France 2008: why are birth numbers still rising?

Gilles Pison*

Rising birth numbers and fertility rates might suggest that couples in France are having more and more children but, paradoxically, this is not the case. As Gilles Pison explains, they are having the same number of children as couples thirty years ago, but at a later age. Couples now have greater control over timing of births thanks to the spread of contraception and to government policies aimed at reconciling work and family life. For a while, delayed childbearing reduced birth numbers and brought down the fertility rate. That movement has now ceased and these indicators are rising again.

The number of births has been rising in France for some years now. Between 1998 and 2008 it increased 9% in metropolitan France (i.e. mainland and Corsica), from 738,000 to 801,000 (Box 1) [1]. Can this be attributed to population growth (7% over the period), on the principle that the larger the population, the higher the number of births? That is not the full story.

With 1.35 billion inhabitants – twenty-two times the figure for France – China had roughly 18 million births in 2008, which is also twenty-two times the French figure. To compare birth data between populations of different sizes, or identify whether births are increasing or decreasing in a given population, the number of births is usually expressed in relation to population size as a birth rate. The birth rate is practically the same in China and France for 2008, at 13 births per thousand inhabitants. In France it has been relatively stable for some twenty years.

Birth numbers are stable over the long term

The birth rate in France has halved over the past two hundred years, from 31 per thousand in 1806 to 13 per thousand in 2008 [1] [2]. Yet as the population doubled over that period, from 31 million in 1806 (over the same territory as today) to 62 million in 2008, the annual number of births has fallen only slightly (Figure 1) [3]. It stood at about 1 million a year in the nineteenth century and 750,000 a year in the twentieth century, leaving aside wartimes and the baby-boom years. If we count only children surviving to their first birthday, the number has scarcely changed in 200 years, remaining at about 750,000 to 800,000 per year.

Figure 1 – Annual births in France since 1806

Sources : [1][3].

* Institut national d’études démographiques
Fertility measured by year has been rising

Returning to the recent period, in the last ten years the birth rate has remained stable while the population has grown by 7%. Population growth would appear to explain all but 2% of the 9% increase in births. But population growth has been mainly due to an increase in older people who have completed their reproductive lives. The number of people of childbearing age, particularly women aged 15 to 50, has remained practically the same for ten years, at about 14.5 million. The age composition of this age group has changed, a fact which must also be taken into account. A group of women of whom nine-tenths are under 25 or over 40 will, in principle, have fewer children than a group of the same size, nine-tenths of whom are aged between 25 and 39 years.

Demographers usually divide women into age groups and determine the number of births occurring in each age group with respect to the total size of the group, as a measure of its fertility rate. They then sum these age-specific fertility rates to give the total fertility rate (TFR) (see definition and calculation method in Box 2, page 4).

Let us examine the trend in TFR since the end of the baby boom, i.e. since it fell below two children per woman after some thirty years at a markedly higher rate (Figure 2). The TFR fell from 1.94 children per woman in 1980 to 1.65 in 1993, before rising to 2.00 in 2008 [1][2]. How can these fluctuations be explained?

Fertility measured by cohort is stable, at about two children per woman

It is useful at this stage to consider another fertility indicator: completed cohort fertility, which refers not to a

![Figure 2 – Fertility trends in France since 1900](image)

Note: Women’s year of birth is given as 30 years earlier, this being the mean age at childbearing in 2008.

* Projection assumption: delay in first birth leads to similar delay in all subsequent births.

2008 statistics: four-fifths of population growth is due to natural increase

On 1 January 2009 the population of France was an estimated 64.3 million, including 62.4 million in metropolitan France and 1.9 in the overseas territories [1]. In metropolitan France, the population grew by 343,000 in 2008 (+ 0.5%). This is about the same growth rate as in the previous seven years (see table, page 3). In 2008, four-fifths of the increase was due to a natural surplus of births over deaths. The remaining one-fifth was due to net migration (the difference between migration inflows and outflows), estimated by INSEE at 75,000, slightly more than in 2007 (70,000).

Calendar year but to a cohort of women. The completed cohort fertility of women born in 1958 (and who reached age 50 in 2008) is 2.13 children per woman. This is the average number of children born over their reproductive lifetime to women who have survived to age 50 (excluding all those who die or emigrate before then). Unlike the total fertility rate, which refers to a fictitious cohort, this figure refers to real women. But it can only be measured for cohorts that have already reached age 50 or more. It is not possible, for example, to know the lifetime fertility of women born in 1978 and who turned 30 in 2008, as they still have many years of childbearing ahead of them. We do know that they have each had 1.1 child on average so far [1]. Can we forecast how many they will subsequently have? The fertility curves of different cohorts, including those who are not yet 50, show three patterns (Figure 3):

1) since the end of the baby boom, the age at first birth of successive cohorts has been increasing steadily;
2) they then make up for the late start by having a similar total number of children as their elders;
3) the trend towards increasingly delayed maternity has ceased with the cohorts born since 1970 [4] [5].

Mean age at childbearing, which has increased by three and a half years since 1978, stood at around 30 in

![Figure 3 – Cumulative fertility, by age, for different cohorts of women](image)
### Table – Population indicators 1950 to 2008, metropolitan France

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Births (m)</td>
<td>858</td>
<td>816</td>
<td>848</td>
<td>800</td>
<td>762</td>
<td>745</td>
<td>775</td>
<td>771</td>
<td>762</td>
<td>761</td>
<td>762</td>
<td>768</td>
<td>774</td>
<td>797</td>
<td>786</td>
</tr>
<tr>
<td>Deaths (m)</td>
<td>530</td>
<td>517</td>
<td>540</td>
<td>547</td>
<td>526</td>
<td>538</td>
<td>531</td>
<td>531</td>
<td>535</td>
<td>552</td>
<td>509</td>
<td>528</td>
<td>516</td>
<td>521</td>
<td>533</td>
</tr>
<tr>
<td>Natural increase (m)</td>
<td>328</td>
<td>299</td>
<td>308</td>
<td>253</td>
<td>236</td>
<td>207</td>
<td>244</td>
<td>240</td>
<td>226</td>
<td>209</td>
<td>258</td>
<td>247</td>
<td>280</td>
<td>265</td>
<td>268</td>
</tr>
<tr>
<td>Net migration (m)</td>
<td>35</td>
<td>140</td>
<td>180</td>
<td>44</td>
<td>80</td>
<td>60</td>
<td>70</td>
<td>85</td>
<td>95</td>
<td>100</td>
<td>95</td>
<td>91</td>
<td>70</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Total growth (m)</td>
<td>363</td>
<td>439</td>
<td>488</td>
<td>488</td>
<td>297</td>
<td>316</td>
<td>244</td>
<td>240</td>
<td>226</td>
<td>209</td>
<td>258</td>
<td>247</td>
<td>280</td>
<td>265</td>
<td>268</td>
</tr>
<tr>
<td>Adjustment (1)(m)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>94</td>
<td>94</td>
<td>95</td>
<td>95</td>
<td>94</td>
<td>95</td>
<td>94</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Birth rate (t)</td>
<td>20.5</td>
<td>17.9</td>
<td>16.7</td>
<td>13.4</td>
<td>13.4</td>
<td>13.2</td>
<td>13.1</td>
<td>13.0</td>
<td>12.7</td>
<td>12.6</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>12.9</td>
</tr>
<tr>
<td>Death rate (t)</td>
<td>12.7</td>
<td>11.3</td>
<td>10.6</td>
<td>10.2</td>
<td>9.3</td>
<td>9.2</td>
<td>9.0</td>
<td>8.9</td>
<td>8.9</td>
<td>8.9</td>
<td>8.9</td>
<td>8.9</td>
<td>8.6</td>
<td>8.4</td>
<td>8.8</td>
</tr>
<tr>
<td>Infant mortality rate (r)</td>
<td>51.9</td>
<td>27.4</td>
<td>18.2</td>
<td>10.0</td>
<td>7.3</td>
<td>4.3</td>
<td>4.4</td>
<td>4.5</td>
<td>4.1</td>
<td>4.0</td>
<td>3.9</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Total fertility rate (e)</td>
<td>2.93</td>
<td>2.73</td>
<td>2.47</td>
<td>1.94</td>
<td>1.78</td>
<td>1.79</td>
<td>1.87</td>
<td>1.88</td>
<td>1.86</td>
<td>1.87</td>
<td>1.90</td>
<td>1.92</td>
<td>1.98</td>
<td>1.96</td>
<td>2.00</td>
</tr>
<tr>
<td>Life expectancy Male (a)</td>
<td>63.4</td>
<td>67.0</td>
<td>68.4</td>
<td>70.2</td>
<td>72.7</td>
<td>75.0</td>
<td>75.3</td>
<td>75.5</td>
<td>75.8</td>
<td>75.9</td>
<td>76.8</td>
<td>76.9</td>
<td>77.2</td>
<td>77.7</td>
<td>77.6</td>
</tr>
<tr>
<td>Life expectancy Female (a)</td>
<td>69.2</td>
<td>73.6</td>
<td>75.9</td>
<td>78.4</td>
<td>80.9</td>
<td>82.5</td>
<td>82.8</td>
<td>82.9</td>
<td>83.0</td>
<td>82.9</td>
<td>83.9</td>
<td>83.9</td>
<td>84.2</td>
<td>84.4</td>
<td>84.4</td>
</tr>
<tr>
<td>Marriages (m)</td>
<td>331</td>
<td>320</td>
<td>394</td>
<td>334</td>
<td>327</td>
<td>286</td>
<td>298</td>
<td>288</td>
<td>279</td>
<td>276</td>
<td>272</td>
<td>276</td>
<td>267</td>
<td>267</td>
<td>267</td>
</tr>
<tr>
<td>Marriage rate (t)</td>
<td>7.9</td>
<td>7.0</td>
<td>7.8</td>
<td>6.2</td>
<td>5.1</td>
<td>4.9</td>
<td>5.0</td>
<td>4.8</td>
<td>4.7</td>
<td>4.6</td>
<td>4.5</td>
<td>4.5</td>
<td>4.3</td>
<td>4.3</td>
<td>4.3</td>
</tr>
</tbody>
</table>

(a) years – (e) children per woman – (m) in thousands – (p) provisional – (r) per 1000 live births – (t) per 1000 population.

(1) Population estimates for 1990-2005 were adjusted to establish accounting consistency between the 1990, 1999 and 2006 censuses (see Anne Pla, 2009 [1]) – (2) At-year-end.

Sources: INSEE. Division des enquêtes et études démographiques (http://www.insee.fr).
2008 (Figure 4). Mothers had their first child at around age 25 on average at the start of the twentieth century and at just below 24 in the early 1970s. The first birth now occurs more than four years later, at age 28. If we project the completed fertility of the cohorts that are not yet 50 years old, assuming that the delay in the first birth postpones subsequent births likewise without affecting the propensity to have a second (or third) child after the birth of the first (or second), the cohorts born in the 1970s will have a lifetime total of close to 2.05 children (Figure 2) [4] [5].

Women are having the same number of children, but later

Let us return now to the fluctuations in the total fertility rate (Figure 2). In wartime, women have fewer children regardless of their age. At such times fertility rates are low for all age groups. The total rate is therefore also low, well below the lowest completed fertility ever reached by any cohort, since all cohorts of reproductive age are able to make up part of the wartime birth deficit in the post-war years. During the baby boom, by contrast, fertility increased in all age groups and the total fertility rate was higher than the highest completed fertility ever reached by a single cohort. After the baby boom, between 1970 and the mid-1990s, women increasingly delayed their first births. The older cohorts had already completed their childbearing, while younger women were able to postpone their entry into parenthood thanks to the spread of contraception and government policies aimed at reconciling work and family life. The combination of these two factors brought the annual fertility rate below the lifetime fertility of each cohort of reproductive age. This low fertility was a corollary of the trend towards increasingly delayed childbearing. Now that this trend is ending, the fertility rate is rising towards the level of the completed cohort fertility rate (1). If the new cohorts have the same number of children as their elders and at the same ages, the two indicators should eventually converge.

Thus the rise in birth numbers and fertility rates does not reflect a propensity for women or couples to have more children than their elders. It shows that the timing of births has now stabilized after several transitional decades of increasingly delayed childbearing which caused a temporary drop in birth numbers.

REFERENCES

ABSTRACT
The annual number of births in metropolitan France has increased by 9% in the past ten years and the total fertility rate rose from 1.65 to 2.00 children per woman between 1993 and 2008. However, these increases are not due to a rise in fertility from one cohort to the next. Today’s cohorts have as many children as those of thirty years ago but are having them later, and this postponement of childbearing has pushed the fertility rate successively down, then up again.