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Slow Productivity Growth in the US, Japan and Advanced Economies

Keynote Speech
Business Leaders' Forum on Productivity

Japan Productivity Center

The Conference Board

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Brookings

Productivity Growth Has Slowed in Advanced Economies

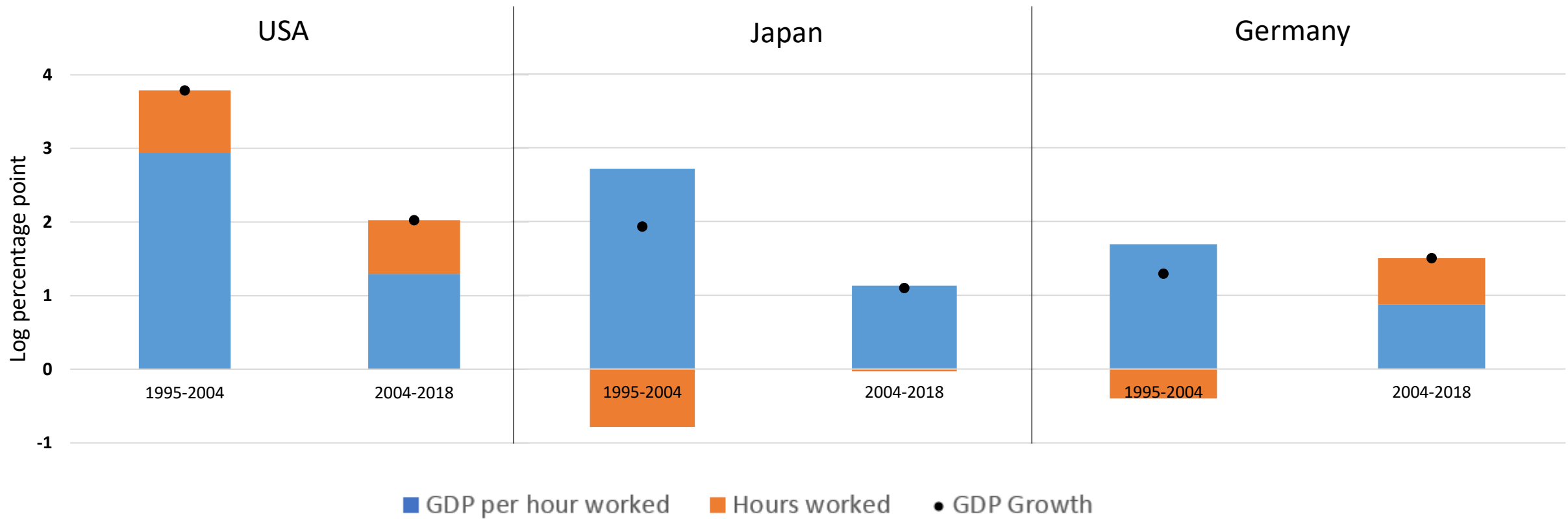
Aging Populations Mean Slow Labor Force Growth

Adverse Impacts on Living Standards, Government Budgets

- **Almost all advanced economies have seen much slower growth in labor productivity (output per employee or output per hour worked).**
- **Labor productivity growth closely linked to average earnings**
 - **Over half of recent decline in median US real wage growth comes from slow productivity growth. The remainder from the wider distribution of earnings and the decline in the share of income going to labor.**
- **Aging populations, lower share of population of working age**
 - **Japan and Europe reduced working hours in the 90s**
 - **US long-term decline in labor force participation of older males (improved with recovery)**
- **Pension and health care costs for older population put pressure on government budgets. Slower GDP growth exacerbates the problem.**

Slower GDP Growth from Slower Productivity Growth; Fewer Hours per Worker (Japan, Ge). Aging Populations

Contributions of Growth of Labor Productivity and Hours Worked to GDP Growth

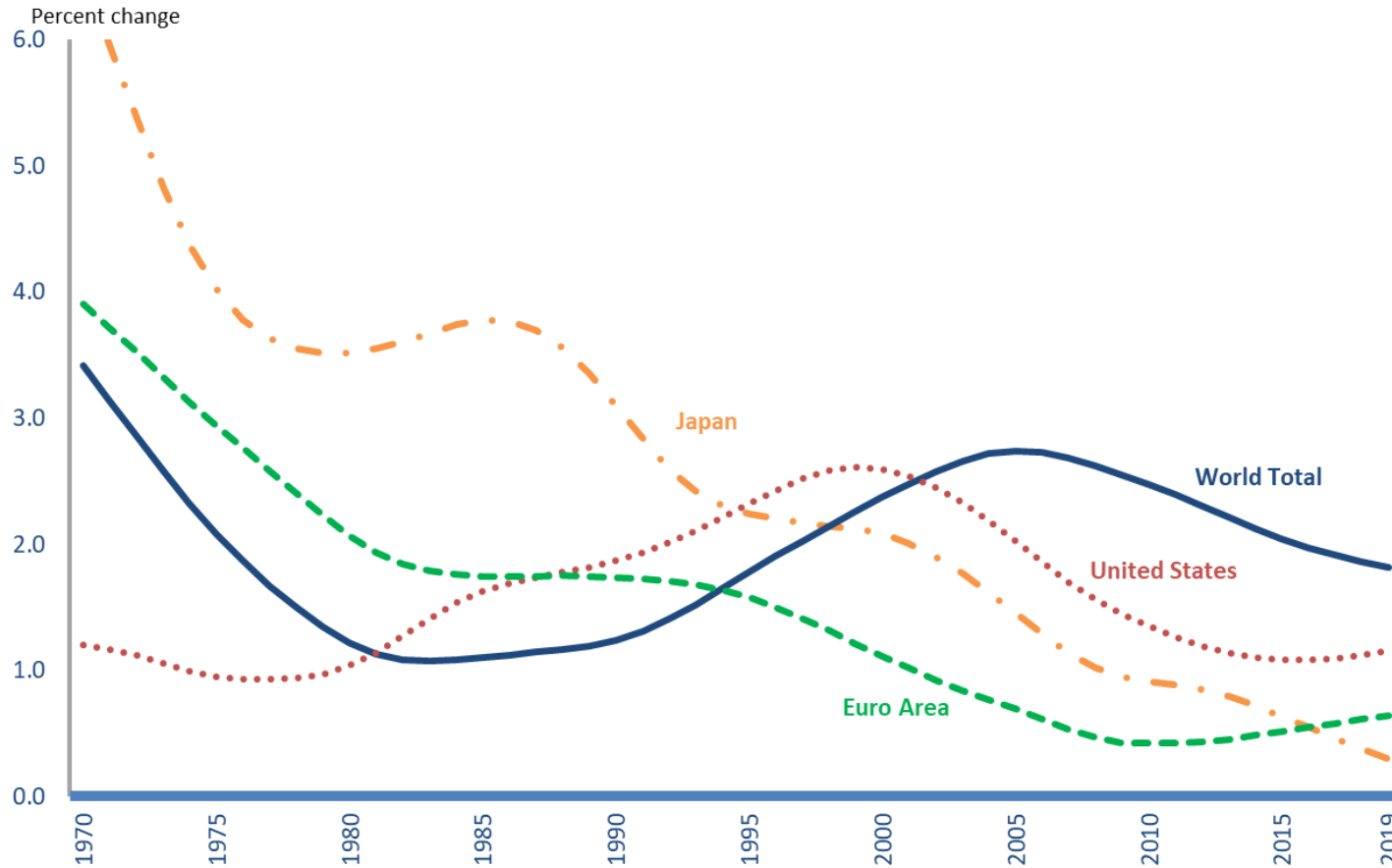


Source: The Conference Board Total Economy Database, April 2019

Productivity Growth has Slowed in Almost All Mature Economies

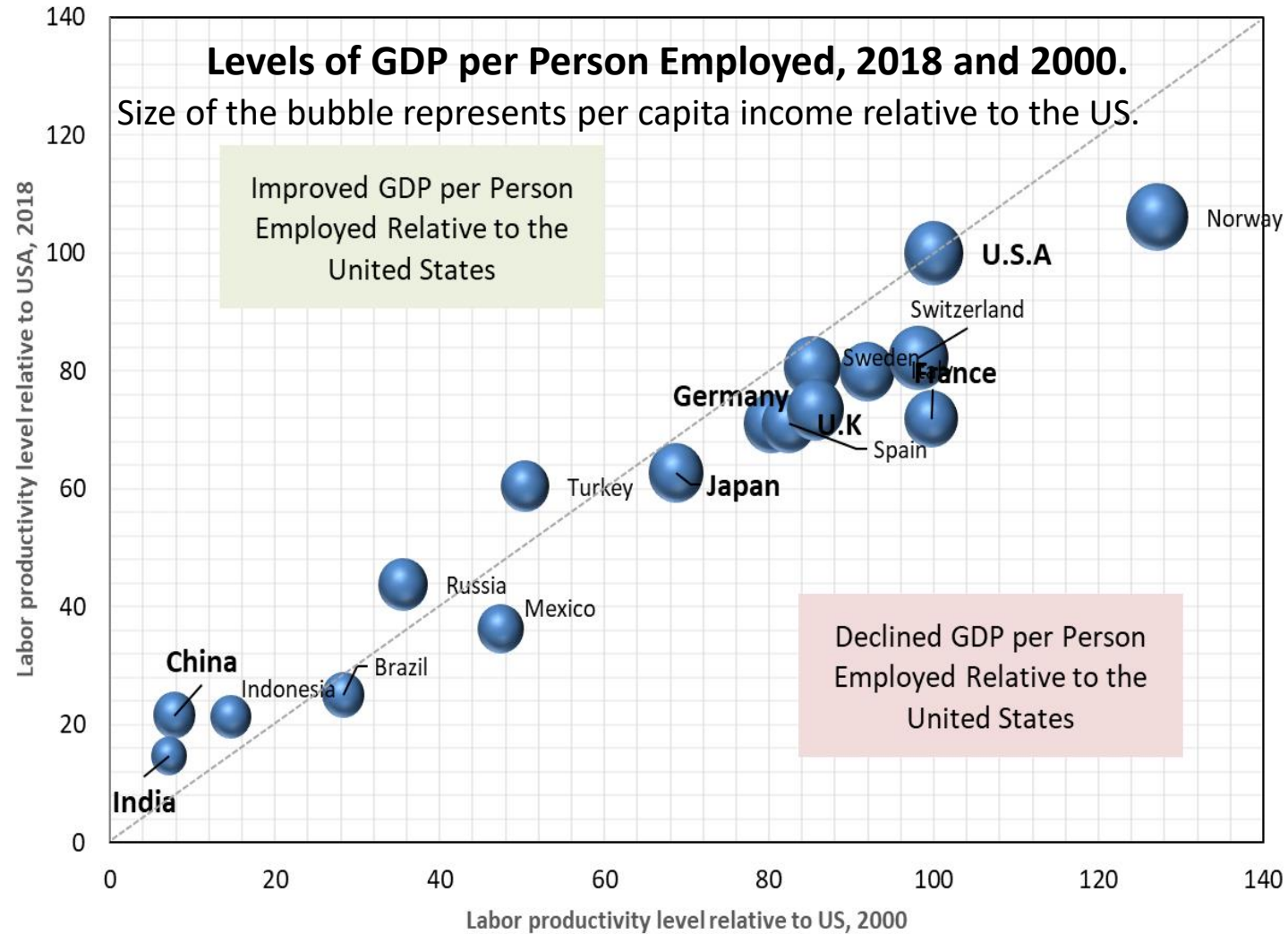
Productivity growth has even slowed recently in emerging economies

Trend growth of GDP per Person Employed using HP filter, Major Regions, 1970-2019



Source: The Conference Board Total Economy Database (adjusted version) April 2019

US Productivity Level is Very High. Europe and Japan Close but Falling Behind a Little



The underlying Gross Domestic Product levels are expressed in 2018 US\$, converted using Purchasing Power Parities.
Source: The Conference Board Total Economy Database (adjusted version) April 2019

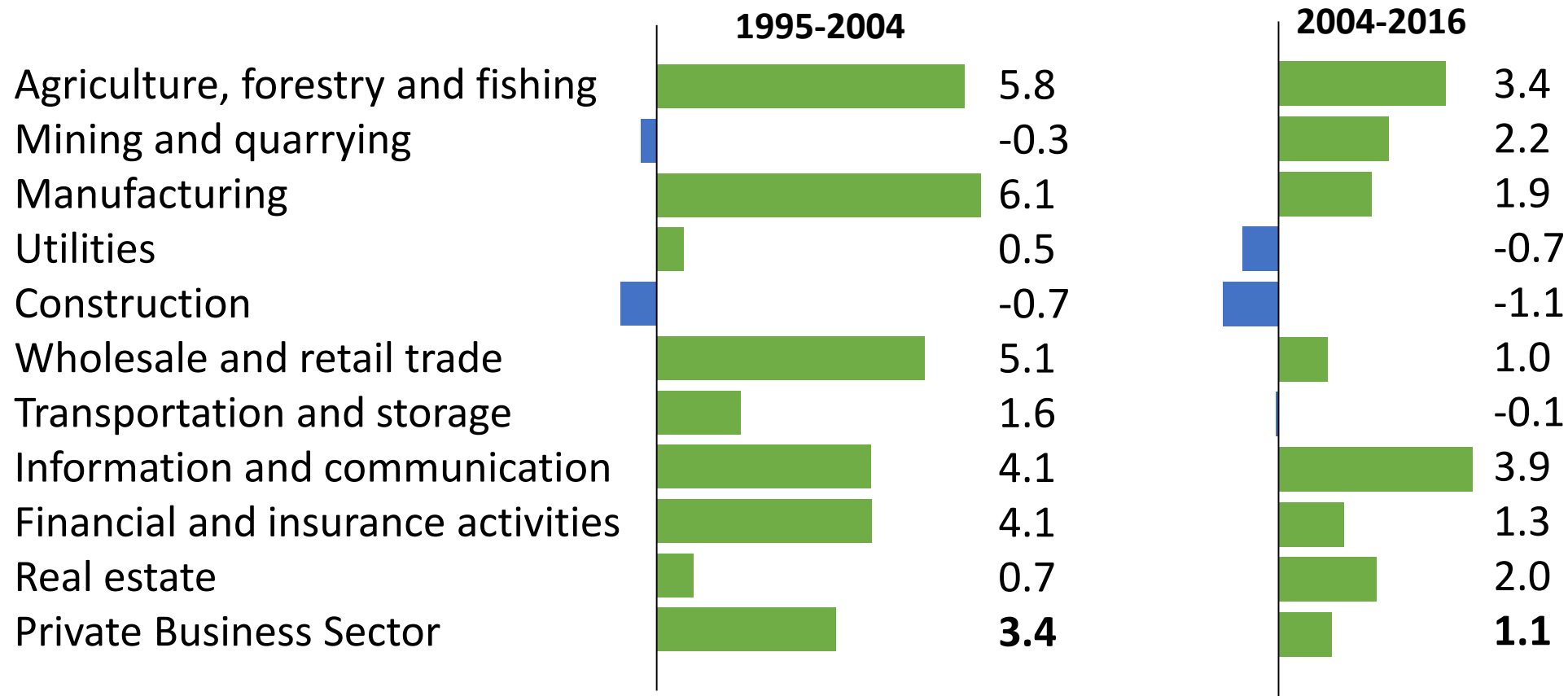
Sponsored by Japan Productivity Center, Brookings is Comparing Productivity in the US, Japan and Germany

- **Early results on US and Japan: Some common patterns in the slowdowns by industry**
 - **Both countries saw slowdowns in manufacturing, finance, wholesale retail trade, transportation.**
- **Differences also**
 - **US fracking boom. Japan big slowdown in mining**
 - **Slowdown in Japan in information, utilities, real estate. Reasons to be determined**
 - **US manufacturing slowdown much greater—computers and semicon**
- **Agriculture productivity slowed in both countries. Reasons to be determined**

Which US Industries Have Slowed?

Manufacturing, Wholesale Retail Trade, Finance, Transportation

USA: Industry Labor Productivity Growth (Value-Added Per Hour Worked)

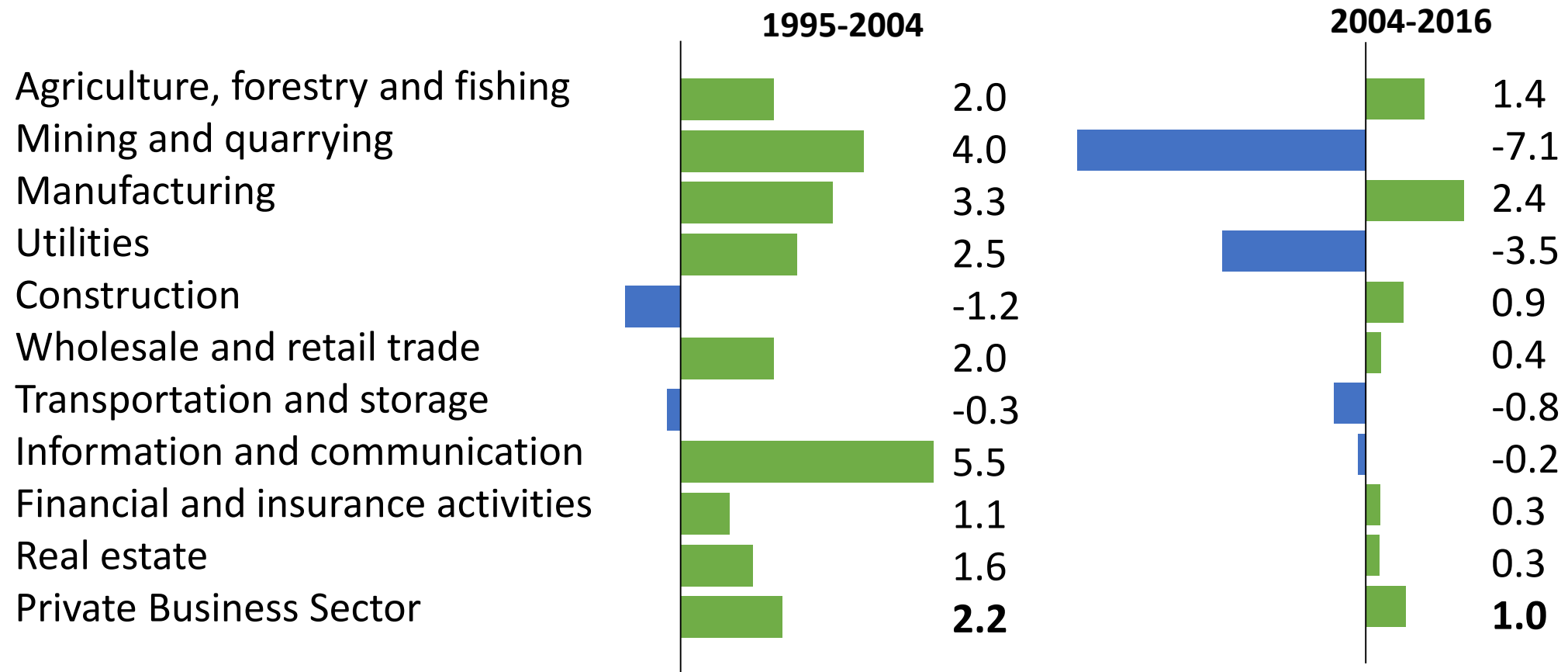


Source: Calculations based on OECD Structural Analysis Statistics (STAN)

Which Japanese Industries Have Slowed?

Mining, Utilities, Wholesale Retail Trade, Information, Finance,
Real Estate, Manufacturing

Japan: Industry Labor Productivity Growth (Value-Added Per Hour Worked)



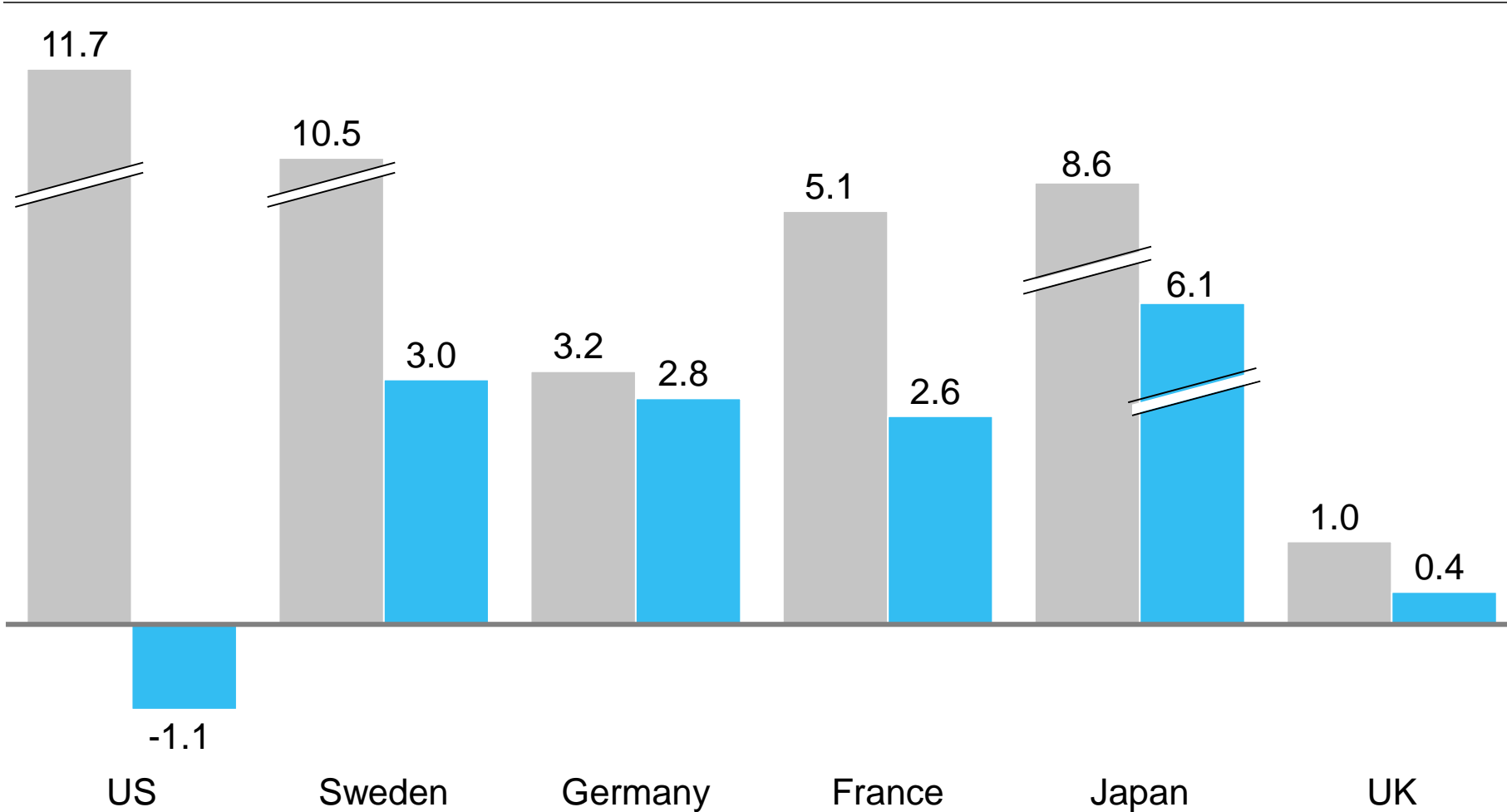
Source: Calculations based on OECD Structural Analysis Statistics (STAN)

Waning of the ICT boom played a role in the productivity growth decline (tech sector example from McKinsey Global Institute, Japan data added)

TFP growth in technology manufacturing

Percent

■ 2000-2004 ■ 2010-2014

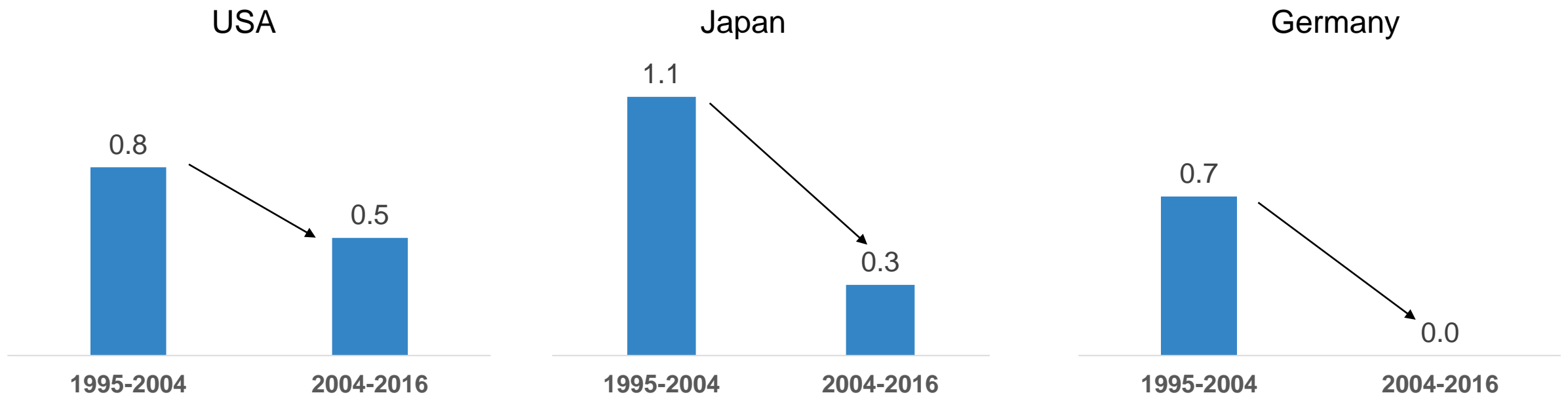


Reasons

- Exceptional boom in tech productivity growth at the turn of the century
- Complexity of innovation
- Change in setup of, demands on, and measurement of the tech industry

Weakness in Capital Investment has Contributed to Slow Labor Productivity Growth

Capital Deepening: Private Business Sector



Source: Calculations based on OECD Structural Analysis Dataset (STAN)

Note: Capital deepening contribution is the growth in the capital labor ratio times the share of capital income in value added.

Online sales are more productive than offline, but they still represent a small segment of total sales (retail example from McKinsey Global Institute, Japan estimate added)

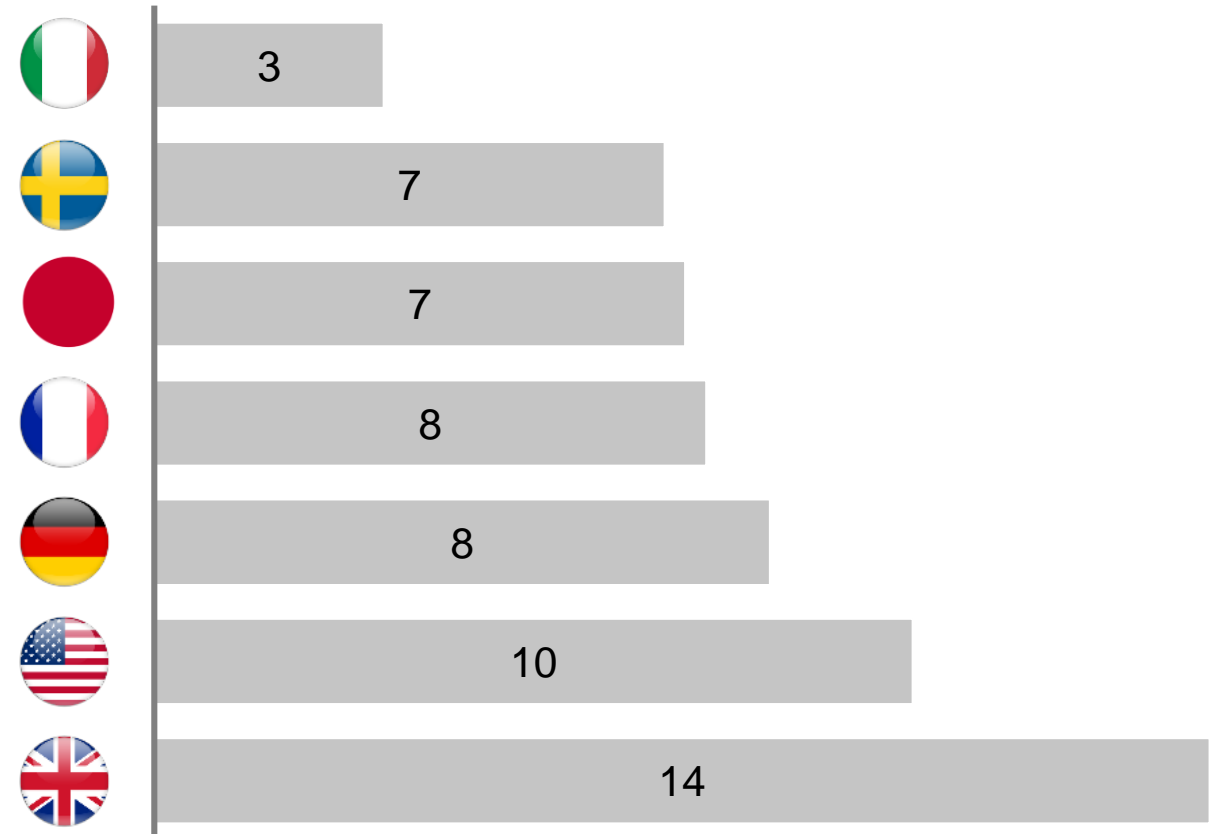
Productivity (Sales- COGS/employee)

In \$K



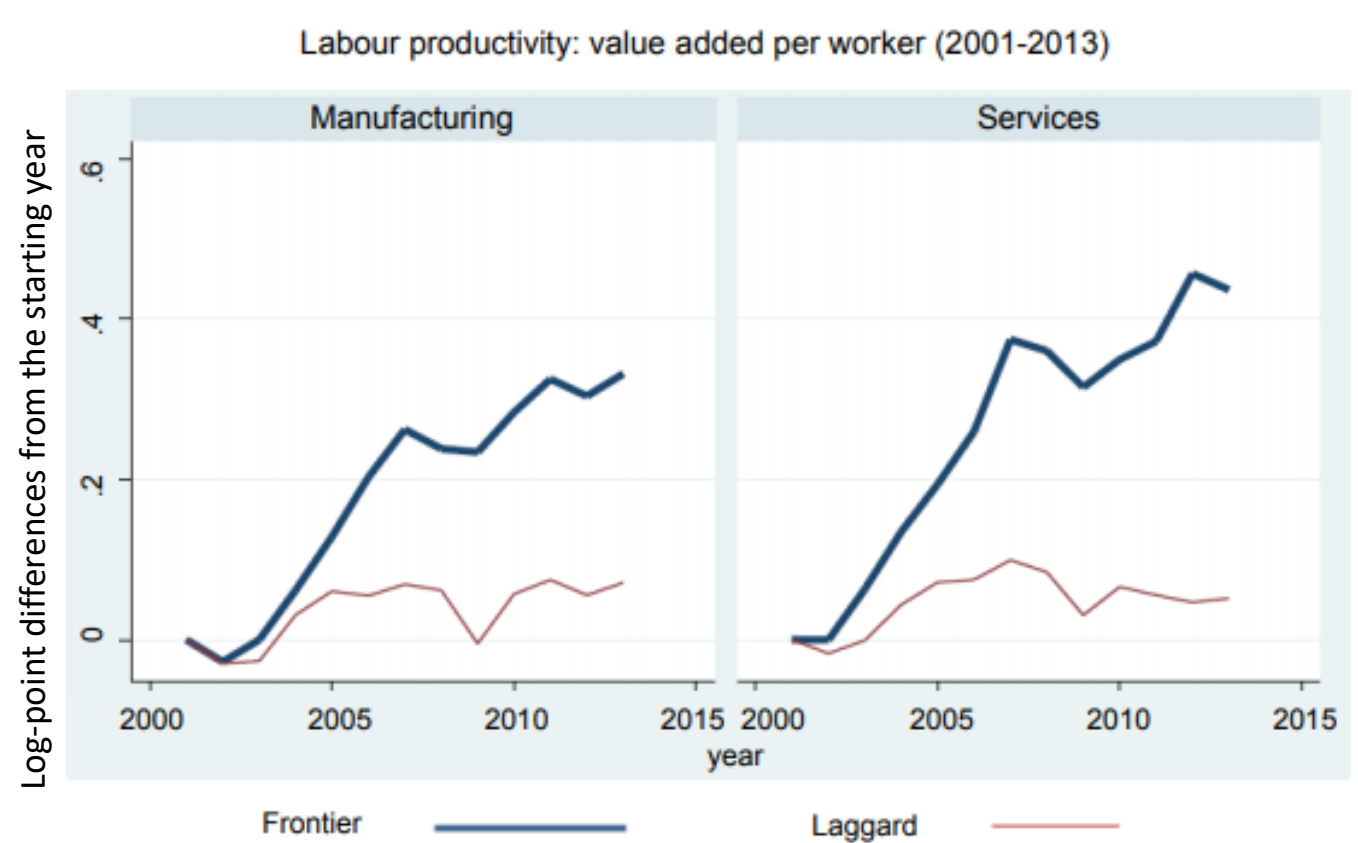
Share of online sales

% of total retail sales (excl. sales tax)



This transformation also comes with lags and transition costs (e.g., initial duplication of structures and investment, cannibalization of incumbent's business)

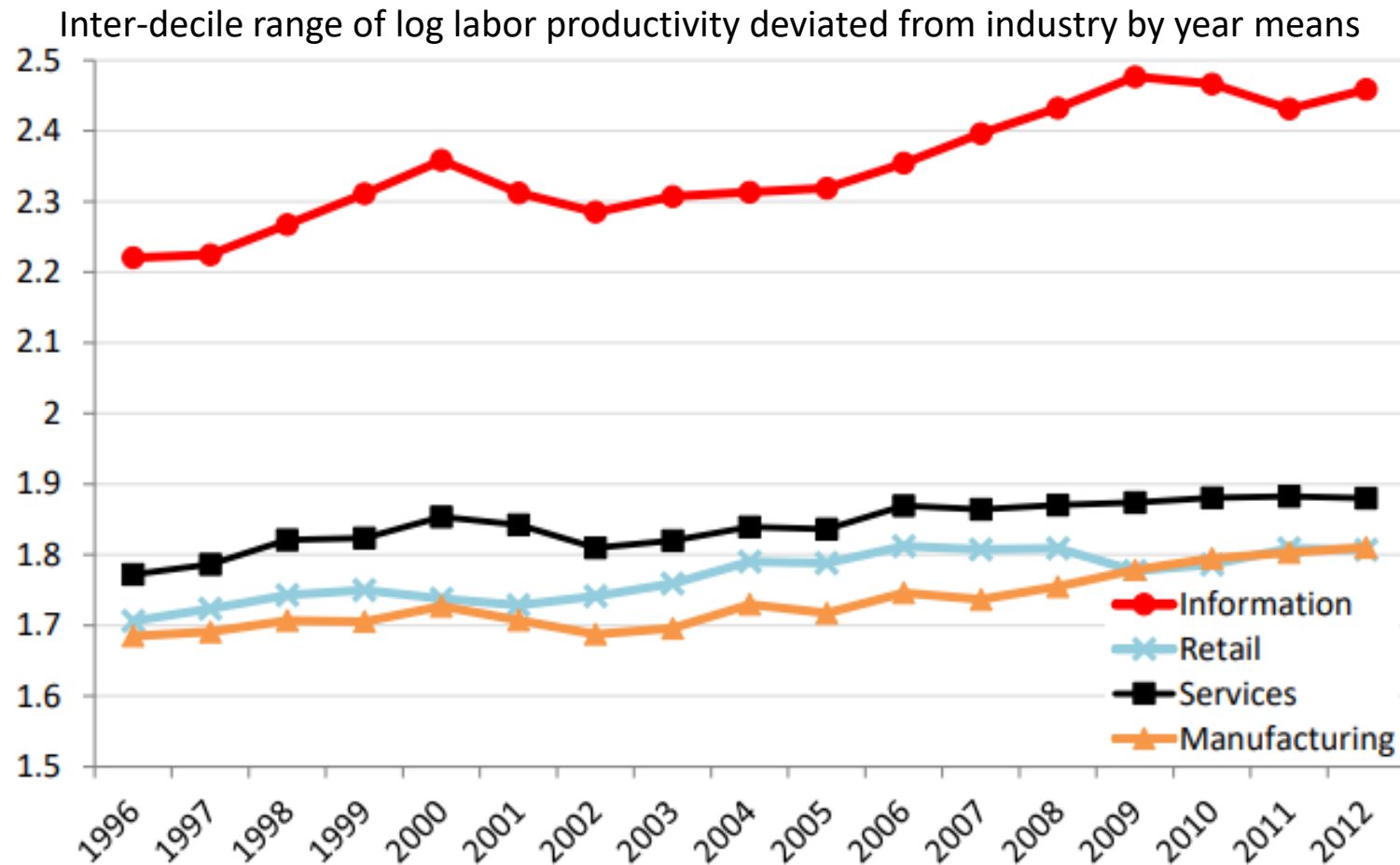
OECD Study Finds Frontier Firms Pulling Away from the Rest in Labor Productivity (sample includes only small number of US and Japan firms)



Source: Andrews, Criscuolo, and Gal (2016)

Note: global frontiers are the top 5% of companies with the highest productivity levels

In US, wider dispersion in labor productivity within industries, also suggests best practices not spreading as fast Digital technologies harder to adopt



Source: Decker, Haltiwanger, Jarmin, and Miranda (2016)

What Can Governments and Companies Do?

- **Artificial Intelligence, Machine Learning, Robots etc. Over-optimism about how fast these can improve productivity, but great potential**
 - Managers must overcome internal resistance, be willing to invest.
 - Figure out how to improve business models using new technologies.
- **Competitive pressure forces companies to change.**
 - McKinsey productivity studies showed importance of competing against global best practices.
 - Governments must promote a competitive environment.
- **Firms and Schools Cooperate to Train Workers in 21st Century Skills**
 - Lack of skills a reason why best practices are not spreading.
 - People fear the loss of their jobs from productivity growth, will need retraining.

What Can Governments and Companies Do? Continued

- **Need a regulatory framework for the 21st century.**
 - For example, health care is a huge industry efficiency held back by regulation.
 - Efficient financial regulation to ensure safety but encourage business lending.
- **Improve tax and budget policy**
 - US provides investment incentives but federal budget is out of control
 - Japan battles demand stagnation
- **Demographic shifts**
 - Both countries have aging populations. Encourage labor force participation
- **Promote open trade and investment**
 - Trans-Pacific Partnership was valuable, should not have been discarded
 - Multilateral cooperation, protect intellectual property