



Resilience in a Time of Crisis

How pandemic insights are supporting
a rock-solid longevity risk transfer market

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Four related markets have been incredibly resilient during the COVID-19 pandemic.

These markets all have one thing in common: longevity and mortality exposure.

Everything about these markets is holding up: supply, demand, capital, price, people, technology, and market confidence.

Pension Risk Transfer

Longevity Risk Transfer

Funded Reinsurance

Life Reinsurance Capital Raising and Sidecars



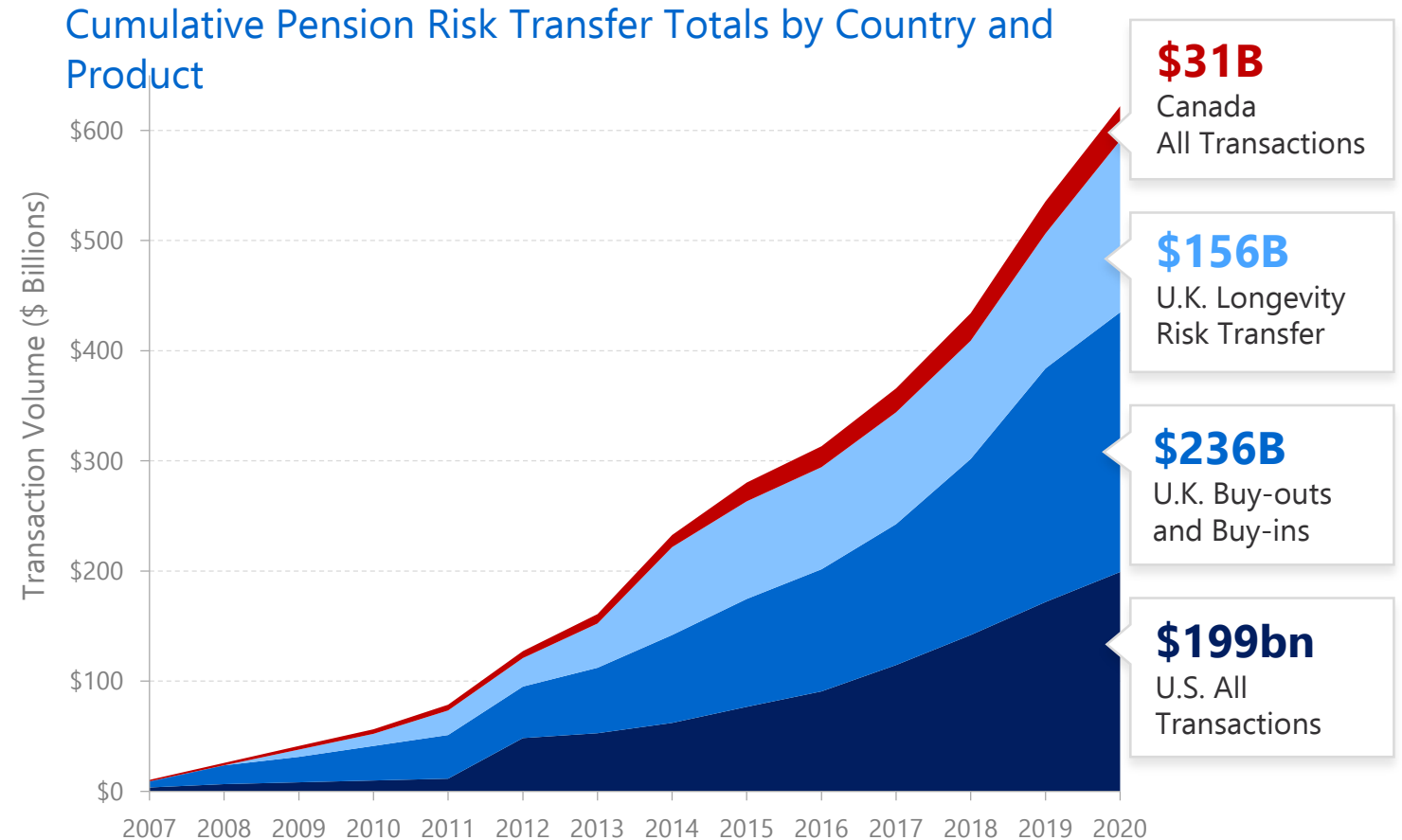


Pension Risk Transfer and Longevity Risk Transfer



Pension and longevity risk transfer is now an unstoppable juggernaut.

More than \$620B in pension risk transfer transactions have been completed in the U.S., the U.K., and Canada alone.



Data in USD billions. Cumulative totals.
Sources: LIMRA, Hymans Robertson, LCP, and Prudential Financial, Inc. (PFI) analysis of EY 2020.



We're in a time of transformation designed to navigate away from risk.

// In industry after industry, scenarios that once appeared improbable are becoming all too real, prompting boards and CEOs... to embrace the T-word: transformation. //

– McKinsey¹

// In a world of unprecedented disruption and market turbulence, transformation today revolves around the need to generate new value—to unlock new opportunities, to drive new growth, to deliver new efficiencies. //

– Deloitte²

¹ McKinsey Quarterly. 2016 November 7. [Transformation with a capital T.](#)

² Deloitte. August 2016. Thinking big with business transformation. [Six keys to unlocking breakthrough value](#)



Companies are leveraging pension de-risking to accelerate their enterprise transformations.



Decrease or eliminate future contributions



Redirect cash flow to R&D or M&A



Increase focus on restructuring initiatives



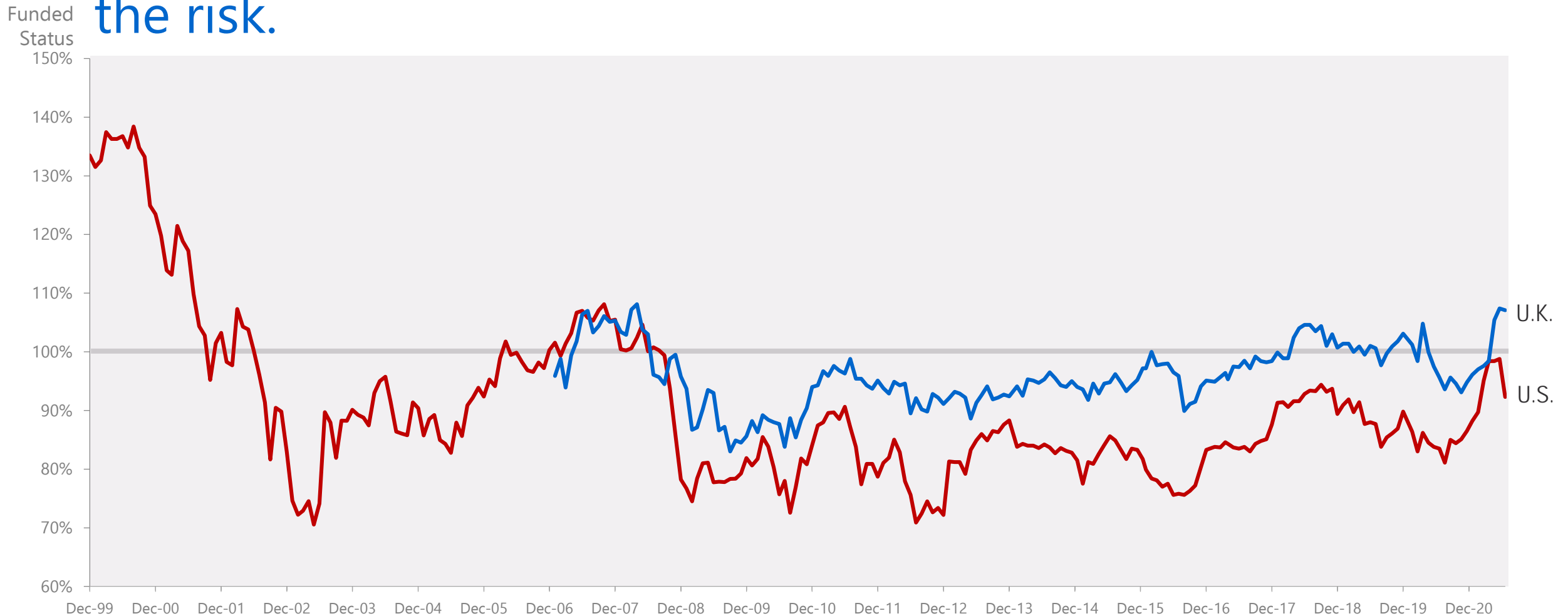
Improve investor returns compared to pension-heavy peers¹



Secure pensions and financial wellness of employees and retirees



In pension risk transfer, funded status volatility is driving this secular move to exit the risk.



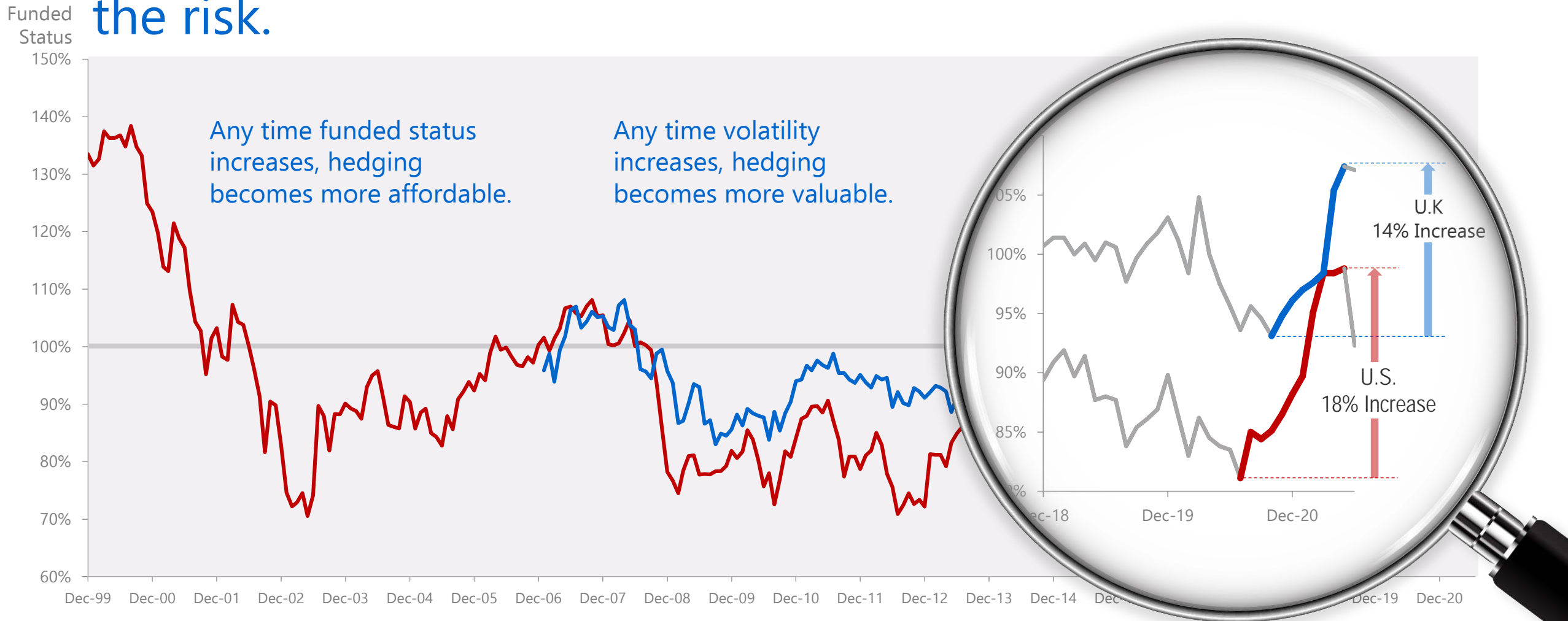
U.S. Source: Milliman 100 Pension Funding Index; the 100 largest U.S. corporate pension plans, March 31, 2021 (98.4%)

FTSE 100 Source: Aon Hewitt, "Aon Hewitt Global Pension Risk Tracker," as of March 31, 2021 (98.4%). <https://PensionRiskTracker.aon.com>, accessed April 23, 2021.

Funding ratio (cumulative assets/liabilities) of all pension schemes in the FTSE 100 index on the accounting basis.



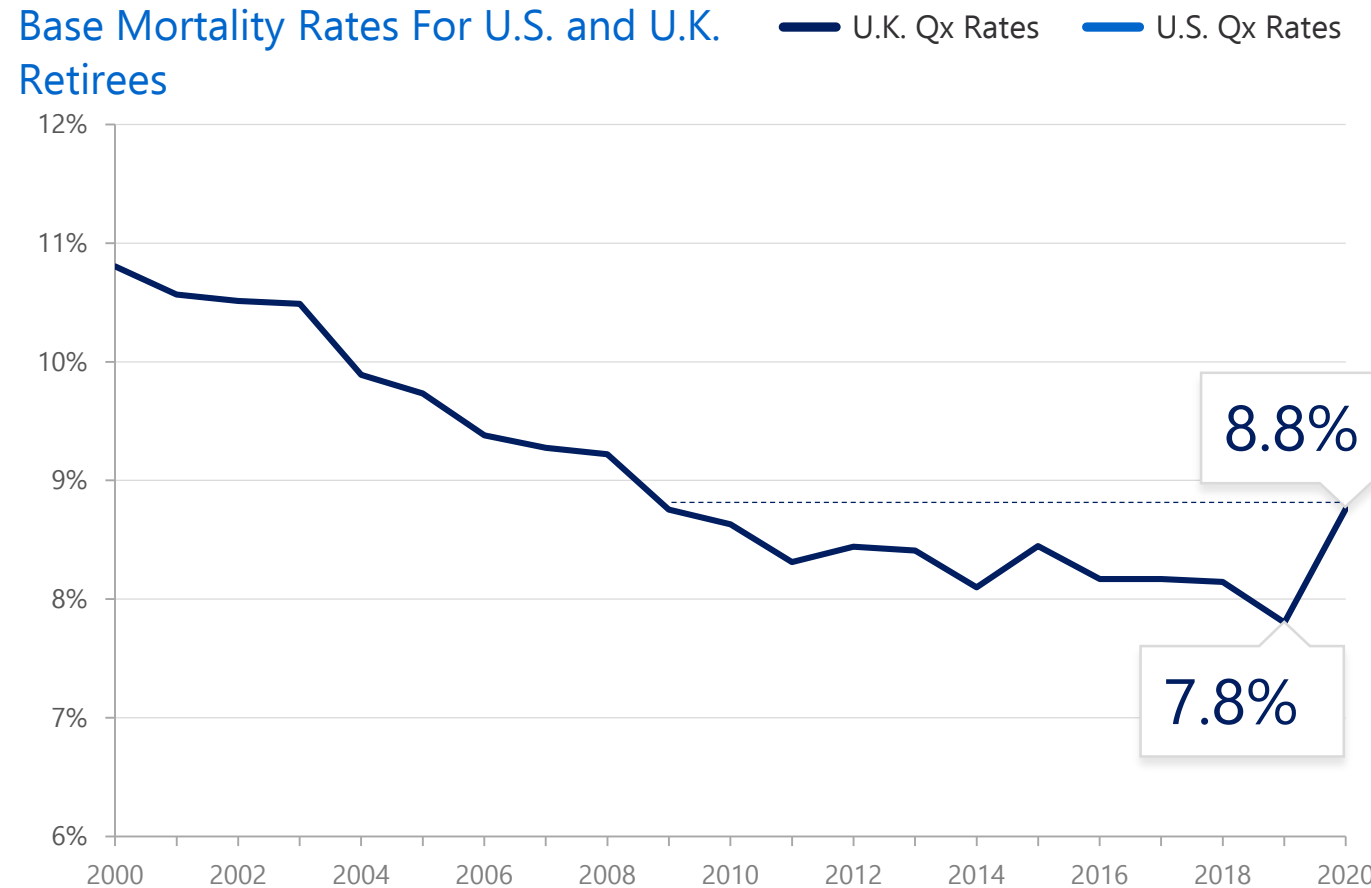
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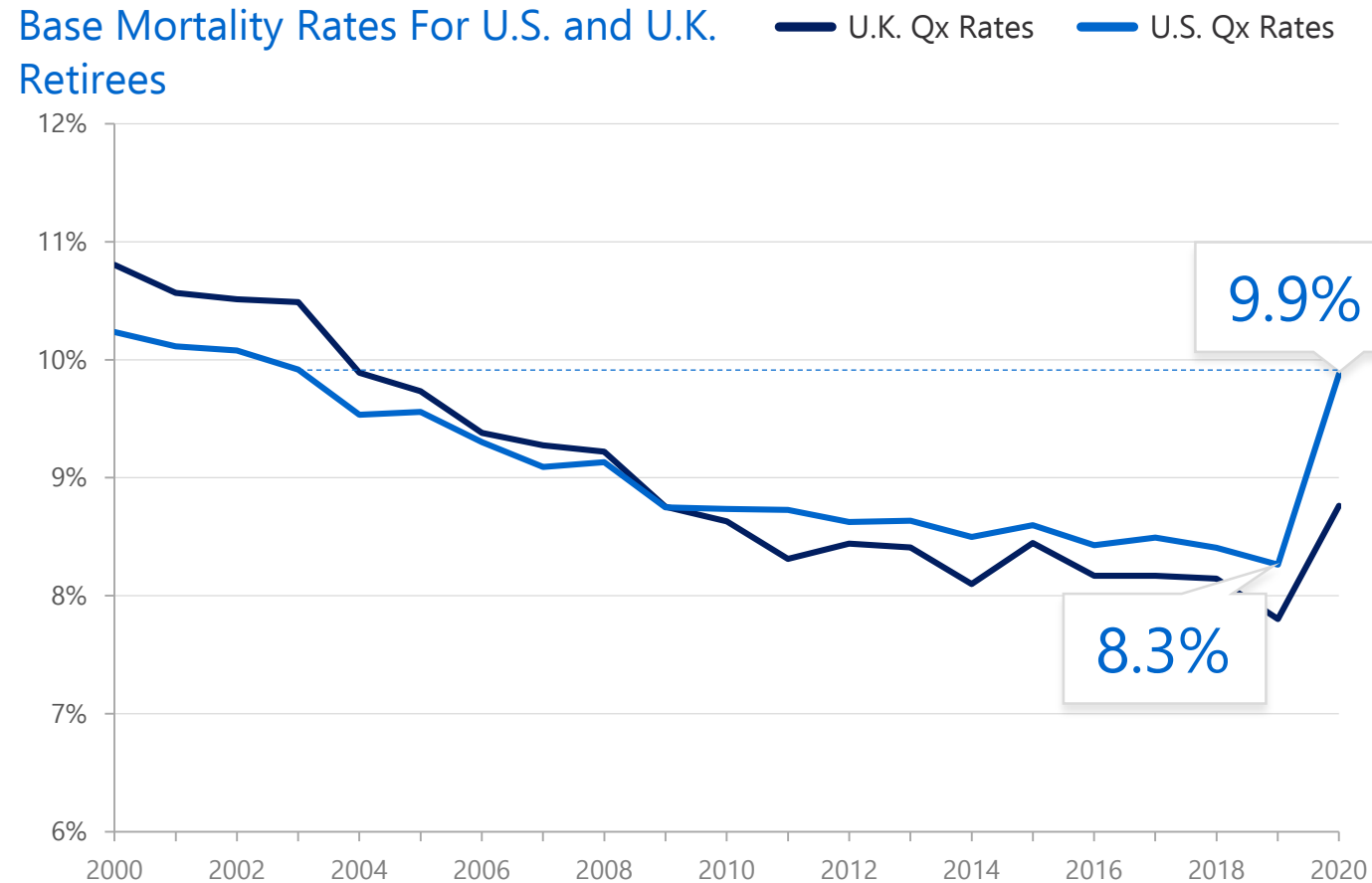
In the pandemic, nothing has been more volatile than longevity improvements.



Source: U.K. rates based on ONS data, S3P industry tables, and 50/50 M/F split
U.S. Qx rates based on Social Security Administration/CDC data, assuming 50/50 M/F split
Both U.S. and U.K. based upon a retiree group with an expected benefit-weighted average age of 82



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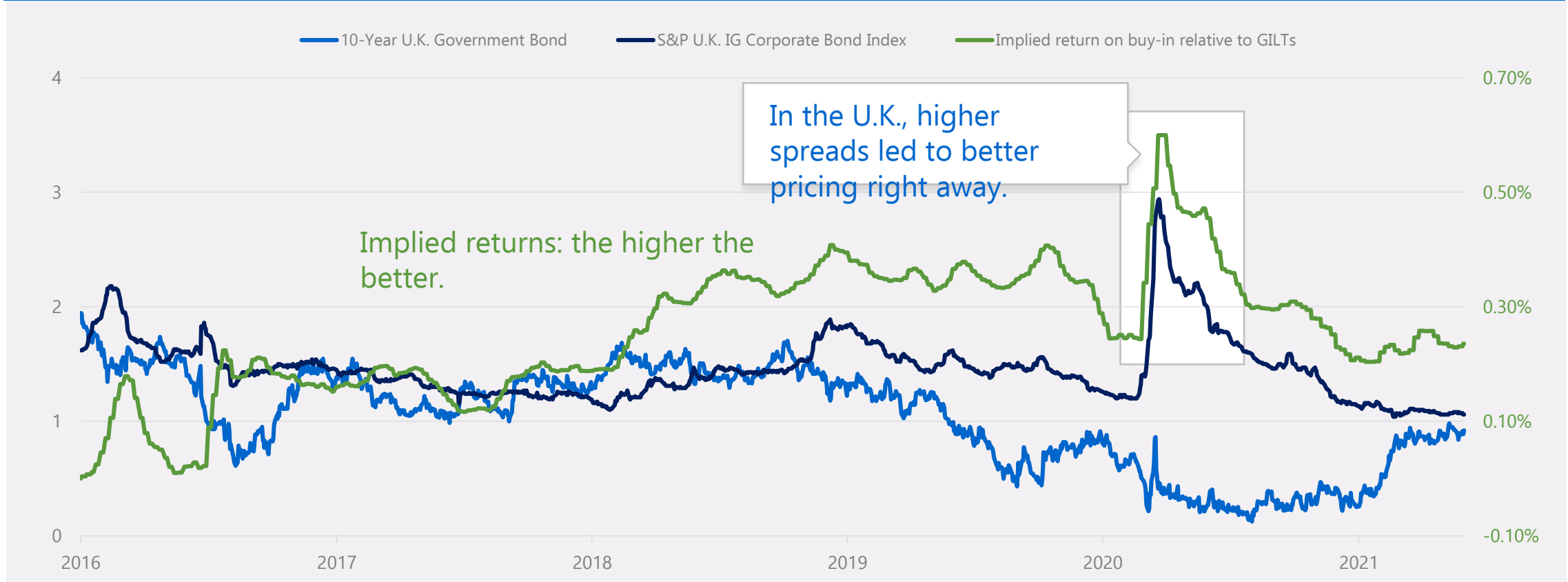


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Market volatility resulted in improved de-risking pricing during the pandemic.

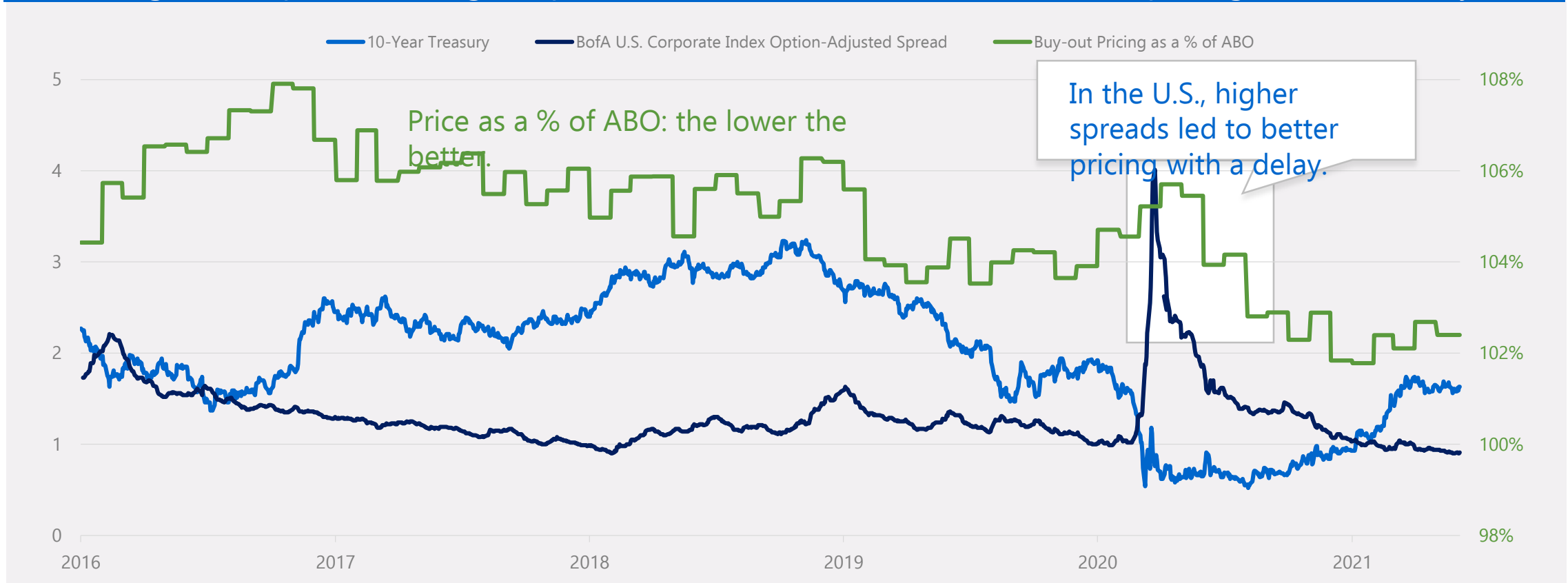
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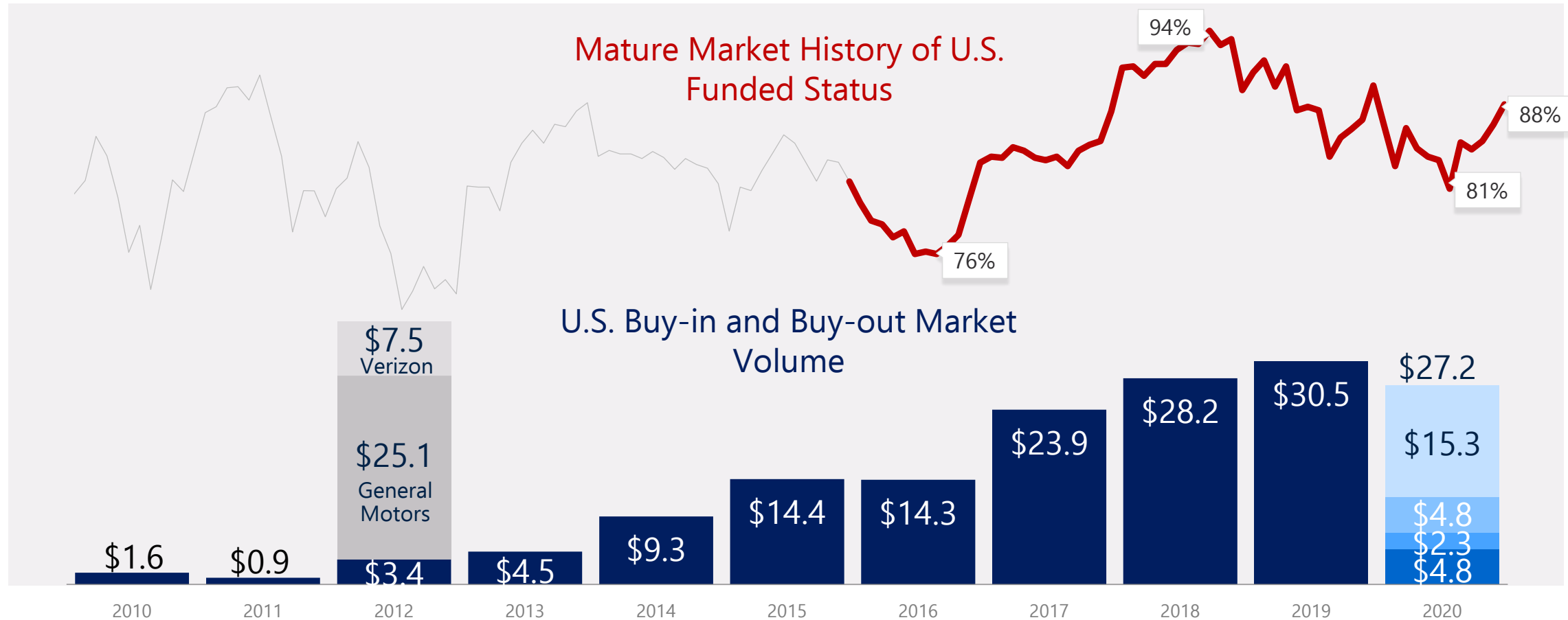
Milliman Pension Buy-out Index (MPBI), May 2021 (<https://www.milliman.com/en/insight/milliman-pension-buyout-index-may-2021>)

10-year U.S. Treasury and BofA US Corporate Index OAS were sourced from the Federal Reserve Bank of St. Louis.

10-year U.K. Government Bond rates were sourced from the Bank of England website. S&P U.K. Investment Grade Corporate Bond Index rates were sourced from S&P Dow Jones Indices.

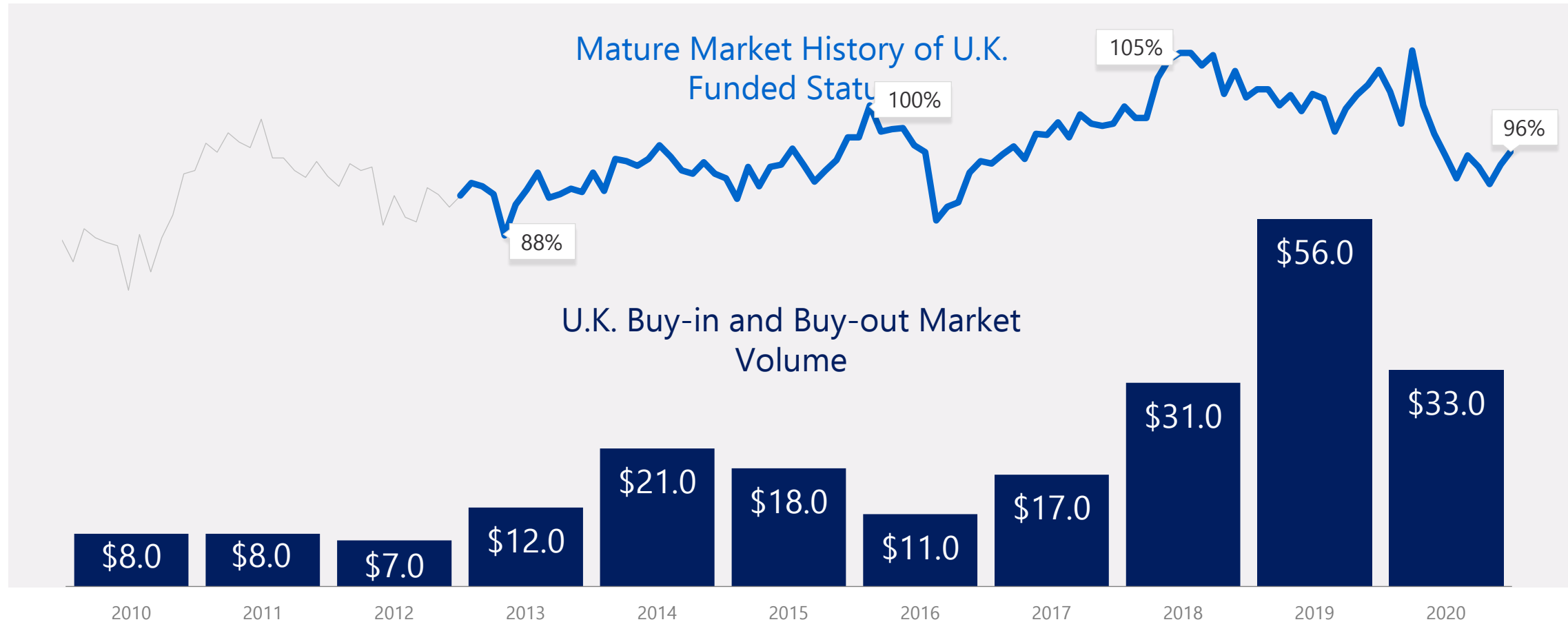


In 2020, the U.S. buy-in and buy-out market volume was the third-highest in recorded history.





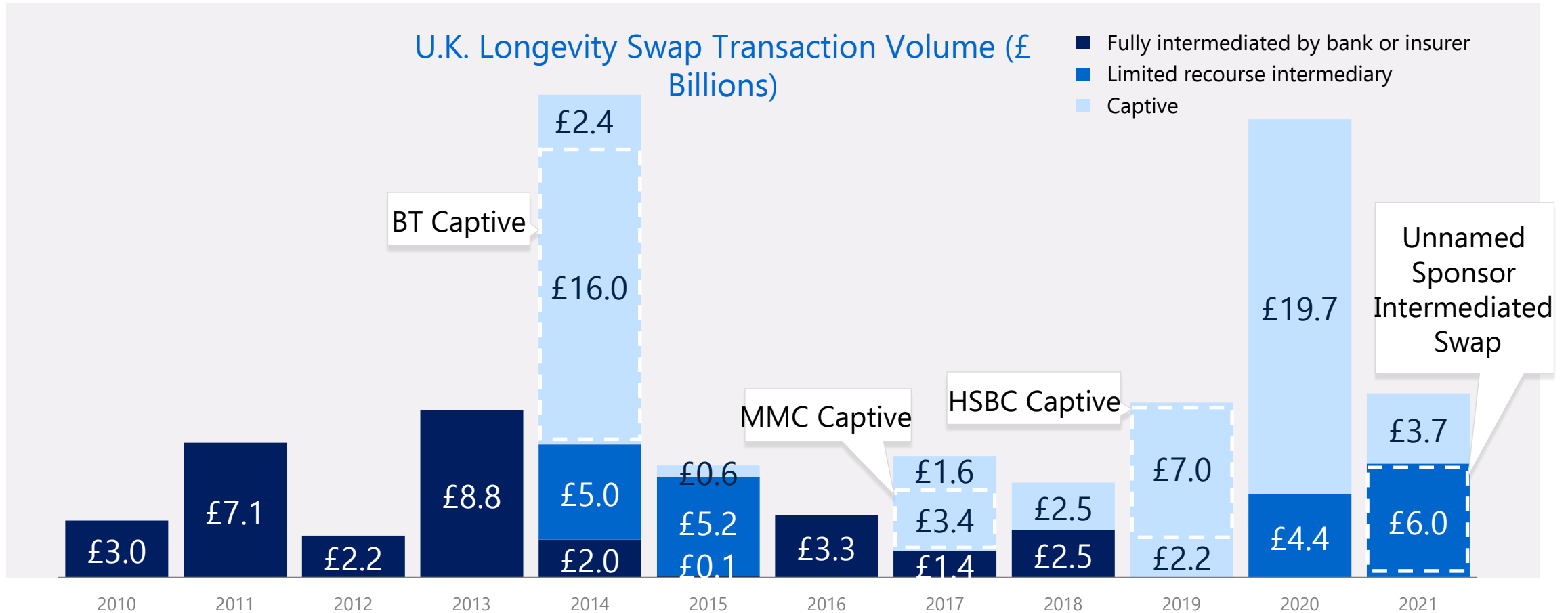
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In USD billions. Total market volume as reported by Lane, Clark & Peacock, translated into USD at rate of \$1.27
FTSE 100 Source: Aon Hewitt, "Aon Hewitt Global Pension Risk Tracker," as of March 31, 2021 (98.4%). <https://PensionRiskTracker.aon.com>, accessed April 23, 2021.
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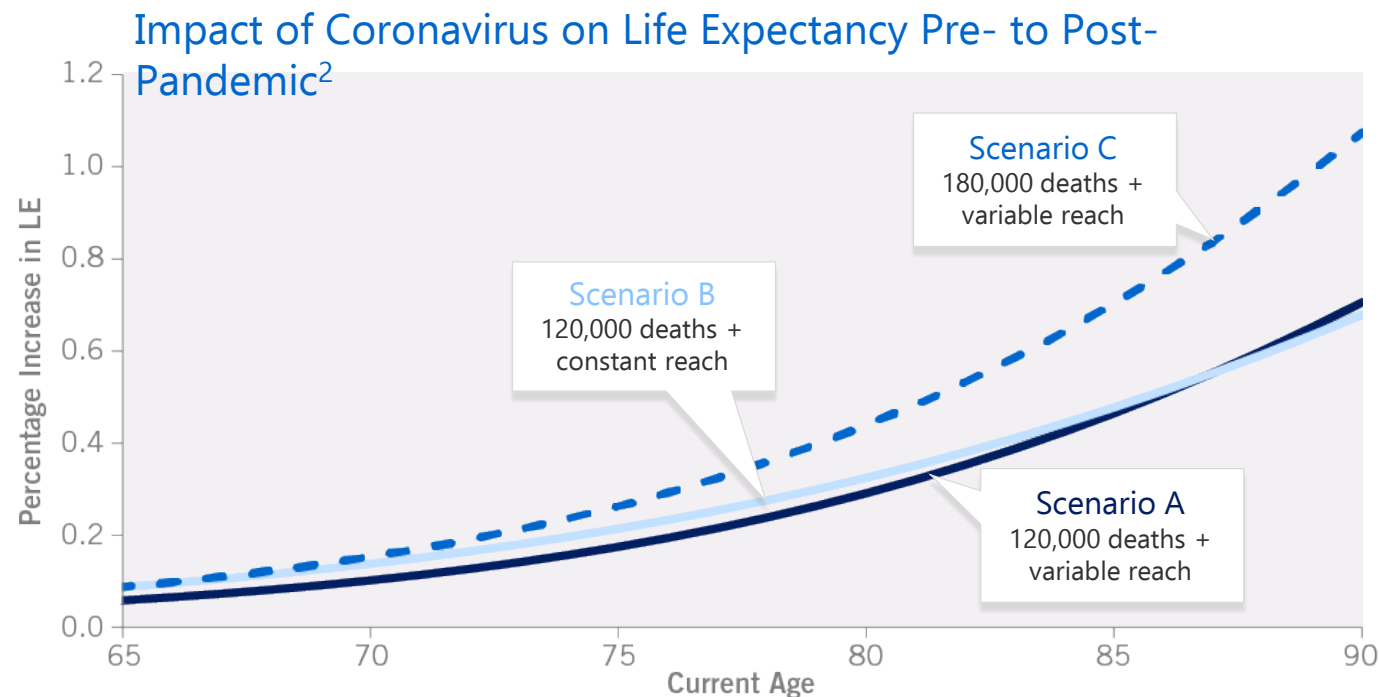


The pandemic has proven how unpredictable longevity exposure is, and schemes transacted in near-record volumes.





Key research published in May 2020 demonstrated that pensioner life expectancy would not be materially impacted by the pandemic.¹



- Assuming 120,000 to 180,000 deaths, the percentage increase in life expectancy measured as LE (pre-COVID) to LE (Survivors) is very small
- Age 65: Adjusted Post-Pandemic Life Expectancy (APPLE) of healthier survivors is less than 0.1% higher than pre-COVID cohort life expectancy
- Impact assumes no secondary effects, e.g. no long-term impairments, further data, and modeling

¹ Cairns, Andrew J. G. and Blake, David P. and Kessler, Amy and Kessler, Marsha, "The Impact of COVID-19 on Future Higher-Age Mortality" (May 19, 2020).

² A.J.G. Cairns, "Looking Forward: What Lessons Can We Learn From the COVID-19 Pandemic?", July 2021



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While COVID-19 has effectively doubled each cohort's mortality rate, the groups most impacted were those whose mortality rates were highest prior to the pandemic.



Frail Elderly



People with Significant Comorbidities



The Most Deprived Among Us



Communities of Color

These same groups make up a relatively small proportion of overall pension liabilities because their life expectancy is low or pension benefit is small.

This understanding enabled the market to continue confidently pricing transactions and pension schemes to transact with confidence.

¹ Cairns, Andrew J. G. and Blake, David P. and Kessler, Amy and Kessler, Marsha, "The Impact of COVID-19 on Future Higher-Age Mortality" (May 19, 2020).



Funded Reinsurance

Allows an insurer to transfer both asset risk and longevity risk associated with pension and annuity liabilities

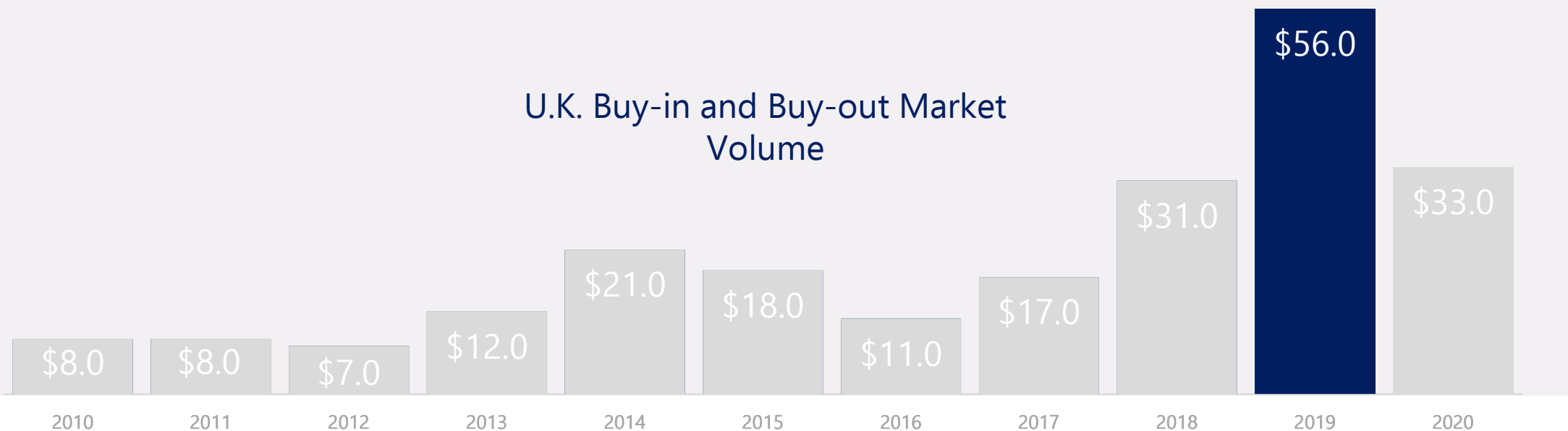


The arrival of Funded Reinsurance supports continued growth in the U.K. pension de-risking market.

Growth in the U.K. buy-in and buy-out market has caused insurers to seek reinsurance partners with capital and asset management expertise.

In these transactions, insurers transfer asset and longevity risk and receive indirect access to the reinsurer's asset management capabilities and illiquid asset origination.

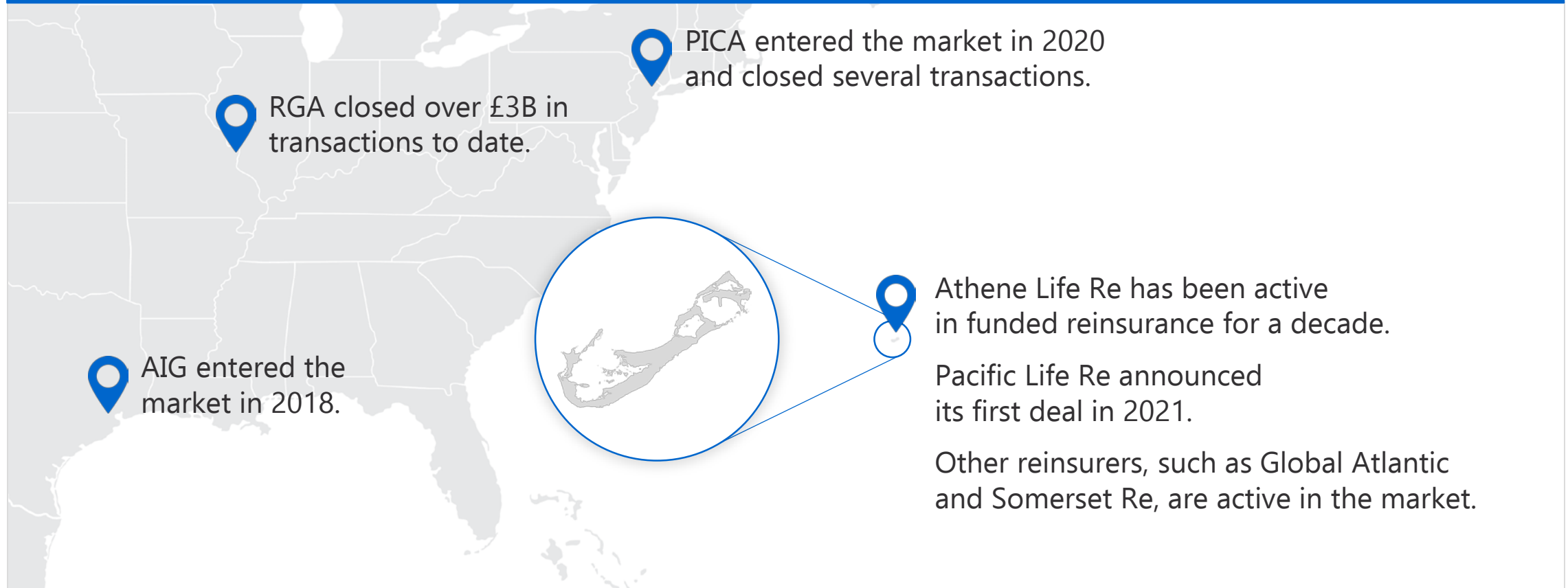
U.K. Buy-in and Buy-out Market Volume





At least five reinsurers have closed Funded Reinsurance transactions, resulting in meaningful volume and capacity.

This market is dominated by North American and Bermudian companies.





Life Reinsurance Capital Raising and Sidecars



Capital is pouring into the insurance sector to support growth in the global PRT and annuity markets.

Just in the U.K. PRT market, we've seen significant equity capital raised by L&G and PIC during the pandemic...

... and globally, private equity investment in insurers has exploded.

KKR Closes Acquisition of Global Atlantic Financial Group Limited

Apollo Global to Buy Annuities Provider Athene in \$11 Billion Deal

Blackstone to Buy an Allstate Life Insurance Business for \$2.8 Billion

The private equity players are acquiring insurance platforms or investing in insurance blocks through sidecars and thereby making a traded longevity market.

In Chicago at Longevity 12, we said capital market solutions were slow to materialize, but sidecar investing might be preferred.

Reinsurance Sidecar

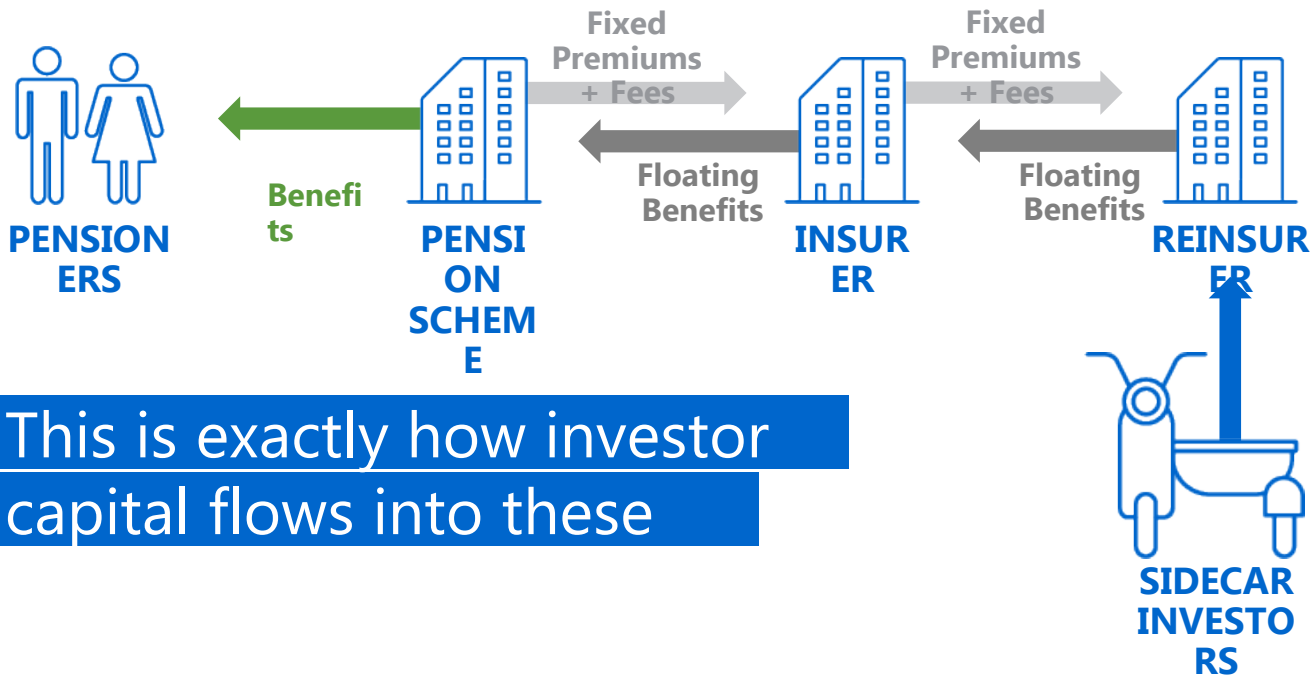
A financial structure established to allow investors (often external or third-party) to take on the risk and benefit from the return of specific books of insurance or reinsurance business.

Typically set up by existing re/insurers looking to partner with third-party investors who bring another source of capital.





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This is exactly how investor capital flows into these





Since 2018, there has been over \$20 billion in investor capital leveraged for the life and annuity markets, supporting nearly \$400 billion in liabilities.

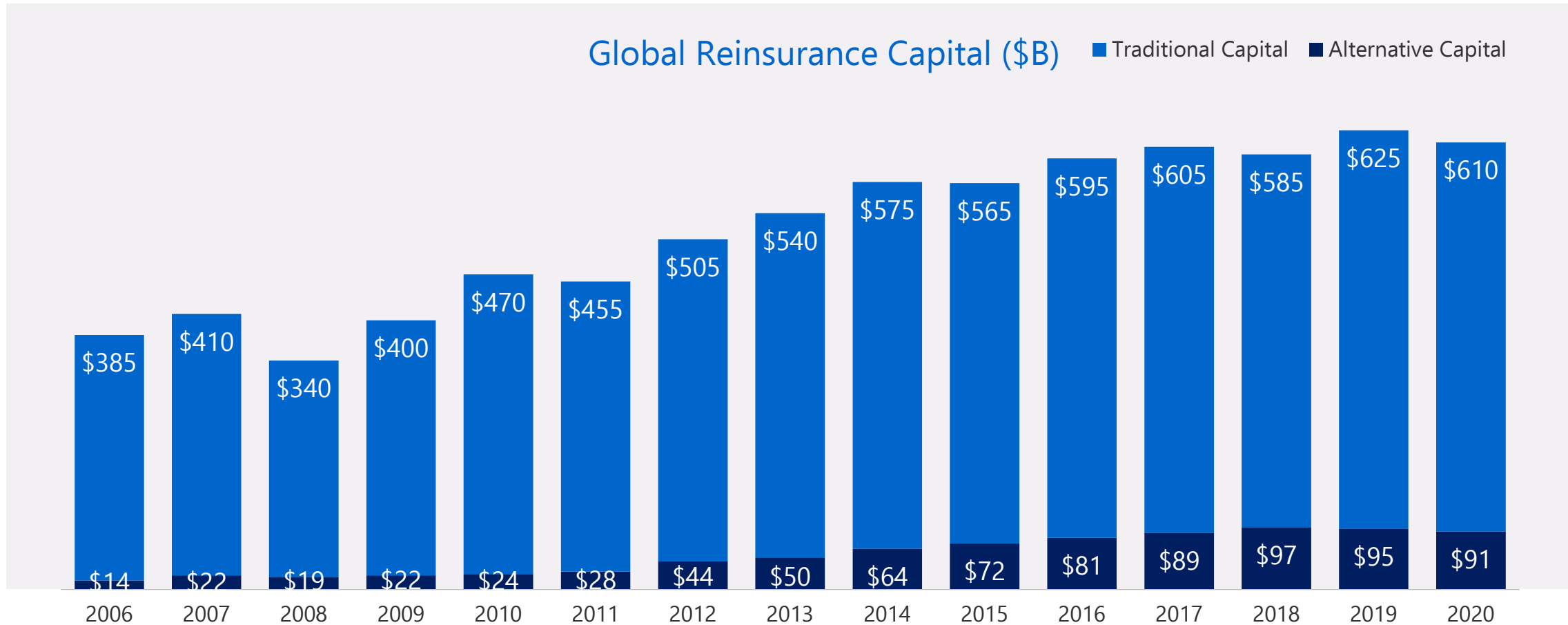
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Source: Internal Prudential as of February 2021
 1 If necessary to acquire attractive spread/mortality blocks



Alternative capital has grown to 15% of the reinsurance market and now covers many more lines of business.





Given the low-rate environment and the hunt for uncorrelated risk, many of the world's largest investors are focusing on life reinsurance sidecars.

Owns or Seeking Life & Annuity Platform

Pension Funds and Endowments									
SWFs									
Asset Managers									
Family Offices									
Hedge Funds									
Private Equity and Private Funds of Public Investors									
ILS Funds									



Pension Risk Transfer

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With the addition of sidecars, we have a vibrant traded market for longevity indeed.



Sidecar Case Study: American Equity Life (AEL), Värde, and Agam

What

Strategic partnership to engage third-party capital to reinsure and manage annuity obligations on new Bermuda platform

How Big

\$5B initial transaction

Why

- Expand presence into global life and annuity reinsurance and third-party insurance asset management businesses
- AEL shareholders benefit from ~\$350M of freed-up capital as part of initial transaction

Unique Features

- Annuity insurer (AEL), fintech provider (Agam) and investor (Värde) launch reinsurance platform to support AEL's burgeoning annuity sales
- Creates a capital and tax efficient strategy for AEL's growth

Management Commentary

"We are very pleased to announce our strategic partnership with Värde and Agam, which we believe could define the next phase in the evolution of the intersection of the insurance and asset management sectors."

– Anant Bhalla
CEO, American Equity Life

"This transformative strategic partnership will set the standard for multi-dimensional solutions towards value creation in the retirement income market."

– Chak Raghunathan and Avi Katz
Co-Founders, Agam





Sidecar Case Study: The Carlyle Group/Fortitude Re

What

Spinoff of legacy liabilities from AIG's life, retirement, and other businesses to Fortitude Re

How Big

\$34B

Why

- Leverages third-party capital to reinsure the majority of AIG's life/non-life closed books (mainly single premium annuity blocks)
- Expects excess returns from Carlyle investments supporting long-dated, stable liabilities

Unique Features

- First large-scale sidecar strategy to de-risk a major U.S. insurer's legacy liabilities
- Today, Fortitude grows by reinsuring other insurers' legacy blocks

Management Commentary

"Closing this transaction marks the completion of a significant milestone in AIG's strategy to efficiently manage our legacy liabilities while strengthening our balance sheet and upholding our commitments to regulators and policyholders."

– Brian Duperreault
CEO, AIG





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