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# Allianz Demographic Pulse

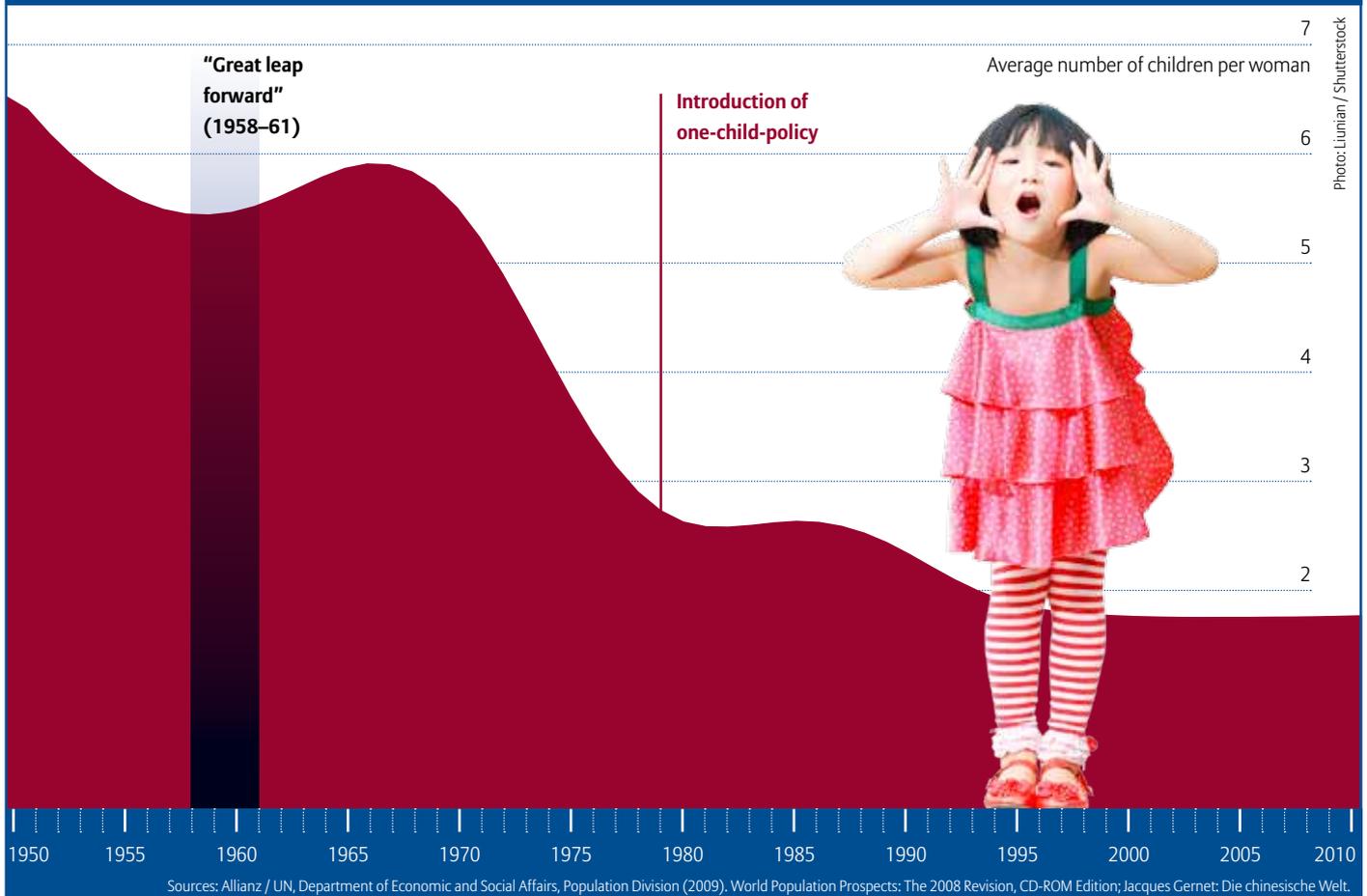
## China's one-child policy – success story or boomerang?

Against the backdrop of the latest census data, questions about the expediency of maintaining the one-child-policy, which has already been loosened in the past, have resurfaced. While politicians insist on clinging to it, its critics highlight the accelerating aging of society and the fact that it is questionable whether fertility rates would rise markedly after a termination of the one-child policy.



## Declining fertility rate

Development of fertility rates in China – marked drop in the 1970s



→ According to the latest census data, on November 1, 2010, China's population stood at 1.34bn people. This implies a drop in annual average population growth over the last 10 years compared with the previous decade: Average annual growth nearly halved from 1.1% between 1990 to 2000 to 0.6% between 2000 and 2010. At the same time, due to declining fertility rates and increasing life expectancy, the aging process progressed further: the share of people aged younger than 15 in total population fell from 22.0% in 2000 to 16.6% in 2010, while the share of those aged 60 and older rose from 10.4% to 13.3%.<sup>1</sup> These developments are not least the upshot of the one-child-policy introduced under Deng Xiaoping in 1978. It is estimated that due to its introduction, 400m fewer children have been born since then.<sup>2</sup>

In the long run, the old-age dependency ratio (i.e. the number of people aged 65 and older as share of working age population between 15 and 64) will rise markedly from 11.9% today to 42.0% in the middle of this century.<sup>3</sup> If one takes into account that the official retirement age in China is still 50 or 55 for women and 60 years for men, the relation between people having (officially) already retired and those of working age is even worse: today there are 18 people aged 60 and older for every 100 persons aged 15 to 59. According to the latest UN estimates, by 2030 this ratio will deteriorate further, reaching 40 to 100, and 64 to 100 by 2050.

<sup>1</sup> See National Bureau of Statistics of China (2011).

<sup>2</sup> See Shan Juan (2010).

<sup>3</sup> See National Bureau of Statistics of China (2011), United Nations (2011), own calculations.

If China sticks to its current retirement age, the consequences of the one-child policy will already be felt on the labor market from 2013 onward. Then, the number of 15- to 59-years olds will peak at around 920m people. According to the latest UN forecasts, an increase in the retirement age would in fact postpone attainment of the workforce

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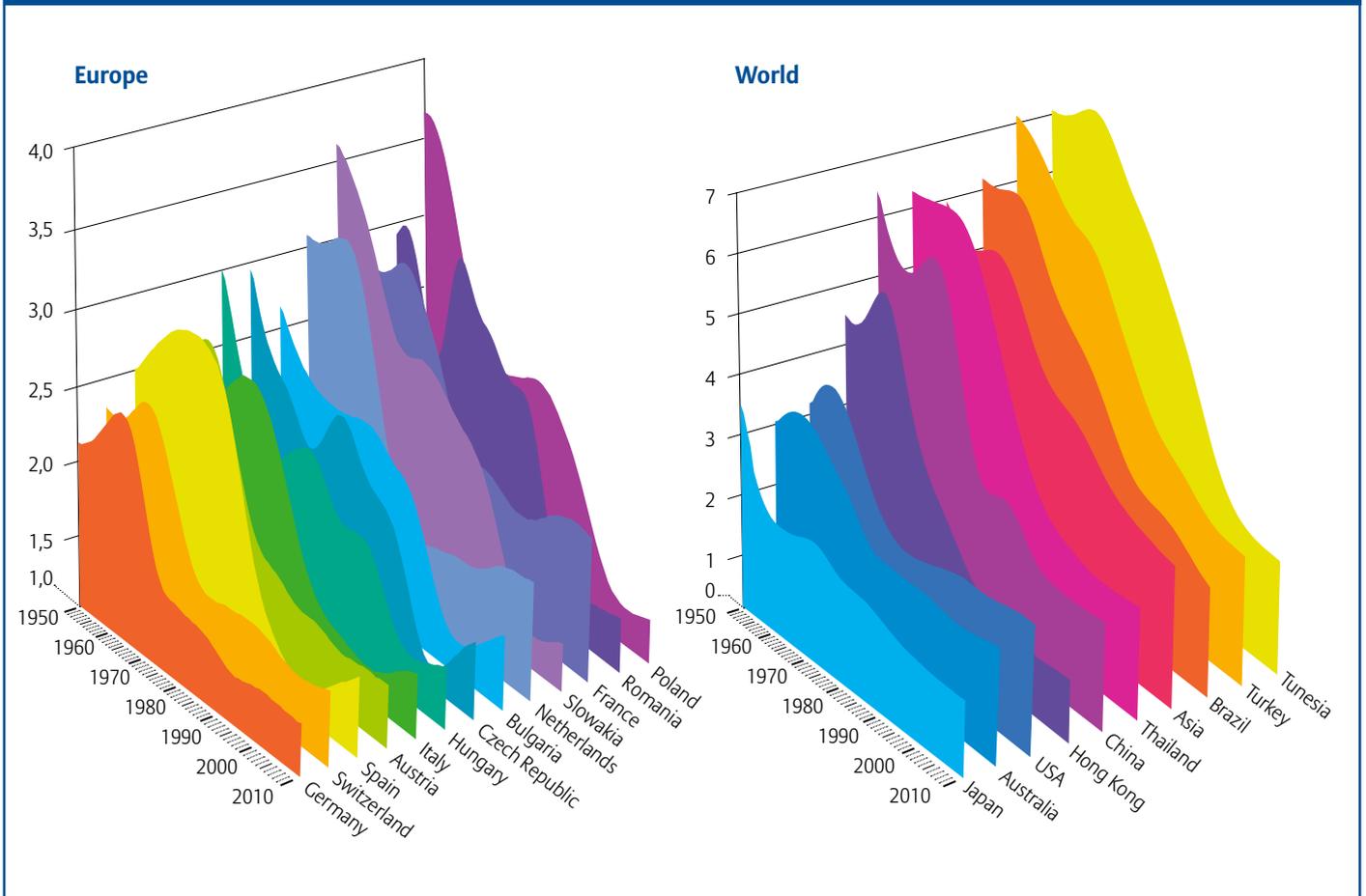
peak by only three years to 2016, however, in the long run there would be an additional 110m people available on the labor market than without this measure.<sup>4</sup>

Though a general labor shortage is out of the question in the foreseeable future, structural problems might become more apparent. Especially in the coastal regions, labor supply is expected to shrink further relative to labor demand. In recent years, reports about tight labor

<sup>4</sup> However, a large proportion of the people aged 60 and older, especially of those living in rural areas, would continue working after reaching the official retirement age. As in 2008, for example, around 69m people aged 65 and older lived in rural areas, but according to the Statistical Yearbook of China only 5.1m people there were drawing a state basic pension and 49.3m people received social welfare payments. See ZGTJN, tables 22-47 and 22-36.

## Declining fertility rates – a worldwide trend

Average number of children per woman



Sources: Allianz / UN, Department of Economic and Social Affairs, Population Division (2009), World Population Prospects: The 2008 Revision, CD-ROM Edition.

markets have increased. Initially there were only sporadic complaints about difficulties in finding enough adequately qualified workers. In the meantime, the situation seems to have worsened. According to a survey taken in February of this year, more than two-thirds of all companies in the coastal areas reported problems finding enough workers to fill up all vacancies after the Chinese New Year.<sup>5</sup> This is because more and more itinerant workers from the poorer inland provinces are now able to find work closer to home as economic growth in the middle and western Chinese provinces has picked up markedly in recent years.

### Average wages almost quadrupled over the last 10 years

A further rise in the overall wage level is inevitable. According to official statistics, average wages almost quadrupled over the last 10 years. The highest wages were paid in Shanghai in Beijing, amounting to EUR 6559 and EUR 6536 per year respectively.<sup>6</sup> Though these numbers are low compared with the wages paid in western industrialized countries, some companies have already begun to shift their labor intensive production from coastal to internal regions, or even to Bangladesh, Cambodia or Vietnam.<sup>7</sup>

<sup>5</sup> See OHNE VERFASSER (2011).

<sup>6</sup> See National Bureau of Statistics of China (2010), data referring to 2009.

<sup>7</sup> See for example Shih, Toh Han (2011).

Against this background, critics of the one-child policy are calling for its abolition or at least a further relaxation.<sup>8</sup> While the advocates of the policy fear a steep rise in fertility rates, its critics refer to the historic developments and experiences abroad.

“Some companies have already begun to shift their labor intensive production from coastal to internal regions, or even to Bangladesh, Cambodia or Vietnam.”

In fact, total fertility already dropped markedly before the introduction of the one-child policy under Deng Xiaoping. After the total population had passed the mark of 800m people in 1969, the political leadership under Mao Zedong decided to insert a population growth target in the catalogue of goals to reach within the five-year plan and propagated the slogan “later – longer – fewer”, i.e. later

<sup>8</sup> In fact there are already a multitude of exceptions to the rules in place: Members of ethnic minorities or couples where both partners are only children are allowed to have more than one child. Sanctions for breaking the rules are determined by local authorities and differ markedly. See Hesketh, Li and Zhu (2005), S. 1171. In Beijing, for example, the fine was up to eight- to nine-fold of an average yearly wage. Couples breaking the rules are in most cases itinerant workers, who can hardly be controlled by state organs or wealthy couples. See Wang Wen (2010).

marriage, longer time between pregnancies and fewer children.<sup>9</sup> In the following years the average number of children per woman dropped from 5.5 in 1970 to 2.9 in 1978. Only in the 1990s did the total fertility rate fall below the so-called replacement factor of 2.1 children per woman, the rate necessary to keep a population constant. This development coincided with the introduction of the concept of the socialist market economy, incorporating reforms not only of the state-owned enterprises but also of the social security system.

### Total fertility rates have fallen below the replacement factor

Looking at the development of birth rates in eastern European countries that dropped markedly after the split up of the Soviet Union and the introduction of economic reforms in the 1990s, it is worth considering whether the drop in the fertility rate in China was only a result of the one-child policy or whether it was also influenced by economic developments. All the more so as in other Asian countries, like Thailand, as well as Turkey or Tunisia, which reports a GDP per capita in line with that of China<sup>10</sup>, total fertility rates have also fallen below the replacement factor.

Furthermore, there is a negative correlation between total fertility and GDP per capita in the different Chinese provinces. Shanghai and Beijing, the two cities with the highest GDP per capita, reported the lowest fertility rates, standing at a mere 0.8 children according to the census 2000, whereas in some western provinces fertility rates were 1.7 children per woman. At the national level, the total fertility rate was 1.3 children, not least due to the fact that every province reported officially fertility rates below 2.1. In other emerging markets regional disparities are more distinct: Turkey, for example, reported for the same time period fertility rates markedly below the replacement factor in Ankara, Istanbul and Izmir, while those in the south-eastern part of the country were among the highest in the world.<sup>11</sup>

**“With education and qualification gaining more and more in importance, the number of highly qualified young women is increasing.”**

Further evidence for lasting low fertility rates is the fact that the census 2000 already showed a clear correlation between the level of education and the number of children a woman had: the higher the level of education, the lower the number of children. Women without any formal education had on average between 2.3 and 2.5 children, whereas women with a master degree or a PhD had only 0.4 children on average. The number of highly qualified young women is increasing. With education and qualification gaining more and more in importance, not least due to the demands of the labor market, training periods will get longer. As a result, the average age on giving birth to a first child will increase further.<sup>12</sup>

<sup>9</sup> See Wu Cangping and Mu Guangzong (2004), S. 35. Legal marriage age for women was increased to 20 and to 22 years for men. See Morgan, Guo and Hayford (2009), p. 608.

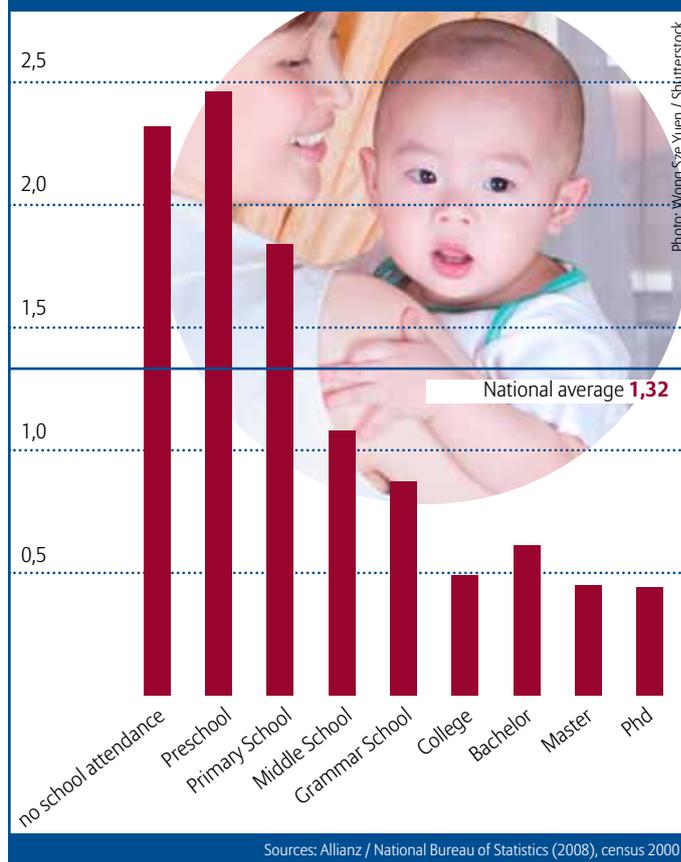
<sup>10</sup> See IMF World Economic Outlook Database, April 2011.

<sup>11</sup> In Sirmak the total fertility rate was 7.05 children and in Val 6.0. See Turkish Statistical Institute, Census 2000.

<sup>12</sup> In 2009 it was 26.5 years. See China Statistical Yearbook 2010, table 3-15, own calculation.

### Higher educational level – less children

Average number of children per woman, by educational level



### Shrinking of working age population will force many companies to pay higher salaries

Therefore, for women, the costs incident to the decision of having a child, such the (temporary) renunciation of an own income, increase. This not only holds true for well-educated women, but also for semi-skilled workers, as the shrinking of the working age population will force many companies to improve working conditions further and to pay higher salaries. At the same time, the question arises of how the future education of children is going to be financed, as school and university fees are rising. Furthermore, many couples have to support their retired parents as the pension system is still in its infancy. Current polls reflect these developments, with the average desired number of children less than 2. However, there are still differences between rural and urban areas and according to education levels: in rural areas the average desired number of children was 1.8 and in urban areas 1.4.<sup>13</sup>

Chinese provincial governments hoping to cushion the aging process by a further loosening of the one-child policy might in the end run into the same problems experienced by politicians in Germany, Austria or Italy. Fertility rates remain mired at low levels and financial incentives alone – here the reduction of the fines for disregarding

<sup>13</sup> Vgl. Hesketh, Li und Zhu (2005), S. 1174. This numbers refer to a survey conducted in 2001, which were confirmed by surveys conducted in recent years. See Morgan, Guo and Hayford (2009), p. 614f.

the one-child policy, in Germany, for example, the ratcheting up of child subsidies – might not trigger the reversal of the trend. This renders the swift establishment and improvement of a “demography-sustainable” social security system, with a strong capital-funded pillar, all the more important. Another element might be to raise the retirement age to 65, postponing the demographic turning point by three years and lowering the old-age-dependency ratio markedly. The European Union’s labor market will see this turning point as early as 2012 – despite the retirement age of 65.

“This renders the swift establishment and improvement of a ‘demography-sustainable’ social security system, with a strong capital-funded pillar, all the more important.”

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#### Why does Allianz care about demography?

As a global financial service provider, Allianz believes demographic change to be of crucial importance. Identified as one of the major megatrends, demographic change will hold the key to many upcoming social challenges, whether with regard to health, old-age provision, education, consumption or capital markets.

#### Why does it matter to journalists and the public?

Demographic change is challenging today’s societies in many ways: People are getting older, and this raises the issue e.g. of long-term care and dementia. Furthermore in the future there will be a significant decline in the workforce in all of the world’s markets, triggering for example a challenge in pension funding. Only information, awareness and discussion on the topic will help to change attitudes, behavior and situations, so hopefully solve urgent needs and come up with innovative solutions.

#### What are the benefits of Allianz Demographic Pulse?

Allianz Demographic Pulse is based on the latest research into various aspects of demographic change. Conducted and written by Allianz experts, it highlights current and globally relevant demographic data and provides an insight into their impact on worldwide economies and societies. To ensure up-to-date coverage of major developments in this field, Allianz Demographic Pulse is published on a regular basis, thus providing ongoing and detailed information about a major trend that is shaping the world we live in.

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