Talking Points for Discussion – Social Spending in Aging Societies

2015 Tokyo Fiscal Forum
“Fiscal Policy for Long-term Growth and Sustainability in Aging Societies”
Tokyo, June 10—11, 2015

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Version of June 10, 2015
Containing the cost of medical and long-term care in aging societies – some first ideas

**Distinguish** – *efficiency* from society’s perspective,
– *cost-effectiveness* from a patient perspective,
– *expenditure* ("cost") *containment* from a fiscal hawk’s perspective.

**For society**, professional long-term care may help free up family members, i.e. women, and so alleviate shortages in the formal labour market.

Especially in long-term and hospital care, the inflow of *foreign workers*, such as nurses and doctors, can eliminate bottlenecks, e.g. in rural areas.

**For patients**, setting up *assisted living and nursing facilities abroad*, as entrepreneurs have done for German elderly in Poland, Thailand and the Philippines, can often cut the costs of long-term care substantially.

For the future, assess the *potential of robots and IT networks* in supporting and providing medical and long-term care.

**Denmark is currently building the “hospital of the future”** – designed from scratch to make optimal use of modern robotic and information technology in

- supply and waste management, including medical consumables, laundry and food,
- laboratory testing and diagnosis,
- surgery,
- behavioural therapies,
- nursing care and
- hospital administration.
Manage the demand and supply of medical technology efficiently

- **Individual longevity** is brought about by genetic disposition, environmental conditions and *investments in health*, driven by individual demand.

- **Population aging** is spurred by investments in individual *and* public health, such as better hygiene, nutrition, education, healthy behaviours and lifestyles as well as healthcare systems.

- Rising per-capita incomes, demography and the decline in competing risks combine to **expand the aggregate willingness-to-pay for healthcare**, creating an evolving frontier for *innovations* that are socially efficient, such as in the fight against childhood infections, cancer and Alzheimer’s, to give just a few examples along the lifecycle.

- To meet the evolving demand for better healthcare, **invest long-term in the appropriate medical technology**, including drugs, devices and IT, and build efficient delivery systems. Watch the example of Denmark’s “hospital of the future.”

- **Economies of scale** in the development and adoption of medical technologies can often be exploited more efficiently by pursuing
  - socially inclusive healthcare strategies
  - international cooperation.

The example of Eastern Germany after German reunification suggests the adoption of existing Western medical technology has been highly productive as it helped to virtually eliminate the life expectancy gap of ca. 3 years between East and West in less than 15 years, for women even faster.

- **Other empirical research suggests innovation in medical technology has long been the main driver of per capita health spending in high income countries.**
In Germany, spending on technology-intensive hospital services and drugs has outpaced spending on physician services for decades (1970=100).

Data source: BMG (Arbeits- und Sozialstatistik, Bundesarbeitsblatt, KJ 1, KV 45), social health insurance only.
Is medical technology a threat or an opportunity amid population aging?

A typical policy document, such as Westermann and Pellikaan (2005), may ask: “Can we afford to live longer in better health?”

They write: “To mitigate the effect of ageing on health care expenditures, (...) health care budgets may be frozen for several years, or expenditures cut, so that health care expenditures grow at a slower rate than GDP for several years.”

• But recent evidence in support of the compression-of-morbidity hypothesis suggests population aging per se is *not* likely to become a major exogenous driver of health care costs.

• Even more optimistic is James Vaupel’s “old-timer theory of aging” developed at the Max Planck Institute for Demographic Research in Rostock, Germany. It predicts a deceleration of death rates at high ages, as illustrated by Japan’s centenarians on the islands of Okinawa Prefecture.

  *In English, the word “old-timer” may refer to an elderly person, in German to an antique car whose value rises with age.*

• Try to see population aging as an opportunity for health investments, both private and public. If workers in better health remain *active* for many more years, say up to age 70 or beyond, the social rates of return could be very high.
To understand society’s **efficient demand for health spending amid aging**, Hall and Jones (2007) suggest preferences distinguish between the – flow of per-period utility and – longevity, so that *lifetime utility* is period utility multiplied by life expectancy. Increasing per-period *income* then raises the value the consumer places on longevity relative to the instantaneous consumption of goods.

*In other words*: the consumption elasticity in generating utility *falls* relative to the health elasticity when income rises, and the **value of a life year will grow faster than consumption**. Society will hence want to spend an increasing share of income on health as it becomes more affluent.

**Policy makers should thus prepare for healthcare’s share in GDP to rise** even in the absence of increasing costs per unit of care *if* much of population aging is driven by an **income elasticity of individual demand for health** above one.

**To maximize the social returns from greater health investments**, coordinate these with retirement and pension policies – with the aim to *transform* a good part of the expected health gains into greater lifetime incomes.
Is a fixed share of healthcare in GDP desirable?

Total healthcare spending in % of GDP

- France
- Netherlands
- United States
- United Kingdom

Data source: OECD Health Data 2010
Pay attention to health inequalities

Gains in life expectancy at the country-level do not necessarily imply that mortality is declining for all. Income- and education-related health inequalities may persist and life expectancy for disadvantaged groups in society may actually fall. Income- and education-related health inequalities tend to increase as cohorts age so that gains in average life expectancy can mask pronounced falls in advanced life expectancy, such as life expectancy at 65, among disadvantaged groups.

Consider the example of Eastern Germany:

• Whilst average life expectancy has quickly caught up since German unification, with East German women gaining more than 6 years and East German men more than 4 years,
• a reversal of this trend has set in for those on low earnings. Between 2001 and 2010, low-income groups have lost 2 years of life expectancy in Germany as a whole and almost 4 years in Eastern Germany.

In a democracy, persistent or increasing health inequalities may undermine the political acceptability of strategies seeking to address population aging in economically sustainable ways, such as longer working lives and later retirement. To attain a broad popular consensus, an extra effort may be required to target health investments at disadvantaged groups and underserved populations – and to raise pensions as a reward for workers willing to delay their retirement.
Concluding remarks

• Policies that focus *mainly* on containing aggregate demand and use monopsony power to suppress prices risk preserving *low productivity in the delivery of care*.

• *To meet the challenge of aging and mobilize resources for innovation, focus on the supply side.* Under careful regulation to ensure equity in access and quality of care, use provider competition to better *align* providers' financial incentives with patients' needs and societal priorities and values.

• *In addition, governments should invest more in the relevant public goods, including* health research, translational medicine and a modern information infrastructure in health care delivery with the aim to develop, disseminate and implement *evidenced-based medicine*.

• *As healthcare becomes more cost-effective and attains higher quality, allow it to expand in line with people's increasing willingness-to-pay.*

• Prioritize the development of delivery systems to *address health inequalities,* such as income- and education-related mortality differentials:
  Which subpopulations should be targeted to generate the greatest gain in life expectancy from an investment? For whom will later retirement be acceptable only with substantially improved health?

• Prioritize *biomedical research*:
  What are the emerging healthcare challenges as your country’s population ages?

• Seek *international cooperation*:
  Economies of *scale* in the development, adoption and utilization of medical technology suggest many Asian countries could benefit from more international cooperation.

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