat (Gietel-Basten, 2022).

But what about attitudes? One of the most important aspects of the SDT framework is that—unlike much of descriptive demography—it wraps up demographic “outputs” with changes in the “inputs” of ideational and attitudinal change to understand the dynamic link between the two. In the “fever dream” discussed above, the two are intrinsically linked: a transition to westernized, postmodern, post-materialist, individualistic values leading to a collapse in fertility rates and of the traditional family itself. The papers here (and evidence beyond) have shown that this entire package has not happened in Asia, but what about the former? And how would that portend future change?

In India, Visaria (2022) rejects the view that low fertility is brought about through “shifts towards post-modern attitudes and norms that accept and stress individuality and self-actualization”. Rather, she argues “It is largely due to high aspirations among urban middle-class parents for children which can be fulfilled when

they have one or at most two children in view of the rising cost of private English medium education and health care”. Yet, this focus on the *direct* costs of childbearing—especially in relation to education—is a common feature across much of the region. The so-called “education fever” in Korea (Anderson & Kohler, 2012) and the apparent need to invest heavily in tutoring and cram schools is clearly a drag not only on completed fertility, but must also be considered a factor in decision-making concerning *starting* a family. In this sense, the transition from “king-child with parents” to a “king-couple with child” is very incomplete, to say the least (Van de Kaa, 1987).

Esping-Andersen’s (2009) “Incomplete Gender Revolution” is, perhaps, nowhere more “incomplete” than in certain parts of Asia (Freeman et al., 2018; Gietel-Basten, 2020). The papers here re-emphasize this gender asymmetry in public and, especially, private roles, e.g. for Japan (Raymo, 2022) and Indonesia (Utomo et al., 2022) where “the pervasiveness of patriarchal norms continues to inhibit the progress of gender equality in Indonesia.” However, the paper by Zhou (2022) makes a particularly strong theoretical and empirical contribution by teasing out the ideational systems behind these asymmetric roles. By deploying the powers of qualitative research (see also Freeman et al., 2018; Gietel-Basten, 2020 for Taiwan), the paper is able to tease out the thoughts and feelings which shape decisions. An especially important conclusion that the paper draws is the explicit role which *risk* plays in shaping decision-making regarding co-habitation (and other non-traditional behavior). For Chinese females (Zhou, 2022), co-habitation is “a risk-amplification arrangement in practice that increases the possibility of uncertain marriage prospect, unsafe sex, and reputational damages”.

This issue of *risk* is one which is raised again in the paper by Lai and Song (2022). While they observe an (expected) trend towards more “liberal” attitudes regarding marriage, divorce, and childbearing in South Korea, Taiwan, and Japan between 2006 and 2016; in China, there appears to have been an inverse pattern—a shift towards more conservative views. They observe that such “emerging types of non-conventional demographic behavior” could be perceived as being “considered risky and less preferred”. In the Chinese context, they argue, “increasing social inequalities and relatively weak welfare provisions from the state” means that “private life has been becoming more individualized, and individuals tend to rely on themselves and their family to ensure their wellbeing...and marriage remains an important channel of upward social mobility, particularly for females”.

#### **4 ‘Do what you like...but not regarding family formation’: individualization and risk-reduction**

In this sense, we can draw on the work of Beck and Beck-Gernsheim (Beck & Beck-Gernsheim, 2002; Beck-Gernsheim, 2002). For the past couple of generations, young people have been brought up to ‘aim for the star’ by taking full advantage of the new opportunities which the revolution in education coupled with rapid economic development has brought about. The opportunities for them to ‘write their

own biography' in terms of learning and working have, arguably, never been so great.

However, if you want to have a family you have to do it in a very particular way. Firstly, you must marry (someone of the opposite sex), then have kids. If you happen to marry the wrong person, well that's tough luck. If you don't do it in this way, you stand the risk of being a social outcast. Therefore, not following the norm brings about a *reputational* risk. Then, as we have seen above, you must ensure that your kids get the best possible education money can buy (even if you don't have either the time or the money to do it). This brings about a *financial* risk. However, if you are a woman and you do all the "right things" in terms of how you are expected to form a family, and give your children the best opportunities you can, the circumstances of the "Incomplete Gender Revolution" means that there is a pretty good chance that your career will stall, and you will have to make a very stark choice between growing your family or your career and income. Not being able to properly reconcile the two can bring about perhaps the biggest risk of all—the risk of not being able to live out the kind of life that you might like.

What, then, is the result of all this *risk*? Risk-reducing strategies of late and non-marriage; childlessness; having fewer children. Of course, these risks could be offset by adequate policies. Such policies would have to focus sharply on *what people say they want and need* in order to deliver their preferred balance of work and family, rather than catch-all policies or exhortations to simply reproduce. Such policies would likely include guarantees of affordable, high-quality childcare; real protection from discrimination; adequate parental leave; measures to offset some of the expenses relating to childbearing and childrearing. Beyond this, though, some of the factors which shape these risks are deeply entrenched in society and culture. As such, even with all the family policies in the world, it may not be enough to offset some of the risks. Consider education. Of course, there is a cultural norm relating to the relentless pursuit of education. In essence, this is no bad thing. However, this norm is usually operating within a rigid public education system with very narrow parameters for success and failure which, in turn, a marketized private education system is happily, and literally, capitalizing on. Therefore, simply capping cram school hours or tutor costs will not be enough.

## 5 Whither SDT in Asia?

True, many of the underlying features of the "SDT fever dream" are not (yet) fully in evidence in Asia. But they are nascent, and the popular concerns associated with these developments is shaping much of the discourse (especially emanating from older generations) around family formation. This rigidity can prevent the development of adequate policies to support families; but it can also operate to entrench cultural norms, and push back against emancipatory changes (including, in the most extreme cases, access to sexual and reproductive health services). This is most clearly the case in Iran (Roberts, 2015), where policies to encourage early marriage, less divorce, more childbearing and restricting access to family planning services



are quite at odds with the aspirations of men and, primarily, women who wish to capitalize on their education and properly balance work and family in a satisfying manner. In a sense, then, it is precisely this anxiety around what is “expected” from people and the way they live their lives—this “fever dream”—is driving the demographic outcomes which cause such anxiety.

Incorrect caricatures of the SDT hold it up as being a well-defined set of cultural, social and demographic characteristics which represent an endpoint (or at least developmental stage) of societies. All the papers in this issue show that this is most definitely not the case for Asia. Each country is going its own way. Visaria (2022) concludes that “India is poised to enter the next phase of demographic transition in its own ways and on its own terms while building on its old well-established traditions, practices and value systems”. In Indonesia, “emerging ideational change embodying individualism, secularism, and post-materialism—originally proposed in SDT theory to be the primary drivers of fertility decline in postindustrial Western Europe—can overlap with popular values promoting desecularization and the strengthening of familial institutions” (Utomo et al., 2022). In China, Confucian values are dramatically shaping (and reshaping) the process of the SDT (Yu & Xie, 2022). In Japan, Raymo’s (2022) study identifies a “distinctive path to very low fertility in which universal forces of social and family change interact with strong normative expectations of two-parent families characterized by a clear gender division of labor”.

Starting a family and “living your best life” in Sendai is different than Stockholm. It is also very different in Jakarta than in, say, Aceh. That such heterogeneous settings deliver such divergent pathways to low fertility should come as no surprise. But this can still be reconciled with some of the core tenets of the SDT. As the opening paper by Lesthaeghe (2022) in this volume discusses, the concept of the SDT has changed over time. As Zaidi and Morgan (2017) observe, both Van de Kaa and Lesthaeghe “admit that the SDT’s proposed sequence of changes in family and fertility and the inter-connectedness between key components was overly rigid.” Indeed, Lesthaeghe (2010) stated that the SDT should not be viewed as a “teleological grand script with a standard scenario” but rather as a “general narrative that leaves room for many sub-narratives”.

## 6 What about the future?

Younger generations, undoubtedly, have different values and expectations from their parents and grandparents. However, it is their parents and grandparents who are currently in positions of power in the public, private and domestic spheres. The process of “compressed modernity” has, undoubtedly, been unsettling for these older generations. Gazing across the globe to the “decadent West” and across the family table to single adult children and grandchildren on Instagram and spending their money on travel; it is hardly surprising that the anxiety over social change spills out. This concern can easily speak its name through the more socially neutral language of macroeconomic concerns regarding population aging and stagnation.



Has South Korea become the same as Norway—at least in terms of social, cultural, economic and demographic behavior, values and ideation? No. Will South Korea *become exactly* the same as Norway in the future? Well, probably not. Has South Korea become *a bit* like Norway? Without a doubt. The question, then, is whether younger generations in West retain the same values and demographic behavior; and whether younger generations in South Korea—and across the region—take on more of the classical package of SDT characteristics, or continue to chart their own unique, hybrid pathways. How will these changes then connect with demographic behavior, in the context of changes in policy, economic, and domestic circumstances which, in turn, will adapt when the next generation of policymakers, bosses, and partners come through?

Of course, the simple answer is that “we do not know”. We are at a point in fertility transition where the future seems impossible to predict. (Personally, I think this is what makes studying fertility today so exciting!) However, we do not have to simply throw our hands up in the air and give up. We have two tools which we can use. The first is the SDT itself, which can provide a kind of *reference* point for *one* particular pathway. In the same way that countries which stray from a baseline Bayesian model do not undermine the validity of the model, but rather contribute to it its dynamic development, so too do alternative pathways of social and demographic change to the SDT. Secondly, though, we need better tools to better judge the patterns of change. Currently, survey microdata is, by default, very difficult to access across the region. Without a culture of open science and open data, there are strong barriers to alternative views of understanding and interrogating social change. Without harmonized, comparative data, it is impossible to properly compare *between* countries; to identify commonalities and differences—even those which may not immediately appear visible to the naked eye.

Finally, as mentioned above, we must be interested in cohort change. How will the attitudes and behaviors of younger generations change as they grow older? When they get a job? When they marry or have their first children? Will they become more like their parents? Will they bring new values into their newly found positions of power? To answer these questions, we need to have *longitudinal* data. Fortunately, such a comparative, longitudinal survey instrument exists: The *Generations and Gender Survey* (GGG). This survey has been run in multiple waves in Europe, Asia and the Americas, and has tremendous potential to be utilized in other parts of Asia (Vikat et al., 2008). We have just completed a pilot version of the survey in Hong Kong, for example (Gietel-Basten et al., 2022). Rolling this out across the region could give us a much clearer picture of the nature of social and demographic change. However, this would require overcoming another set of anxieties relating to data sharing and open science, as well as breaking the path dependency of long-run national survey instruments.

## Declarations

**Conflict of interest** No conflict of interest to declare.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as

you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

## References

- Anderson, T., & Kohler, H.-P. (2012). "Education fever and the East Asian fertility puzzle: A case study of low fertility in South Korea." PSC working paper series. Population Studies Center, University of Pennsylvania. [http://repository.upenn.edu/cgi/viewcontent.cgi?article=1037&context=psc\\_working\\_papers](http://repository.upenn.edu/cgi/viewcontent.cgi?article=1037&context=psc_working_papers). Accessed 16 Oct 2022.
- Basten, S. (2013). Redefining 'old age' and 'dependency' in East Asia: is 'prospective aging' a more helpful concept? *Asian Social Work and Policy Review*, 7(3), 242–248. <https://doi.org/10.1111/aswp.12015>
- Basten, S., Sobotka, T., & Zeman, K. (2014). Future Fertility in Low Fertility Countries. In W. Lutz, W. P. Butz, & S. KC (Eds.), *World population and human capital in the 21st Century* (pp. 39–146). Oxford University Press.
- Basu, A.M., & Desai, S.B. (2012). "Middle Class Dreams: India's One-Child Families." Paper presented at IUSSP Meeting, 2012. [https://iussp.org/sites/default/files/event\\_call\\_for\\_papers/One%20child%20families\\_IUSSP.pdf](https://iussp.org/sites/default/files/event_call_for_papers/One%20child%20families_IUSSP.pdf)
- Beck-Gernsheim, E. (2002). *Reinventing the family. In search of new lifestyles*. Polity Press.
- Beck, U., & Beck-Gernsheim, E. (2002). *Individualization. Institutionalized individualism and its social and political consequences*. Sage.
- Dorling, D., & Gietel-Basten, S. (2017). *Why demography matters*. Polity Press.
- Esping-Andersen, G. (2009). *Incomplete Revolution: Adapting Welfare States to Women's New Roles*. Polity.
- Freeman, E., Ma, M., Yan, P., Yang, W., & Gietel-Basten, S. (2018). 'I couldn't hold the whole thing': the role of gender, individualisation and risk in shaping fertility preferences in Taiwan. *Asian Population Studies*, 14(1), 61–76. <https://doi.org/10.1080/17441730.2017.1386408>
- Gietel-Basten, S. (2017). Fertility decline. *Routledge handbook of Asian demography* (pp. 64–86). Routledge.
- Gietel-Basten, S., & Mamta, R. (2018). "One-Child Ideation in India." <https://doi.org/10.31235/osf.io/mtd7x>.
- Gietel-Basten, S. (2019). *The "Population Problem" in Pacific Asia. International Policy Exchange Series*. Oxford University Press.
- Gietel-Basten, S. (2021). "Epilogue: Global Political Demography—A Depressing Outlook?" *Global Political Demography*, 429. <https://library.oapen.org/bitstream/handle/20.500.12657/50413/978-3-030-73065-9.pdf?sequence=1#page=442>.
- Gietel-Basten, S., & Verropoulou, G. (2021). "(Un) Married with Children? Exploring Marriage between Parities in Hong Kong." *Asian Population Studies*. <https://doi.org/10.1080/17441730.2021.1984035>.
- Gietel-Basten, S., Cruz, C.J.P., Emery, T., Li, Z., Sze, L.L., Lai, M.T., Ng, K.Y.D., Beaupré, P., Grunwald, O., Kong, S., Koops, J., & Rijken, A. (2022). "Hong Kong Harmonized Generations and Gender Survey-II Pilot."
- Gietel-Basten, S. (2020). Catching up with "Compressed Modernity"—How the Values of Millennials and Gen-Z'ers Could Reframe Gender Equity and Demographic Systems. *Vienna Yearbook of Population Research*, 16, 39–42.

- Gietel-Basten, S. (2022). Family change in the context of social changes in Asia. In M. Daly, B. Pfau-Effinger, D. Besharov, & N. Gilbert (Eds.), *International handbook of family policy: A life-course perspective*. Oxford University Press.
- Gietel-Basten, S., Scherbov, S., & Sanderson, W. (2015). Remeasuring ageing in Southeast Asia. *Asian Population Studies*, 11(2), 191–210. <https://doi.org/10.1080/17441730.2015.1052201>.
- Gietel-Basten, S., & Scherbov, S. (2019a). Exploring the ‘true value’ of replacement rate fertility. *Population Research and Policy Review*, 39(4), 763–772. <https://doi.org/10.1007/s11113-019-09561-y>.
- Gietel-Basten, S., & Scherbov, S. (2019b). Is Half the World’s Population Really below ‘Replacement-Rate’? *PLoS ONE*, 14(12), e0224985. <https://doi.org/10.1371/journal.pone.0224985>.
- Gietel-Basten, S., & Verropoulou, G. (2018). “The changing relationship between marriage and child-bearing in Hong Kong. *PLoS ONE*, 13(3), e0194948. <https://doi.org/10.1371/journal.pone.0194948> Edited by Hafiz T. A. Khan.
- Government of India. 2022. “Economic Survey 2021–22.”
- Lai, W., and J. Song. 2022. “Different pathways of the second demographic transition in four East Asian Societies: Evidence from the 2006 and 2016 East Asian Social Surveys.” *China Population and Development Review* OnlineFirst.
- Lesthaeghe, R. 2022. “The second demographic transition: also a 21st Century Asian Challenge?” *China Population and Development Studies* OnlineFirst.
- Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and Development Review*, 36(2), 211–251. <https://doi.org/10.1111/j.1728-4457.2010.00328.x>
- Lutz, W., Skirbekk, V., & Testa, M. R. (2006). The low-fertility trap hypothesis: forces that may lead to further postponement and fewer births in Europe. *Vienna Yearbook of Population Research/vienna Institute of Demography, Austrian Academy of Sciences, 2006*, 167–192. <https://doi.org/10.1553/populationyearbook2006s167>
- Raymo, J. 2022. “The Second Demographic Transition in Japan: A Review of the Evidence.” *China Population and Development Studies* OnlineFirst.
- Roberts, M. (2015). “Iran’s Push for More Children.” *MercatorNet.Com*. <http://www.mercatornet.com/Demography/view/irans-push-for-more-children/15900>. Accessed 16 Oct 2022.
- Scherbov, S., Sanderson, W. C., & Gietel-Basten, S. (2016). Better way to measure ageing in East Asia that takes life expectancy into account. *Australasian Journal on Ageing*, 35(2), 139–42. <https://doi.org/10.1111/ajag.12267>.
- UNPD. (2019). “World Population Prospects: The 2019 Revision.” World Population Prospects 2019. <https://population.un.org/wpp/Download/Standard/>. Accessed 30 June 2022
- Utomo, A., A. Ananta, D. Setyonaluri, and C. Aryaputra. 2022. “A second demographic transition in Indonesia?” *China Population and Development Studies* Online First.
- van Dalen, H. P., & Henkens, K. (2011). Who fears and who welcomes population decline? *Demographic Research*, 25, 437–464. <https://doi.org/10.4054/DemRes.2011.25.13>
- Van de Kaa, D.J. 1987. *Europe’s Second Demographic Transition*. Population Reference Bureau. <https://play.google.com/store/books/details?id=fDNqPgAACAAJ>.
- Vikat, A., Spéder, Z., Beets, G., Billari, F. C., Buehler, C., Desesquelles, A., Fokkema, T., et al. (2008). Generations and Gender Survey (GGS): Towards a better understanding of relationships and processes in the life course. *Demographic Research*, 17(14), 389–440. <https://doi.org/10.4054/DemRes.2007.17.14>
- Visaria, L. 2022. “India’s Date with Second Demographic Transition.” *China Population and Development Studies* OnlineFirst.
- Yu, J., and Y. Xie. 2022. “Is There a Chinese Pattern of the Second Demographic Transition?” *China Population and Development Studies* OnlineFirst.
- Zaidi, B., & Morgan, S. P. (2017). The Second Demographic transition theory: A review and appraisal. *Annual Review of Sociology*, 43, 473–492. <https://doi.org/10.1146/annurev-soc-060116-053442>

Zhou, Y. 2022. "Gendering the Second Demographic Transition: Gender Asymmetry, Gendered Tension, and Cohabitation in Contemporary Urban China." *China Population and Development Studies*.



**Stuart Gietel-Basten** is currently Professor of Humanities and Social Science at Khalifa University in the United Arab Emirates. He is also the Founding Director of the Center for Aging Science at the Hong Kong University of Science and Technology. His research focusses on the causes and consequences of low fertility (i.e. population aging and stagnation) in the Asian context. He has published and edited a number of books, including *The "Population Problem" in Pacific Asia* (Oxford University Press); *Family Demography in Asia* (Elgar) and *Why Demography Matters* (Polity Press, with Danny Dorling). His all-time favorite food is *biángbiángmiàn*.