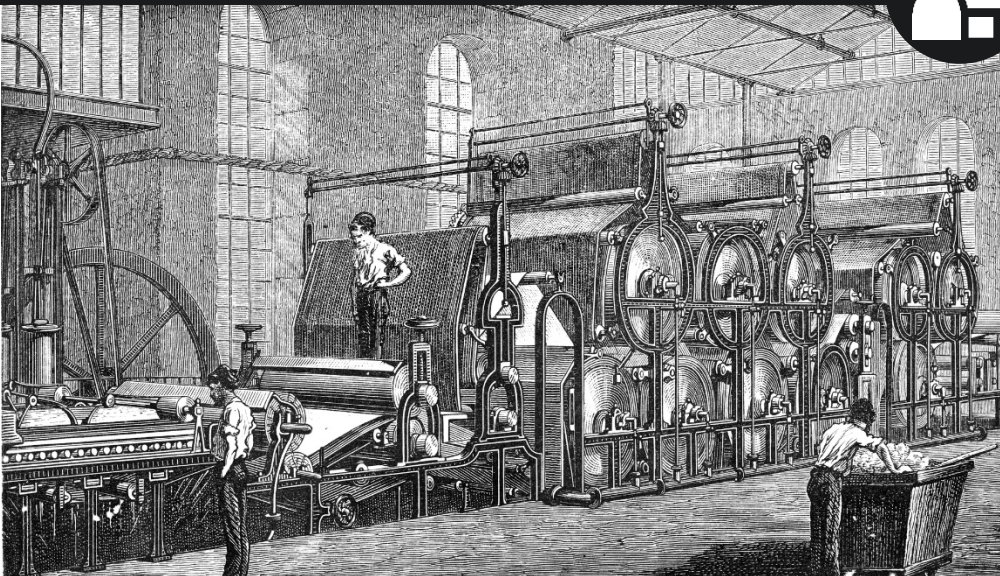




DEMOGRAPHY, ECONOMIC GROWTH, & LONG-TERM REAL INTEREST RATES

March 18, 2019

DISCLAIMER

Hedgeye Risk Management, LLC (“Hedgeye”) is a registered investment advisor, registered with the State of Connecticut. Hedgeye is not a broker dealer and does not provide investment advice to individuals. This research does not constitute an offer to sell, or a solicitation of an offer to buy any security or investment vehicle. This research is presented without regard for individual investment preferences or risk parameters; it is general information and does not constitute specific investment advice, nor does it constitute or contain any legal or tax opinions. This presentation is based on information from sources believed to be reliable. Hedgeye is not responsible for errors, inaccuracies or omissions of information. The opinions and conclusions contained in this report are those of the individual expressing those opinions or conclusion and are intended solely for the use of Hedgeye’s clients and subscribers, and the authorized recipients of the content. In reaching its own opinions and conclusions, Hedgeye and its employees have relied upon research conducted by Hedgeye’s employees, which is based upon sources considered credible and reliable within the industry. Neither Hedgeye, nor its employees nor any individual expressing opinions, conclusions or data are responsible for the validity or authenticity of the information upon which it has relied.

TERMS OF USE

This report is protected by United States and foreign copyright laws and is intended solely for the use of its authorized recipient. Access must be provided directly by Hedgeye.

There is a fee associated with access to this report and the information and materials presented during the event. **Redistribution or republication of this report and its contents are strictly prohibited.** By joining this call or possessing these materials, you agree to these Terms. For more detail please refer to the appropriate sections of the Hedgeye Services Agreement and the Terms of Service at https://www.hedgeye.com/terms_of_service.

PLEASE SUBMIT QUESTIONS* TO

QA@HEDGEYE.COM

**ANSWERED AT THE END OF THE CALL*

“LET OBSERVATION, WITH EXTENSIVE VIEW...”

❑ NEAR-TERM U.S. OUTLOOK (2019-2021)

- Demand for labor expands, while supply of labor shrinks.
- Are we near a wage-jumping, end-of-cycle dénouement? (that's French for “brick wall”)

❑ LONG-TERM U.S. ECONOMIC OUTLOOK (2019-2060)

- Employment growth down for sure; productivity growth uncertain (but not looking good)
- Worker $\Delta\%$ + Productivity $\Delta\%$ = GDP $\Delta\%$: Still an iron law... even in the 2040s.

❑ LONG-TERM GLOBAL OUTLOOK (2019-2045)

- Almost everywhere you look, older & slower-growing economies
- Why long-term U.S. growth prospects lie in our own “Quad 2” (& looking pretty good there)

❑ POPULATION GROWTH, PRODUCTIVITY, & REAL INTEREST RATES

- Introducing the neoclassical model
- Exploring what determines “n” and “g” and “s”... and oh yes “the big r.”

❑ CLOSING THOUGHTS

“LET OBSERVATION, WITH EXTENSIVE VIEW...”

❑ NEAR-TERM U.S. OUTLOOK (2019-2021)

- Demand for labor expands, while supply of labor shrinks.
- Are we near a wage-jumping, end-of-cycle dénouement? (that's French for “brick wall”)

❑ LONG-TERM U.S. ECONOMIC OUTLOOK (2019-2060)

- Employment growth down for sure; productivity growth uncertain (but not looking good)
- Worker $\Delta\%$ + Productivity $\Delta\%$ = GDP $\Delta\%$: Still an iron law... even in the 2040s.

❑ LONG-TERM GLOBAL OUTLOOK (2019-2045)

- Almost everywhere you look, older & slower-growing economies
- Why long-term U.S. growth prospects lie in our own “Quad 2” (& looking pretty good there)

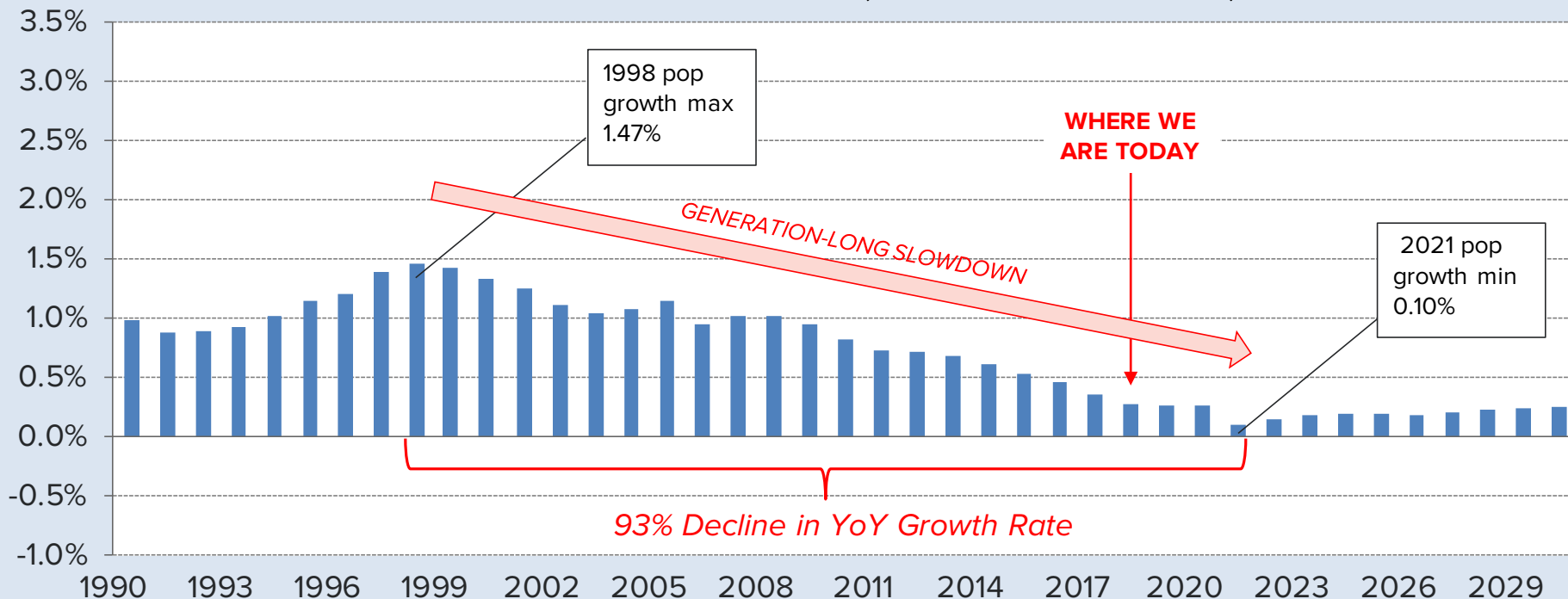
❑ POPULATION GROWTH, PRODUCTIVITY, & REAL INTEREST RATES

- Introducing the neoclassical model
- Exploring what determines “n” and “g” and “s”... and oh yes “the big r.”

❑ CLOSING THOUGHTS

EXPANSION RUNNING OUT OF WORKERS

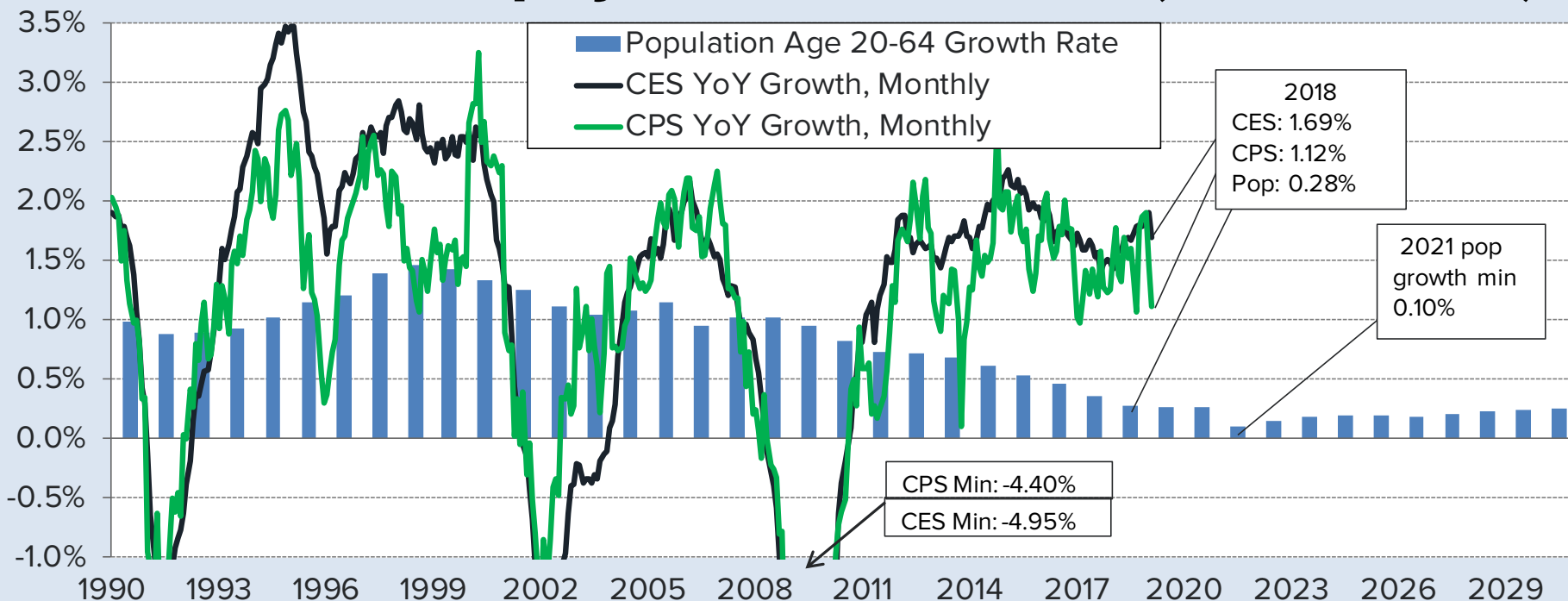
U.S. Population Age 20-64: YoY Growth Rates (1990 to 2030)



EXPANSION RUNNING OUT OF WORKERS

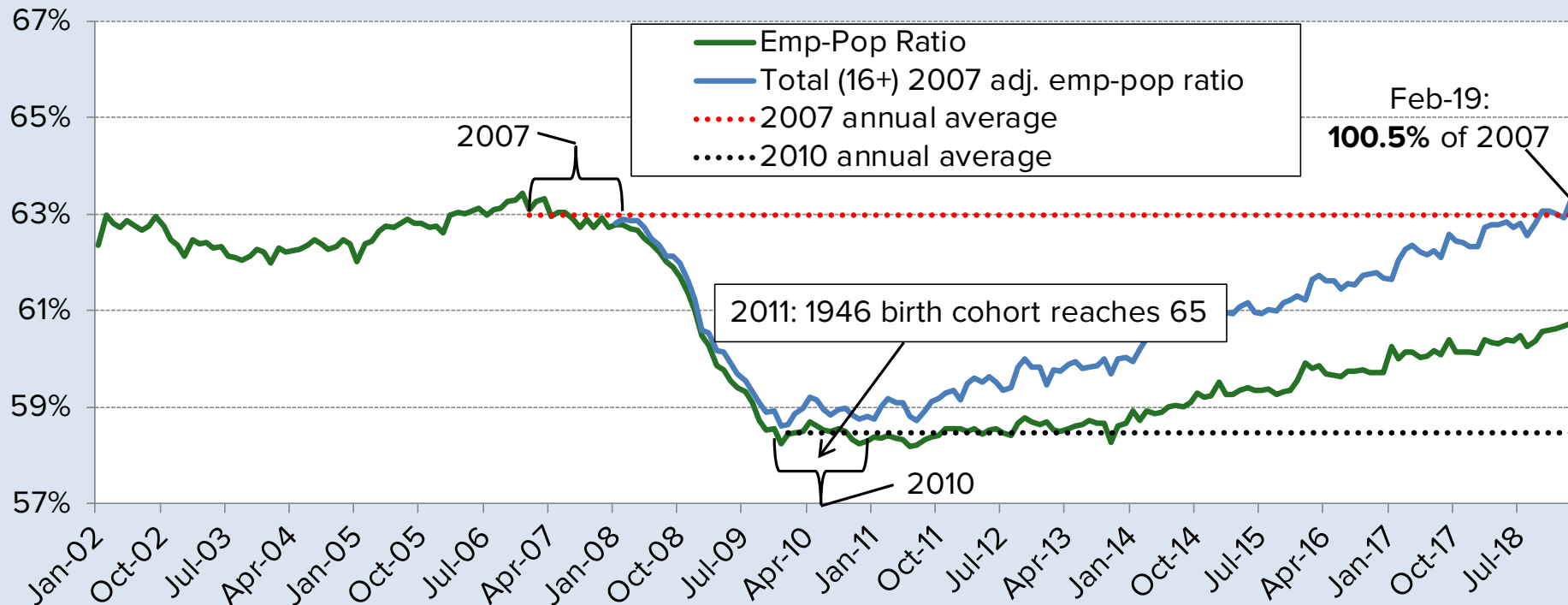
7

U.S. Population Age 20-64: CPS and CES Employment Growth Rates (1990 to 2030)

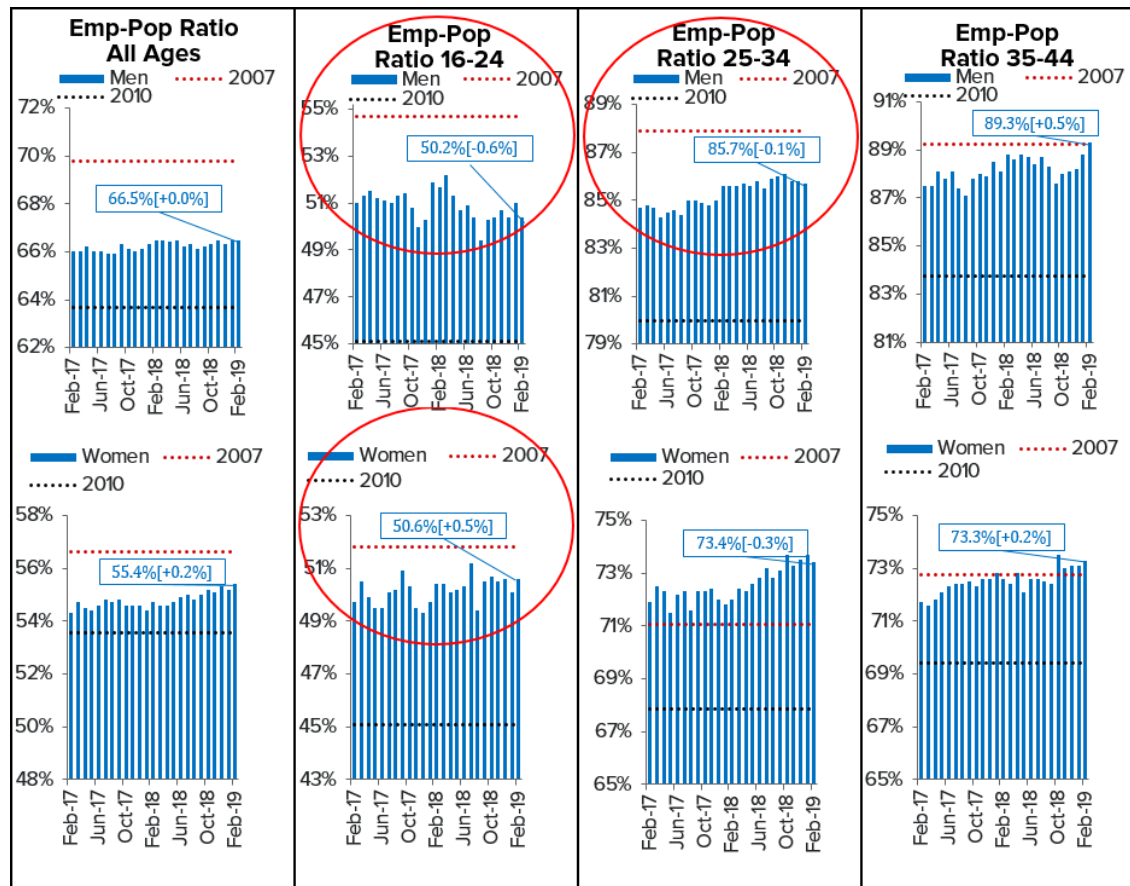


EXPANSION RUNNING OUT OF WORKERS

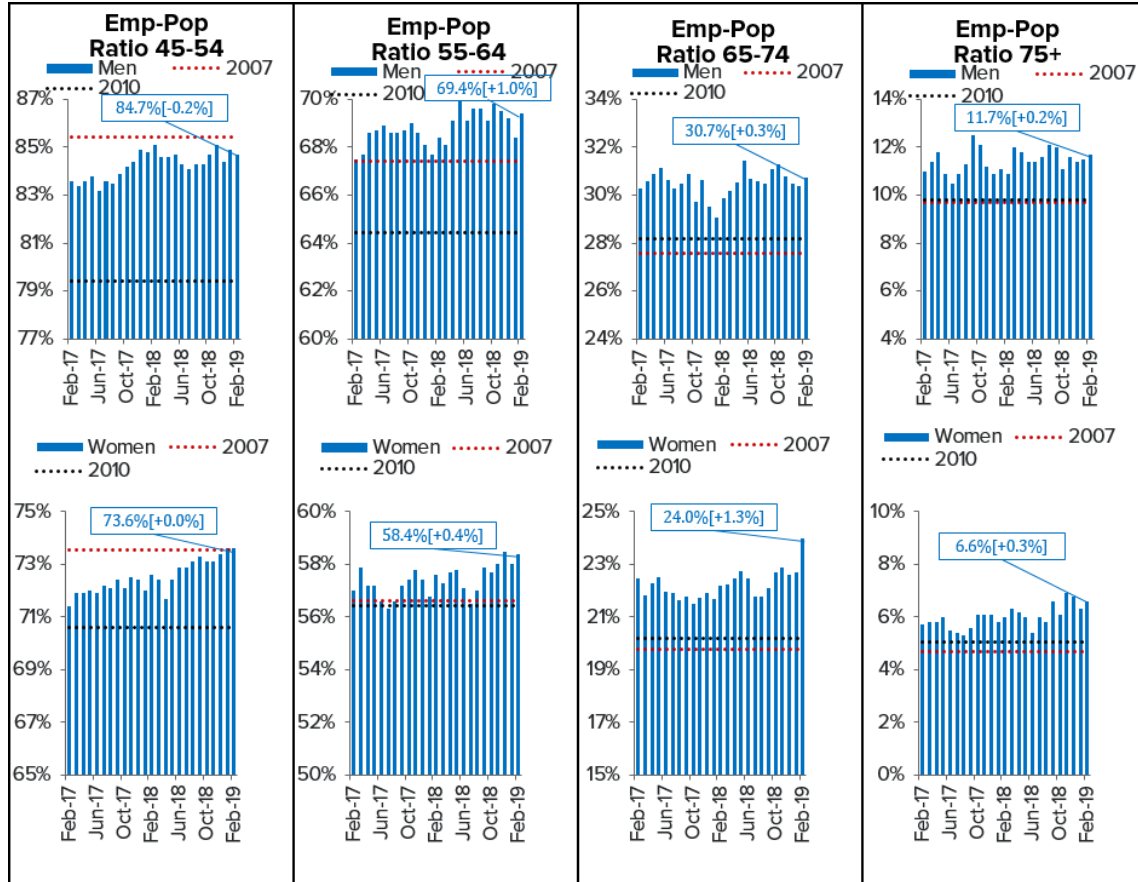
Effect of Population Composition on Employment-Population Ratio (Jan-02 to Feb-19)



EXPANSION RUNNING OUT OF WORKERS

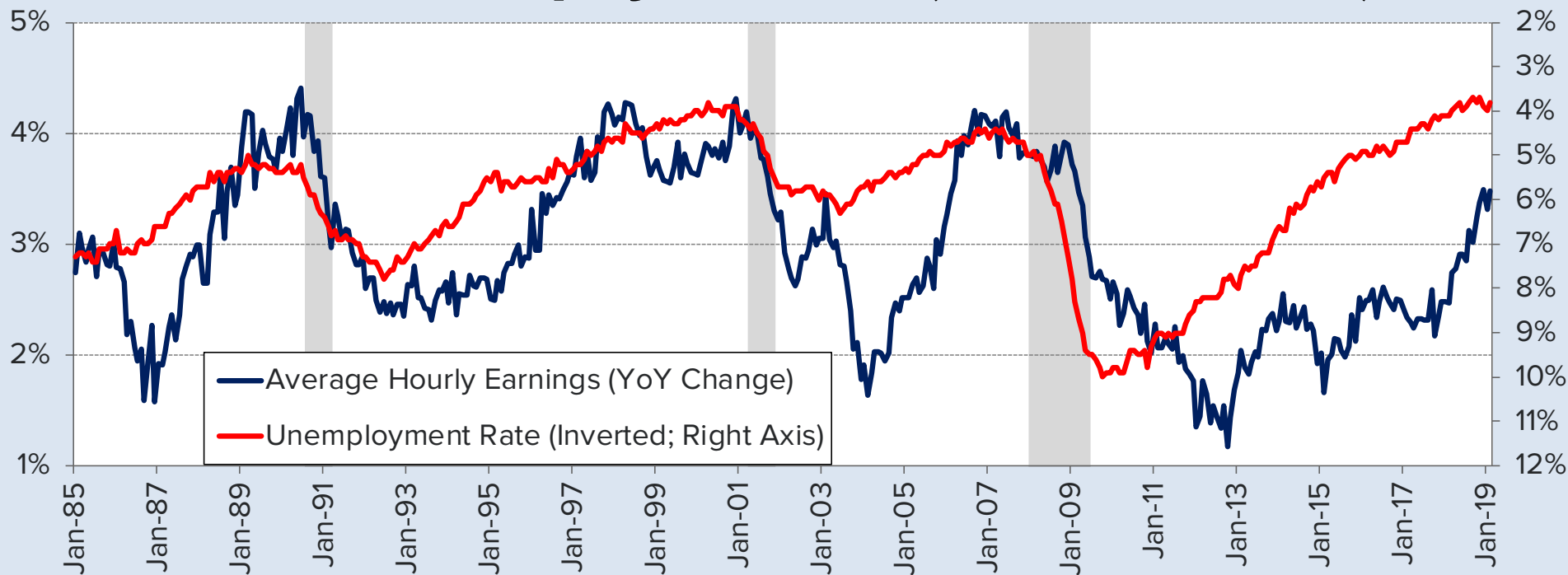


EXPANSION RUNNING OUT OF WORKERS



LATE-CYCLE DYNAMICS

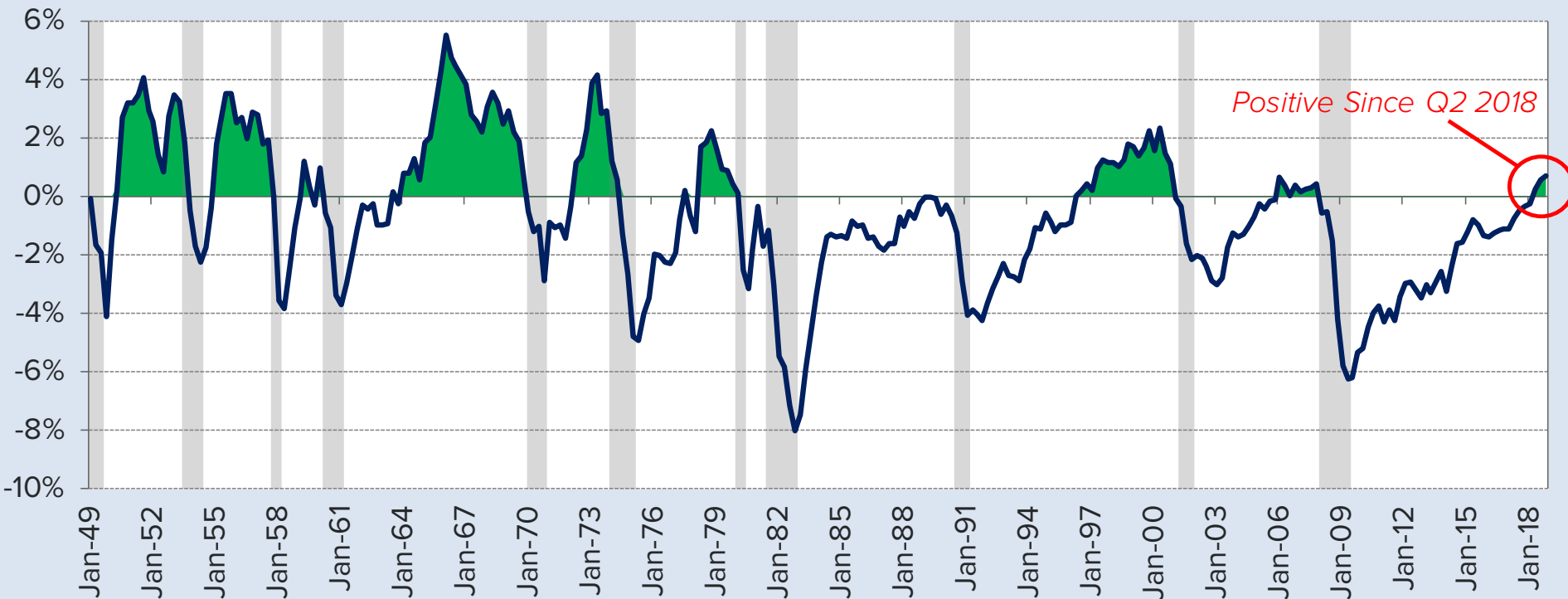
YoY Change in Average Hourly Earnings* and Inverted Unemployment Rate (Jan-86 to Feb-19)



* Refers to private-sector production and nonsupervisory employees.

LATE-CYCLE DYNAMICS

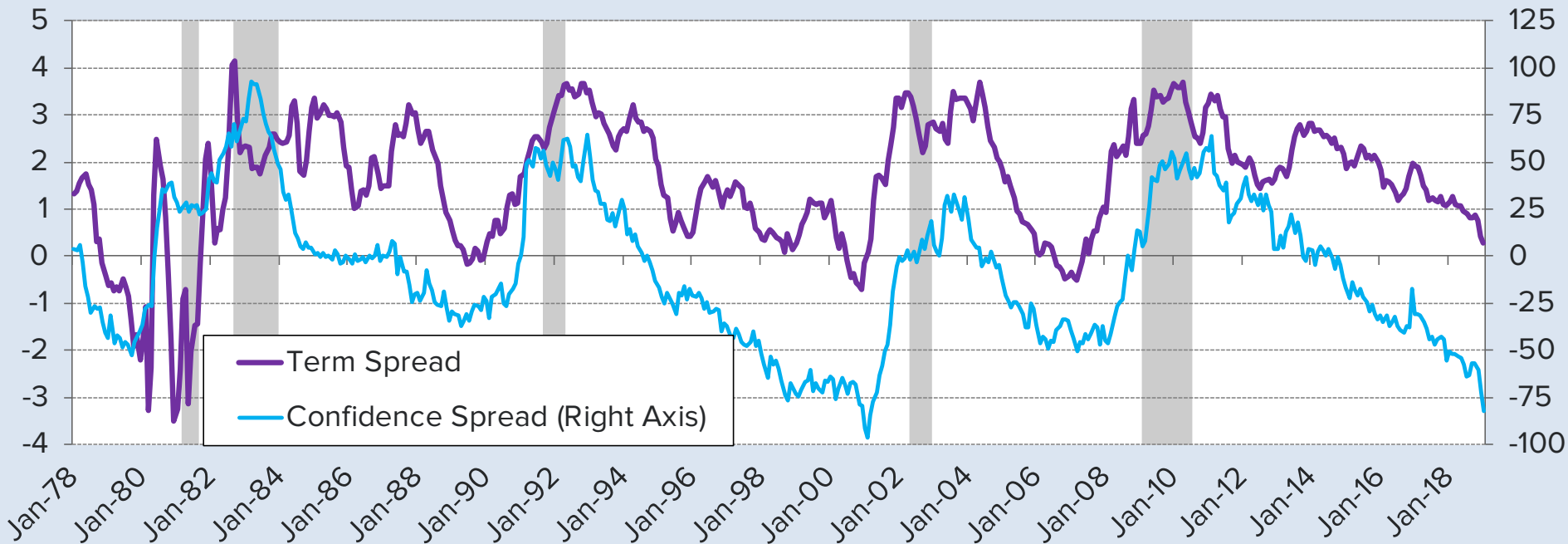
Real GDP Growth Above Potential (Q1 1949 to Q4 2018)



* Derived as $(\text{real GDP} - \text{potential GDP}) / \text{real GDP}$.

LATE-CYCLE DYNAMICS

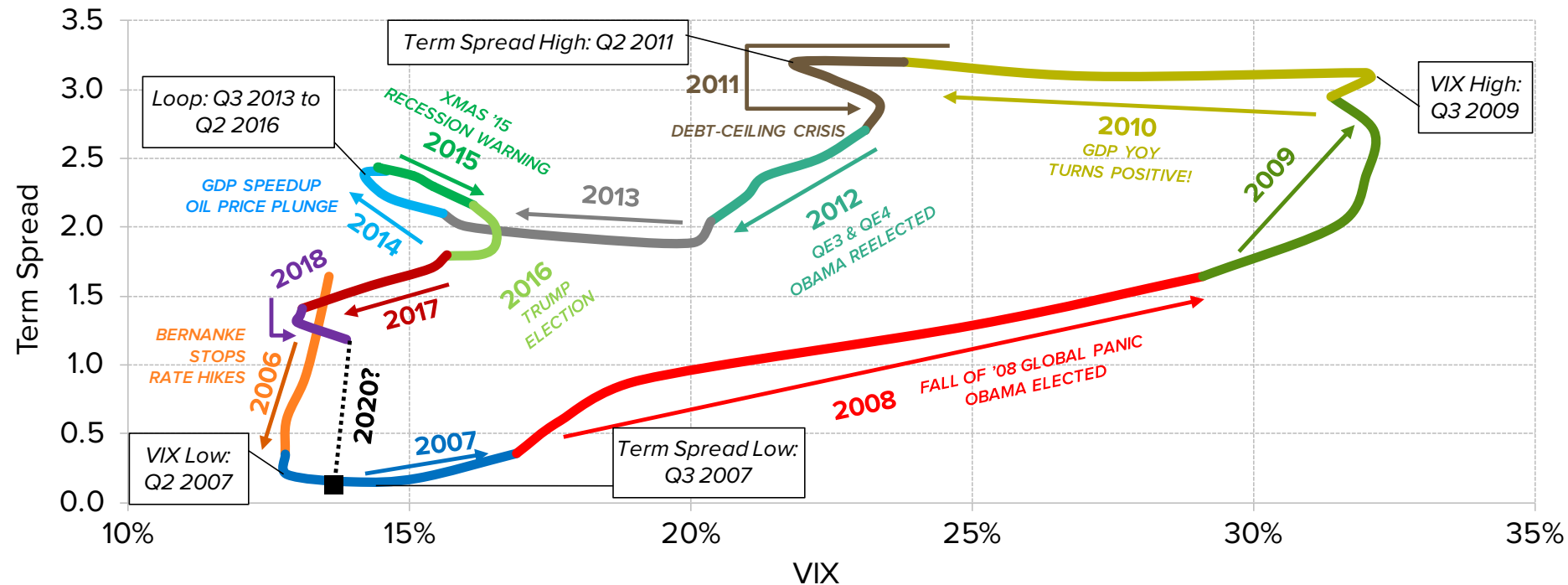
10Y-90D Term Spread* and Consumer Confidence Spread**, Monthly (Jan-78 to Present)



* Average percentage-point difference between 10Y Treasury yield and 90D Treasury yield in a given month.

** Difference between Conference Board's "Expectations Index" and "Present Situation Index" in a given month.

Term Spread-VIX Cycle* (2006 to 2020**)

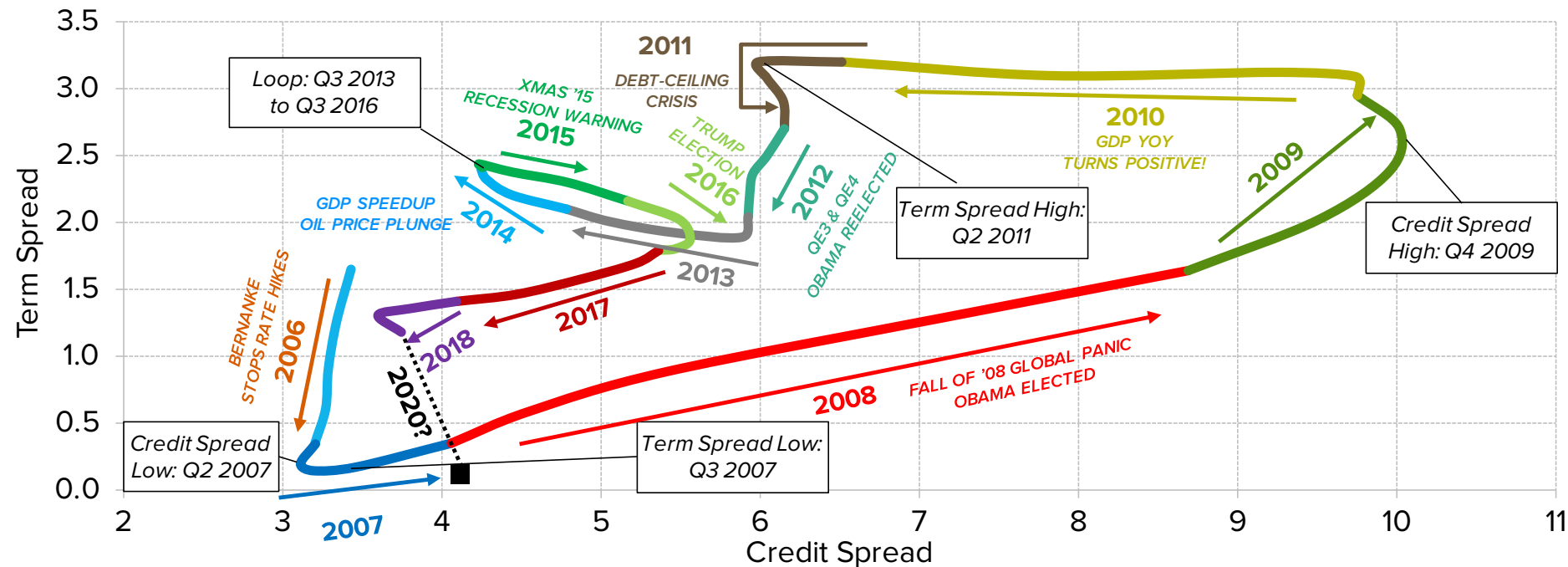


* Plots the 10Y-90D Treasury spread (two-year moving average) against the CBOE Volatility Index (two-year moving average) for every given quarter.

** Dotted line to 2020 assumes that term spread and credit spread stay at their current levels for the next two years.

LATE-CYCLE DYNAMICS

Term Spread-Credit Cycle* (2006 to 2020**)



* Plots the 10Y-90D Treasury spread (2-year moving avg) against the Barclays US Corporate High Yield Average Option Adjusted Spread (2-year moving avg).

** Dotted line to 2020 assumes that term spread and credit spread stay at their current levels for the next two years.

“LET OBSERVATION, WITH EXTENSIVE VIEW...”

❑ NEAR-TERM U.S. OUTLOOK (2019-2021)

- Demand for labor expands, while supply of labor shrinks.
- Are we near a wage-jumping, end-of-cycle dénouement? (that's French for “brick wall”)

❑ LONG-TERM U.S. ECONOMIC OUTLOOK (2019-2060)

- Employment growth down for sure; productivity growth uncertain (but not looking good)
- Worker $\Delta\%$ + Productivity $\Delta\%$ = GDP $\Delta\%$: Still an iron law... even in the 2040s.

❑ LONG-TERM GLOBAL OUTLOOK (2019-2045)

- Almost everywhere you look, older & slower-growing economies
- Why long-term U.S. growth prospects lie in our own “Quad 2” (& looking pretty good there)

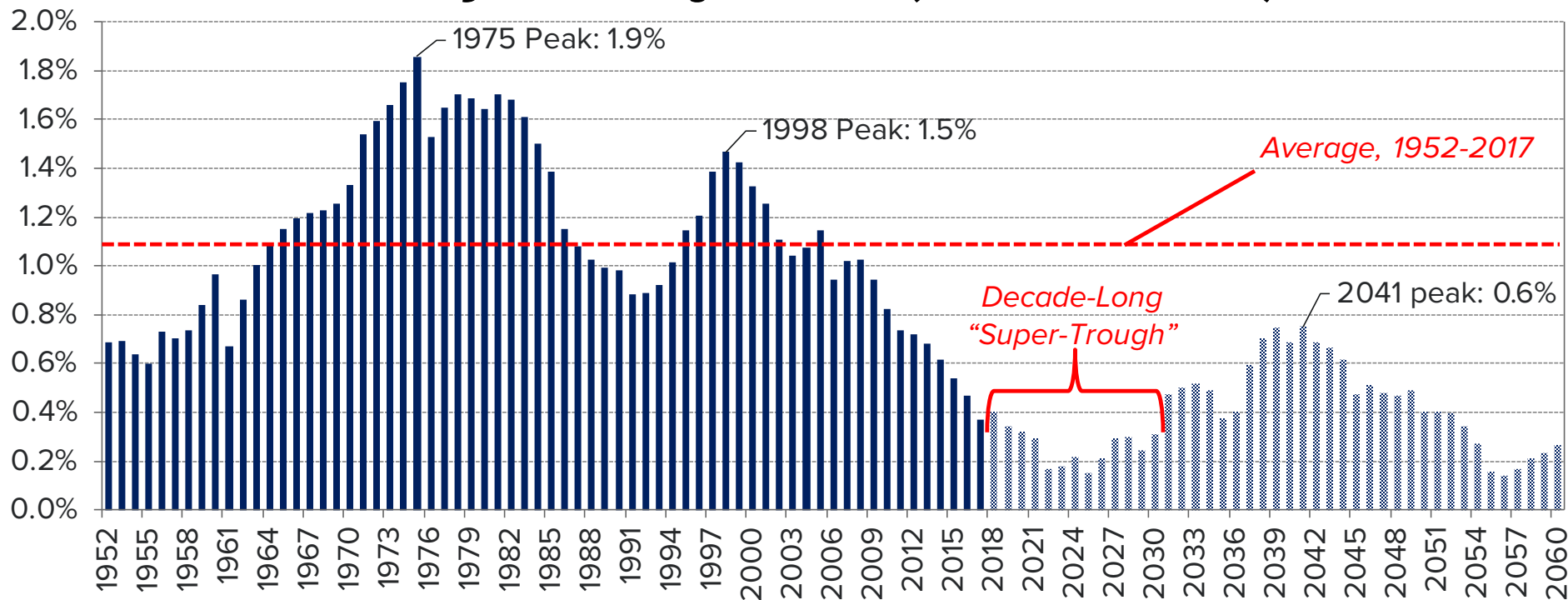
❑ POPULATION GROWTH, PRODUCTIVITY, & REAL INTEREST RATES

- Introducing the neoclassical model
- Exploring what determines “n” and “g” and “s”... and oh yes “the big r.”

❑ CLOSING THOUGHTS

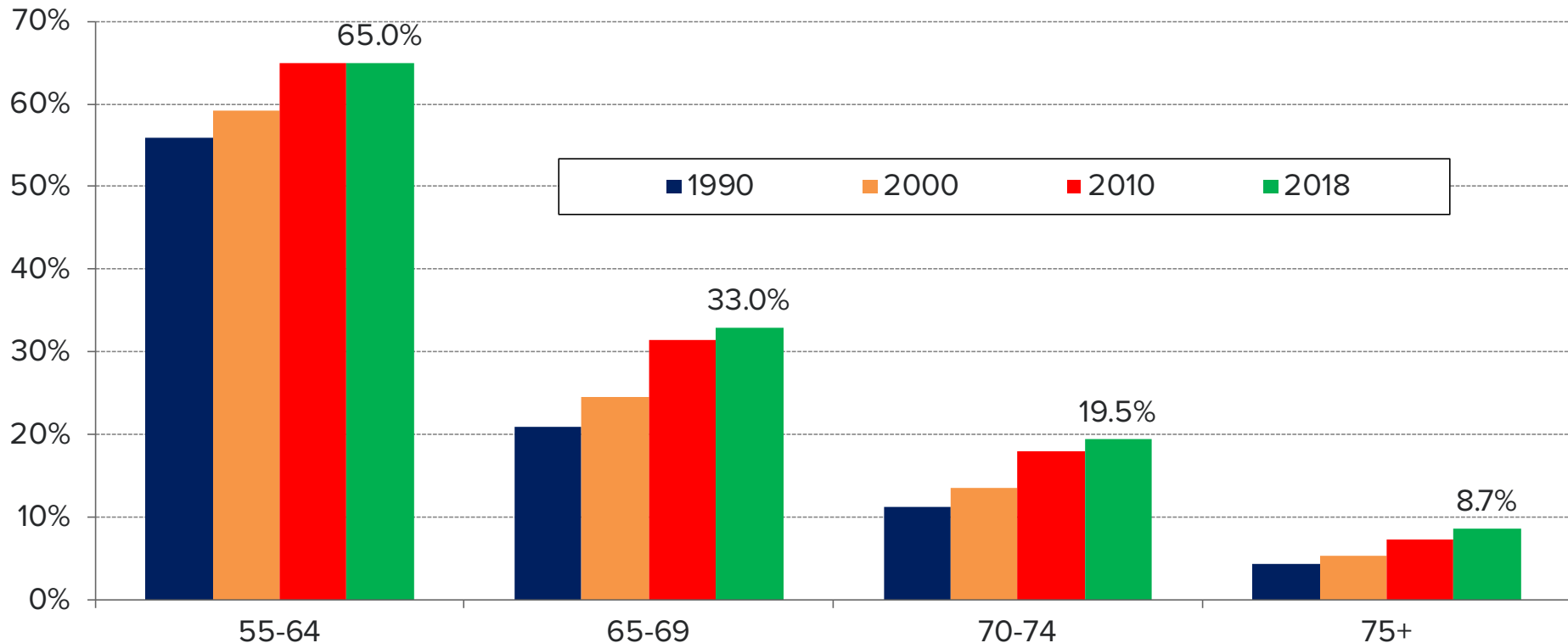
WORKER GROWTH IS DOWN... AND NOT GETTING BACK UP

YoY U.S. Working-Age (20-64) Population Growth, History and Projections (1952 to 2060)



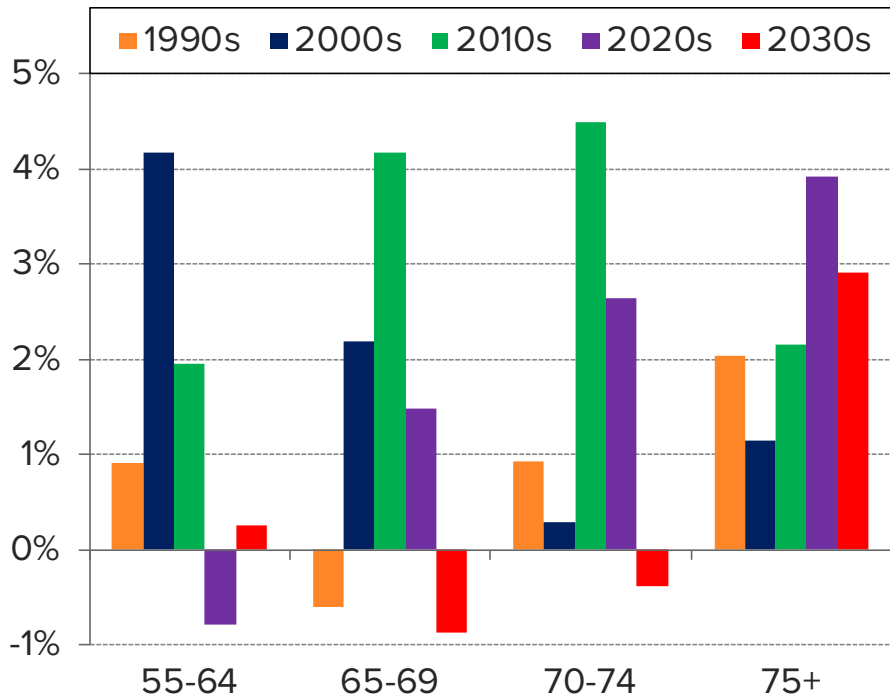
YES, SENIORS ARE WORKING MORE...

Labor Force Participation Rate by Age (Selected Years)

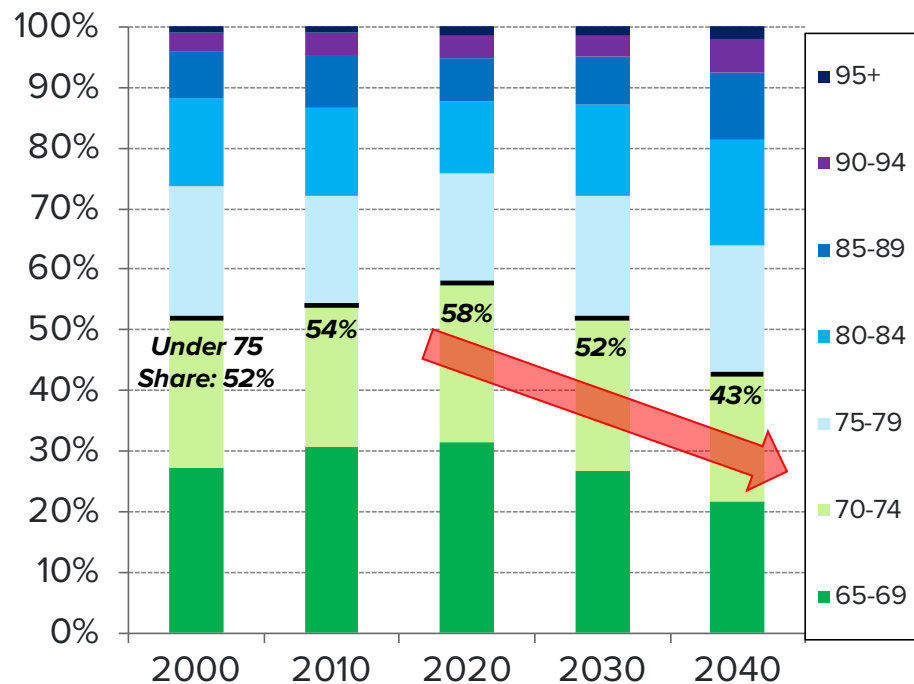


... BUT THAT WILL SOON CHANGE

Average YoY Population Change by Age and Decade

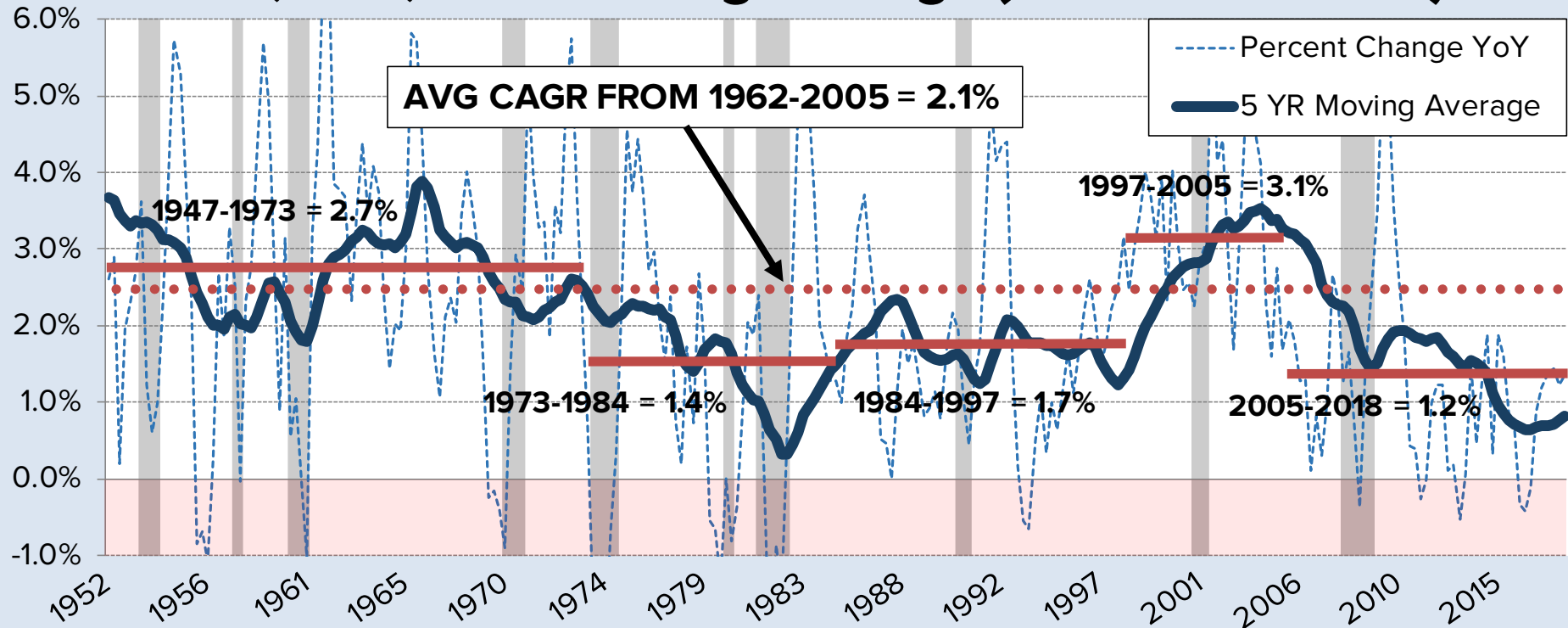


Distribution of U.S. Adults Age 65+ (Selected Years)



MEANWHILE, PRODUCTIVITY IS DECELERATING

Quarterly U.S. Nonfarm Business Sector Real Output Per Hour, YoY, 5 YR Moving Average (1952 to Q1 2018)



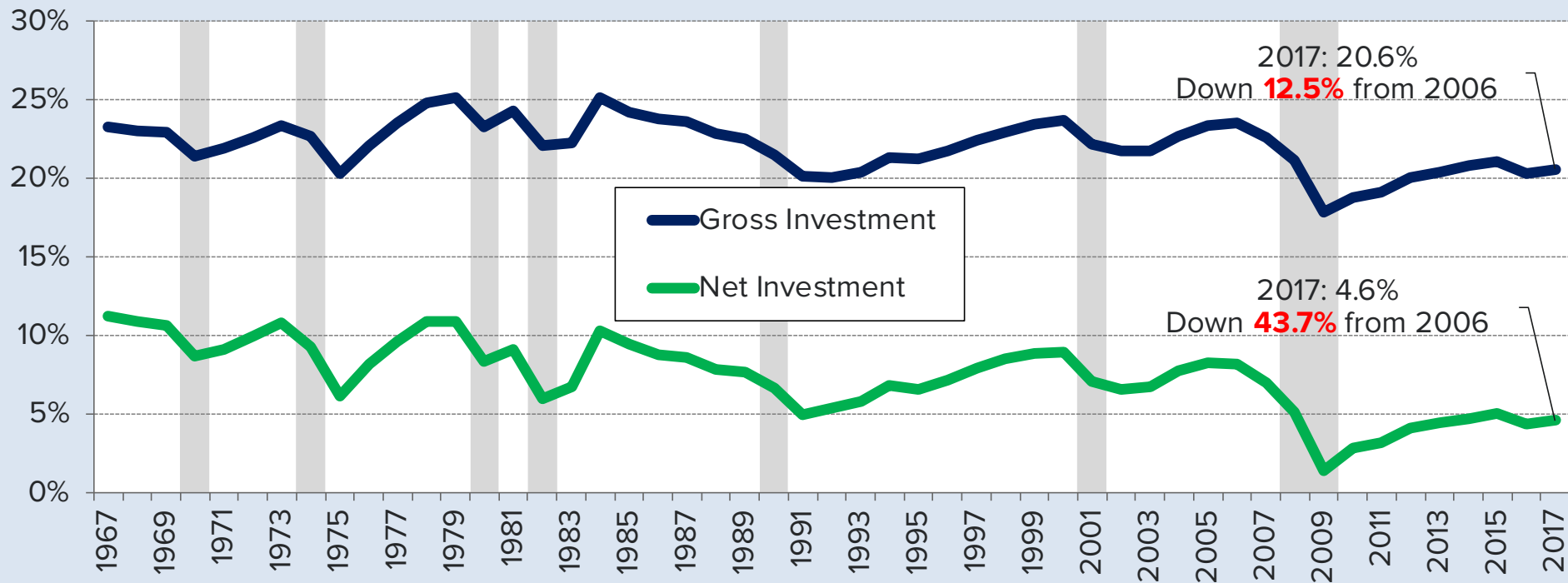
DRIVERS BEHIND THE PRODUCTIVITY SLOWDOWN

WHAT'S DRIVING THE SLOWDOWN?

- ❑ **Poor Macro Performance/Policy Uncertainty** (*in wake of GFC*)
- ❑ **Inadequate Investment & Infrastructure** (*Alan Blinder*)
- ❑ **Sectoral Failure of Success** (*"Baumol's Cost Disease"*)
- ❑ **Disappearance of Low-Hanging Fruit** (*Robert Gordon*)
- ❑ **Declining Business Dynamism** (*startups, mobility, risk appetite, & more*)

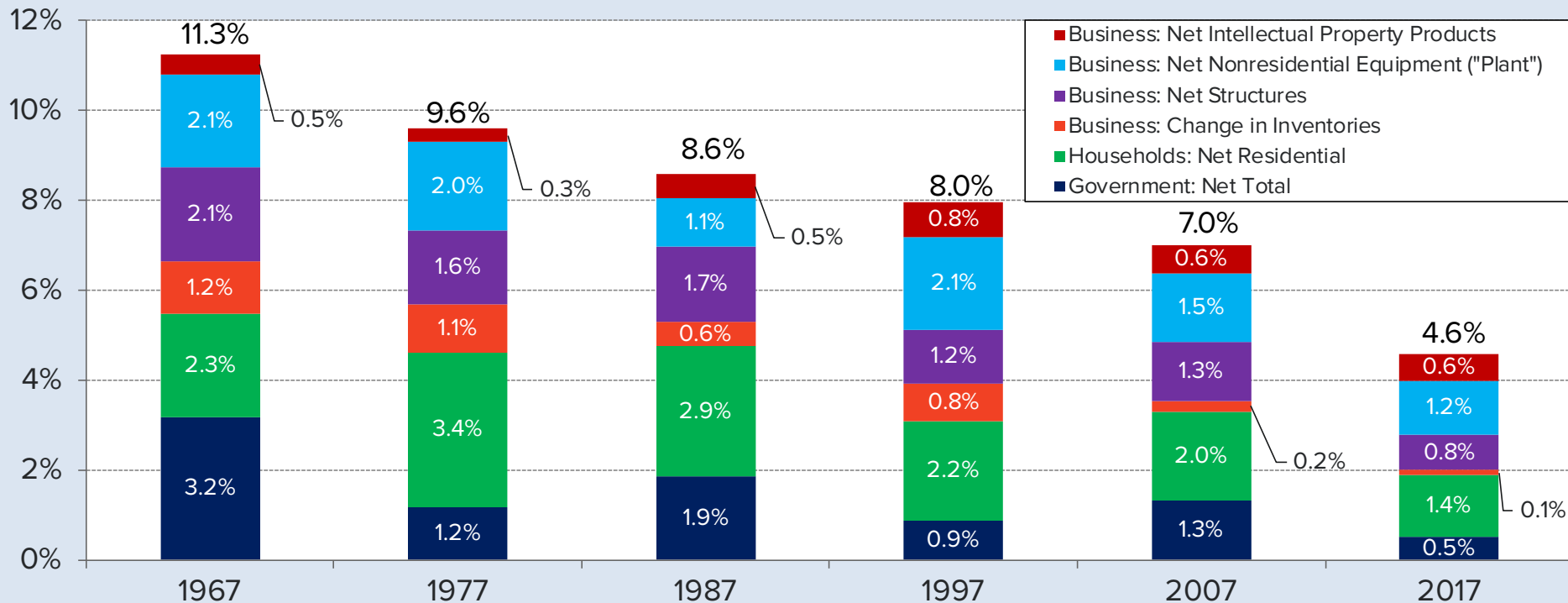
NET INVESTMENT IS CERTAINLY DOWN...

U.S. Gross and Net Domestic Investment as a % of GDP (1967 to 2017)



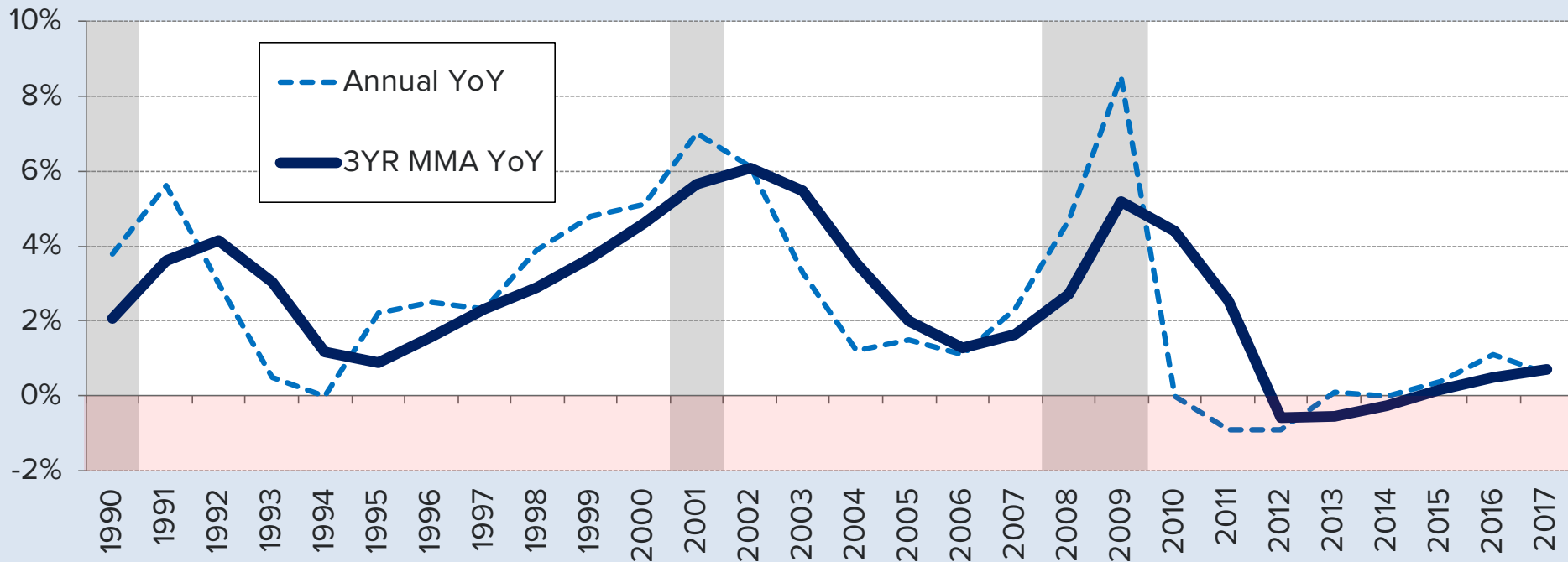
... BUT MAYBE NOT SO MUCH IN CUTTING-EDGE SECTORS

Net Domestic Investment As a % of GDP, by Type (Selected Years)



PER BLS, CAP-PER-WORKER GROWTH HAS ZEROED OUT

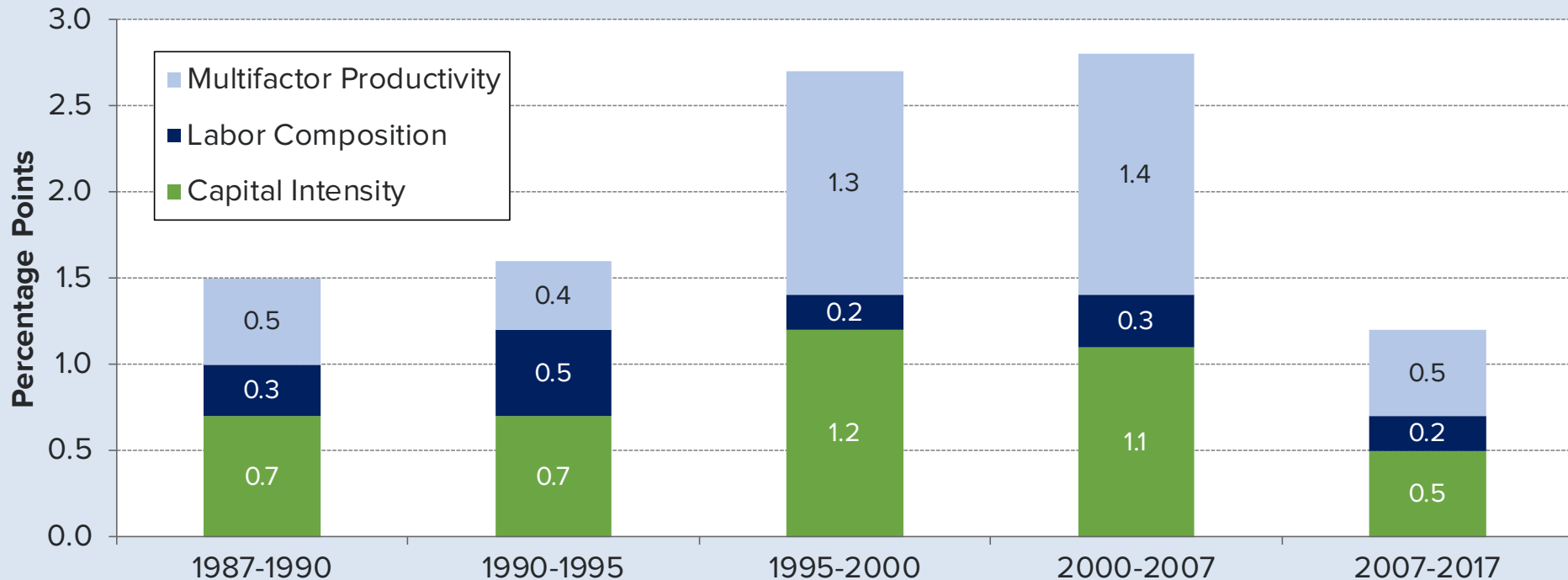
Private Nonfarm Business Sector: Capital Intensity*, Annual YoY Change and YoY 3YR MMA (1990 to 2017)



* Ratio of capital services to hours worked; capital services equals total real stock of business capital times estimated rental price (by type).

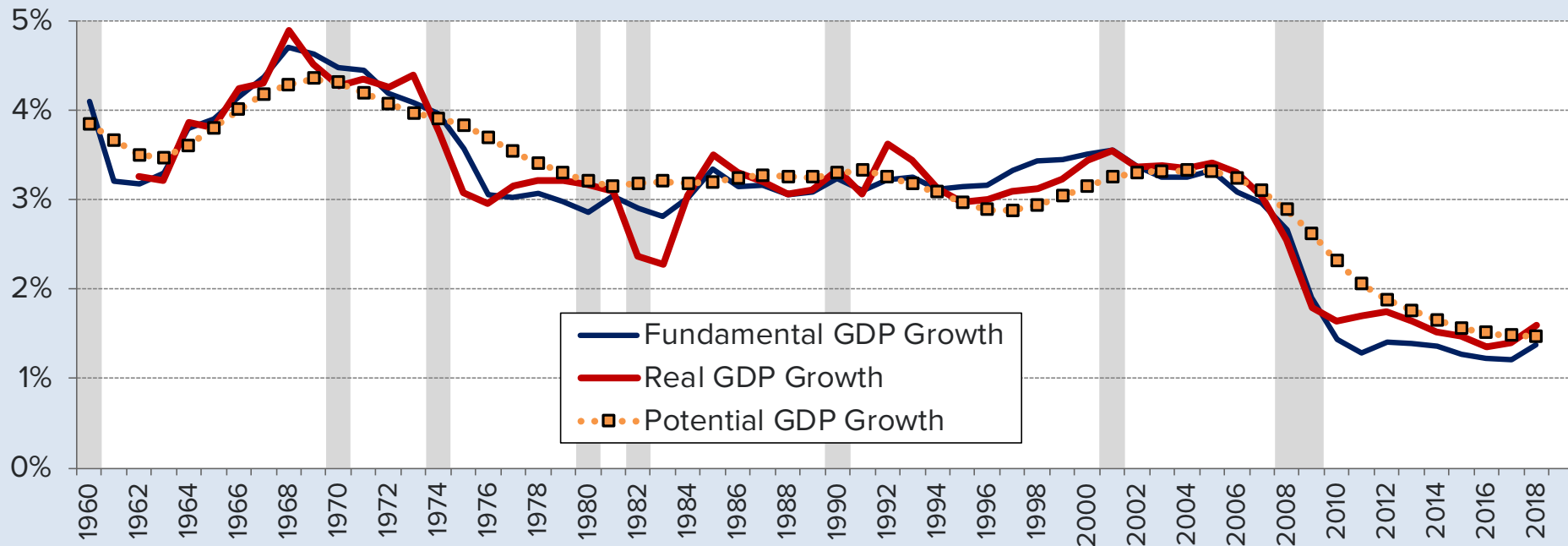
PER BLS, BOTH CAP INTENSITY & INNOVATION ARE DOWN

Private Nonfarm Business Sector: Contributions to Labor Productivity Growth by Period



WHAT THIS MEANS FOR GDP

Fundamental GDP Growth* vs. Real GDP Growth: Trailing 10YR CAGR (1960 to 2018**)

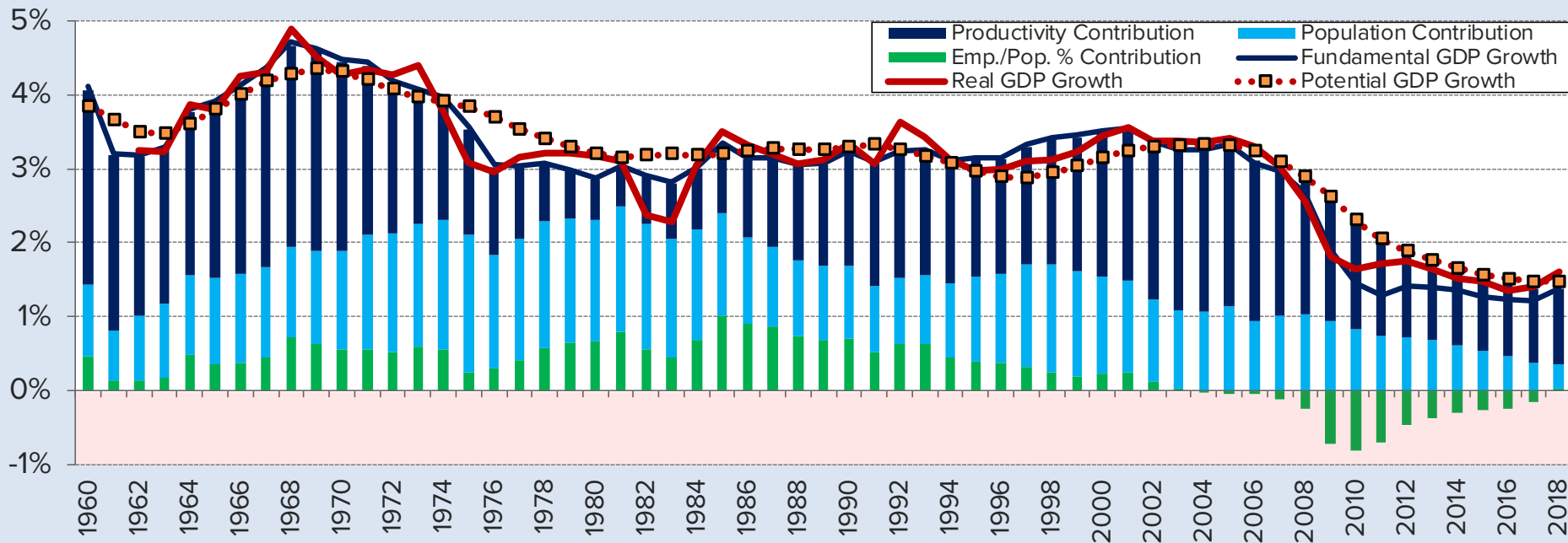


* Fundamental GDP growth = (10-YR trailing productivity CAGR x 10-YR trailing prime-age emp./pop. CAGR x YOY working-age population growth rate)

** 2018 values estimated using latest available data.

WHAT THIS MEANS FOR GDP

Fundamental GDP Growth* vs. Real/Potential GDP Growth: Trailing 10YR CAGR (1960 to 2018**)

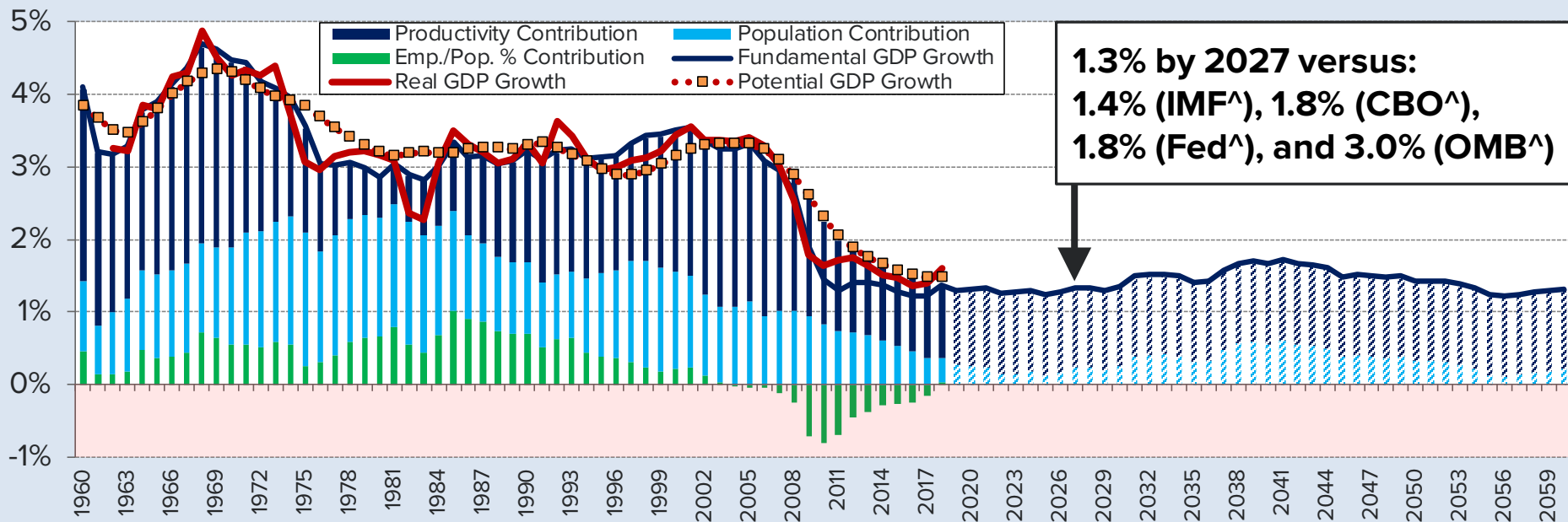


* Fundamental GDP growth = (10-YR trailing productivity CAGR x 10-YR trailing prime-age emp./pop. CAGR x YOY working-age population growth rate)

** 2018 values estimated using latest available data.

WHAT THIS MEANS FOR GDP

Fundamental GDP Growth* vs. Real/Potential GDP Growth: Trailing 10YR CAGR (1960 to 2060**)



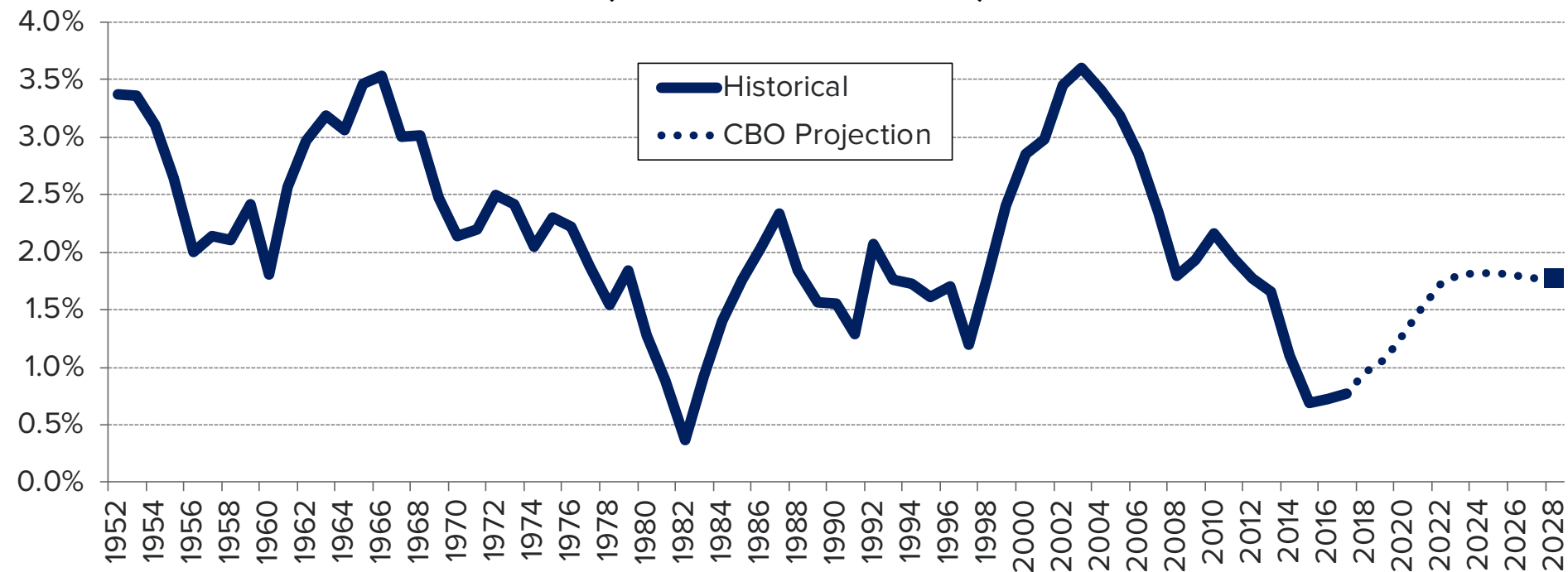
* Fundamental GDP growth = (10-YR trailing productivity CAGR x 10-YR trailing prime-age emp./pop. CAGR x YOY working-age population growth rate)

** 2018 values estimated using latest available data. Projections after 2018 assume no change in prime-age emp./pop. growth rate.

^ 2018 forecasts for 2027. Exceptions: "longer run" for Fed; and 2023 for IMF.

IS THE CBO TOO PESSIMISTIC—OR TOO OPTIMISTIC?

Nonfarm Business Sector: Real Output Per Hour, 5YR MMA (1952 to 2028*)



* "CBO Projection" calculated using CBO estimates of potential labor productivity for nonfarm business sector.

“LET OBSERVATION, WITH EXTENSIVE VIEW...”

❑ NEAR-TERM U.S. OUTLOOK (2019-2021)

- Demand for labor expands, while supply of labor shrinks.
- Are we near a wage-jumping, end-of-cycle dénouement? (that's French for “brick wall”)

❑ LONG-TERM U.S. ECONOMIC OUTLOOK (2019-2060)

- Employment growth down for sure; productivity growth uncertain (but not looking good)
- Worker $\Delta\%$ + Productivity $\Delta\%$ = GDP $\Delta\%$: Still an iron law... even in the 2040s.

❑ LONG-TERM GLOBAL OUTLOOK (2019-2045)

- Almost everywhere you look, older & slower-growing economies
- Why long-term U.S. growth prospects lie in our own “Quad 2” (& looking pretty good there)

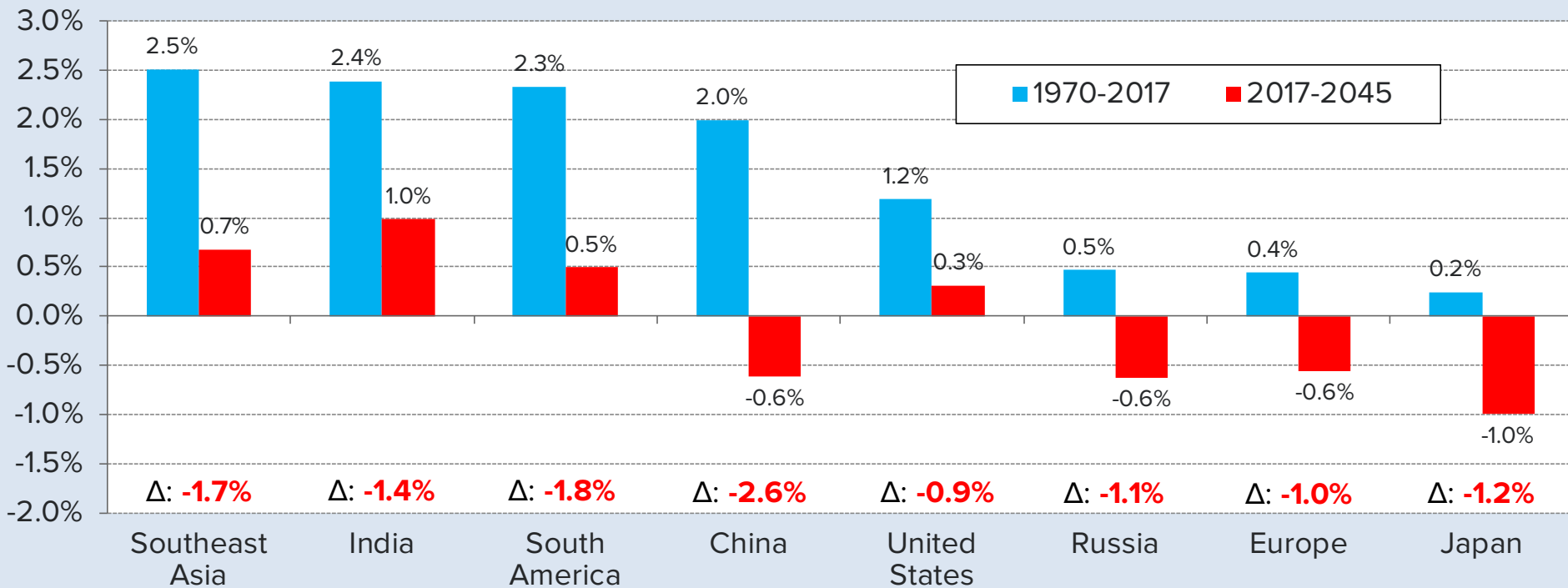
❑ POPULATION GROWTH, PRODUCTIVITY, & REAL INTEREST RATES

- Introducing the neoclassical model
- Exploring what determines “n” and “g” and “s”... and oh yes “the big r.”

❑ CLOSING THOUGHTS

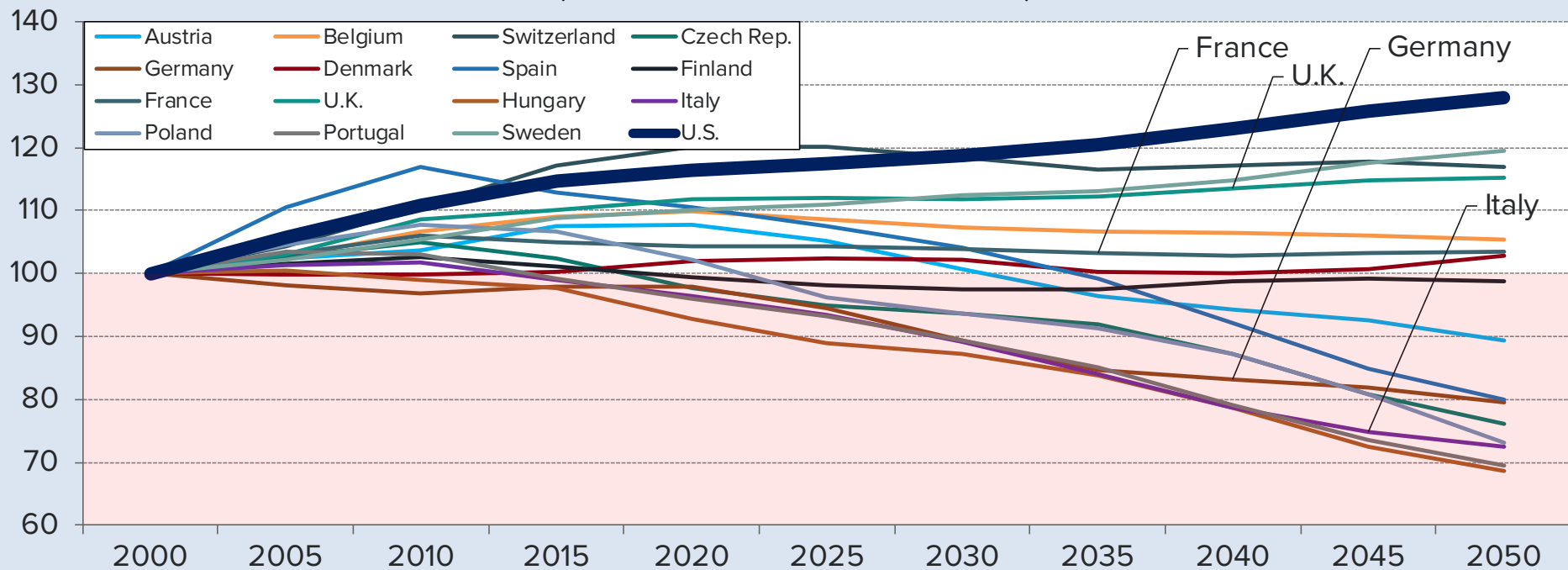
STEEP GLOBAL SLOWDOWN IN WORKER GROWTH

Global Population Age 20-64, CAGR by Region, History and Projections (1970 to 2045)



WORKER GROWTH IN EUROPE

20-64 Pop. Projections*: U.S. vs. Europe (Index: 100 = 2000)



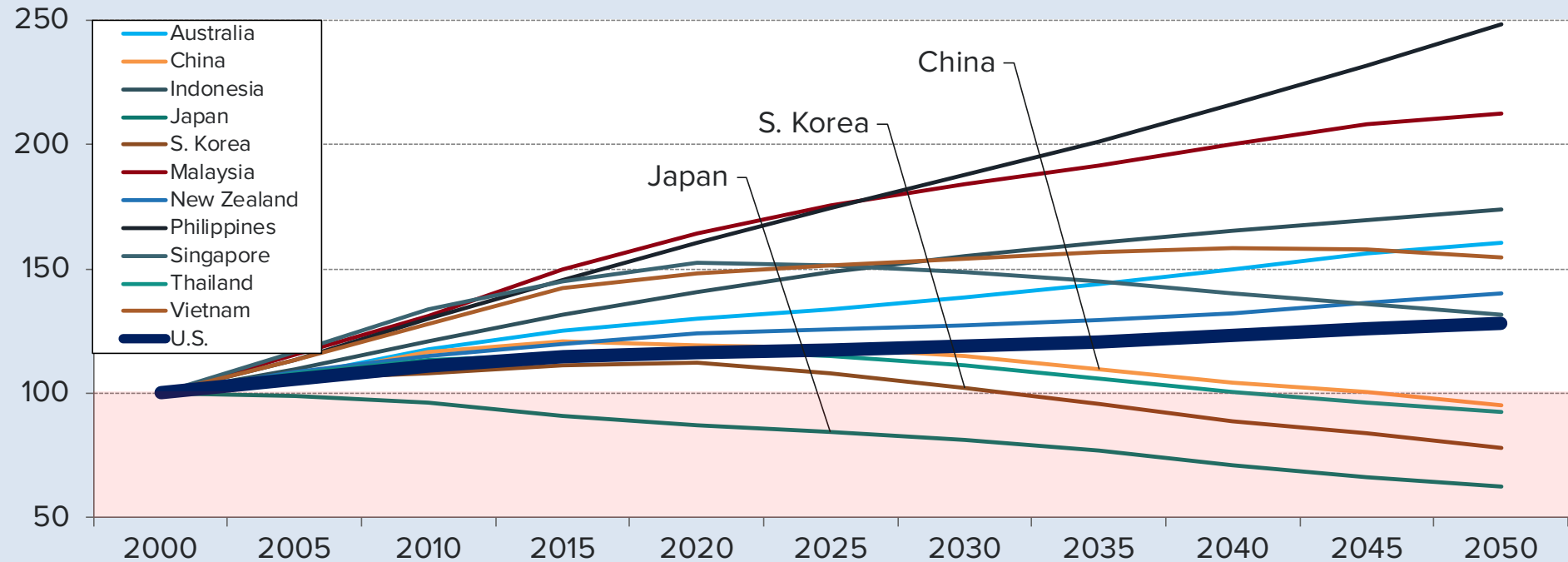
* Uses U.N. Population Division "constant-fertility variant."

SOURCE: U.N. Population Division World Population Prospects (2017)

© Hedgeye Risk Management LLC. All Rights Reserved.

WORKER GROWTH IN EAST ASIA & PACIFIC

20-64 Pop. Projections*: U.S. vs. East Asia & Pacific (Index: 100 = 2000)



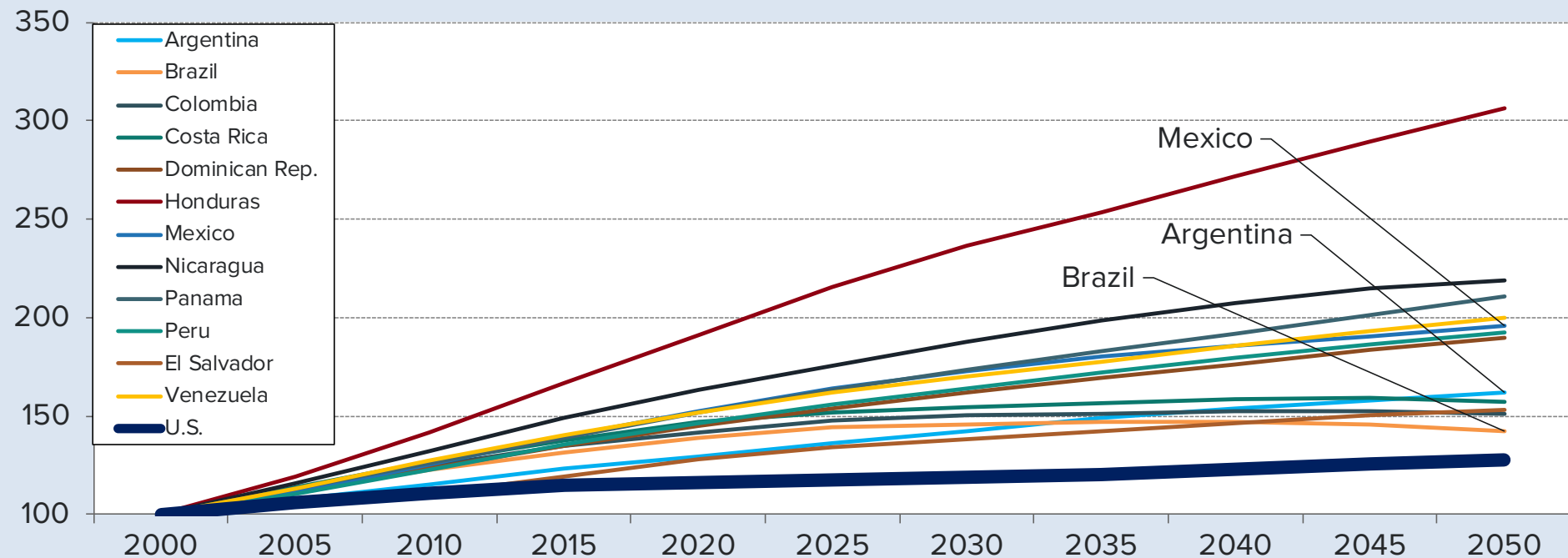
* Uses U.N. Population Division "constant-fertility variant."

SOURCE: U.N. Population Division World Population Prospects (2017)

© Hedgeye Risk Management LLC. All Rights Reserved.

WORKER GROWTH IN LATIN AMERICA

20-64 Pop. Projections*: U.S. vs. Latin America & Caribbean (Index: 100 = 2000)



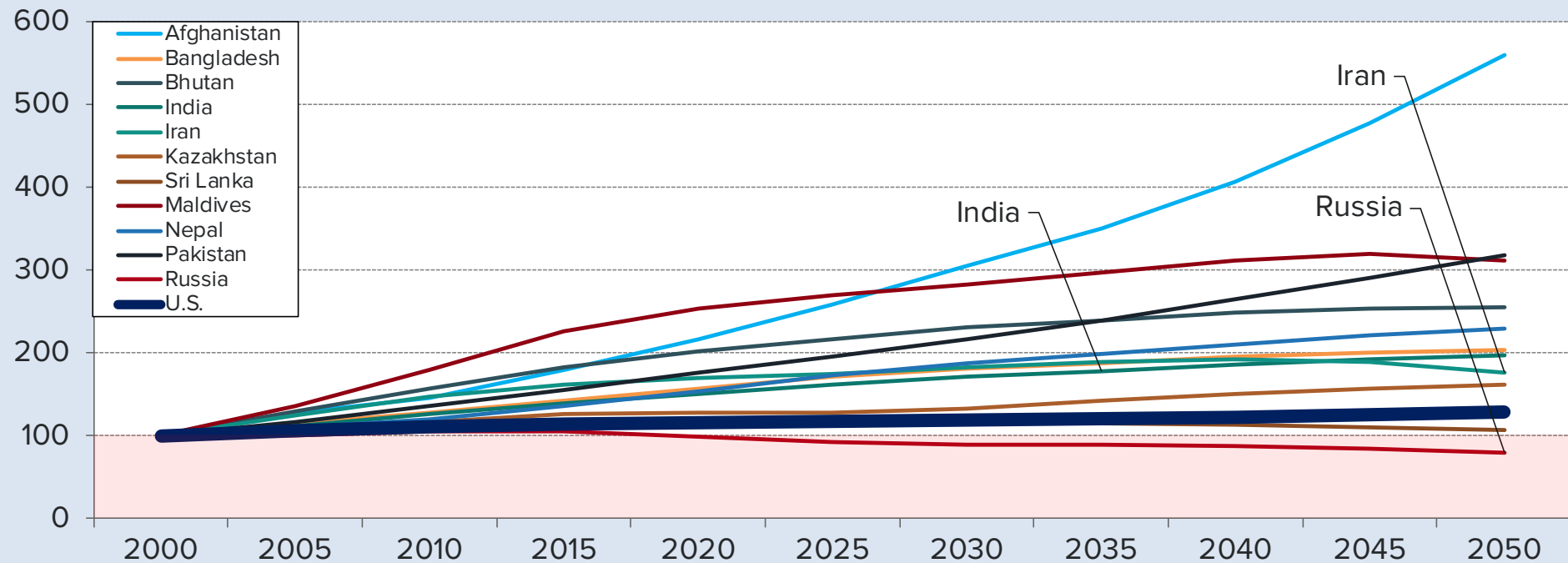
* Uses U.N. Population Division "constant-fertility variant."

SOURCE: U.N. Population Division World Population Prospects (2017)

© Hedgeye Risk Management LLC. All Rights Reserved.

WORKER GROWTH IN SOUTH & CENTRAL ASIA

20-64 Pop. Projections: U.S. vs. South & Central Asia (Index: 100 = 2000)



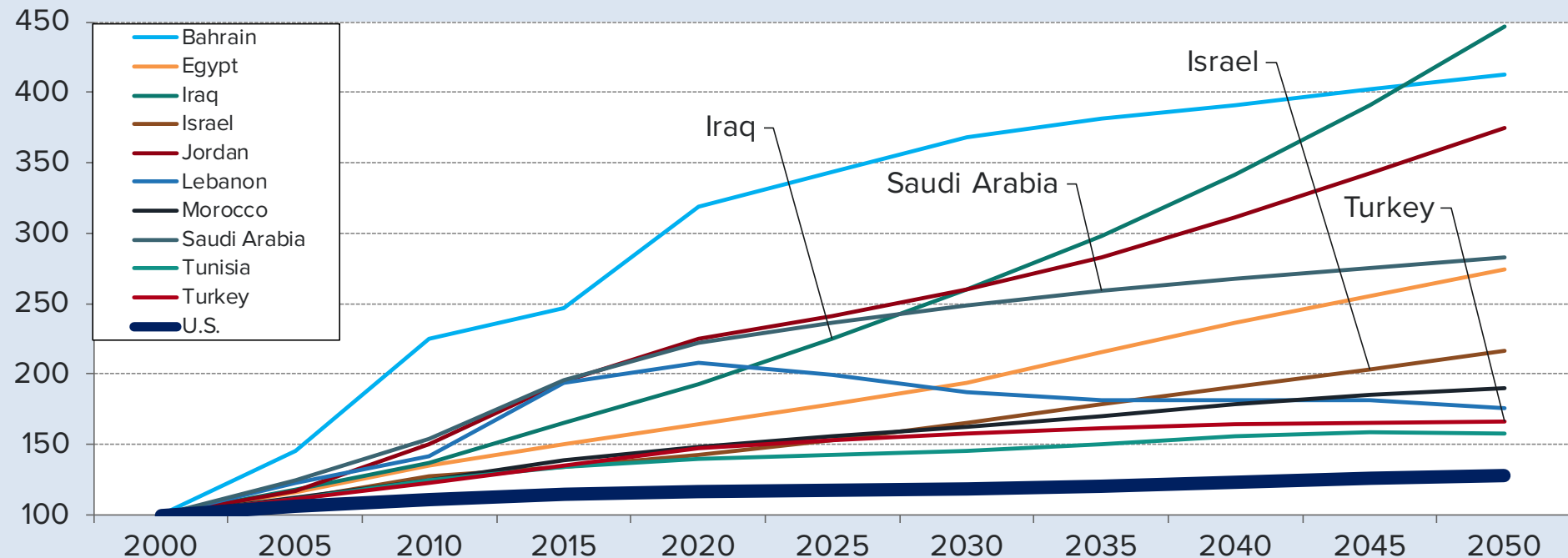
* Uses U.N. Population Division "constant-fertility variant."

SOURCE: U.N. Population Division World Population Prospects (2017)

© Hedgeye Risk Management LLC. All Rights Reserved.

WORKER GROWTH IN THE MIDDLE EAST

20-64 Pop. Projections: U.S. vs. Middle East & North Africa (Index: 100 = 2000)



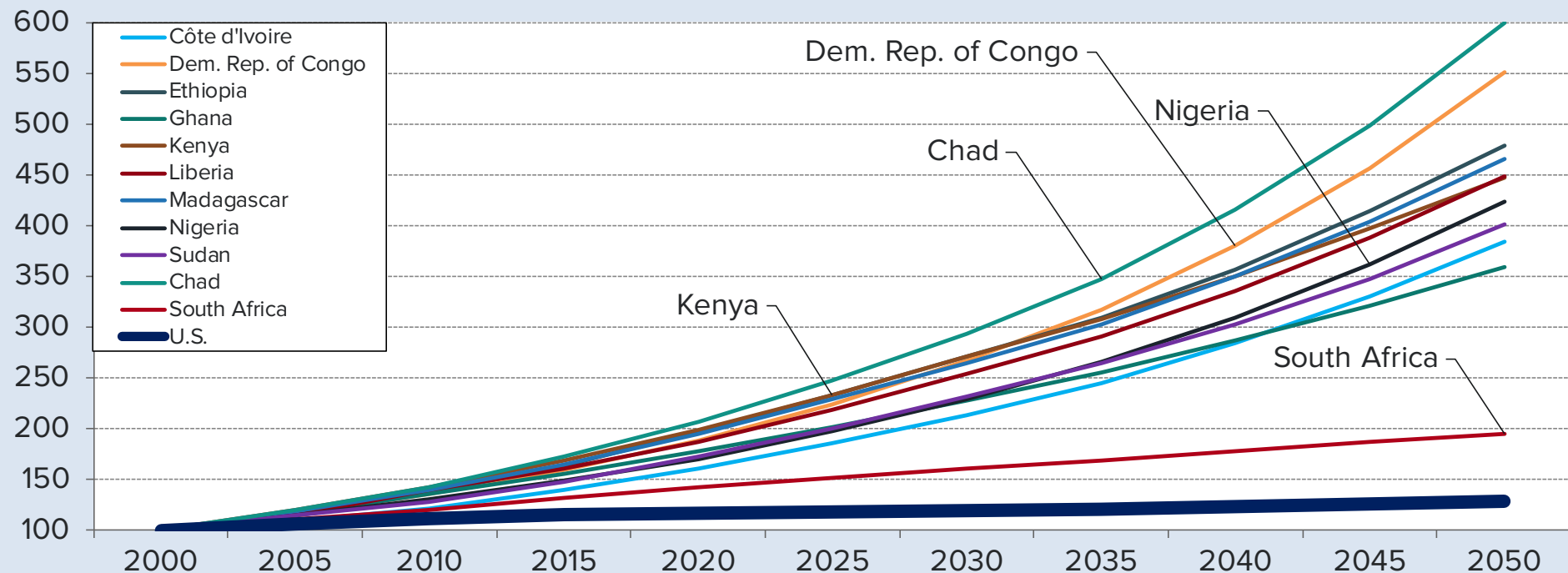
* Uses U.N. Population Division "constant-fertility variant."

SOURCE: U.N. Population Division World Population Prospects (2017)

© Hedgeye Risk Management LLC. All Rights Reserved.

WORKER GROWTH IN SUB-SAHARAN AFRICA

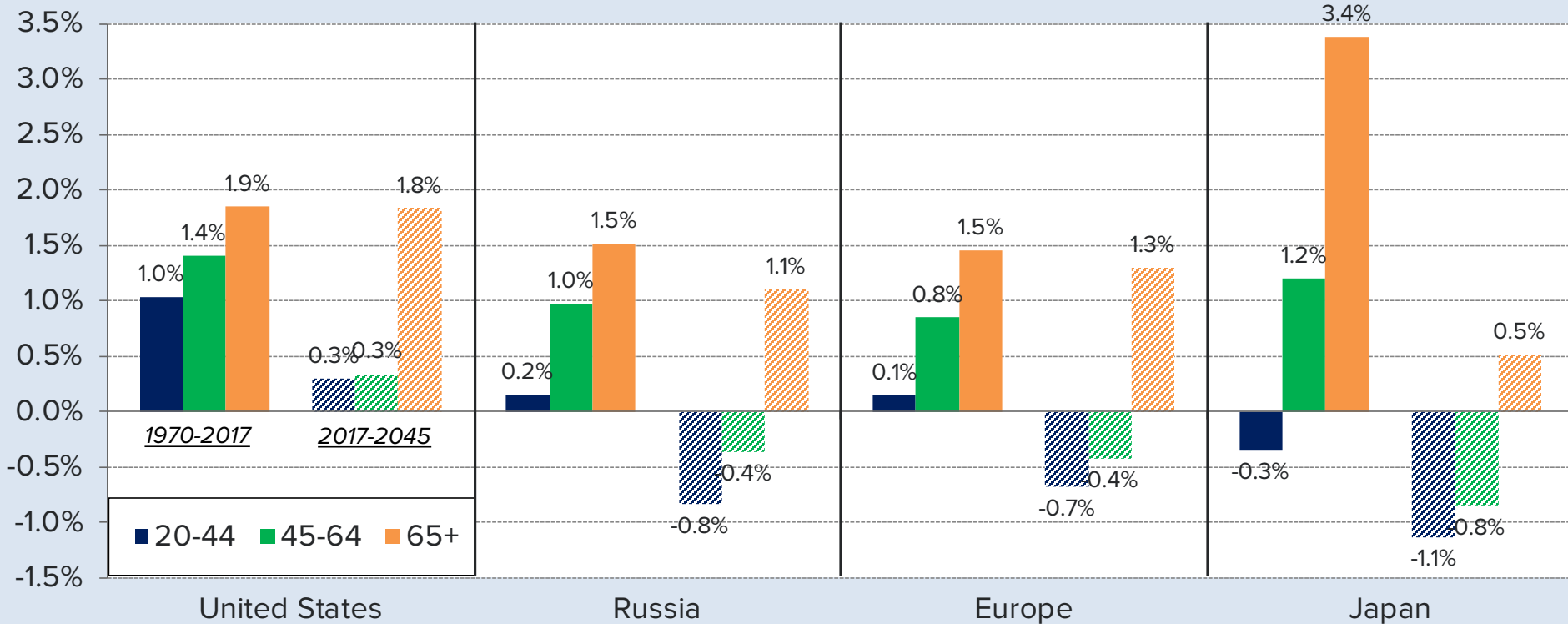
20-64 Pop. Projections: U.S. vs. Sub-Saharan Africa (Index: 100 = 2000)



* Uses U.N. Population Division "constant-fertility variant."

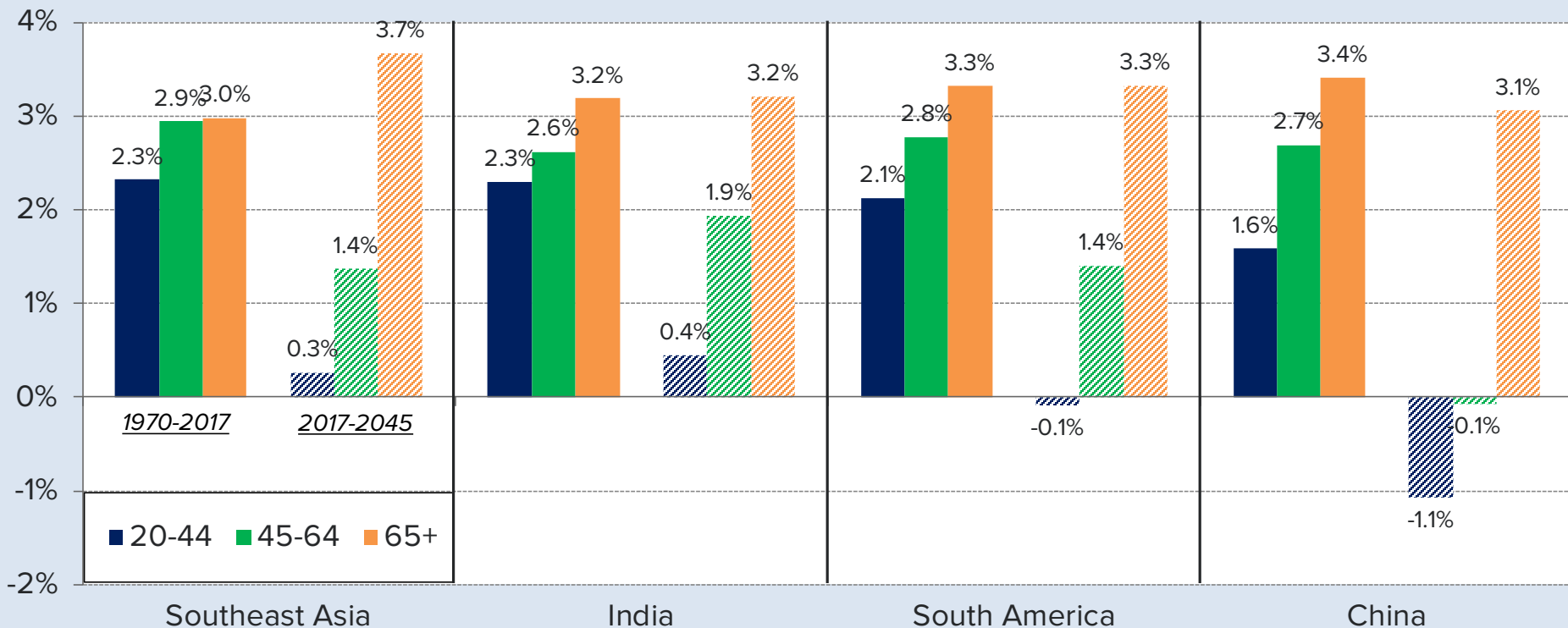
THE WORLD IS ALSO STEEPLY AGING, IN THE DC'S...

Global Population CAGR by Age and Region: More Developed



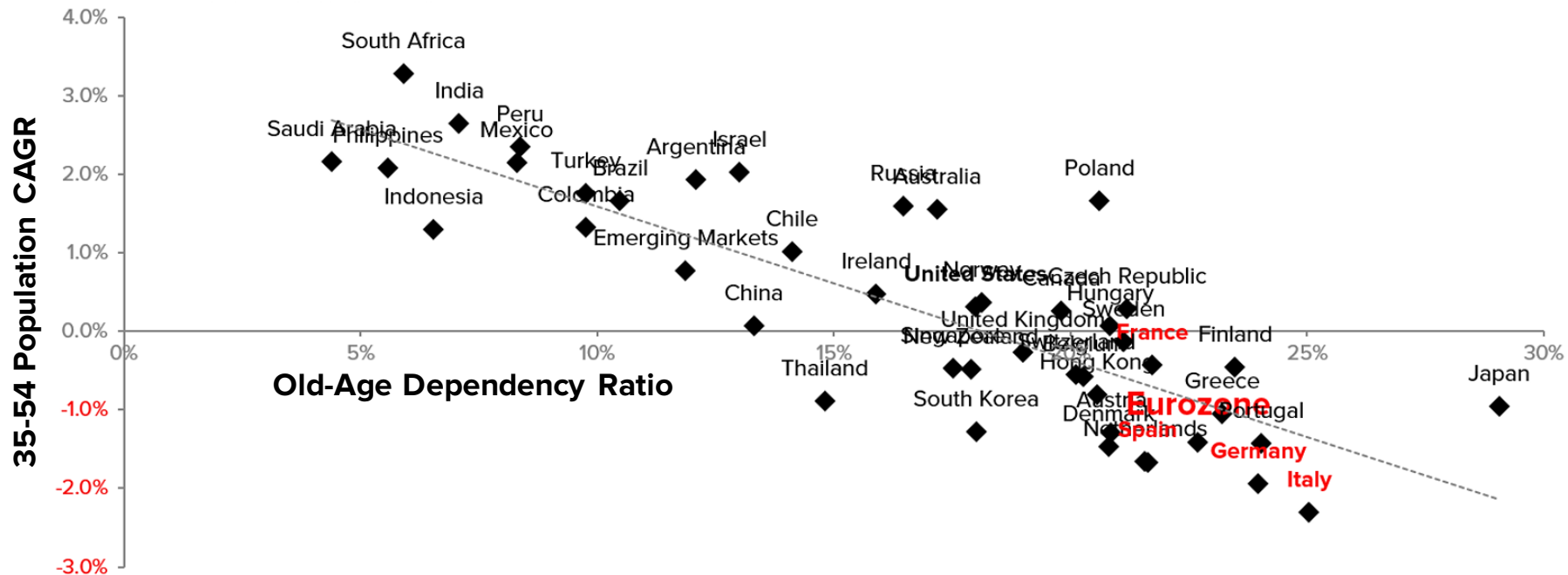
... AND IN THE EM'S.

Global Population CAGR by Age and Region: *Less Developed*



AGING DRIVEN BY FEWER BIRTHS, NOT BY LIVING LONGER

Old-Age Dependency Ratio* vs. 35-54 Population CAGR**

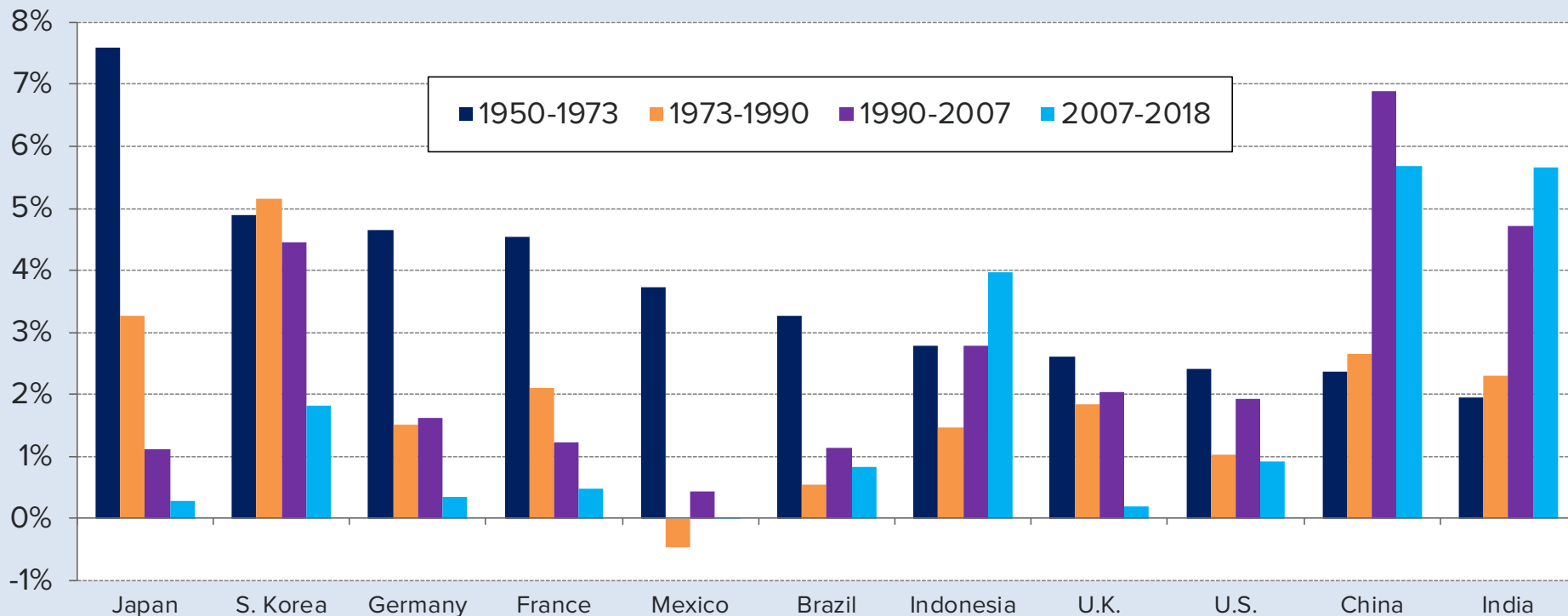


* Refers to the number of 65+ year olds as a share of the working-age population on a 5-year forward basis.

** Refers to the 5-year forward CAGR of the 35- to 54-year-old population.

GLOBAL PRODUCTIVITY: MOSTLY SLOWING FOR THE DC'S

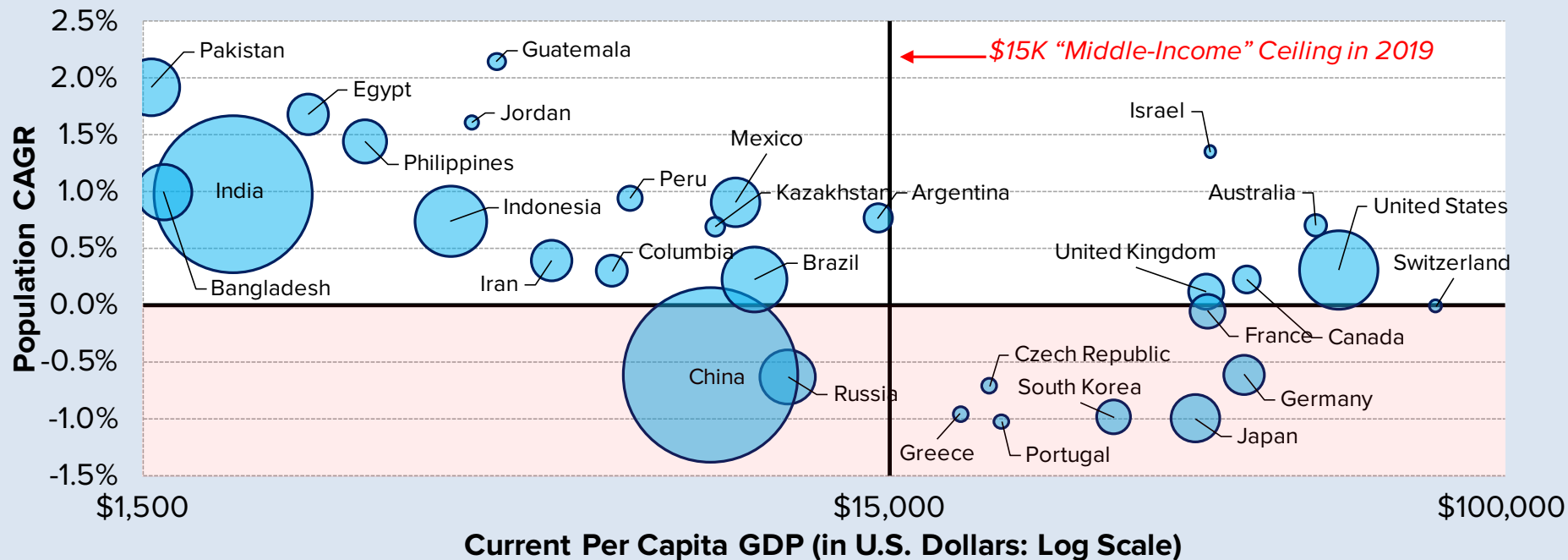
Labor Productivity CAGR* by Country and Period



* Refers to output per employed person, converted to dollars using PPP index.

IS U.S. SITTING PRETTY IN A DEMOGRAPHIC “QUAD 2”?

Expected Working-Age Population Growth* and Current Per Capita GDP**



* 20-64 population CAGR from 2017 to 2045. Size of bubbles reflects current population.

** GDP calculated in USD FX.

“LET OBSERVATION, WITH EXTENSIVE VIEW...”

❑ NEAR-TERM U.S. OUTLOOK (2019-2021)

- Demand for labor expands, while supply of labor shrinks.
- Are we near a wage-jumping, end-of-cycle dénouement? (that's French for “brick wall”)

❑ LONG-TERM U.S. ECONOMIC OUTLOOK (2019-2060)

- Employment growth down for sure; productivity growth uncertain (but not looking good)
- Worker $\Delta\%$ + Productivity $\Delta\%$ = GDP $\Delta\%$: Still an iron law... even in the 2040s.

❑ LONG-TERM GLOBAL OUTLOOK (2019-2045)

- Almost everywhere you look, older & slower-growing economies
- Why long-term U.S. growth prospects lie in our own “Quad 2” (& looking pretty good there)

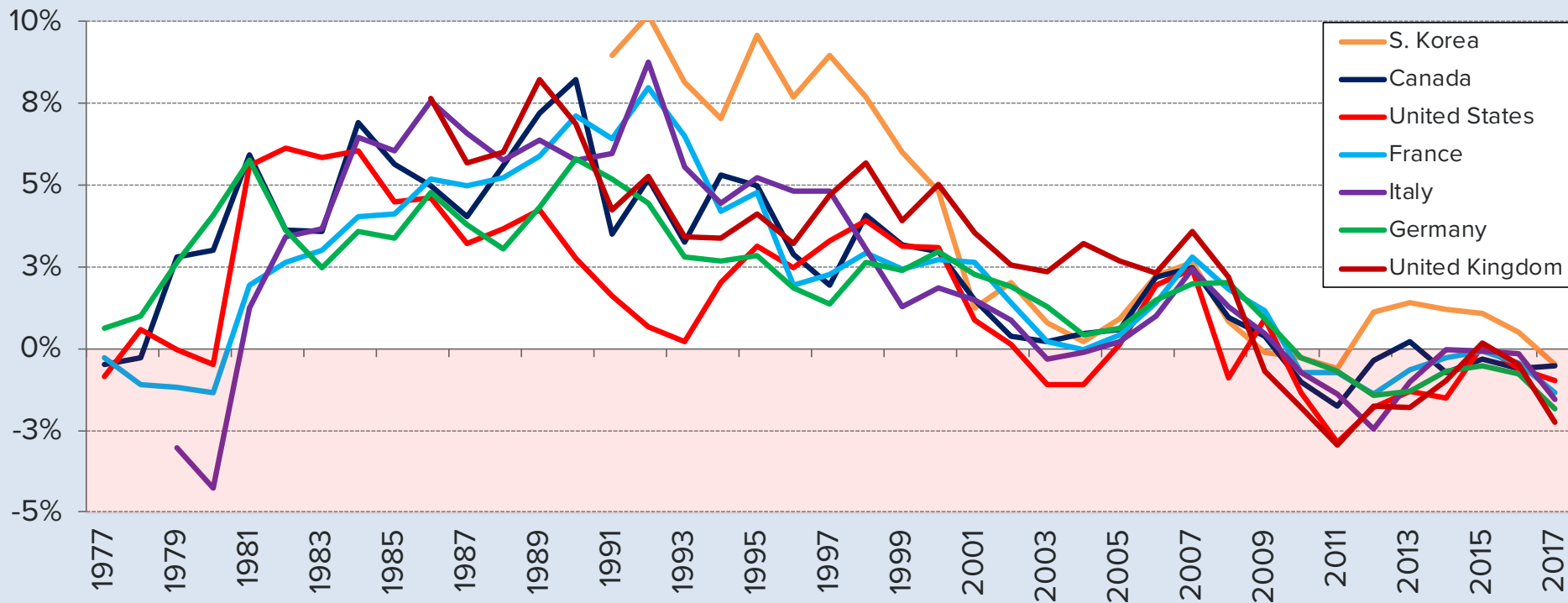
❑ POPULATION GROWTH, PRODUCTIVITY, & REAL INTEREST RATES

- Introducing the neoclassical model
- Exploring what determines “n” and “g” and “s”... and oh yes “the big r.”

❑ CLOSING THOUGHTS

LOW REAL RATES: PASSING FAD OR THE “NEW NORMAL”?

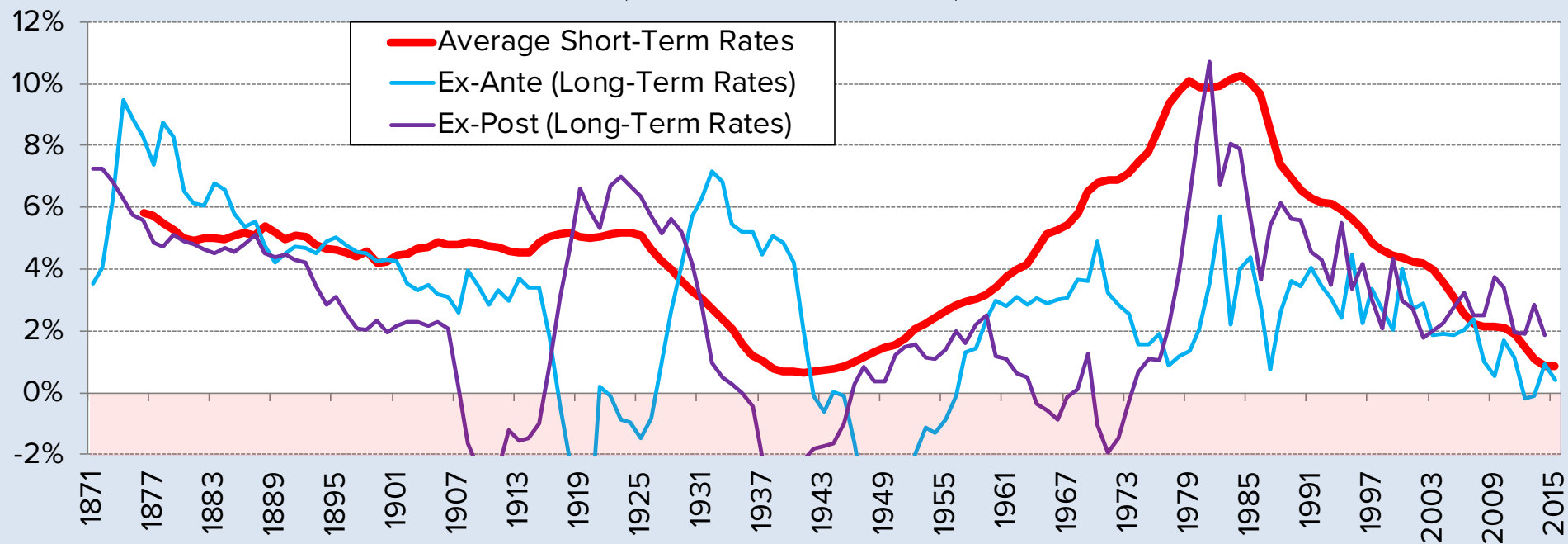
Short-Term Real Rates of Interest* by Country (1977 to 2017)



* Based on three-month money market rates (typically government bills) where available.

LOW REAL RATES: PASSING FAD OR THE “NEW NORMAL”?

Estimated U.S. Real Rates of Return, by Methodology* (1871 to 2016)



* "Ex-Ante (Long-Term Rates)" uses trailing 10-year average CPI and nominal 10-year bond rate. "Ex-Post (Long-Term Rates)" uses forward 10-year average CPI and nominal 10-year bond rate. "Average Short-Term Rates" uses 11-year centered moving average of real short-term rate.

INTRODUCING THE NEOCLASSICAL MODEL

Solow-Swan Growth Model (1956)

Formula for the Equilibrium Real Rate of Return in a Growing Economy

$$r = \alpha * \frac{n + g + \delta}{s} - \left(\begin{matrix} \text{RISK} \\ \text{PREMIUM} \end{matrix} \right)$$

Rate of Employment Growth n Rate of Productivity Growth g

Real Rate of Interest r Savings Rate s

Marginal Product of Capital Stock

“R” IS OFTEN EQUATED TO “NATURAL RATE OF INTEREST”

$$r = \alpha * \frac{n + g + \delta}{s} - \left(\begin{smallmatrix} \text{RISK} \\ \text{PREMIUM} \end{smallmatrix} \right)$$

❑ YES, THERE ARE ASSUMPTIONS (AREN'T THERE ALWAYS?)

- “r” is a long-term equilibrium path average of short-term real rates
- EQUILIBRIUM means full employment with nonaccelerating (or decelerating) inflation
- SHORT-TERM means no term premium for “lock-up” risk or “inflation” risk
- REAL means all returns are inflation-adjusted; there is no inflation premium

❑ THIS IS OFTEN CALLED THE “NATURAL RATE OF INTEREST” (NRI or r*)

- Term coined by Knut Wicksell (1898); loomed large in Austrian theory
- Since 1990, the NRI has re-emerged: top monetarists; Taylor rule; recent Fed presidents

TALKING ABOUT “N” AND “G”

$$r = \alpha * \frac{n + g + \delta}{s} - \left(\begin{smallmatrix} \text{RISK} \\ \text{PREMIUM} \end{smallmatrix} \right)$$

□ LET’S TALK ABOUT THE FUTURE OF POPULATION GROWTH (“n”)

- Little uncertainty; set in stone for next 30 years; impact of net immigration overrated
- Longer term, affluence functions as negative feedback—though culture & religion still matter

□ LET’S TALK ABOUT THE FUTURE OF PRODUCTIVITY GROWTH (“g”)

- Much uncertainty, though recent decline in DC’s is overdetermined
- Yes, “second-machine age” revolution is possible—but little evidence yet in macro data
- Paul Romer’s learning-by-doing thesis has negative future implications for “g”
- Population aging that accompanies declining “n” may also endogenize “g” negatively

DEBATES OVER “S”

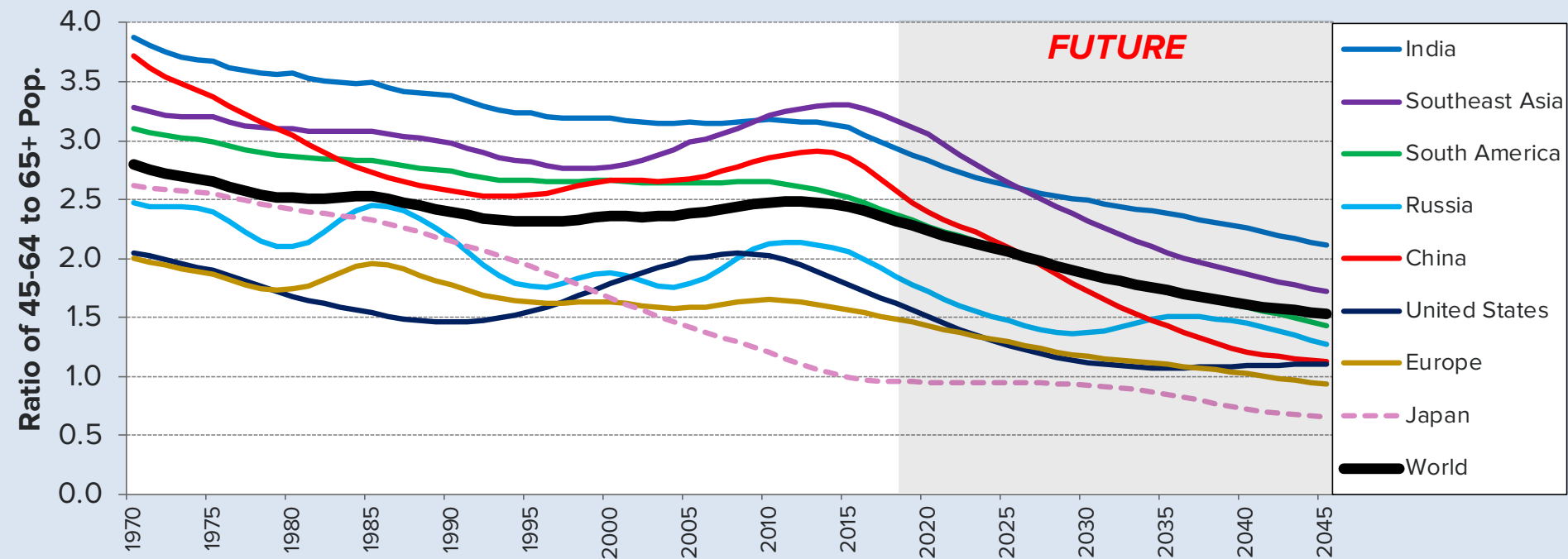
$$r = \alpha * \frac{n + g + \delta}{s} - \left(\begin{smallmatrix} \text{RISK} \\ \text{PREMIUM} \end{smallmatrix} \right)$$

□ LET’S TALK ABOUT THE FUTURE OF THE SAVINGS RATE (“s”)

- Debate #1: Is “s” a positive function of “r”? Empirical evidence, surprisingly, is still inconclusive
- Debate #2: Is “s” an inverse function of expected income growth?
 - Utility optimizers (“Ramsey model”) says yes: Fast income growth makes you save less
 - Duesenberry hypothesis (and much evidence) says no: It is linked to higher savings rates
- Debate #3: Is “s” a function of demography—pitting midlife savers against young & old dissavers?
 - Lifecycle hypothesis says yes, suggesting that decline of midlife pop will push saving down
 - But longer lifespans and growing wealth inequality may work in the other direction

FALLING RATIO OF MIDLIFERS TO ELDERS

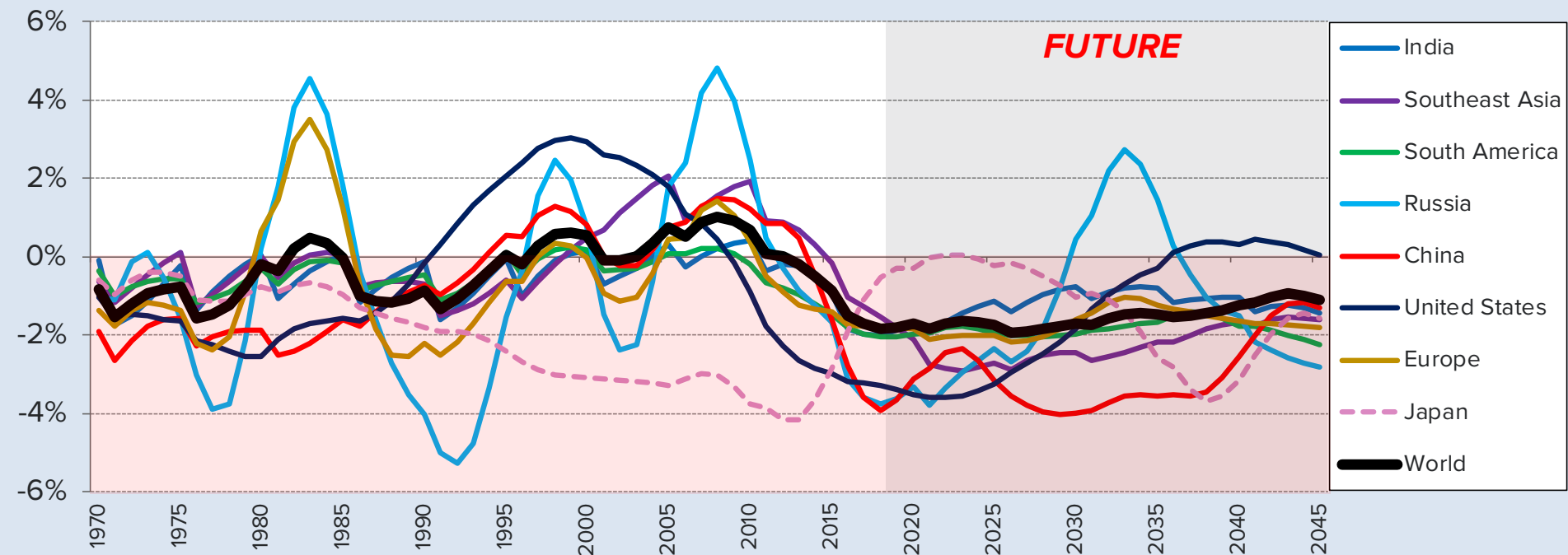
Middle-Age to Senior Ratio* by Region: **History and Projections (1970 to 2045)**



* Refers to the number of middle-aged (45-64) adults per senior (65+) in the population.

FALLING RATIO OF MIDLIFERS TO ELDERS

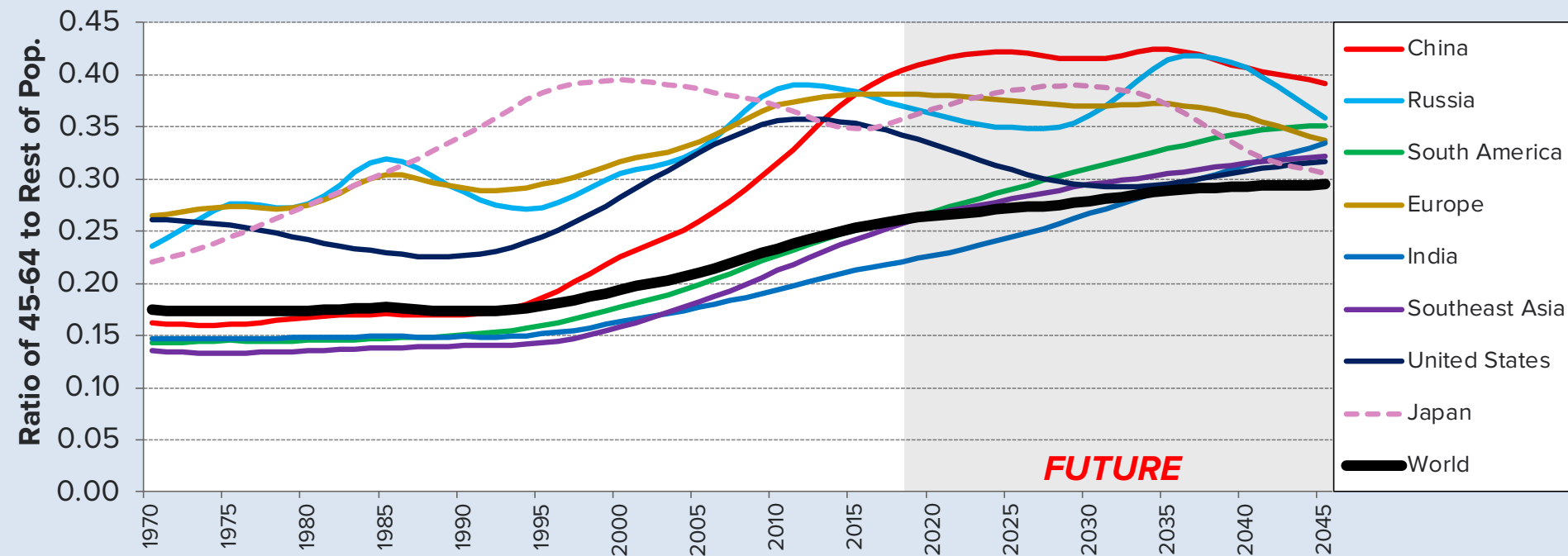
% Change in *Middle-Age to Senior* Ratio* by Region: History and Projections (1970 to 2045)



* Refers to the number of middle-aged (45-64) adults per senior (65+) in the population.

SLOWING RATIO OF MIDLIFERS TO ALL OTHER ADULTS

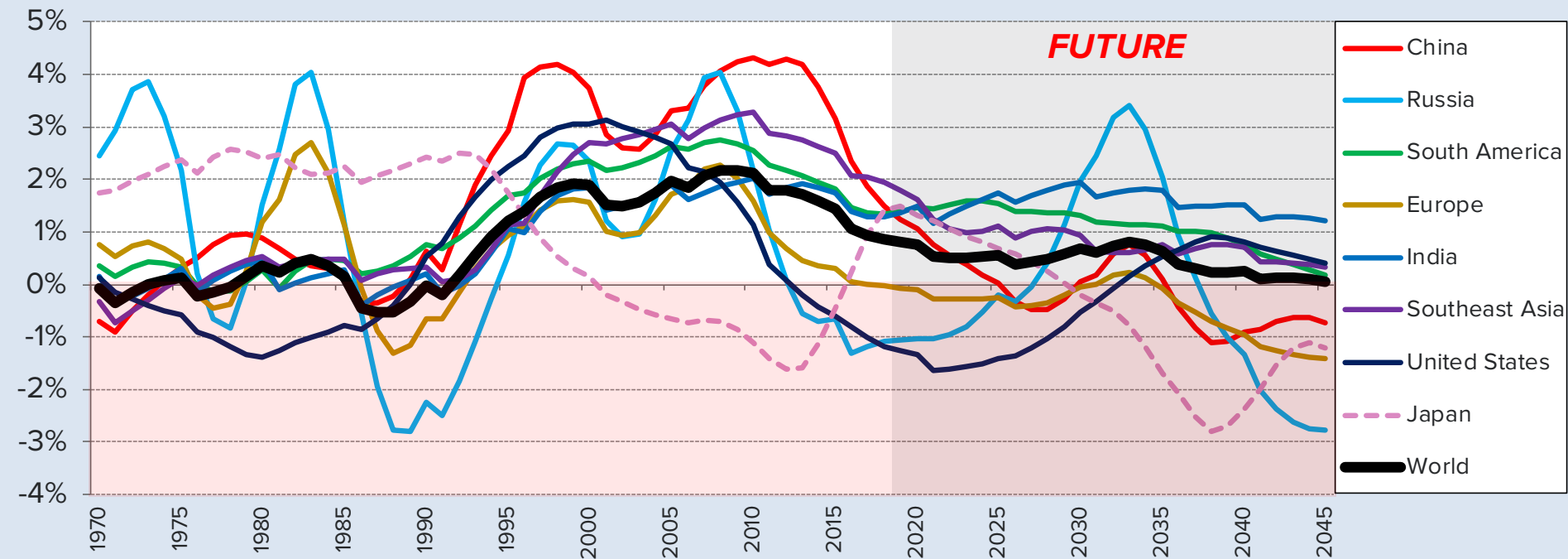
Middle-Age to All Other Ratio* by Region: **History and Projections (1970 to 2045)**



* Refers to the number of middle-aged (45-64) adults per non middle-aged (0-44, 65+) person in the population.

SLOWING RATIO OF MIDLIFERS TO ALL OTHER ADULTS

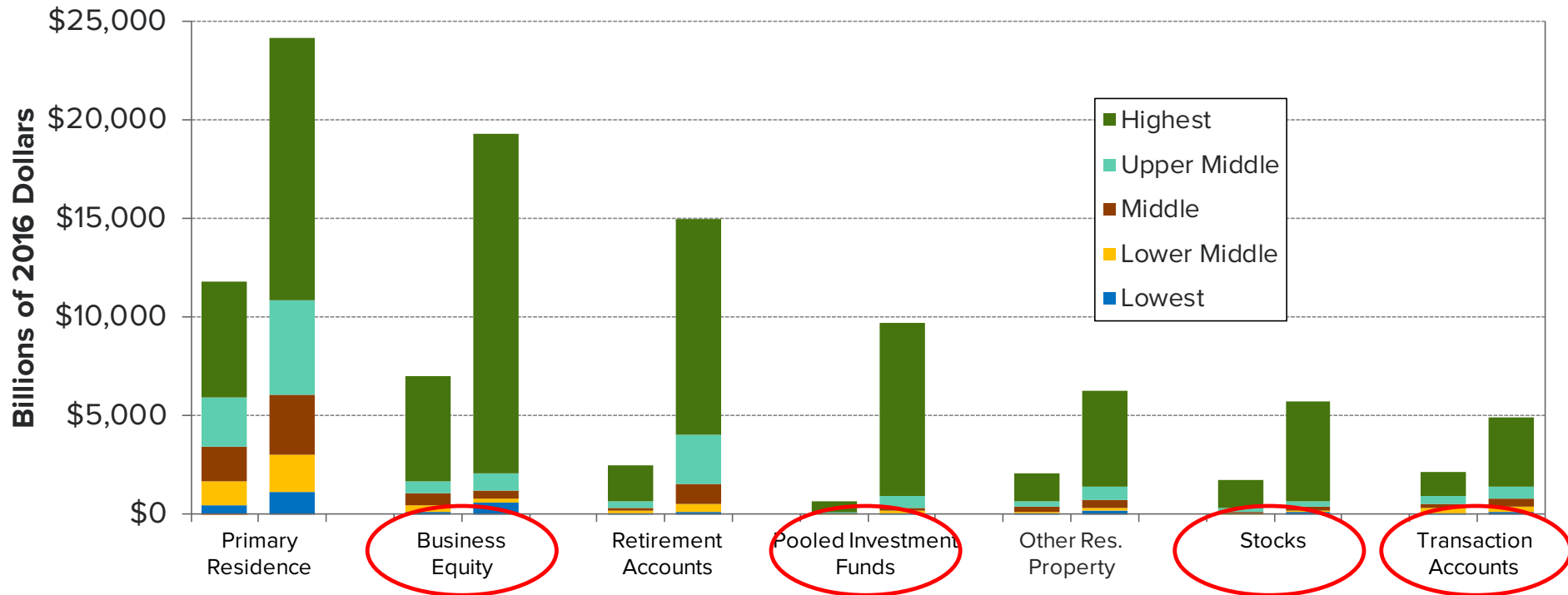
% Change in *Middle-Age to All Other* Ratio* by Region: History and Projections (1970 to 2045)



* Refers to the number of middle-aged (45-64) adults per non middle-aged (0-44, 65+) person in the population.

MOST ASSET \$ GROWTH GOING TO NON-LIFECYCLE SAVERS

Aggregate Real Value of U.S. Household Assets, by Income Quintile: 1989 (Left) vs. 2016 (Right)



AND BTW, WHO SAYS THE OLD ARE DISSAVERS?

Average Stock Ownership per Household*, by Age of Householder (2016)

	Under 35	35-44	45-54	55-64	65-74	75+
Held Directly	\$4,236	\$15,708	\$37,324	\$74,975	\$69,693	\$97,928
Held Directly & Indirectly**	\$17,015	\$62,911	\$169,963	\$322,125	\$269,866	\$291,245

* Averaged over all households in the age bracket.

** Indirect stock holdings are those in pooled investment funds, retirement accounts, and other managed assets.

OUTLINE: XXXXXX

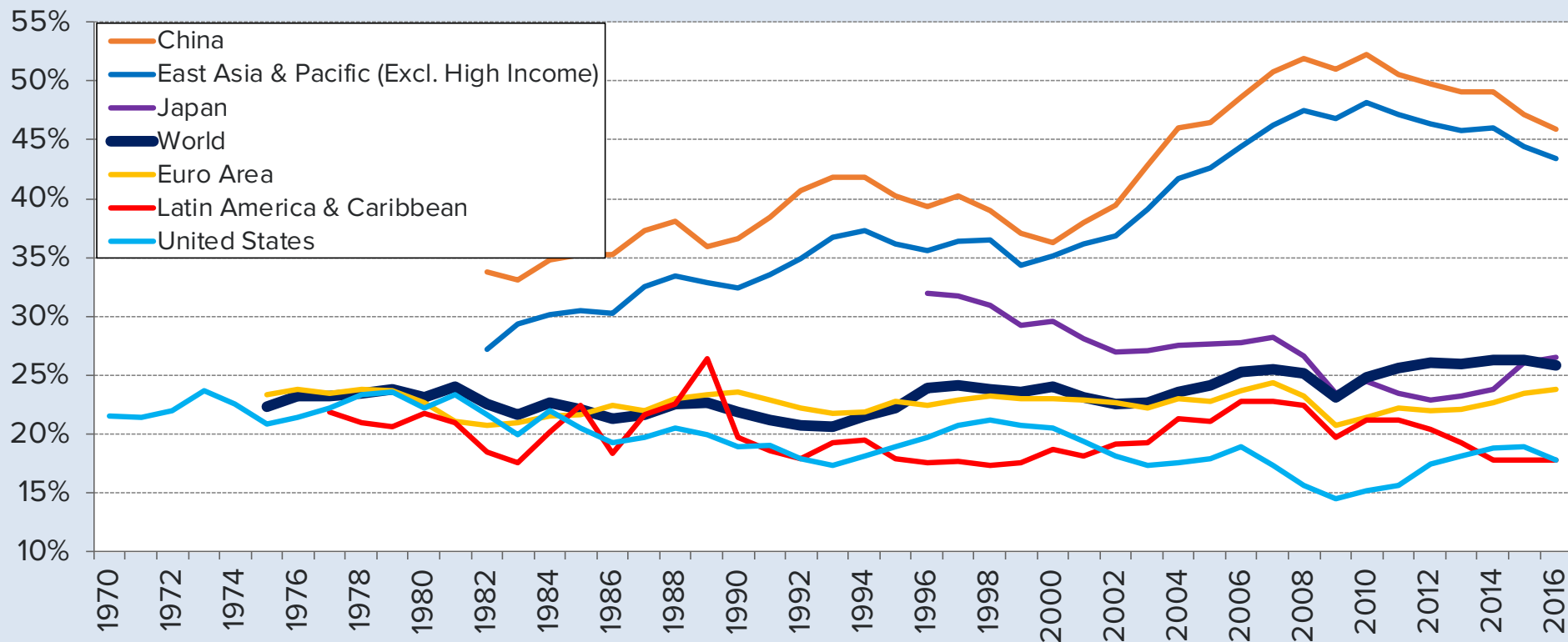
$$r = \alpha * \frac{n + g + \delta}{s} - \left(\begin{smallmatrix} \text{RISK} \\ \text{PREMIUM} \end{smallmatrix} \right)$$

□ LIMITATIONS ON THE SOLOW-SWAN MODEL

- Financial repression can sidetrack “r” from the “natural interest rate” for long periods
- Fiscal policy can directly boost (or drastically cut) the national or global savings rate
- Change in price or “mix” of capital stock can distort results (e.g., rise of “asset-lite” tech firms)
- Market concentration can create big gap between “r” and marginal product of capital
- Global capital markets may be making the model harder to apply to individual economies

EAST ASIA'S HIGH SAVINGS RATE LIFTS THE WORLD'S

Gross Savings as a % of Gross National Income (1970 to 2016)



“LET OBSERVATION, WITH EXTENSIVE VIEW...”

❑ NEAR-TERM U.S. OUTLOOK (2019-2021)

- Demand for labor expands, while supply of labor shrinks.
- Are we near a wage-jumping, end-of-cycle dénouement? (that's French for “brick wall”)

❑ LONG-TERM U.S. ECONOMIC OUTLOOK (2019-2060)

- Employment growth down for sure; productivity growth uncertain (but not looking good)
- Worker $\Delta\%$ + Productivity $\Delta\%$ = GDP $\Delta\%$: Still an iron law... even in the 2040s.

❑ LONG-TERM GLOBAL OUTLOOK (2019-2045)

- Almost everywhere you look, older & slower-growing economies
- Why long-term U.S. growth prospects lie in our own “Quad 2” (& looking pretty good there)

❑ POPULATION GROWTH, PRODUCTIVITY, & REAL INTEREST RATES

- Introducing the neoclassical model
- Exploring what determines “n” and “g” and “s”... and oh yes “the big r.”

❑ CLOSING THOUGHTS

CLOSING THOUGHTS

❑ SO LET'S SUM UP

- Near term, for the U.S., the falling ceiling on worker growth is accentuating “late-cycle dynamics”
- Longer term, U.S. prospects are heavily constrained by demographic and productivity drivers
- Longer term, across the economically relevant world, societies are aging and worker growth is decelerating; the U.S. continues to be better situated structurally than most other DCs
- Neoclassical theory suggests that, so long as current policies remain little changed, DC economic growth will trend slower and (consequently) global real rates will remain very low
- **THIS IS HOWEVER A PROJECTION, NOT A PREDICTION**
 - IMO, this endless “heat death of the universe” is unlikely. Why? Because the trajectory is politically & socially unstable. At some point, the policy regime will be overhauled, the rules rewritten, and the sclerosis purged. Markets will plunge, real rates will jump, and prospects for youth improve.
 - All models are “ceteris paribus.” Watch out for moment when the “cetera” are transformed.

PLEASE SUBMIT QUESTIONS* TO

QA@HEDGEYE.COM

**ANSWERED AT THE END OF THE CALL*

FOR MORE INFORMATION, CONTACT US AT:

SALES@HEDGEYE.COM
(203) 562-6500