

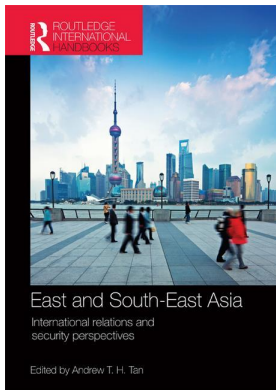
This article was downloaded by: 10.3.97.143

On: 29 Nov 2023

Access details: *subscription number*

Publisher: *Routledge*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: 5 Howick Place, London SW1P 1WG, UK



## **East and South-East Asia International relations and security perspectives**

Andrew T. H. Tan

### **Demographic ageing in China**

Publication details

<https://www.routledgehandbooks.com/doi/10.4324/9780203146026-24>

Phil Mullan, Bill Durodié

**Published online on: 21 Mar 2013**

**How to cite :-** Phil Mullan, Bill Durodié. 21 Mar 2013, *Demographic ageing in China from: East and South-East Asia*, International relations and security perspectives Routledge

Accessed on: 29 Nov 2023

<https://www.routledgehandbooks.com/doi/10.4324/9780203146026-24>

**PLEASE SCROLL DOWN FOR DOCUMENT**

Full terms and conditions of use: <https://www.routledgehandbooks.com/legal-notices/terms>

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

# Demographic ageing in China

## Economic problem or social opportunity?

*Phil Mullan and Bill Durodié*

---

### Introduction

‘China is destined to get old before it gets rich’ (Qiao 2006): this statement encapsulates widespread concerns about the consequences of population ageing in the People’s Republic of China. Certainly China is ageing particularly rapidly, with an expectation of well over a quarter of the population being above the age of 65 by the middle of the century. If this is considered ‘old’ and if ‘rich’ means on a par with the top high-income countries, this is a probable scenario, but are the negative connotations justified? Is it inevitable that demographic changes will derail China’s economic growth dynamic as is frequently presumed (Jackson and Howe 2004; Li *et al.* 2009; Wang 2011; Cai 2011)?

Challenging the consensus does not deny the possibility of big economic challenges in the years to come. There are many non-demographic reasons why China’s economic progress is likely to see some step down from the double-digit growth rates that had become customary. Not least, a transition from ‘extensive’ to ‘intensive’ growth is going to bring slower expansion. Starting from a low base and adding more industrial workers while taking advantage of the existing levels of technology available in the world was always likely to produce fast change. However, the more advanced the economy becomes, and the more China moves to developing new technologies for itself, the more likely it, too, will shift to a more moderate pace of growth.

As China shifts gear, it will also be more affected by the inevitable disruptions that accompany developed market economies. Unevenness and disproportionalities between industries and sectors are intrinsic market features, but what are barely blips when growing at 10%–12% a year become rather more evident and disruptive at growth rates significantly below that.

However, the fact that slower growth is likely to accompany China’s demographic ageing is no reason for making a causal connection. We argue here that ageing is not one of the factors impairing economic dynamism in China and suggest that China should be able to grow fast enough to afford the costs arising from an older population. If it doesn’t, the reasons will not lie in demography. Anxieties about ageing need to be countered because they can divert policy makers from areas that really need attention.

## Ageing trends

Population ageing is a different phenomenon to individual ageing. Societies primarily age ‘from below’—falling fertility—while we as individuals only age ‘from above’—by growing older. China follows the rule that the initial cause of population ageing is falling fertility rates rather than adults living longer. Smaller cohorts of newborns shift the age balance and the median age upwards.

Declining fertility rates have two main drivers: the rapid fall in infant and child mortality, and improved contraceptive access making it possible to limit unwanted pregnancies. Subsequent population ageing is reinforced when adults also start to live longer. This happens later during any demographic transition since it is largely a by-product of the material, social, health and nutritional improvements experienced by new cohorts in their early lives and therefore takes time to have an impact.

In the developed world the demographic transition took up to 150 years, ending around the 1960s: life expectancy rose from about 40 to over 70 and fertility rates fell from over five babies to around two. China has aged much more rapidly, reflecting the benefit of later development and the quick assimilation of existing progress. In just 30 years from the early 1960s, falling child mortality helped expand life expectancy from about 40 years to 70.

It took only 10 years from 1970 for fertility to drop sharply from about 6 to 2.7.<sup>1</sup> Given the prominence commonly attributed to the one-child policy in explaining China’s unusually rapid ageing process (Peng 1991; Li *et al.* 2009; Hvistendahl 2010; Wee 2011), it is striking that this policy was only introduced in 1979, after the biggest drop in fertility rates had already occurred. As Wang Feng, director of the Brookings-Tsinghua Center for Public Policy, explains, ‘the country as a whole largely completed the fertility transition in the 1970s, prior to the launching of China’s ambitious and controversial one-child-per-couple policy’ (Wang 2011: 178).

While state policy impacted the 1970s’ fertility decline, there was no subsequent step-change owing to the stringent one-child policy. As Wang argues, ‘To credit China’s demographic transition entirely to the Chinese state ... obscures important historical facts and contributes to a misguided view that exaggerates the role of the state and justifies continued state intervention in reproduction’ (Wang 2011: 180).<sup>2</sup> The halving of fertility in the 1970s was influenced both by the disruptions of the 1966–76 Cultural Revolution and the largely voluntary ‘later, longer, fewer’ policy (Cai 2010), which called for later childbearing, longer spacing between children and fewer children. Hesketh *et al.* argue that fertility would probably have continued to fall in China without the compulsion of the one-child policy, not least because of the simultaneous fertility falls in some of China’s Asian neighbours reflecting similar socio-economic developments (Hesketh *et al.* 2005). More recently, the possibilities and pressures from rapid economic development, as well as greater contact with the low-fertility West, seem to be influencing urban dwellers to delay and even abstain from having children.

Yong Cai’s analysis, comparing fertility falls in provinces where China’s state policy was applied differentially, leads him to the same conclusion that ‘policy is not the key factor behind the very low fertility that has emerged ... [It] is driven to a great extent by the increasingly global forces of social and economic development’ (Cai 2010: 434–35). China’s fertility rates fell more rapidly than the norm but for similar reasons to those in other developing countries. The main distinction for China was not the one-child policy but the accelerated pace of the demographic transition, paralleling the unprecedented tempo of its economic development.

While there is a strong democratic case for abolishing the one-child policy as an infringement on women’s rights, there is much less of a demographic case to get rid of it. The appropriate policy response to ageing should not fetishize fertility rates, not only for the practical reason that

this is likely to have limited impact, but because it distracts from encouraging society's necessary adaptation to an older population that is happening regardless of the exact fertility level.

China's median age rose from 20 in 1970 to 30 in 2000, jumping further to about 35 today. Under its 'medium' assumptions for fertility and mortality rates, the United Nations (UN) projects that ageing will continue at a slightly slower pace than recently through to mid-century, when life expectancy is expected to reach 80 and the median age peak just short of 50 (UN Population Division 2011).

Ageing is therefore already well underway in China and it has been getting wealthier all this time. The fact that China's economy has been growing rapidly *with* an ageing population is reason alone to question today's demographic concerns over the implications for future economic growth. Might something change to upset this positive correlation in the years to come?

### Areas of concern

The assumption that older age structures are bad for economic growth is often expressed as a self-evident truth. Our personal anxieties about getting old make us susceptible to negative assumptions about population ageing, even though, as we've noted, the drivers of social ageing are very different. Concerns are heightened by looking too much at the additional consumption demands an older population might make upon existing resources, and too little about what might happen in the future to the production of those resources.

Presumptions about the negative influence of ageing on the economy include:

- a rise in the old-age dependency ratio;
- a smaller working-age population meaning fewer producers; and
- the productivity impairment from an older workforce.

#### *The mounting burden of a rising dependency ratio?*

The most vivid illustration of the so-called demographic time-bomb is the projected increase in the old-age dependency ratio (OADR). This ratio measures the number of older people (usually given as those aged 65 and over) to those of 'working age' (often assumed to be those between the ages of 15 and 64). Today's ratio of about 11% is expected to reach somewhere between 50% and 60% by 2060 (Li *et al.* 2009; UN Population Division 2011), a quintupling of the OADR. Instead of about nine working people supporting each elderly person, there will then be at most two.

A rising OADR also requires more resources devoted to the care, health and financial support of these elderly dependants. For example, more old people raises particular concerns about the possibility of an enormous hike in the cost of public pensions (Li *et al.* 2009). The reform of the state-owned enterprises in the early 1990s substantially reduced the coverage of China's 'welfare state', with the burden of health and education expenditures shifted from the state-owned 'work unit' to the private sector, thus making households responsible for significant health and education expenditures. One aspect of the one-child policy will exacerbate this pension challenge: what's called the '4:2:1' phenomenon, meaning that people who are themselves single children of single-child parents could become responsible for the care of their two parents and four grandparents.

While pension coverage averages over 80% across the developed countries of the Organisation for Economic Co-operation and Development (OECD), it is still only about 20% in China (OECD 2009), and is generally available only to those employed by the government and large companies. It is estimated that financial dependence on offspring remains the case for about 70%

of elderly people (Hesketh 2005). Cai assesses urban coverage at about 57%; this is expanding with industrialization and urbanization (Cai 2011), but still has much further to go. The current trend towards better pension coverage alongside the growth in the elderly population is bound to increase public pensions expenditure from less than 3% of gross domestic product (GDP) today, closer to the average 7% found in the developed OECD countries (OECD 2011).

An inevitable consequence of the rise in elderly life expectancy is that the oldest of the old (80 and over) are expected to grow faster than any other age group, possibly rising from 1.4% of the population today to 9% in 2060 (UN Population Division 2011). This age group is more likely to have multiple illnesses and accelerated declines in functional abilities and therefore can reasonably be anticipated to ‘consume amounts of services, benefits and transfers far out of proportion to their population share’ (Li *et al.* 2009: 46). However, increasing health costs of older societies are offset by the tendencies towards healthier elderly lives overall and towards the compression of morbidity (Fries 1980).

In other words, whilst the latter years of life are more costly than earlier ones, this is the case no matter when these latter years fall. So, in countries where people still tend to die in their 60s it is people in their 60s who cost most, whereas where people continue through to their 80s they tend to be healthier in their 60s and 70s, and the main costs come later (Bhalla and Durodié 2010). The cost increases arising from an ageing Chinese population therefore cannot be determined solely from age composition.

Assuming some increase, the usual assumption is that these extra costs will hold back economic growth (Kaneda 2006). The presumed mechanism is that more resources for dependants means less is available for the investments needed to maintain economic growth. However, this forgets one important change: the economic cake expands with rising productivity as more resources are produced in the next period compared to the present. More consumption by dependants and more investment can happen together. The biggest flaw in the demographic time-bomb argument is the tunnel vision that extrapolates the growth of age dependency, but forgets the parallel extrapolation of productivity gains.

### Productivity growth tends to be self-feeding

The Nobel Prize-winning economist Paul Krugman noted, ‘Productivity isn’t everything, but in the long run it is almost everything. A country’s ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker’ (Krugman 1994: 9). Productivity improvements trump all other changes in their influence on the prosperity of everyone—working or not working—and of all ages. Rising productivity means the creation of more resources to make it feasible for society to do more things—improve health services, enrich education, reduce working time, increase leisure time, curb pollution, clean up the environment and improve the living conditions of those who may be unable to look after themselves because of any age-related condition or dependency.

Living standards can rise for everyone—workers and non-workers—even with a static or falling workforce. Productivity growth means that if 100 units of wealth are produced one year and are split 50:50 between investment and consumption, at 10% productivity growth, 110 units could be produced the next year and again be split 50:50. The pace of accumulation is maintained but there are 10% more resources available to devote to personal consumption shared between these productive workers and any bigger number of ‘dependants’. Productivity growth makes a rising allocation to dependants affordable.

Productivity growth is driven both by the movement of people into more productive activities and also, within any sector, by the combined effect of more capital investment per worker

and of the better technology embodied in this. China has a long way to go in all these areas, not least in further worker migration from low-productivity agriculture into much higher productivity services and industry.

The research consultancy Gavekal notes that contrary to Western talk about Chinese overinvestment, China's stock of physical capital per head of population is still only 7% of the level in the USA or Japan (Lex 2011). Meanwhile, low average productivity levels compared to more advanced economies point to China's potential to upgrade and adopt the best levels of technology available across its various economic sectors. Previous rounds of investment are now often outdated and need replacing with more advanced technologies.

Even after decades of catch-up, Chinese productivity is still only about one-fifth the level of the average US worker and one-quarter the level of the average British worker (ILO 2011). This makes possible the continued strong growth dynamic that the Harvard economist Alexander Gerschenkron famously called the 'advantages of backwardness' (Gerschenkron 1962). By illustration, taking a future average 5% productivity growth—half the rate of the past decade—and 2% growth in the West it would take up to 50 years to align with Western levels.<sup>3</sup>

The key point is that this sort of magnitude of productivity growth dwarfs the effects of supporting a larger elderly population. The quite plausible 5% average annual growth means that China would in 50 years' time generate about 12 times today's level of wealth, other things being equal. Meanwhile the OADR is projected to grow by only about five times, to peak around the same time in about 2060. In fact any level of productivity growth faster than the growth rate of the OADR—projected at an annual average of about 3.2%—would imply no noticeable 'burden' upon the rest of the economy. Furthermore, any positive gap between the rate of change of annual wealth production and of the OADR provides scope to fund higher real living standards for the elderly compared to today's inadequate levels.

### The fallacies of dependency ratios

This standard projection of a five times growth in the elderly burden overstates the possible costs of ageing for several reasons. OADRs by definition are misleading as a gauge of the real extra cost of an ageing population. For a start there is another section of the population—the young, the under 15s—who are even more likely to be dependent on resources produced by others, as they have never had any opportunity to produce and accumulate any wealth of their own. The young are declining in number as the old grow. Bloom *et al.* explain that elderly dependants are often less costly and 'dependent' than younger ones (Bloom *et al.* 2008). The fact that older people—whether working or not—are likely to pay much more tax than children, alters dependency assumptions further.

Including younger people on a like-for-like basis gives a total population dependency ratio (TDR) that rises from about 38% today to 76% in 2060. Not a quintupling but a doubling. However, not even that expansion takes us into new demographic territory: that level of TDR was the norm in the 1960s (UN Population Division 2011). The projected 2060 TDR would bring China 'back' to where it was a century earlier, and whatever economic growth rates happen we can be sure China will be much wealthier to cope by then.

Moreover, age is not the only potential indicator of who is 'dependent' and who is a 'provider', in social, value, or taxation terms. Age is not a signifier of who is working and who is not (Durodié 2010). Think of all the people of 'working age' who are likely to be dependent on the wealth produced by others: disabled people unable to work; students; soldiers; the unemployed; mothers on maternity leave; or people bringing up children full time.

It is not just a matter of who works and who doesn't that distorts the usefulness of age dependency ratios. People in full-time jobs can, by the nature of their sector, produce a wide

range of value contributions. Many people are totally unproductive in terms of creating new value and wealth, however socially useful their work may be—e.g. public-sector teachers and health workers, or public functionaries. In value dependency terms, these should be placed in the pool of ‘dependants’ not ‘providers’.

Meanwhile those in productive jobs are not all equally productive: they range from low-productivity agricultural workers, low-productivity personal services providers, to average manufacturing assembly-type operatives, to highly productive industrial and service workers in advanced technology sectors.

Furthermore, as Bloom *et al.* illustrate, ‘old-age dependency is not a given’ (Bloom *et al.* 2008: 16); older people do work. Already over the past 20 years one in five Chinese people over the age of 64 have been participating in the labour force. Others are part of the ‘providing’ population. For instance, many elderly people effectively provide free child care to their grandchildren. With the compression of morbidity into later years, healthy life expectancy tends to rise with economic development. As a consequence greater numbers of older people will be fit and healthy enough to stay active longer (Mathers *et al.* 2001; Costa 2002; Manton 2008). For multiple reasons then, the OADR as a high-level metric obfuscates much more than it illuminates any possible economic effects of ageing.

### The ‘lifecycle’ argument

Another negative interpretation of a rising OADR is that older people tend to save less than other adults so a rising proportion of older people will reduce the overall savings rate (Cai and Wang 2006). The ‘lifecycle’ model of saving says that people save more in their prime earning years from about 35 to their early 60s and then consume more as they draw down their savings in retirement. Following this model, some conjecture that ageing results in less savings being available for investment and hence economic growth suffers. Although empirically challenged by actual cohort savings rates in some developed countries, the model has more fitted the experience in some Asian countries, including Japan (Dobbs *et al.* 2010).

Ironically, rather than being an economic problem, if this model were to apply to China, ageing might help encourage the much-sought rebalancing from investment to consumption. So the lifecycle thesis might even help ameliorate some of the disproportionalities that have characterized recent Chinese growth. Some demographers have therefore made a twist on the usual assertion about inadequate savings and argue instead that ageing in China could produce too little consumption. Wang Feng, for example, explains that the ageing of the Chinese population could threaten the underpinnings of the economy, which needs a young population to ‘drive consumption’ (Wang 2011).

In general, both supply (savings) and demand (consumption) factors tend to be overstated in their effects on economic growth. Growth actually comes from production, not from either savings or consumption. Especially in today’s world of internationalized capital flows domestic household savings levels are of less importance in fulfilling businesses’ or the state’s needs for investment funds. Meanwhile, as China’s recent economic history well illustrates, low personal consumption is no barrier to rapid economic development when the output of domestic production can readily find markets abroad.

Circumstances within the area of production itself—the state of technology, the culture and pace of innovation, the scope for further productivity-enhancing investment, the level of regulation, even the state of business ambition and propensity for risk taking—take precedence over market-level supply and demand factors. To develop, China needs to undertake more investment, and it can provide a good return on this investment, whether the capital is

internally generated or borrowed. The effects of a change in the age balance for either household consumption or savings levels are of negligible impact for the dynamic of growth.

### *A smaller workforce?*

An older age structure is presumed to mean fewer workers to produce GDP. The prospect of an ageing-induced labour shortage seems the most direct long-term challenge to China's growth dynamic. Let's leave aside contemporary concerns about industrial unemployment in China and review if labour shortages are inevitable due to ageing.

While productivity-enhancing capital investment has been the main driver of growth, a growing industrial labour force has also helped. Some estimate that the large birth cohorts of the 1960s and early 1970s contributed up to one-quarter of China's economic growth between 1980 and 2000, describing this as the 'demographic dividend' (Wang and Mason 2008). It seems obvious, then, that the smaller birth cohorts that have followed will produce the opposite effect and become a 'demographic drag', holding back the pace of economic growth, regardless of the productivity achieved by the remaining workers (Anderlini and Jacob 2011; Cai and Wang 2005).

However, this view muddles two different numbers: the size of the 'working-age' population, and the number of people actually in, or available for, productive employment. The supply of labour is not fixed in the way this idea presumes. A higher proportion of those who can work may get jobs, or make themselves available for work. In labour market terminology, both employment and participation rates could increase.

In fact these rates have been falling: the former because of unemployment, doubling from 2% 20 years ago to over 4% today; the latter primarily as a result of more young people staying in education instead of being part of the workforce (ILO 2011). While the latter trend is likely to continue as more young people stay longer in education, some recovery in employment rates is feasible, not least from among the larger cohorts of healthier and fitter old people, as long as there are jobs available. Banister *et al.* note that in the cities, employment rates dropped for all age groups and both genders between 1990 and 2005, and conclude that 'willing workers of both sexes can be brought into or back into employment to ameliorate any emerging shortages of workers' (Banister *et al.* 2010).

A more important labour source is the potential for people to move into the more value-adding areas of goods and services production which are likely to become the biggest source of new jobs in the future. This shift could come either from agriculture or from existing lower-value assembly-type industrial work. China still has hundreds of millions of working-age people who are underemployed either in rural areas or in other low-productivity work. Economic historian Tim Leunig estimates a pool of over 750 million from which new employment can come, by adding together 100 million low-wage urban, village and town factory workers and 675 million employed elsewhere at lower wages, mainly in agriculture (Leunig 2011). The labour supply possibilities arising from economic development, industrialization and urbanization swamp any labour market departures due to ageing.

As Banister *et al.* explain:

[This Chinese] reserve labor force ... can lay to rest concerns that China will not have enough workers in the future to preserve the country's impressive growth in GDP and in GDP per capita. In the cities, a higher proportion of women were employed in the past than now, and many women would like to work who cannot presently find jobs. Many people in cities are looking for work and will be available to fill most potential labor shortages as soon as they loom. In addition, hundreds of millions of agricultural workers are



not nearly as productive as those working in industry and services. China has benefited enormously from a large shift of workers out of agriculture, but there is scope for increasing this shift if the mechanization of agriculture is increased or if controls on internal migration are reduced.

(Banister et al. 2010: ii)

Compared to 1990 there are today over 80 million fewer people working on the land; this shift would numerically have been more than enough on its own, without any ‘demographic dividend’, to provide the 70 million more industrial workers needed over the same period. As the agricultural sector further develops and its productivity grows with mechanization, migration off the land can continue to provide a huge source of labour for new areas of production in industry and services (Qiao 2006).

If the share of agricultural employment fell from today’s 40% to, say, 10% by 2030—the same level as in the Republic of Korea (South Korea) in 2000, and still several times the 2%–3% norm in other developed countries—this would release over 200 million more people, enough to supply a similar growth in the industrial and services workforce as China experienced over the past two decades. Reforms to, and preferably the abolition of the hukou household registration system, would certainly be a beneficial move in removing regulatory constraints getting in the way of rural–urban labour mobility (Peng and Mai 2008; Chan 2010).

Meanwhile, rising manufacturing productivity, as well as the anticipated shift up the value chain into more productive, capital-intensive manufacturing and commercial services, should release even more people from within existing industry for new and better jobs. The fall in the number of manufacturing workers from its peak of 125 million in 1996 to 97 million in 2007, which preceded the adverse impact from the Western economic slowdown on exporters’ employment levels (Banister and Cook 2011), mainly reflected rising productivity; this illustrates further the ample scope that exists for labour to move into higher-value sectors.

While there are, as Banister and Cook describe, multiple ‘legal, administrative, informational, financial, educational, social, housing, and other formal and informal barriers to permanent rural-to-city migration’, which contribute to the anxiety about labour shortages, policy change could address these constraints. Ageing should not be the concern here. Policy focus upon ageing would distract from those areas where change is really needed.

### *An older workforce is less productive?*

An ageing of the workforce is believed to be detrimental to average levels of productivity because older workers are presumed to be less creative, efficient and productive. Reviews of the many studies done on this subject in Western economies reveals, however, that there is little empirical basis for this presumption (Jackson 1998; Börsch-Supan and Weiss 2011).

Writings on this subject have tended to be influenced by the prevailing labour market conditions. When tougher economic times in the developed world favoured the encouragement of earlier retirement in order to reduce the official rate of unemployment—in, for example, the early 1980s—the emphasis in the literature tended to be on older workers being less mobile, less flexible, with obsolescent skills and with reduced physical or mental capacity. On the other hand, in tighter labour markets, when there was a greater need for people to work, the emphasis shifted to the productivity-boosting benefits that older workers bring: experience, greater maturity, more expertise through longer on-the-job training, and greater stability, with less tendency to move jobs. Often this was no more than a different interpretation of the same attributes.

A sensible conclusion from these contrasting assessments is that no case can be proven either way on the relationship between chronological age and productivity. An Economic and Social Research Institute-supported study on the age-productivity relationship in Japan endorsed this conclusion:

In a modern economy an aging workforce need have no negative impact on productivity. The idea that older workers are less productive than young ones has long since been laid to rest ... What old workers lack in dynamism, they make up for in terms of experience. They have lower rates of absenteeism, are less likely to move to another employer, and require less supervision than younger workers. They have been sorted and matched to the tasks for which they are best suited, a process not yet completed for young workers ...

(MacKellar 2004: 3–4)

A review in the medical journal *The Lancet*, looking more at the medical aspects of the age-productivity relationship, came to a similar judgement:

In modern industry, people are seldom called upon to sustain work near their maximum capacity and many age-related changes will therefore have little effect on work performance ... The evidence suggests that accepted conventions about ageing (as negative for productivity) are pessimistic and that older workers offer many advantages to industrial employers through their experience, attitudes and commitment.

(The Lancet 1993: 88)

Once again it seems that a focus on age can be a distraction for Chinese policy makers from the real factors driving productivity and economic growth. Technological innovation and investment are the most important forces behind long-term productivity growth in any economy, and the age composition of the workforce (and population) is largely irrelevant to how this potential is realized.

## Conclusion

Over the past 30 years China has created an economic machine that has pulled 250 million people out of poverty. This is the greatest and swiftest victory over deprivation that the world has ever known. This has happened as China has aged. It illustrates the historical co-existence of demographic ageing with impressive economic progress—and the Chinese experience in this respect was preceded in a less compressed form by the developed world's experience over the past century and an half. Ageing is therefore not a barrier to consistently raising productivity, to growing economic output and to increasing prosperity.

Rising age dependency ratios, relatively smaller cohorts of young and middle-aged adults, and population ageing will all happen in China, but they will not derail this continued journey. There is no determinate relationship between the pace of ageing and the pace of economic growth and social progress (Mullan 2002). Bloom *et al.* similarly conclude their wide-ranging analysis on ageing's impact for growth in Asia with the observation of 'an insignificant effect of rising old-age shares on economic performance in the long run' (Bloom *et al.* 2008: 23).

No one can read the economic future with certainty, and there is always the potential of internal and external threats to China's continued economic ascent, not least the impact of a possibly long period of sluggish growth in Western markets. However, an ageing population is not one of these threats. If those genuinely destabilizing possibilities are kept at bay then

enduring productivity growth, reinforced by China's huge army of underemployed labour, will remain significant drivers of continued economic growth. This would comfortably provide the means to afford an older Chinese population. There is therefore no economic basis for the fears aroused by ageing.

Moreover, ageing presents an opportunity for societies to transform themselves to an older age structure that can benefit people of all ages (Bhalla and Durodié 2010). China's relatively early stage in economic development could be a special boon in this respect, rather than a special reason for concern. There are two key ways that growing older as a country grows richer can be better than growing old at a later stage. For a start, China could anticipate faster year-on-year growth than the existing high-income countries that are also ageing today. Those countries' efforts to raise productivity should be sufficient for them to cope with the extra costs arising from their ageing populations. With a faster tempo of productivity growth, the task of coping in China will be that much easier.

The second advantage shared by China with other less developed, ageing societies is that it can build up its social support structures with an ageing population already in mind. In the developed world, the challenge from ageing is the bigger one of adapting and changing institutions and arrangements inherited from a time of younger age structures.

As Bloom *et al.* (2011) noted in their study of the implications of global ageing for growth, 'the problem of population ageing is more a function of rigid and outmoded policies and institutions than a problem of demographic change per se' (Bloom *et al.* 2011: 29). Such difficulties are bound to be less of a factor for developing societies. For example, it should be easier to plan and create a flexible retirement income system in China that incorporates the assumption of rising healthy life expectancy, rather than change existing pension systems based on anachronistic assumptions. The latter, of course, is proving contentious in many developed countries today (BBC News 2010).

Developing pension, health and care services from a relatively rudimentary base as society simultaneously ages and prospers has the benefit that they can be designed to be age-proofed, unlike the legacy structures in the old West. Ageing is not sudden but is a gradual process in all countries. The prospect of a long period of further economic development and expansion could make social adaptation even easier in developing countries like China.

Depending on its ability to continue to drive productivity and economic growth, China could be both old and rich. China has been an 'over-achiever' in its demographic transition, just as it has been in its economic development. It now has the potential also to 'over-achieve' by evolving an exemplary set of social structures that show the world how to embrace positively humanity's victory over premature death, rather than dread it.

## Notes

- 1 Though there was also a short-lived precipitate drop in fertility to around three at the turn of the 1960s owing to the 1959–61 famine associated with Mao's Great Leap Forward.
- 2 While the official commitment is to retain the existing policy at least until the late 2010s (Yardley 2008), in practice the policy is already becoming slightly less onerous. There have been a series of official relaxation measures and today only about one-third of the population is covered by the strict one-child limit. Ethnic minorities are excluded. Since the late 1980s rural couples have been allowed to have a second child, though often only if the first-born is female. Subsequently, all provinces have now relaxed the policy so that couples who are both only-children are allowed to have more than one child. Also, still within the terms of the national policy, Shanghai is now actively encouraging child-birth. Meanwhile an increasingly wealthy middle class are able to flout the rules and pay for 'unauthorized' children instead (Xinhua News Agency 2005), while increased freedom of movement has made it difficult for family planning authorities to track down those who break the rules (Hesketh *et al.* 2005: 1175).

- 3 This applies compounded growth of 2% and 5%, respectively, to the productivity levels reported by the ILO for 2010, using constant 1990 US dollar at purchasing power parity (PPP): China US \$12,593 and a representative Western level of \$53,500 (ILO 2011).

## Bibliography

- Anderlini, Jamil and Jacob, Rahul, 'Global Decline Drags Down Chinese Factories', *Financial Times* (2 December 2011).
- Banister, Judith, Bloom, David and Rosenberg, Larry, 'Population Aging and Economic Growth in China', *Harvard Program on the Global Demography of Aging, Working Paper No. 53*, March 2010.
- Banister, Judith and Cook, George, 'China's Employment and Compensation Costs in Manufacturing Through 2008', *Monthly Labor Review*, US Bureau of Labor Statistics, March 2011.
- BBC News, 'France Hit by New Wave of Strikes Over Pension Reforms', 19 October 2010, [www.bbc.co.uk/news/world-europe-11570828](http://www.bbc.co.uk/news/world-europe-11570828).
- Bhalla, Priyanka and Durodić, Bill, 'Demographic "Time Bomb" or Demographic "Dividend": Myths Surrounding Ageing Populations in Asia', *NTS Alert*, The Centre for Non-Traditional Security (NTS) Studies, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore, August 2010.
- Bloom, David, Canning, David and Fink, Günther, 'Implications of Population Aging for Economic Growth', *Harvard Program on the Global Demography of Aging, Working Paper No. 64*, January 2011.
- Bloom, David, Canning, David and Finlay, Jocelyn, 'Population Aging and Economic Growth in Asia', *Harvard Program on the Global Demography of Aging, Working Paper No. 40*, September 2008.
- Börsch-Supan, Axel and Weiss, Matthias, 'Productivity and age: Evidence From Work Teams at the Assembly Line', *Mannheim Research Institute for the Economic of Aging*, 19 January 2011.
- Cai, Fang, *Growth Sources After the People's Republic of China? Runs Out of Demographic Dividend*, Institute of Population and Labor Economics, Chinese Academy of Social Sciences, ADBI Distinguished Speaker Seminar, Tokyo, 12 September 2011.
- Cai, Fang and Wang, Dewen, 'Demographic Transition: Implications for Growth', *Institute of Population and Labour Economics*, Chinese Academy of Social Sciences, Beijing, Working Paper Series No.47, 2005.
- , *Demographic Transition and Economic Growth in China*, Institute of Population and Labour Economics, Chinese Academy of Social Sciences, Beijing, 2006.
- Cai, Yong, 'China's Below-Replacement Fertility: Government Policy or Socioeconomic Development?', *Population and Development Review* Vol. 36, No. 3 (September 2010).
- Chan, Kam Wing, 'The Household Registration System and Migrant Labor in China: Notes on a Debate', *Population and Development Review* Vol. 36, No. 2 (June 2010).
- Costa, Dora, 'Changing Chronic Disease Rates and Long-term Declines in Functional Limitation Among Older Men', *Demography* Vol. 39 (2002).
- Dobbs, Richard, Lund, Susan, Roxburgh, Charles and Manyika, James, *Farewell to Cheap Capital? The Implications of Long-Term Shifts in Global Investment and Saving*, McKinsey Global Institute, December 2010.
- Durodić, Bill, 'The Benefits of an Aging Population in Asia', *Jakarta Globe* (31 August 2010).
- Fries, James, 'Aging, Natural Death, and the Compression of Morbidity', *New England Journal of Medicine* No. 303 (1980).
- Gerschenkron, Alexander, *Economic Backwardness in Historical Perspective, a Book of Essays*, Cambridge, MA: Belknap Press of Harvard University Press, 1962.
- Hesketh, Therese, Lu, Li and Xing, Zhu Wei, 'The Effect of China's One-Child Family Policy after 25 Years', *New England Journal of Medicine* 353 (September 2005).
- Hvistendahl, Mara, 'Has China Outgrown the One-child Policy?' *Science* Vol. 329, No. 5998 (September 2010).
- International Labour Organization (ILO), *Key Indicators of the Labour Market*, 2011, [kilm.ilo.org/KILMnet](http://kilm.ilo.org/KILMnet) (accessed January 2012).
- Jackson, Richard and Howe, Neil, *The Graying of the Middle Kingdom: The Demographics and Economics of Retired Policy in China*, Washington, DC: Center for Strategic and International Studies, 2004.
- Jackson, William, *The Political Economy of Population Ageing*, Cheltenham: Edward Elgar Publishing, 1998.
- Kaneda, Toshiko, *China's Concern Over Population Ageing and Health*, Washington, DC: Population Reference Bureau, June 2006.
- Krugman, Paul, *The Age of Diminished Expectations*, Cambridge, MA: MIT Press, 1994.
- The Lancet* No. 8837 (9 January 1993).

- Leunig, Tim, “‘Reshoring’ Jobs from China Won’t Happen’, *Financial Times* (31 October 2011).
- Lex, ‘China GDP: Slowing Down’, *Financial Times* (19 October 2011).
- Li, Qiang, Reuser, Mieke, Kraus, Cornelia and Alho, Juha, ‘Ageing of a Giant: A Stochastic Population Forecast for China, 2006–60’, *Journal of Population Research* Vol. 26 (2009).
- MacKellar, Landis (with Ermolieva, Tatiana, Horlacher, David and Mayhew, Leslie), *Economic Impacts of Population Aging in Japan*, Laxenburg, Austria: International Institute for Applied Systems Analysis, 2004.
- Manton, Kenneth, ‘Recent Declines in Chronic Disability in the Elderly U.S. Population: Risk Factors and Future Dynamics’, *Annual Review of Public Health* Vol. 29 (2008).
- Mathers, Colin, Sadhana, Ritu, Salomon, Joshua A., Murray, Christopher and Lopez, Alan, ‘Healthy Life Expectancy in 191 Countries, 1999’, World Health Report 2000, *The Lancet* Vol. 357 (26 May 2001).
- Mullan, Phil, *The Imaginary Time Bomb: Why an Ageing Population is Not a Social Problem*, London: I.B. Tauris, 2002.
- Organisation for Economic Co-operation and Development (OECD), *Pensions at a Glance: Asia-Pacific*, OECD, 2009.
- *Factbook 2011–2012: Economic, Environmental and Social Statistics*, OECD, December 2011.
- Peng, Xiujuan and Mai, Yinhua, *Population Ageing, Labour Market Reform and Economic Growth in China—A Dynamic General Equilibrium Analysis*, General Paper No. G-174, Centre of Policy Studies, Monash University, 2008.
- Peng, Xizhe, *Demographic Transition in China*, Oxford: Clarendon Press, 1991.
- Qiao, Helen (Hong), ‘Will China Grow Old Before Getting Rich?’ Goldman Sachs, Global Economics Paper 138, 14 February 2006. (Republished in *BRICs and Beyond*, Goldman Sachs Global Economics Group, 2007.)
- United Nations Population Division, *World Population Prospects; the 2010 Revision*, May 2011.
- Wang, Feng, ‘The Future of Demographic Overachiever: Long-Term Implications of the Demographic Transition in China’, *Population and Development Review* 37 (Supplement) (2011).
- Wang, Feng and Mason, Andrew, ‘The Demographic Factor in China’s Transitions’, in Brant, Loren and Rawski, Thomas (eds), *China’s Great Economic Transformations*, Cambridge: Cambridge University Press, 2008.
- Wee, Sui-Lee, ‘China Risks Getting Old Before it Gets Rich’, Reuters, 27 April 2011.
- Xinhua News Agency, ‘New Rich Challenge Family Planning Policy’, *China View* (14 December 2005).
- Yardley, Jim, ‘China Sticking with One-Child Policy’, *The New York Times* (11 March 2008).