

*The Challenges
of Aging:
Debunking the
Demographic
Time Bomb
Myth*

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- 31st Annual Levy Economics Institute Conference on Thursday, May 2, 2024.

- Based on “The Unbearable Weight of Aging: How to Deal with the ‘Demographic Time Bomb’”, Levy Working Paper No. 1018, April 2023, Nersisyan, Liu and Wray

*Thanks to Yeva Nersisyan and Ed Lane for sharing data and comments

John Maynard
Keynes,
*Economic
Possibilities for
our
Grandchildren,*
1930

- “What are the economic possibilities for our grandchildren?”
- “I would predict that ... the economic problem may be solved, or be at least within sight of solution, within a hundred years.”
- Mission accomplished?

Today's Outlook for *those* Grandkids and *their* Grandkids

- What could we look forward to? “Three-hour shifts or 15-hour work weeks”.
- The oldest among you probably enjoy a living standard while working greater than your parents did--the last generation to do so
- But, you are still working 40 hours (or more)
- And if you ever get to retire, your prospects look grim
- *Your* aging will impose an unbearable burden on *your grandkids*

The Demographic Time Bomb

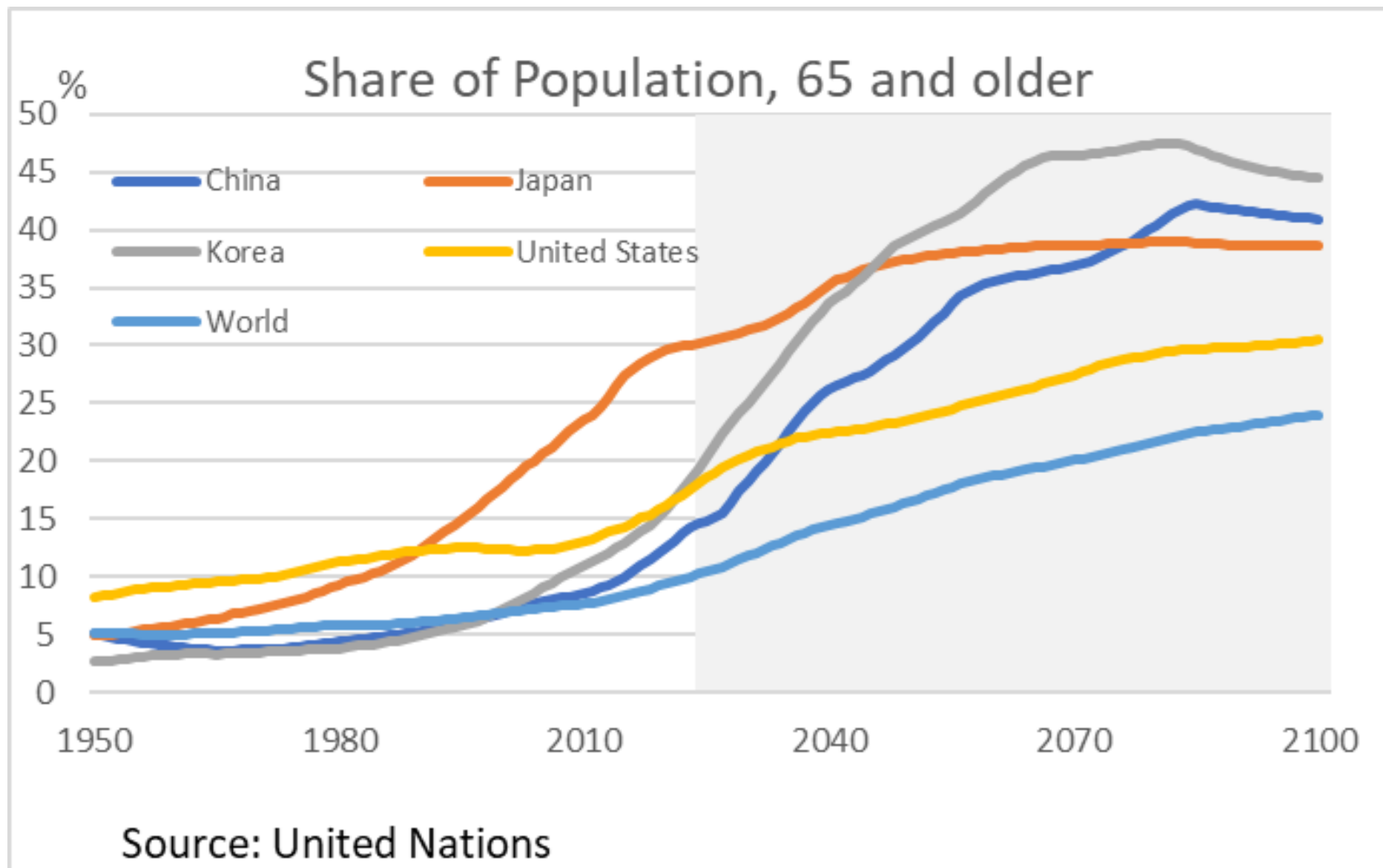
- Aging places an “unsustainable burden” on government finances with fewer workers paying taxes into public pensions
- Standard and Poor’s warns that “[i]n the absence of policy action to cut age-related spending, the median net general government debt will rise to 102% of GDP in advanced economies and 155% in emerging economies by 2060.”
- NYTimes: “How do you adapt to an older world and pay for the inevitable **pension time bomb ticking** in the background as this super-ager cohort approaches retirement age?”
- **How? Governments are raising retirement ages, cutting promised benefits, increasing taxes, and proposing privatization to increase returns.**

How did we get here?

- **Then: Remember the Population Bomb?** Ehrlich and Ehrlich 1969:
 - “[t]he battle to feed all of humanity is over. In the 1970’s the world will undergo famines – **hundreds of millions of people are going to starve to death** in spite of any crash programs embarked upon now. At this late date **nothing can prevent a substantial increase in the world death rate...**”
 - **“We must rapidly bring the world population under control**, reducing the growth rate to zero or making it go negative. Conscious regulation of human numbers must be achieved. Simultaneously we must, at least temporarily, greatly increase our food production.

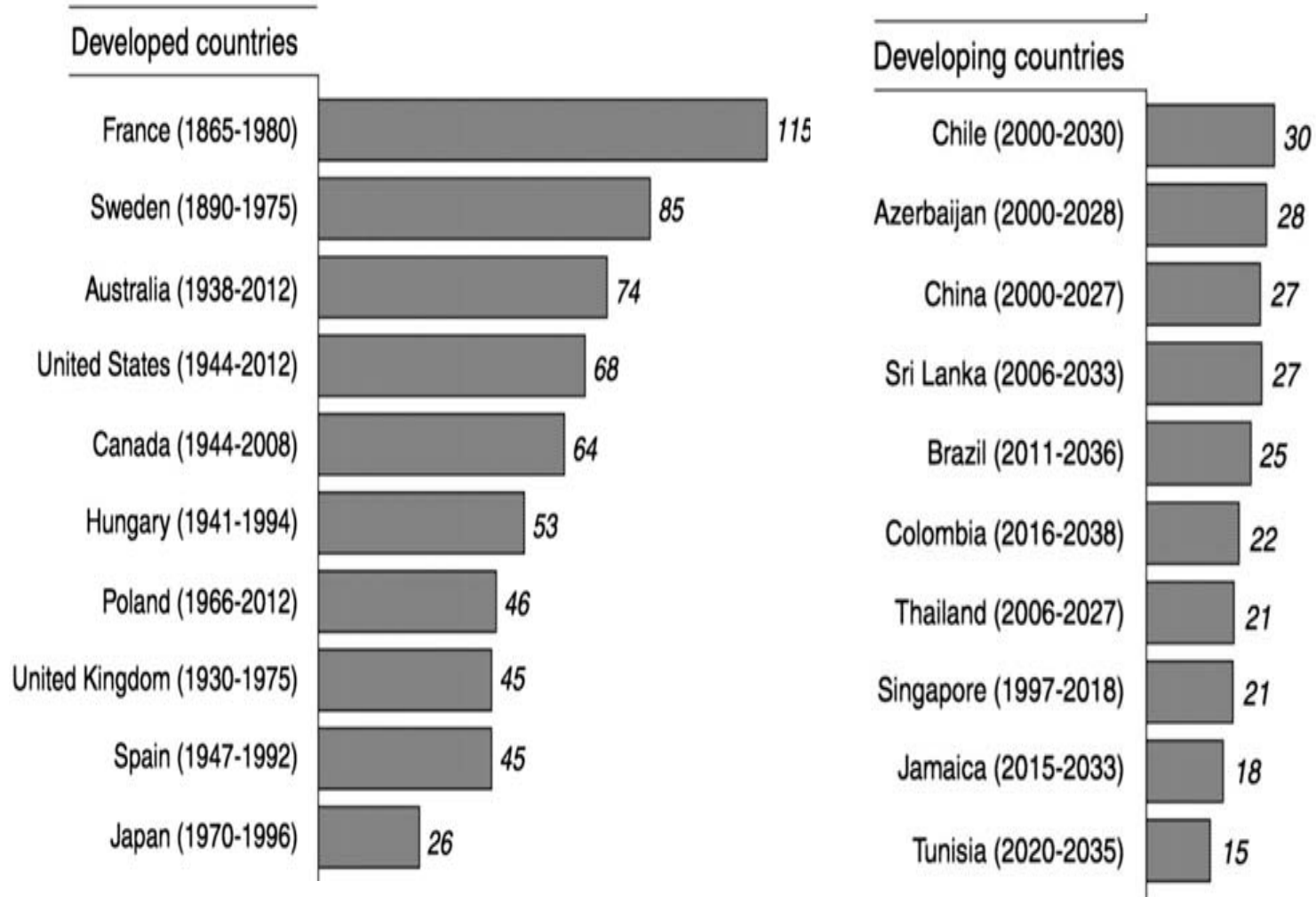
Now? Population Bust! Mission Accomplished?

- “China is increasingly likely to grow old before it gets rich, consigning millions of Chinese to a penurious and often lonely old age.”
 - *Thank you, one child policy!*
- The global population is **aging** and eventually **shrinking** due to the twin effects of rising **longevity** and **falling birthrates**.
 - (Although longevity is **falling** in the USA—thanx Anti-vax, guns, and Opioids--yet another mission accomplished?)

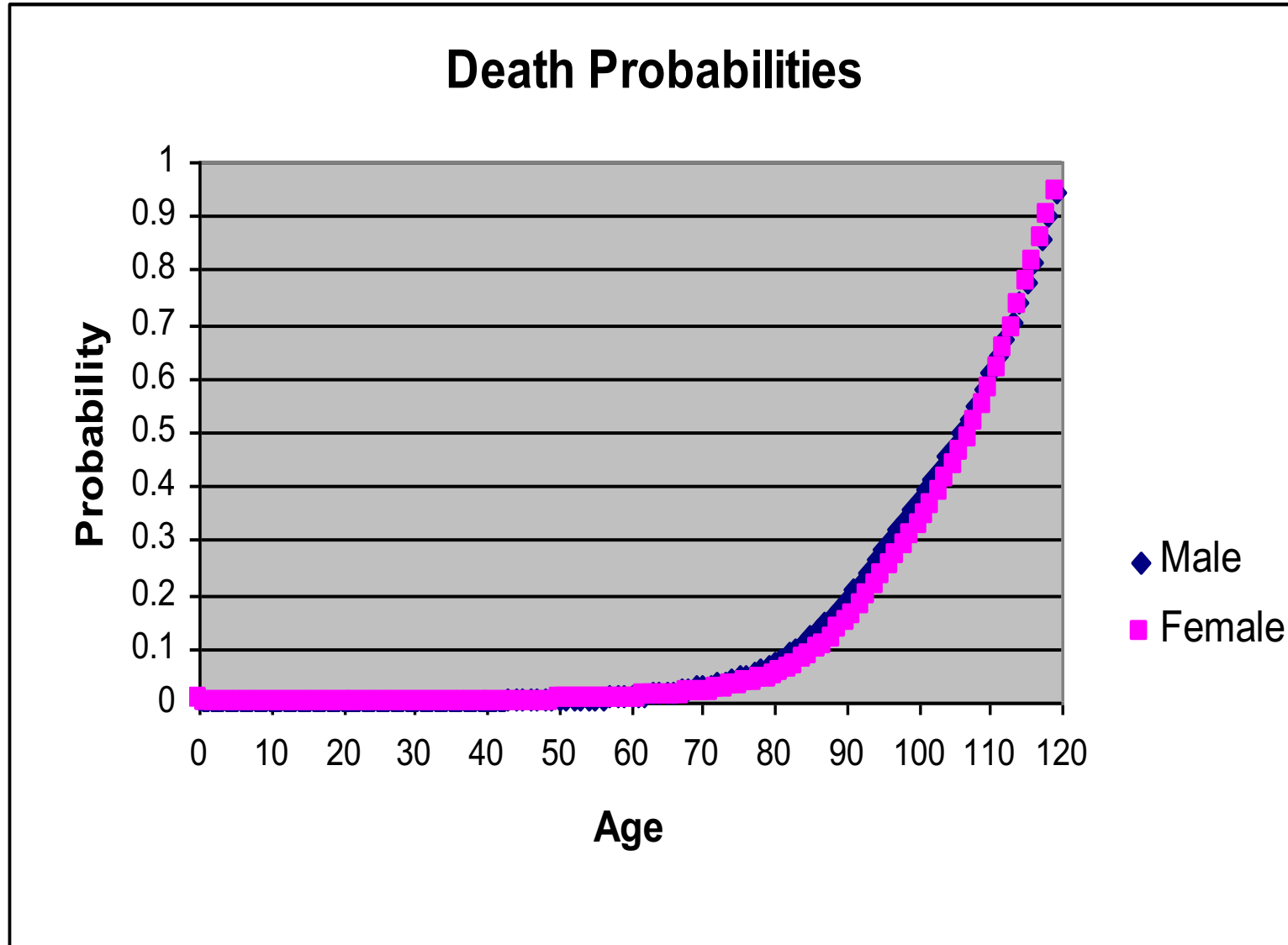


SPEED OF AGING OF POPULATION, BY REGION

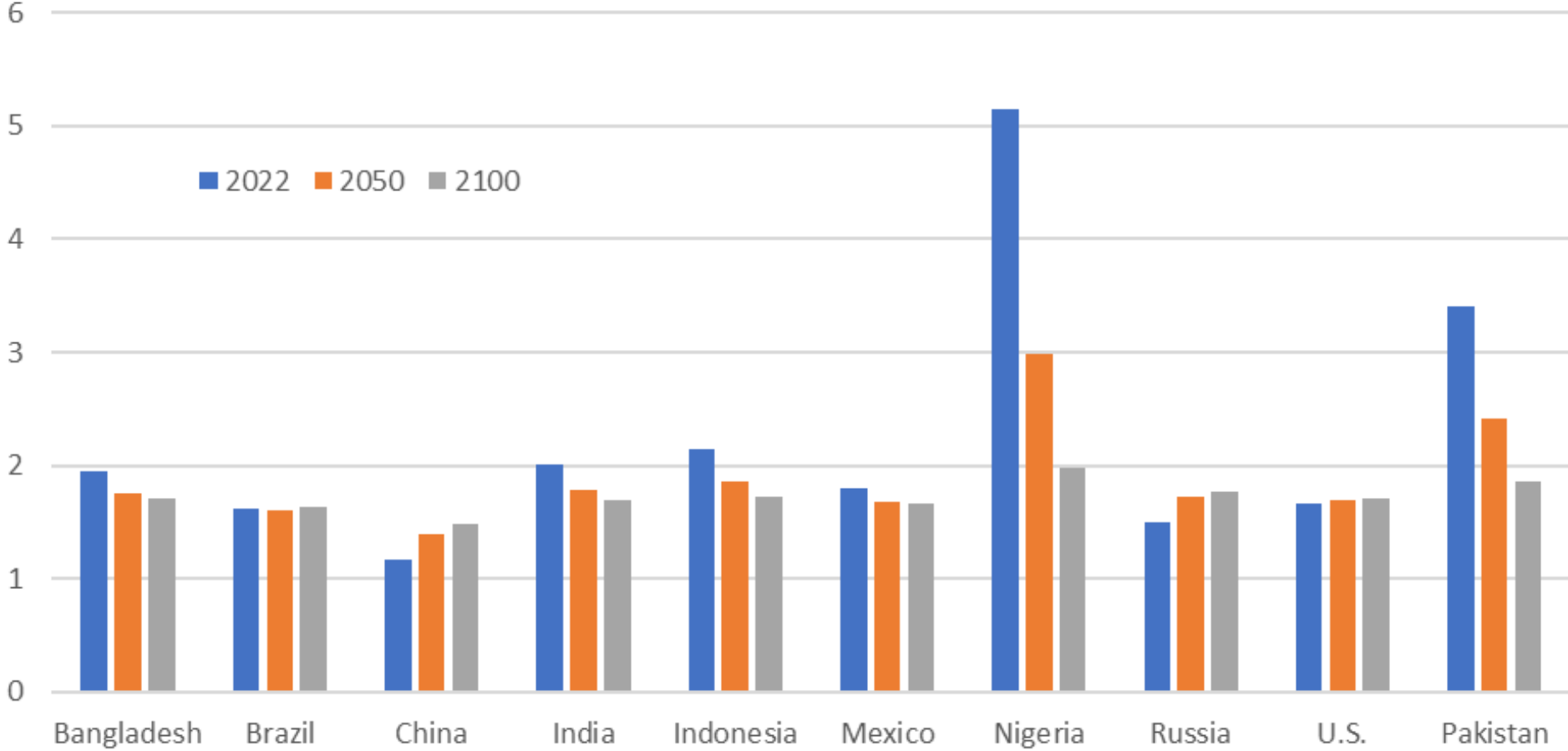
(NUMBER OF YEARS TO DOUBLE PORTION AGED 65+ FROM 7% OF POPULATION TO 14%)



US DEATH PROBABILITIES BY AGE, 2005



Total Fertility Rate

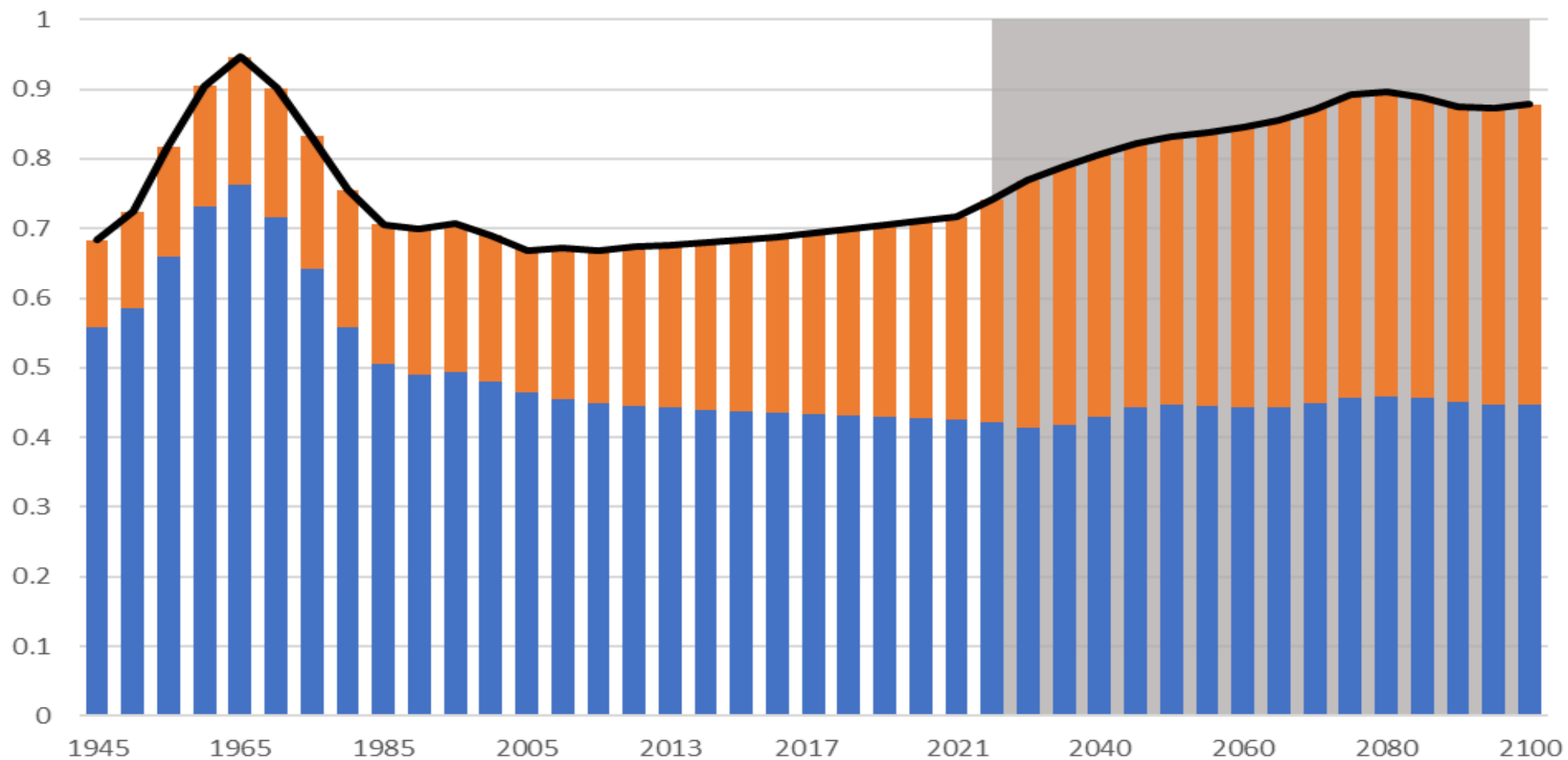


Source: United Nations Population Portal

Implications for Population Growth

- **Low fertility rates eventually trump longevity → population falls**
- Likely global population will begin to fall within a generation or two, although wide range of estimates
 - Changing the fertility rate by just half a child results in a spread between 6 billion and a high of 15 billion by 2100
- But, no doubt: fewer kids, more seniors. Both must be supported.
- What matters is **total dependency ratio**. Is it rising?

U.S. Dependency Ratios, 1945-2100



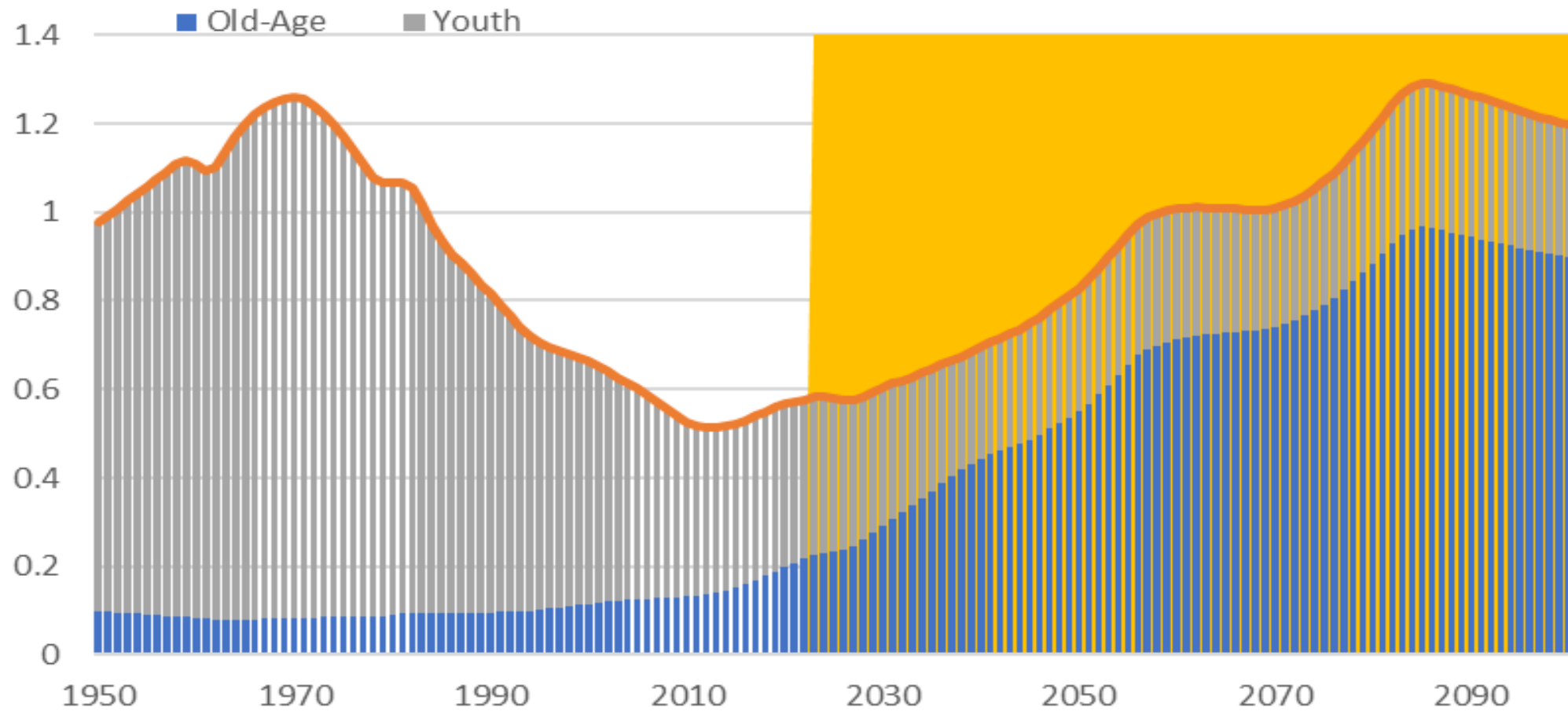
Source: Social Security Administration
Note: Data for 2019-2021 are estimates.

Other

Aged

Total

China Dependency Ratios



Source: Authors' calculations based on data from the United Nations Population Portal

Burden of the Aged

- Going forward, the average human might spend 25 years as a young dependent, 25 years as an aged dependent and 40 years as a worker.
- In real terms workers always bear the burden.
- Currently, most of the financial burden of young is put on families while for the aged, most is borne by government.
- It is the **transparency** of government elderly support that raises concerns about sustainability.

Consequences of “Reforming” Social Security

- Cutting social security moves financing to the household. More seniors today and tomorrow would become impoverished and forced to rely directly on their children for support.
- Workers would have to support, within their own households, both seniors and children. **This is what we had before Social Security.**
- While reform is portrayed as achieving “intergenerational justice” by raising taxes and cutting benefits now—to avoid burdening our grandkids—in reality, it financially **burdens workers today** and increases **insecurity of future seniors.**

Real vs Financial Burden

- Retirement at the individual level, is a financial issue: will I have enough money saved for my old age?
- But from the perspective of society, sustainability of its retirement system depends on real resources and worker productivity

Thought experiment

- Suppose we increase taxes for Social Security. But we don't have enough workers with productivity sufficient to produce all the goods and services needed by the entire society.
- Our retirement system can be solvent in financial terms, but it will not be sustainable.
- We can send Social Security checks to seniors, but that income will compete for limited output. This will lead to inflation, eroding the purchasing power of those checks.

Another thought experiment

- Imagine robots produce everything. There is plenty for humans, and the robots never need wages, never pay taxes, and never retire.
- The needs of humans of all ages can be satisfied.
- However, since robots don't pay taxes this will “**bankrupt**” Social Security even tho the supply of output is plentiful.
- We only need to give seniors income to distribute a fair share of output to them. The robots won't care.
- Although there could be political fights about the distribution between young and old, there would be no question about sustainability.
- “Sustainability” of the retirement system is about production and distribution of output and income—not about finance.

Economic possibilities for grandparents and grandkids

- Assume Keynes is right and extrapolate growth of capacity for the next 100 years: we solved the economic problem, *globally*
 - Ignore climate catastrophe, war, unemployment and other man-made disasters
 - Recognize all countries face aging; cannot rely on beggar thy neighbor immigration or imports (*notice how the beggar has switched round!*)
 - Distribution must be equitable within and across nations
 - Distribution will be accomplished through *financial means*

How best to finance distribution?

- Current practice: combination of public and private pensions, private savings, and family support
 - USA: Trust Fund “savings”, payroll taxes, employer-supplied pensions, private (tax favored) savings
- Problems:
 - impact on government budget
 - entirely insufficient private savings (*except at the top*)
 - risky and underfunded private pensions
 - labor costs and competitive race to the bottom (domestically and internationally)
 - burden on family; luck of the draw: number of siblings, long-lived parents
 - *Pity the unlucky only child whose parents live a long time.....*

Does More Saving Help Provision Seniors?

Keynes: Sinking Fund

- Society as a whole cannot save in financial terms for the future
- Saving is a leakage, a deduction from income
- All else equal, a higher propensity to save (by firms or consumers) means lower effective demand and lower growth
- A bigger government sinking fund will also reduce demand and growth
- **That would make it harder to provision for elderly**

Godley: Sectoral Balances

- Fear of government deficits and debts leads to proposals to shift financial burden of aged onto private sector saving
- **But: If private sector successfully saves for retirement, government will run a deficit anyway—by identity**
- Remember: we are ruling out beggar thy foreign senior so can ignore external balance

A Retirement System to Promote *Economic Possibilities*

- **Paygo public system** with generous and equal payment to all seniors
 - Like traditional Medicare in US: all qualify at age 65; seniors need healthcare but also adequate *food, clothing, shelter, transportation, education, and recreation*
 - Reduces need to accumulate savings, with numerous benefits: reduces growth imperative, environmental damage, precarity of young and old, and “money love”
 - Keynes: “the love of money will be recognised for what it is, a somewhat disgusting morbidity, one of those semi-criminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease.”

Thank You!

