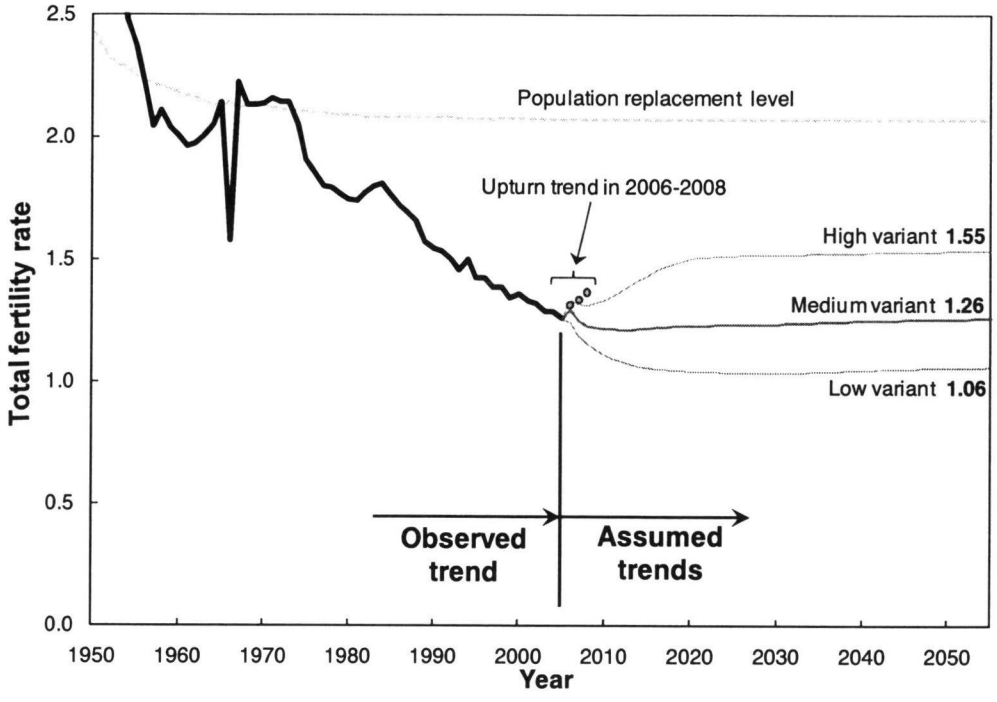
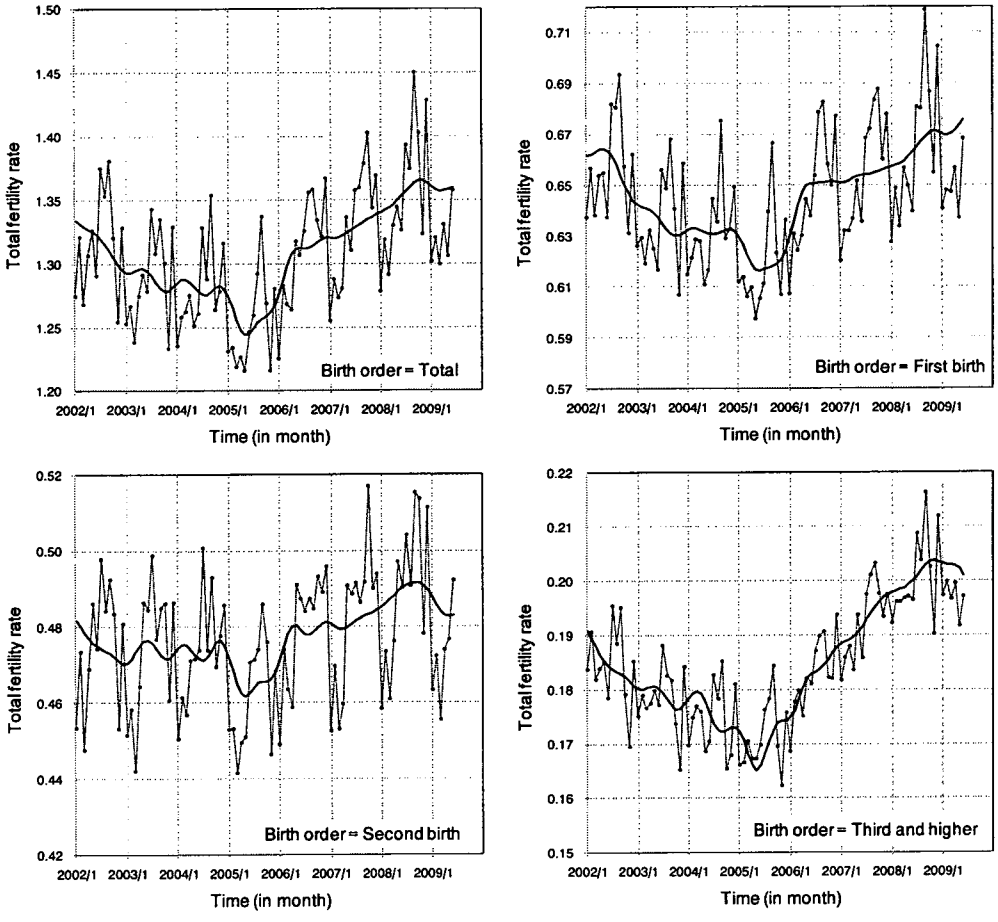
Figure 5 Trends of Total Fertility Rate: Observed and Assumed.



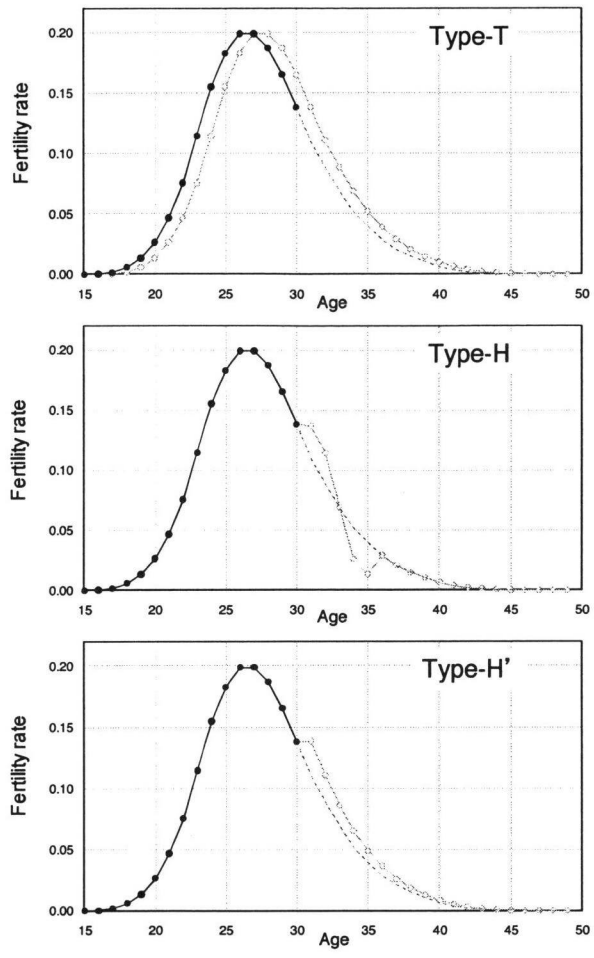
Source: The Vital Statistics, NIPSSR(2007).

Figure 6 Monthly Progresses of Fertility Rates by Birth Order: 2002-2009.



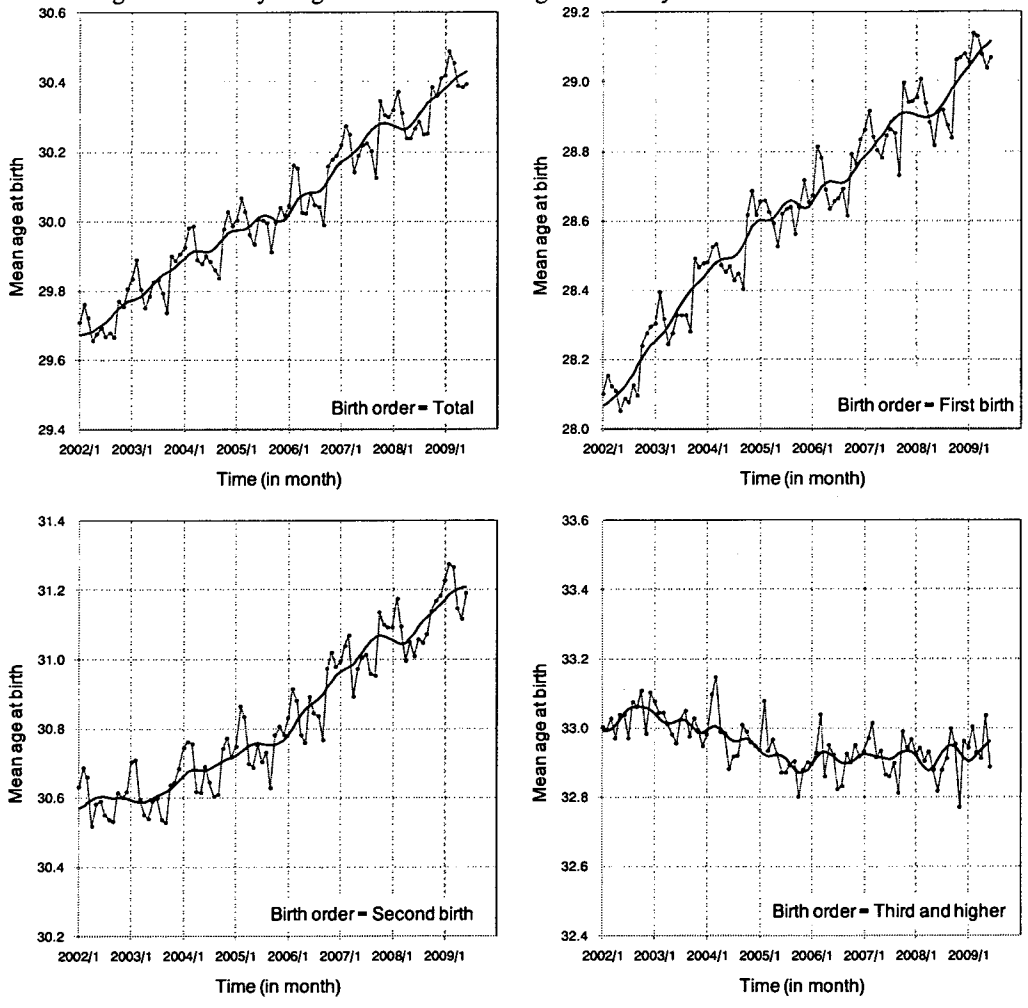
Note : Dots with thin lines denote monthly time series of annualized TFR by birth order, and lines represent seasonally adjusted trends with the U.S. Census Bureau's X-11 method.

Figure 7 Types of Period Effect in Terms of Cohort Fertility Schedule.



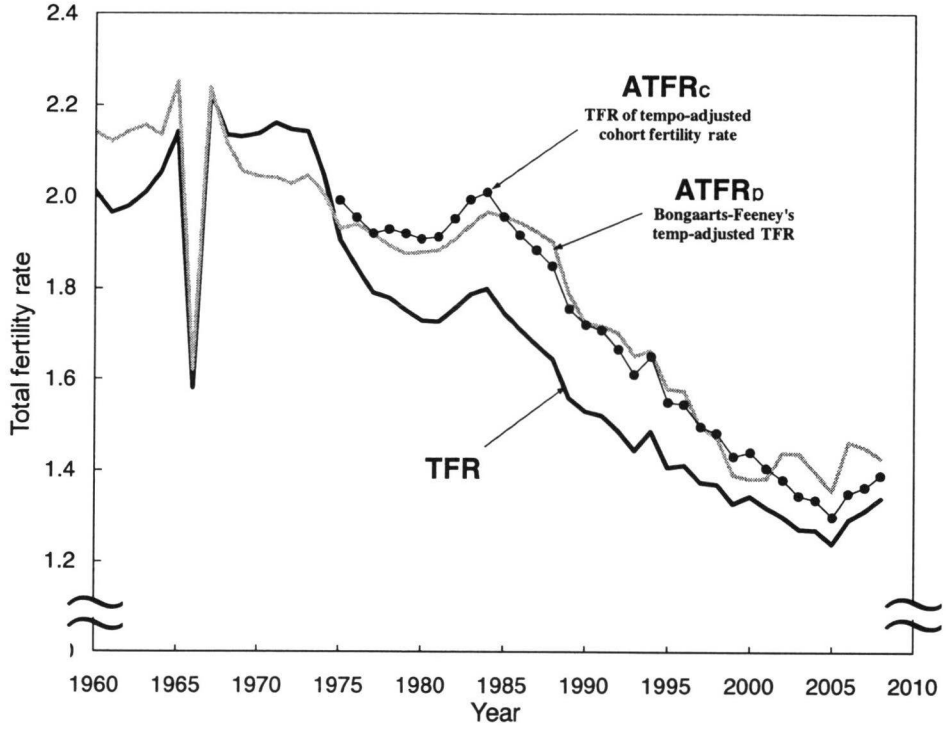
Note: The period fertility exhibits similar changes due to different type of changes in the cohort fertility level and schedule. The period effect of type-T is caused by the shift of the cohort fertility schedule. The period effect of type-H is caused by the temporary fluctuation that is redeemed in other period, while the type-H' effect is the temporary fluctuation that continues to change the completed level of cohort fertility. Thus the type-H' effect is not the genuine period effect by our definition.

Figure 8 Monthly Progresses of the Mean Age at Birth by Birth Order: 2002-2009.



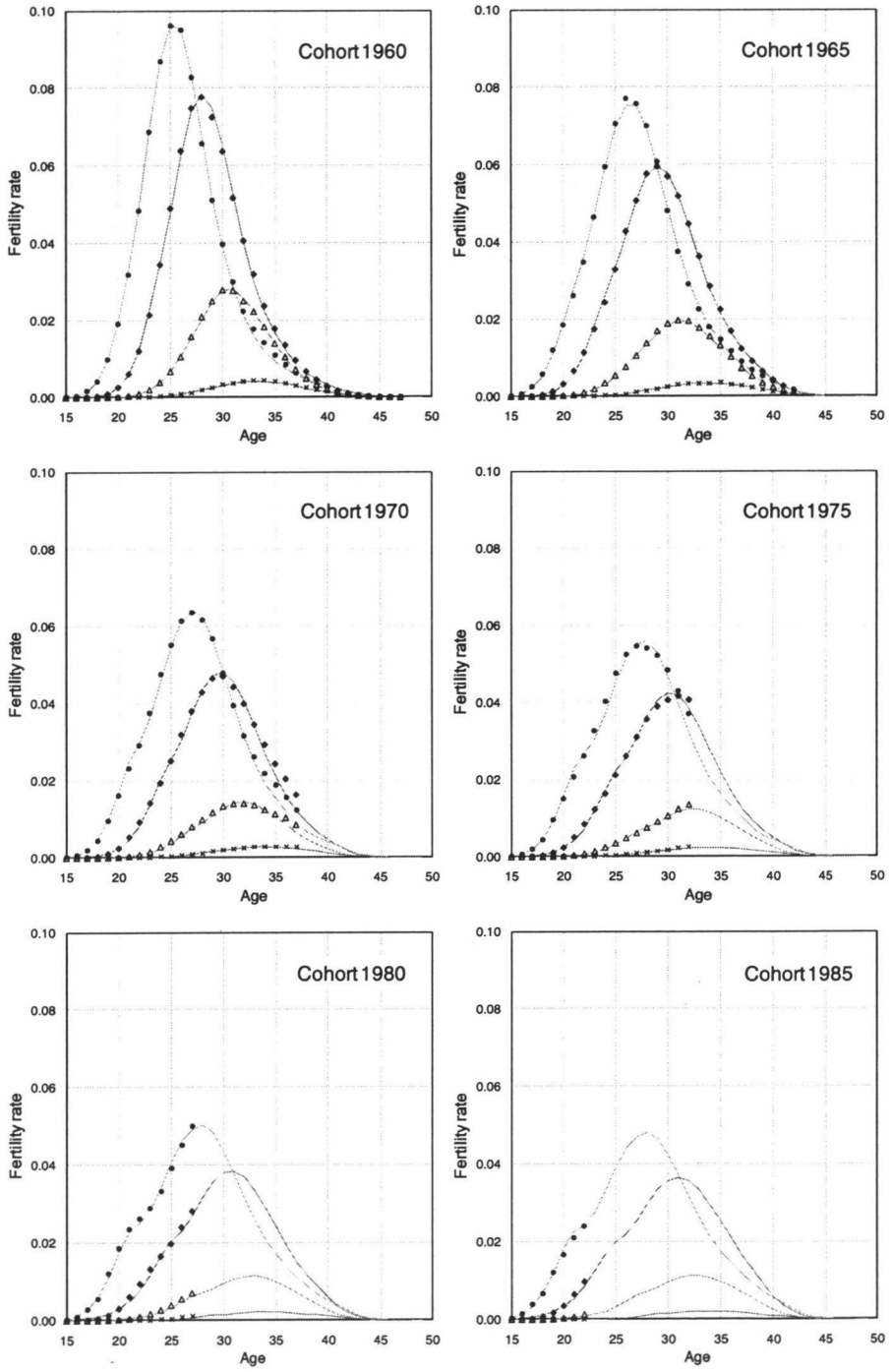
Note : Dots with thin lines denote monthly time series of the mean age at birth by birth order, and lines represent seasonally adjusted trends with the U.S. Census Bureau's X-11method.

Figure 9 Trends of the Total Fertility Rates with/without Tempo-adjustment



Note: The fertility rates are calculated based on births by Japanese women only.

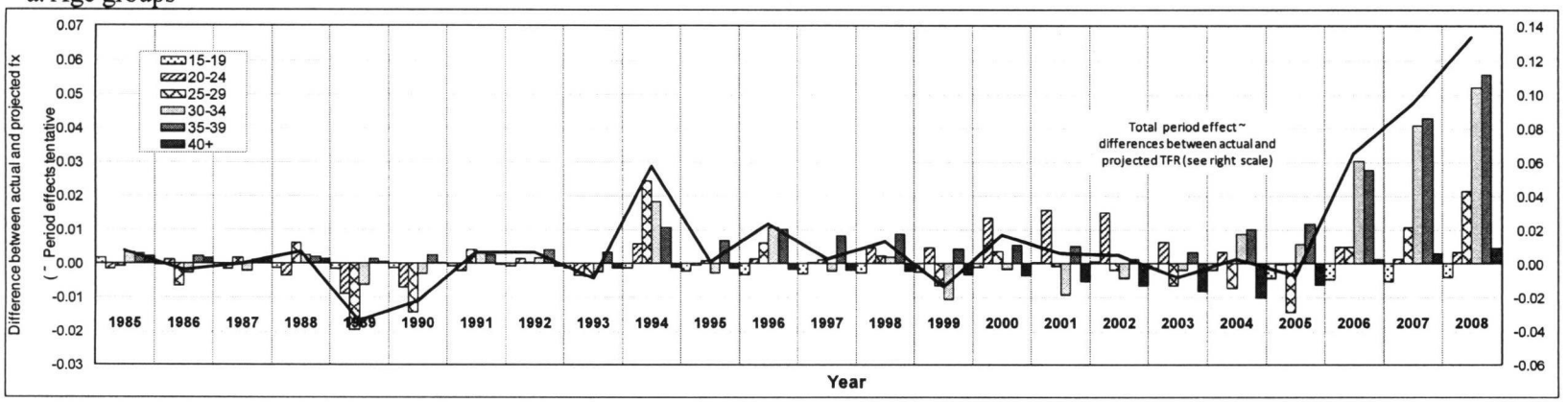
Figure 10 Actual and Modeled Fertility Rates of Japanese Female Cohorts by Birth Order



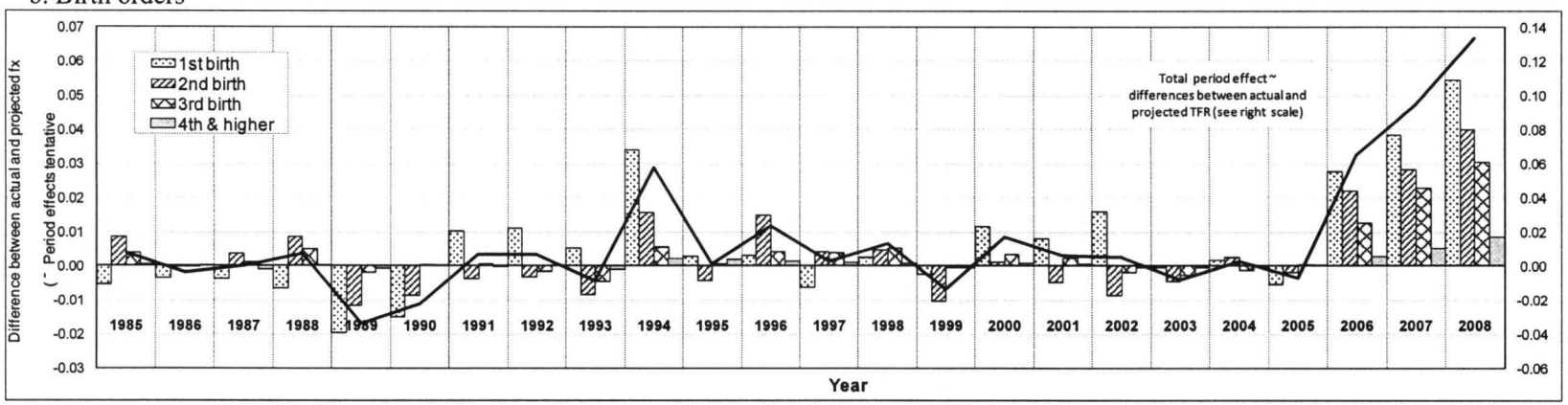
Note: Actual age specific fertility rates by birth order for female cohorts are plotted by dots, while modeled rates are plotted by lines. The actual rates are calculated only for female with Japanese nationality. The model rates are those employed in the official population projection conducted in 2006 as the medium assumption.

Figure 11 Estimates of Period Effects as Differences between Actual and Projected Fertility Rates by Five Year Age Groups: 1985-2008.

a. Age groups



b. Birth orders



Note : The total period effects (solid line – right scale) is drawn in half the scale of the effects by age group (bar graph – left scale). Fertility rates are calculated based on births by Japanese women only here as well.

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http://www.demographic-research.org/Volumes/Vol9/10/9-10.pdf

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http://www.ipss.go.jp/webj-ad/WebJournal.files/population/2008_4/03nfs13_married.pdf

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(2)報告資料(スライド)

Joint Eurostat-UNECE Work Session on Demographic Projections
October 11, 2007, Bucharest

FERTILITY PROSPECTS IN JAPAN:

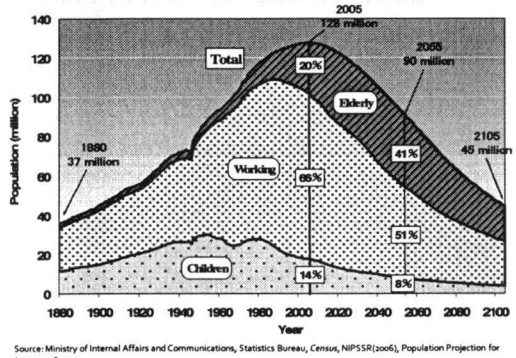
Trends, Recent Rise, and Lifecourse Projection

Ryuichi Kaneko
National Institute of Population
and Social Security Research
Tokyo, Japan

Outline

- Demographic Situation of Japan
  --- in terms of Fertility Prospects
- Recent Upturn of Fertility Rate
  --- Some analyses
  and implication for future prospects

POPULATION OF JAPAN: 1880-2105

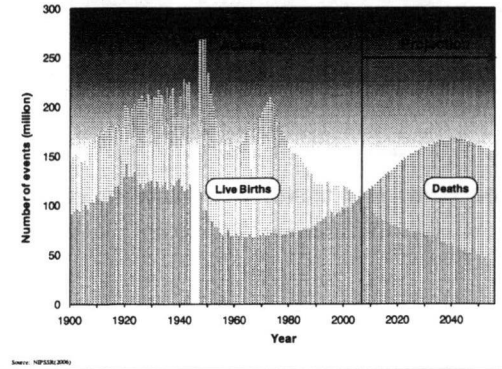


Source: Ministry of Internal Affairs and Communications, Statistics Bureau, *Census*, NIPSSR(2006), Population Projection for Japan:2006-2055.

Population Decline

- The population in Japan peaked in the period from 2004 to 2007 and gradually started to decline by now.
- The depopulation accelerates: losing more than 500,000 people every year from 2017, and more than 1 million people per year from 2039 and onward (IPPS projection).

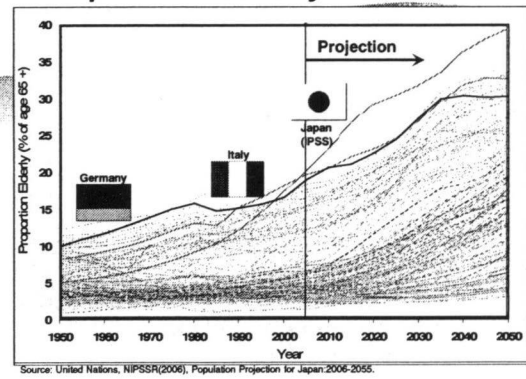
Figure1 Japanese Cross



Population Ageing

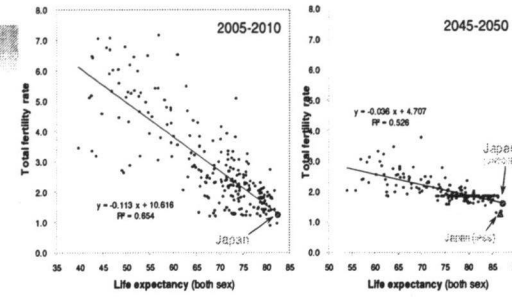
- Japan has had the highest proportion elderly (% 65) in the world since approximately 2005,
- and continue to be so at least until 2050.

Proportion Elderly: 1950-2050

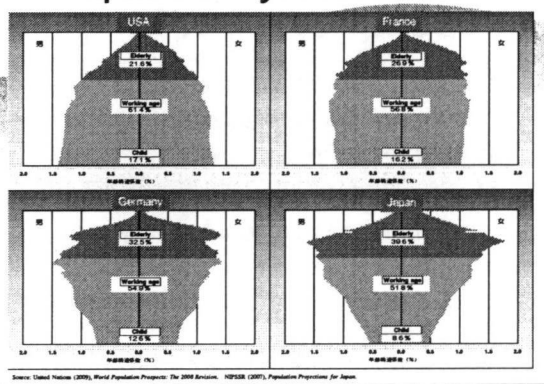


Source: United Nations, NIPSSR(2006), Population Projection for Japan:2006-2055.

Figure2 Japan's Distinguishing Position: Present and Future



Population Pyramids: 2050



Fertility Trends

- The six decades of Japanese postwar trends may be divided into three phases.

Figure 3 Numbers of Live Births, and Total Fertility Rate: 1947-2008

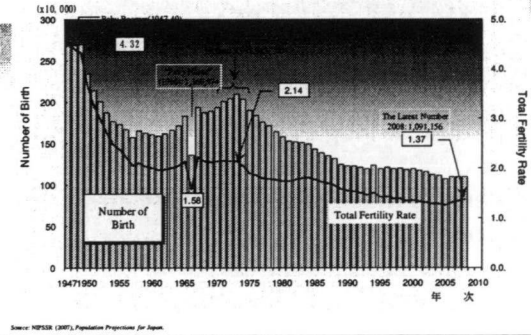
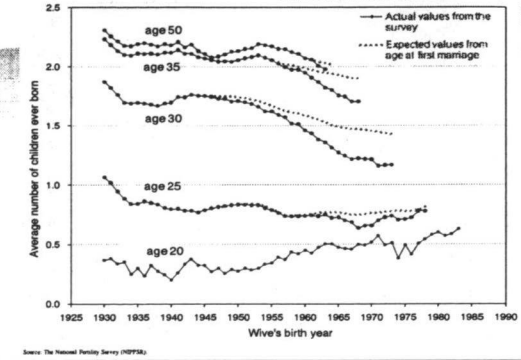


Figure 4 Cohort Trends of CEB to Married Women by Age: Actual & Expected from MAFM



Upturn in 2006 and onward

Figure 5 Trends of Total Fertility Rate: Observed and Assumed

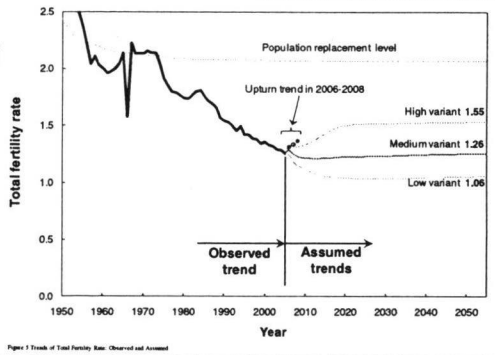


Figure 6 Monthly Progresses of Fertility Rates by Birth Order: 2002-2009

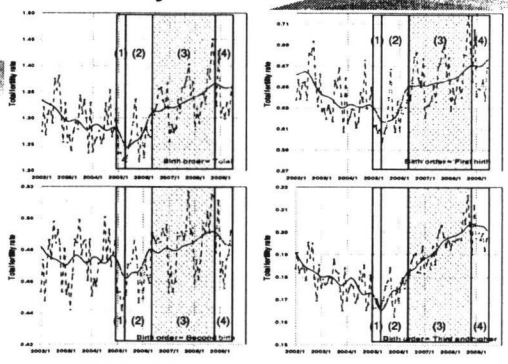


Figure 7' Types of Period Effect in Terms of Cohort Fertility Schedule

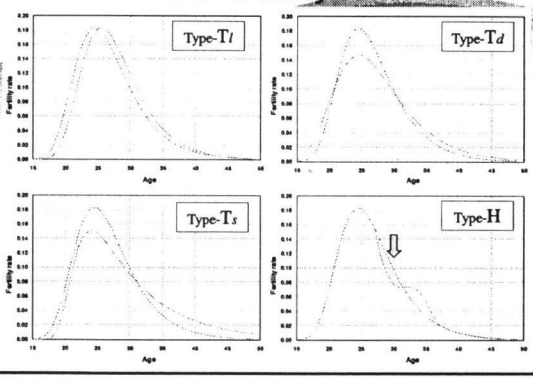
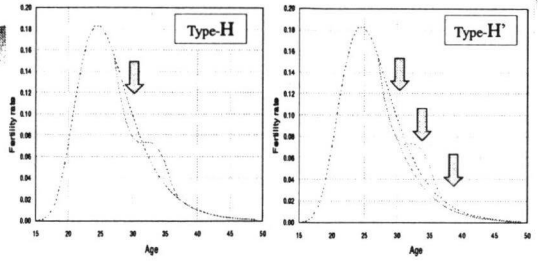


Figure 7' Types of Period Effect in Terms of Cohort Fertility Schedule



Type-H' is not a genuine period effect, because it changes cohort completed fertility. It rather be classified a *period-cohort effect*.

Figure 9 Trends of the Total Fertility Rates with/without Tempo-adjustment

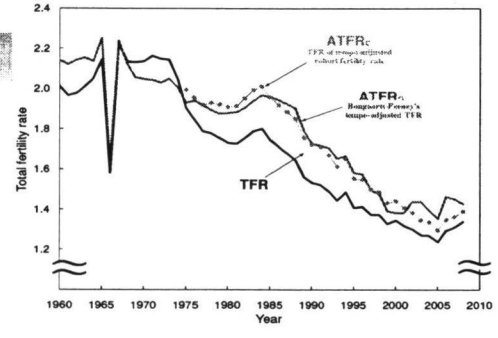


Figure 8 Monthly Progresses of the Mean Age at Birth by Birth Order: 2002-2009

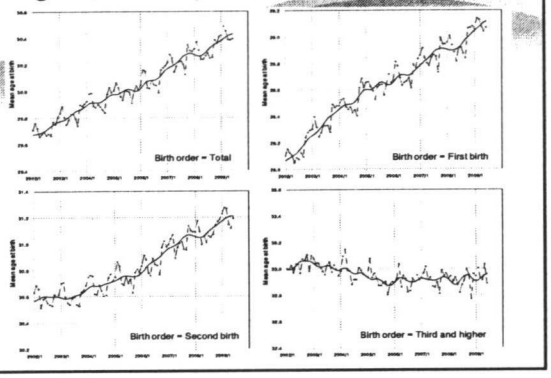


Figure 10 Actual and Modeled Cohort Fertility Rates by Birth Order

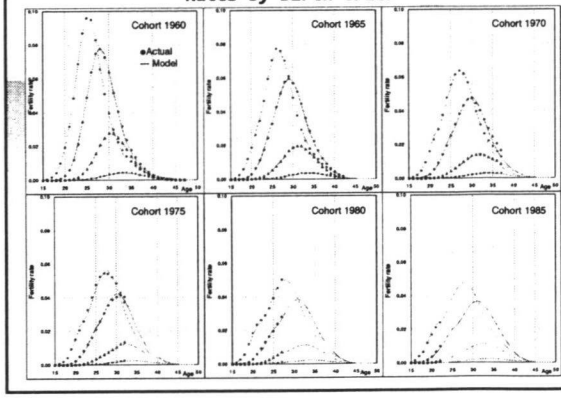


Figure 11 Estimates of Type-H Period Effects
-Differences between Actual and Projected Fertility Rates-

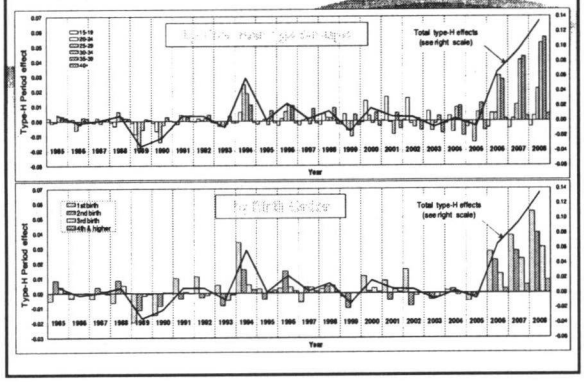


Figure 11 Estimates of Type-H Period Effects
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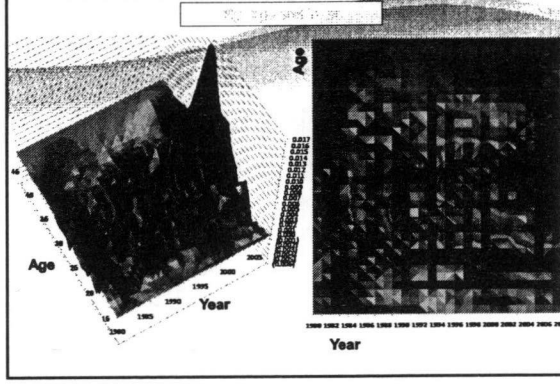


Conclusion (1) General

- Due to its peculiar combination of population dynamics, Japan will experience, a very rapid population decrease, along with the highest proportion of elderly in the world.
- The prospect of continuing low fertility is mainly responsible for these changes.

Conclusion (2)

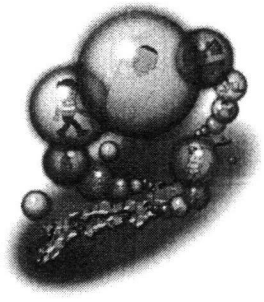
- The recent upturn could mainly be explained by the period effect, which would not change cohort completed fertility, and particularly the effects that temporally works and would be redeemed in other period (the type-H period effect).

Conclusion (3)

- It seems to be caused by a rebound of the short term too-low fertility, followed by a boom among single's and under-parity family's market involving the second baby boomers.
- These are the different in causes from the upturns seen in the US and Europe due to so-called "the tempo transition. "
(type-T period effect in our terminology)

Conclusion (4)

- However, if boom continues for long enough to raise the levels of completed fertility (type-H' effect), the long term prospect should be higher than the presently assumed.
- It depends on whether the rise in fertility schedules of cohorts in their mid-thirties and beyond in this period is continually succeeded by the following cohorts ending up with rises in their completed fertilities



- Thank you ...