

# Daily COVID-19 Insights

September 21, 2022 (market close)

# Introduction

The COVID-19 pandemic may be viewed as impacting financial markets in two waves. The first wave commenced with the outbreak in China in early January 2020 and the second wave began with the global outbreak in late February 2020.

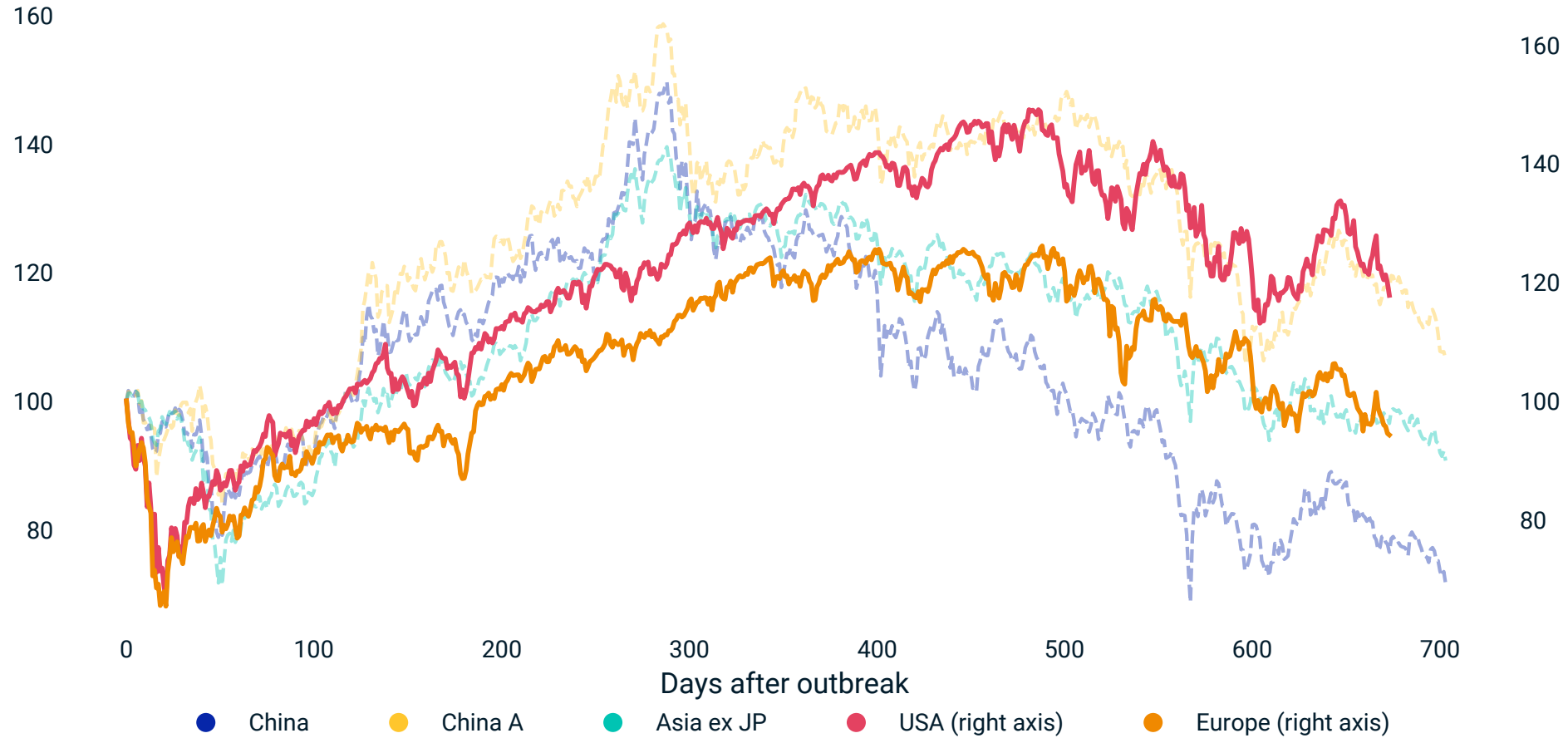
In this daily report, we compare how MSCI factors and industry groups indexes have performed relative to the benchmarks during these two waves of the COVID-19 pandemic commencing Jan. 10 and Feb. 21, 2020, with a focus on the markets below.\*

Region / Country	Benchmark Index Description
Asia ex JP	The <b>MSCI AC Asia ex Japan Index</b> reflects large- and mid-cap representation across two of three developed market countries (excluding Japan) and nine emerging market countries in Asia
China	The <b>MSCI China Index</b> reflects large- and mid-cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs)
China A	The <b>MSCI China A Index</b> measures large- and mid-cap representation of local listed China A shares
Europe	The <b>MSCI Europe Index</b> represents the performance of large- and mid-cap equities across 15 developed countries in Europe
USA	The <b>MSCI USA Index</b> is designed to measure the performance of the large- and mid-cap segments of US market

\*The data presented in this report are limited solely to the recent periods indicated. For information about historical data, please contact your MSCI representative. Past performance is no indication or guarantee of future performance. None of the information or analysis herein is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision or asset allocation and should not be relied on as such.

# Benchmark indexes

Region/Country cumulative performance



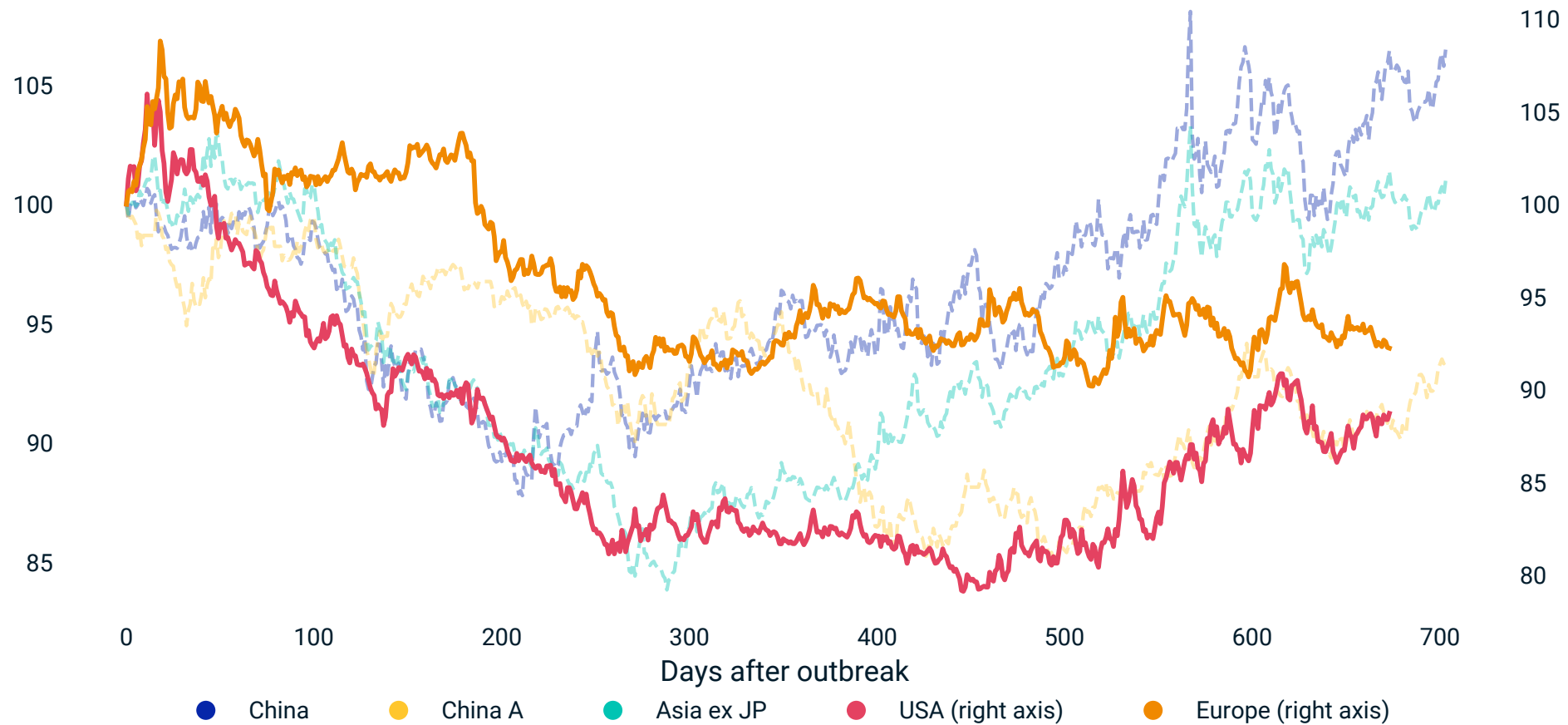
Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

# Factor indexes



# Factor indexes: Minimum Volatility

MSCI Minimum Volatility relative performance

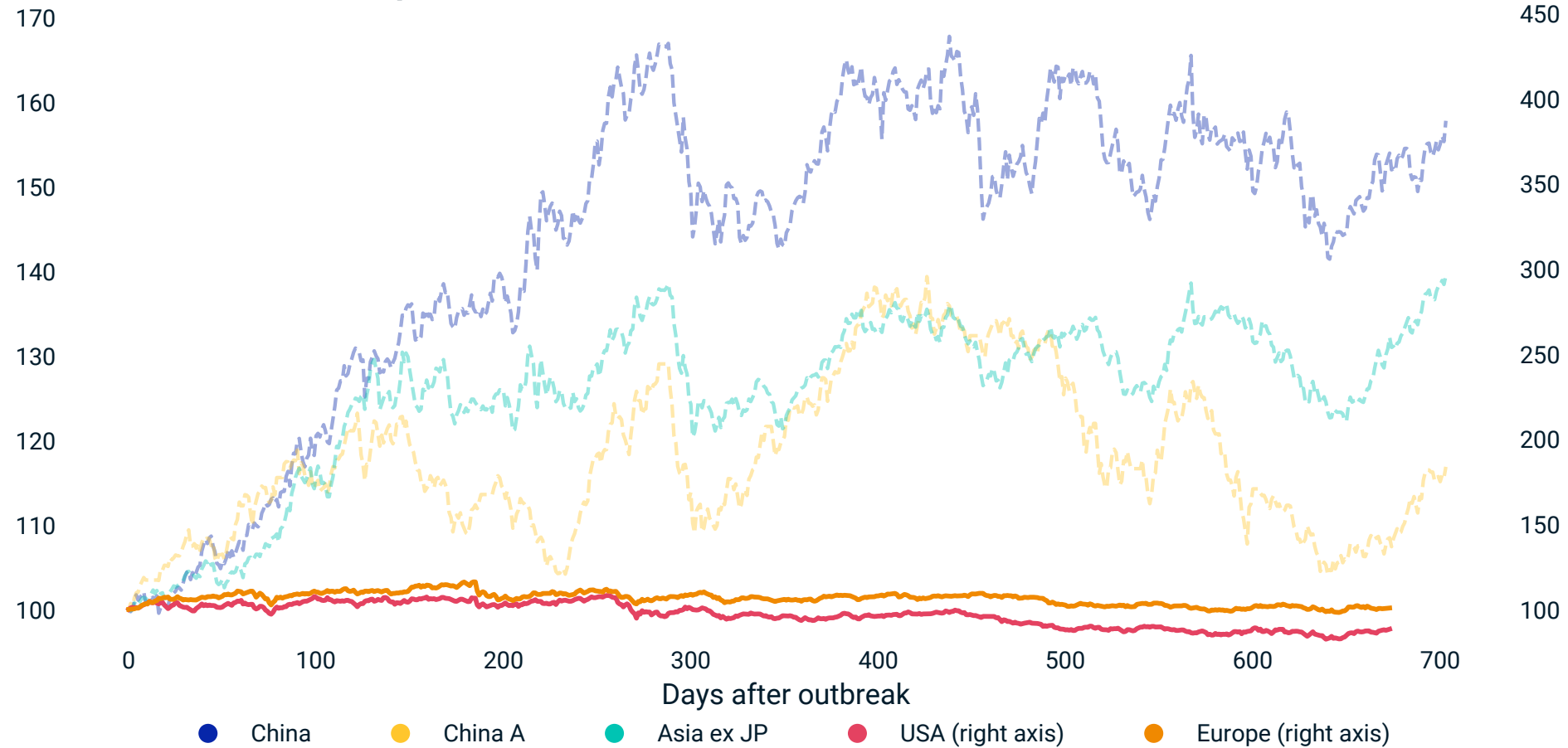


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Factor indexes: Momentum

MSCI Momentum relative performance

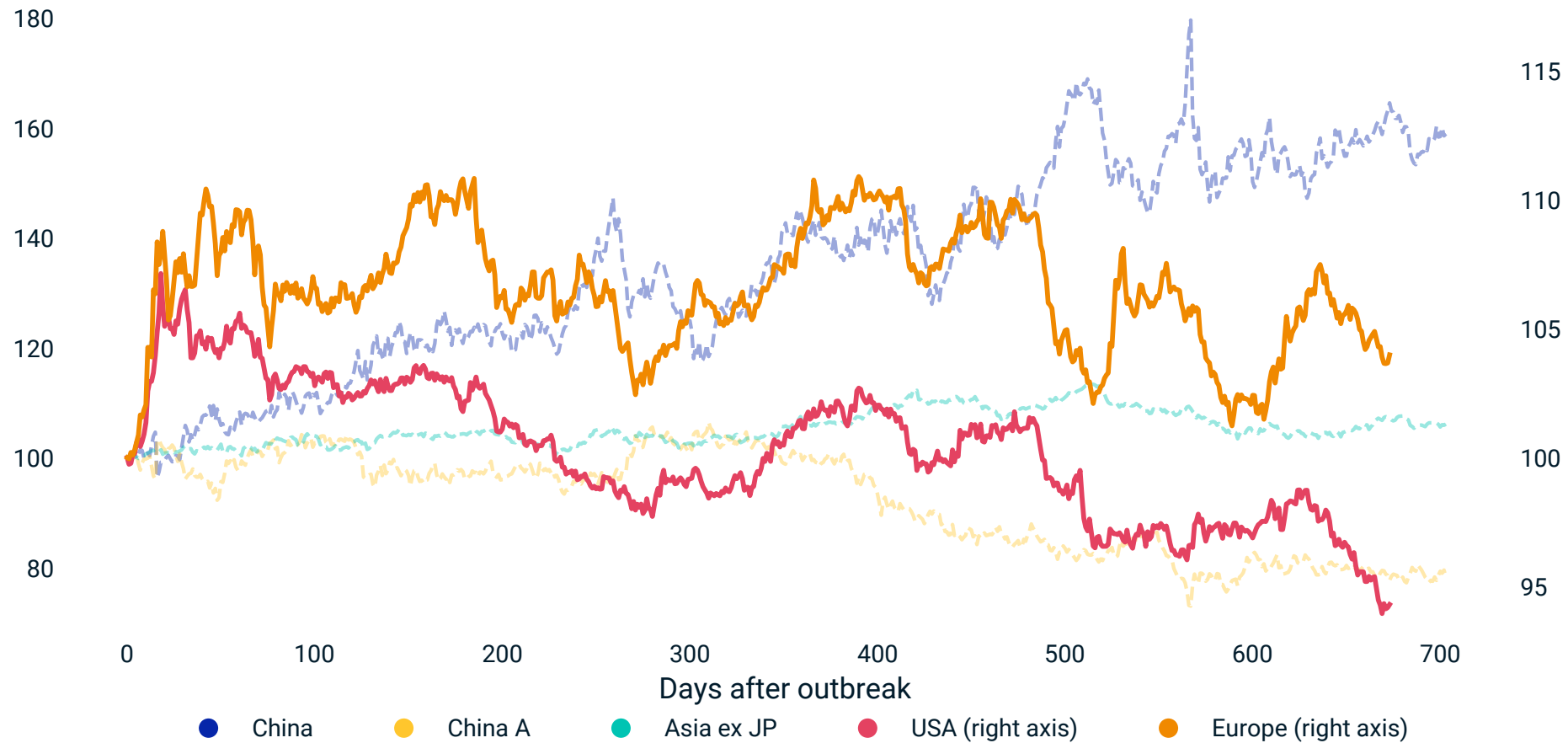


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Factor indexes: Quality

MSCI Quality relative performance

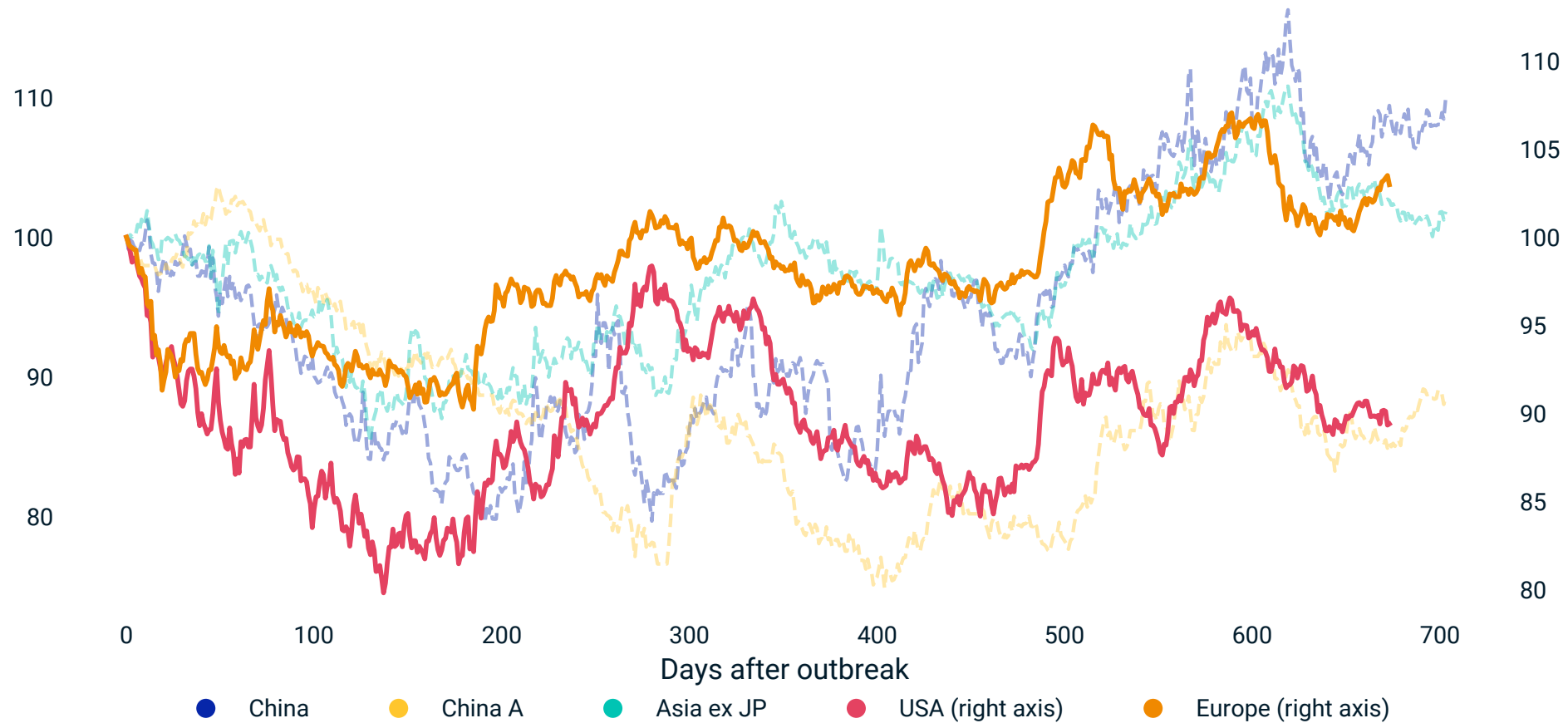


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Factor indexes: Enhanced Value

MSCI Enhanced Value relative performance



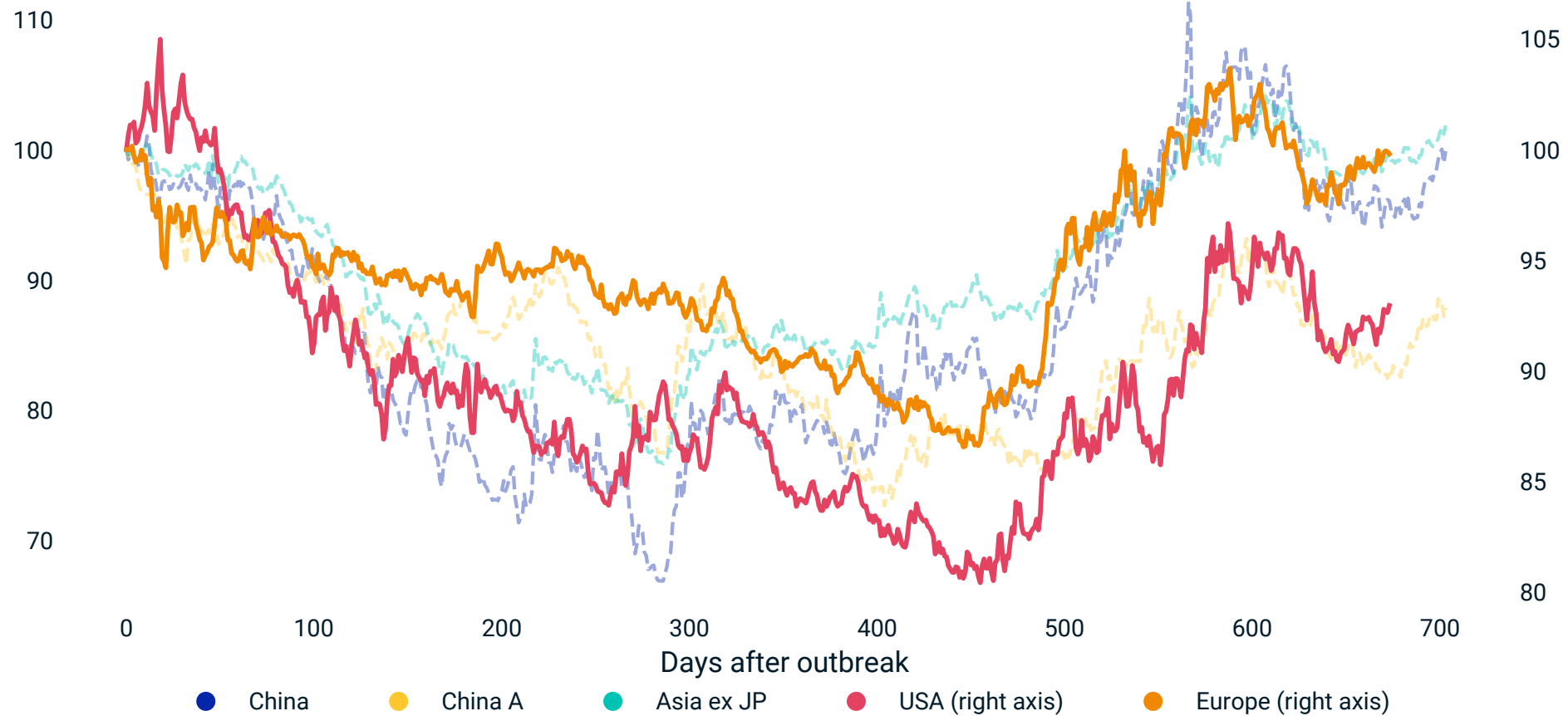
Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index



# Factor indexes: High Dividend Yield

MSCI High Div Yld relative performance

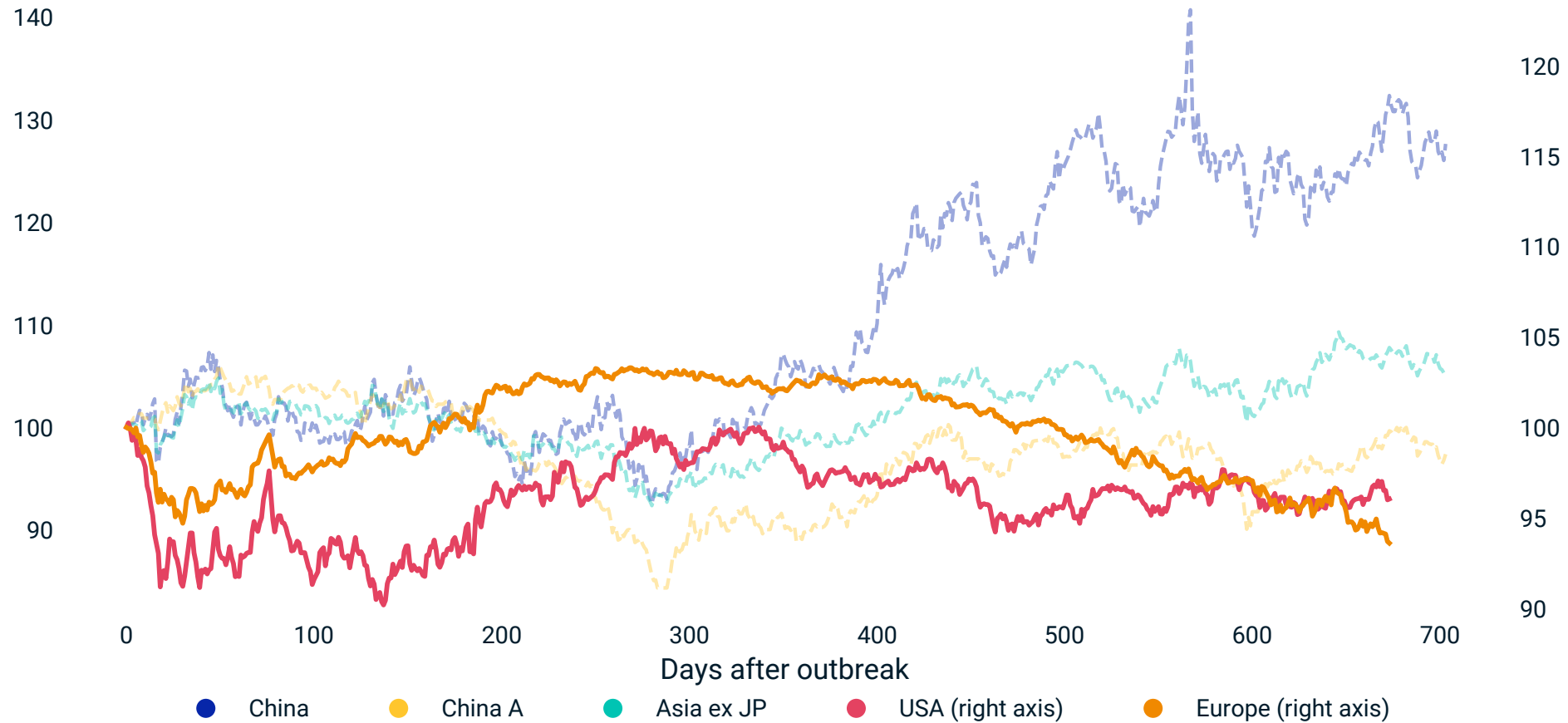


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Factor indexes: Low Size (Equal Weighted)

MSCI Equal Weighted relative performance



Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

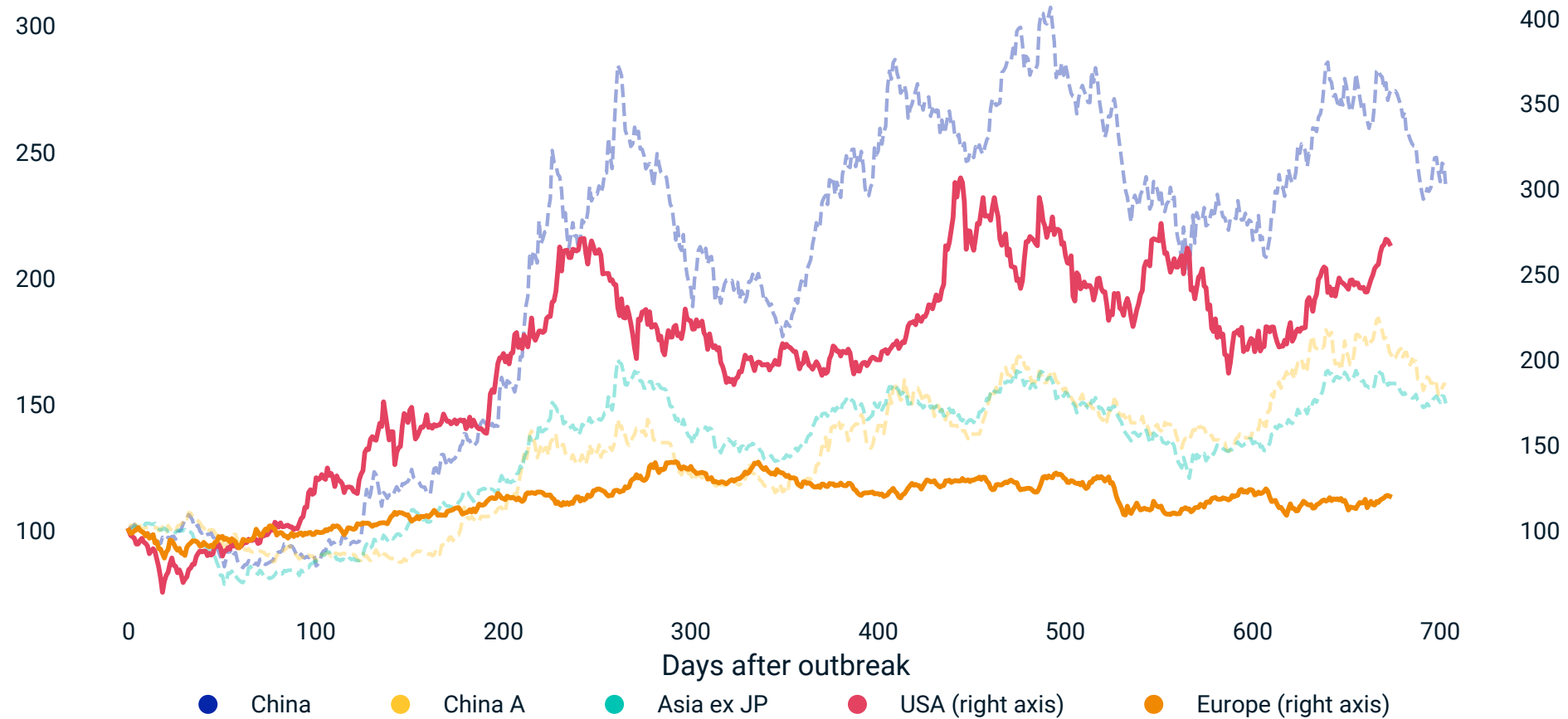
\*MSCI China A mid-cap Equal Weighted Index used for China A; standard Equal Weighted indexes are used for other regions.

# Industry group indexes



# Industry Group: Automobiles & Components

MSCI Automobiles & Components relative performance

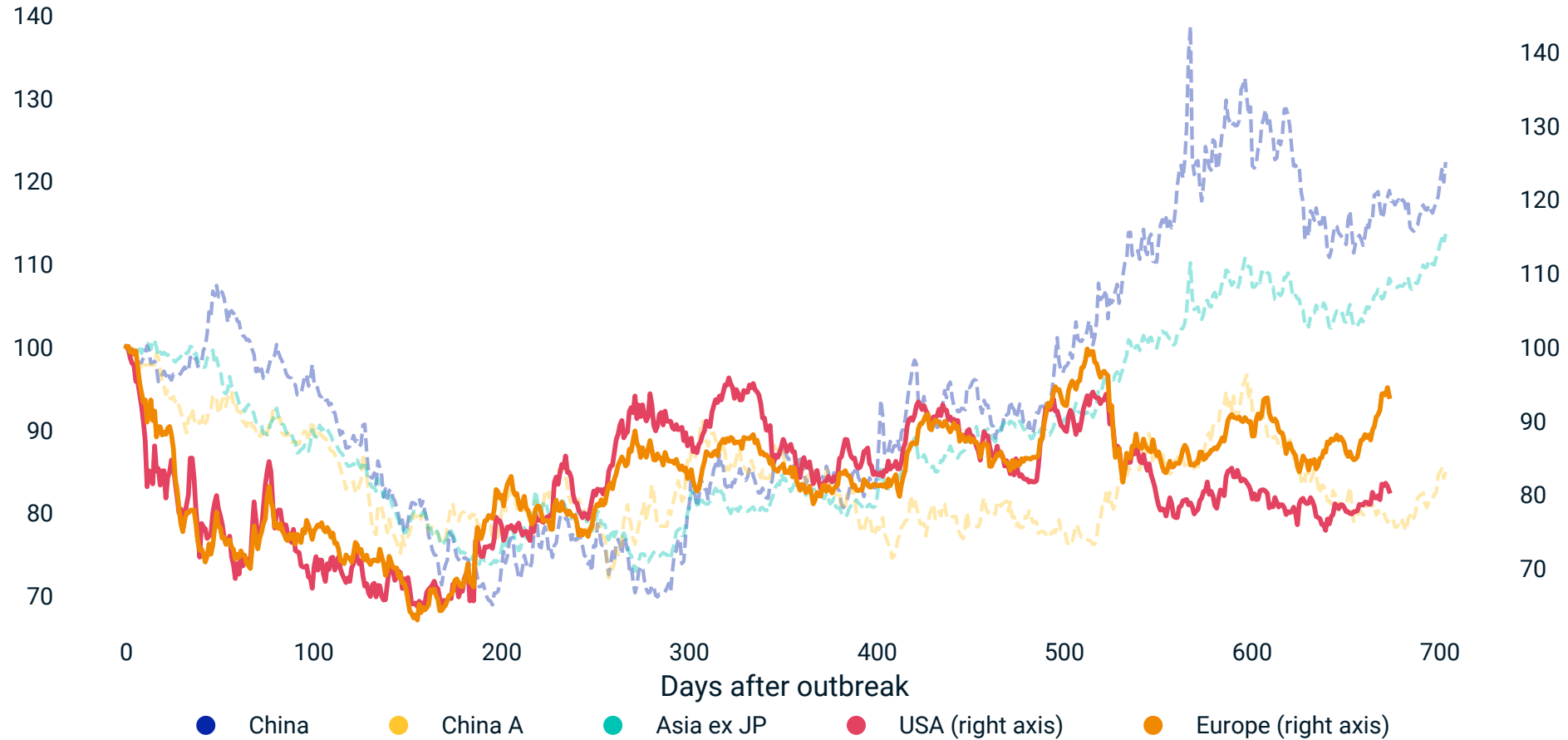


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Banks

MSCI Banks relative performance

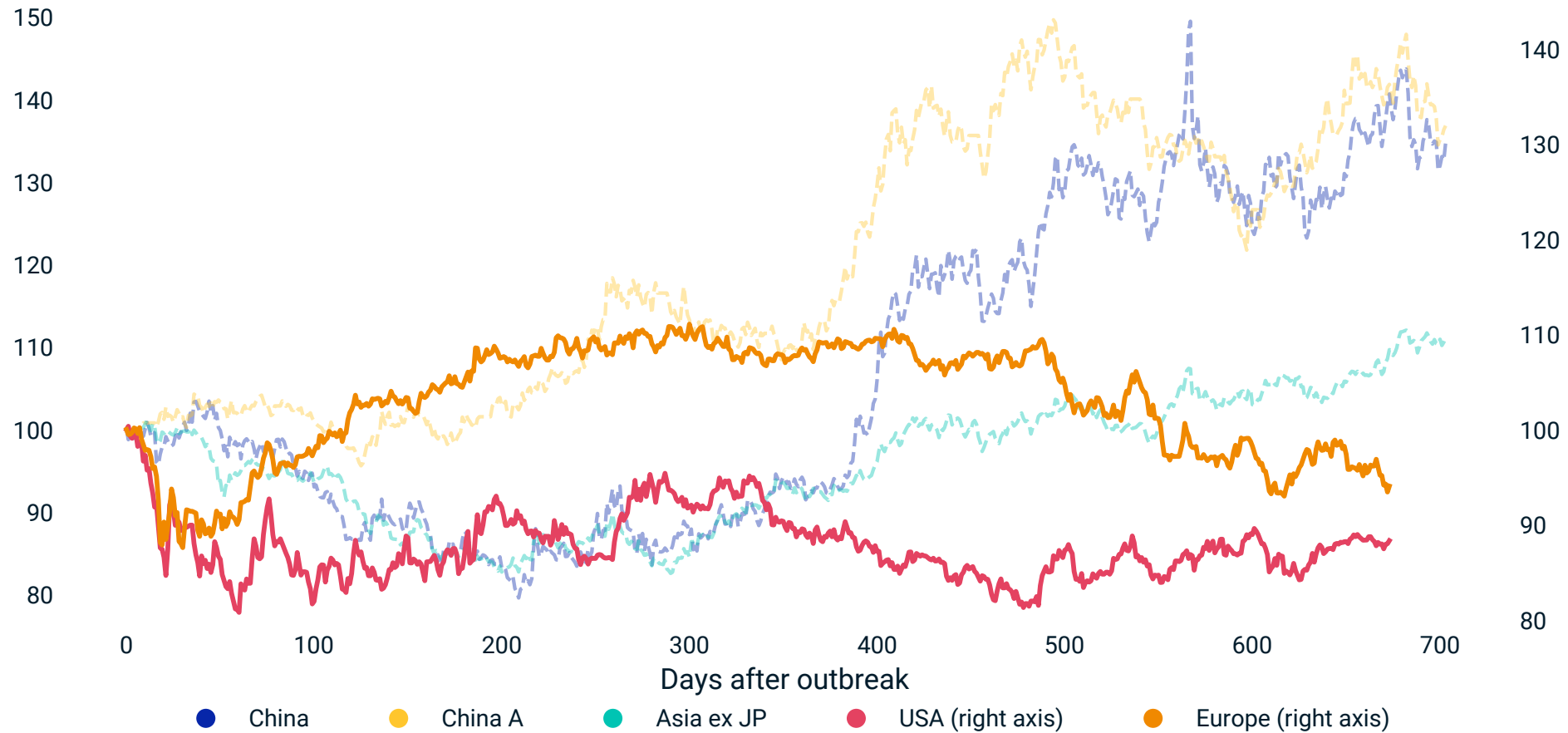


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Capital Goods

MSCI Capital Goods relative performance

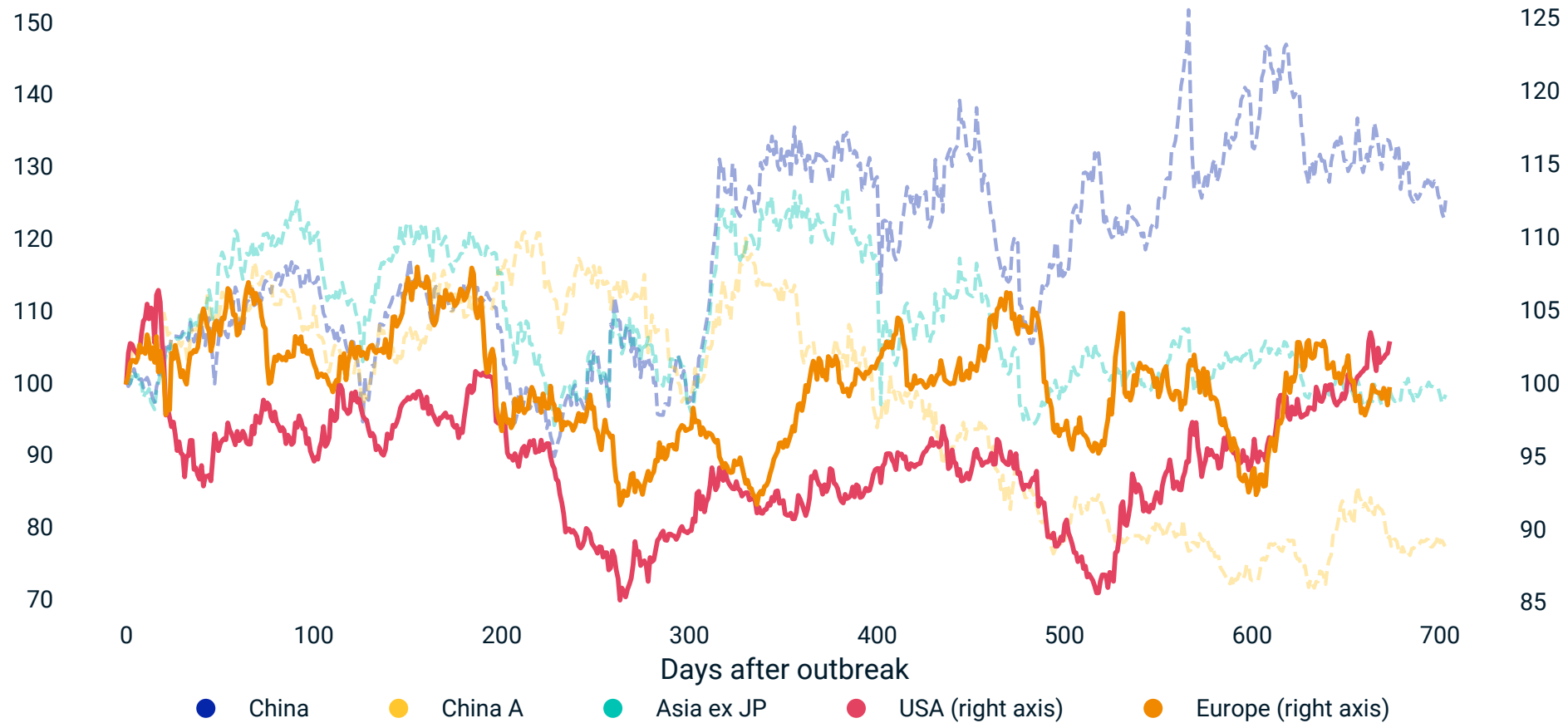


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Commercial & Professional Services

MSCI Commercial & Professional Services relative performance

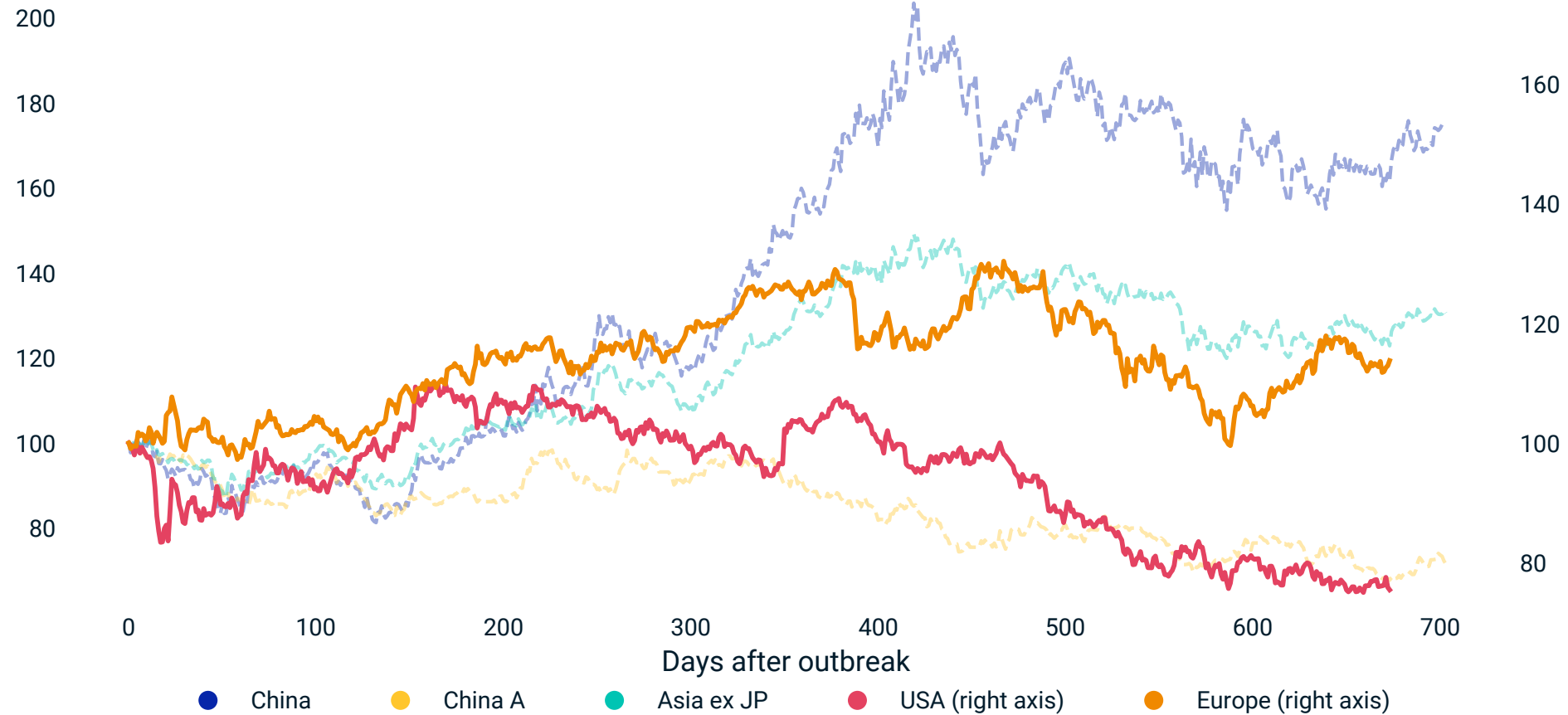


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Consumer Durables & Apparel

MSCI Consumer Durables & Apparel relative performance



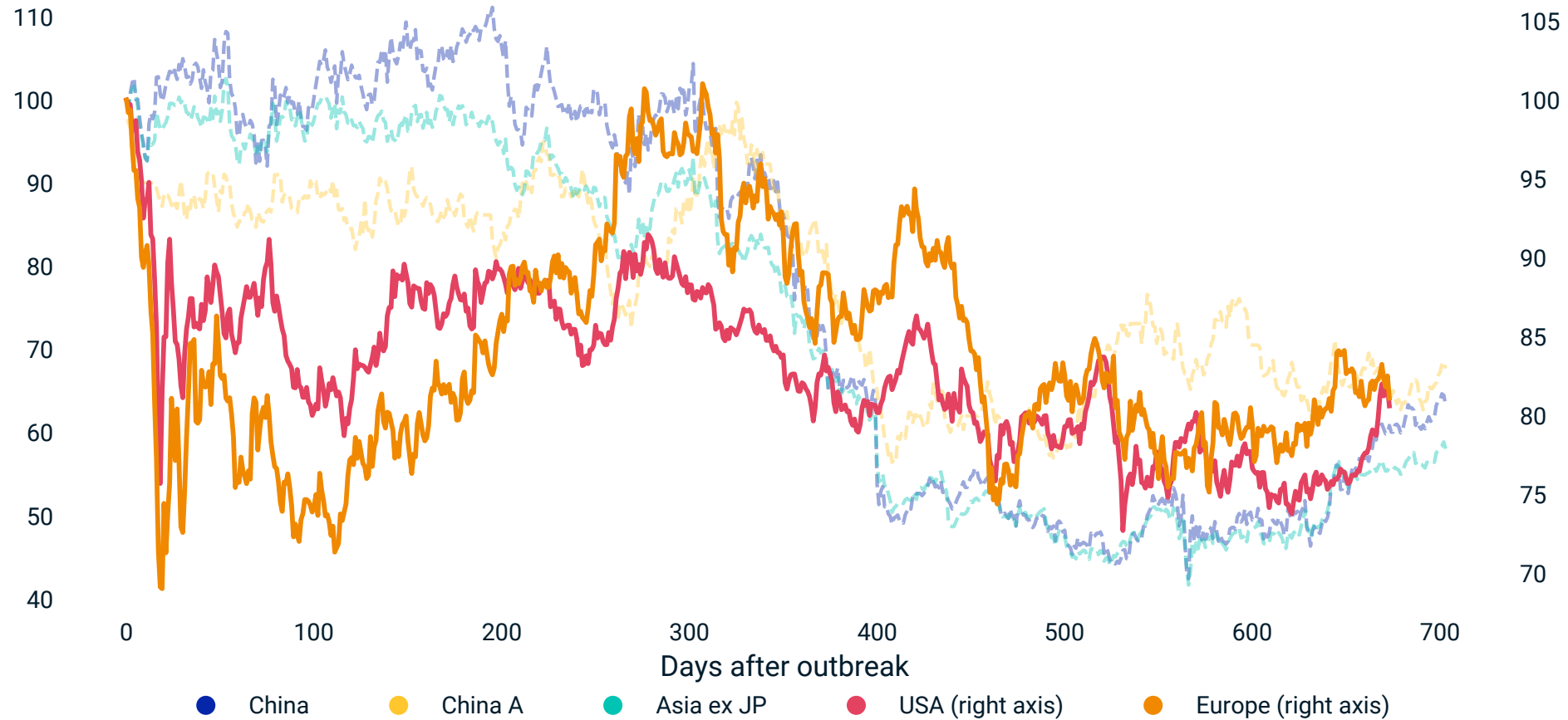
Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index



# Industry Group: Consumer Services

MSCI Consumer Services relative performance

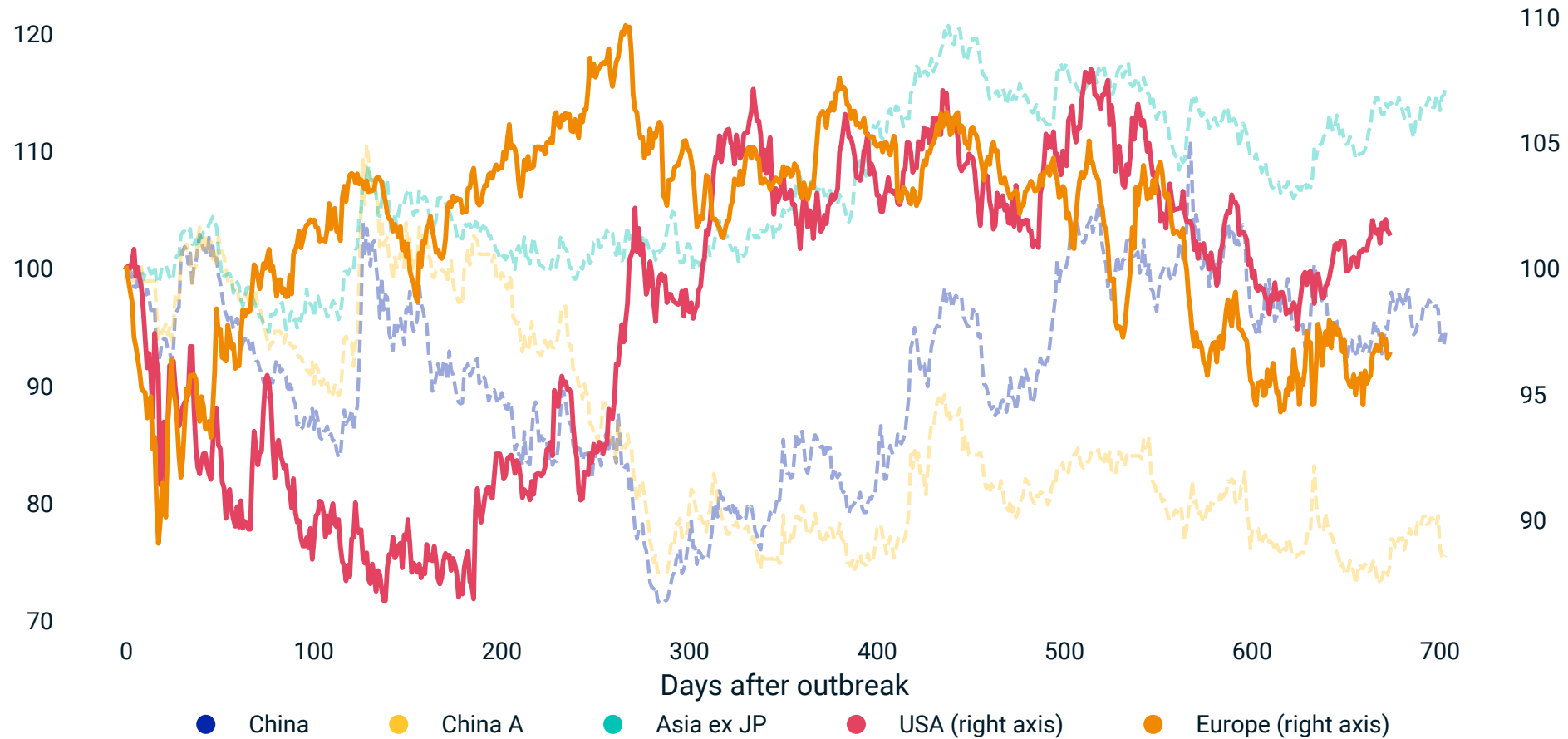


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Diversified Financials

MSCI Diversified Financials relative performance

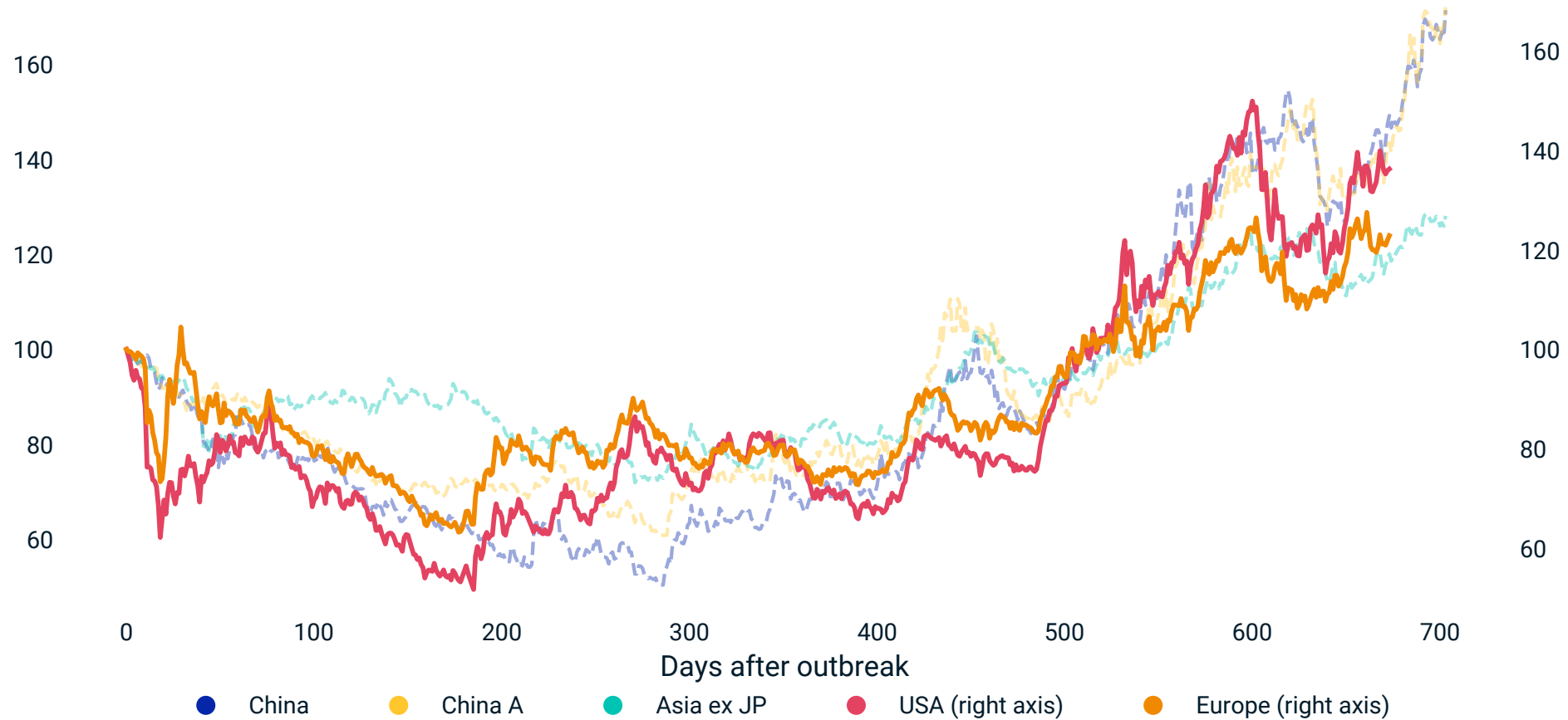


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Energy

MSCI Energy relative performance

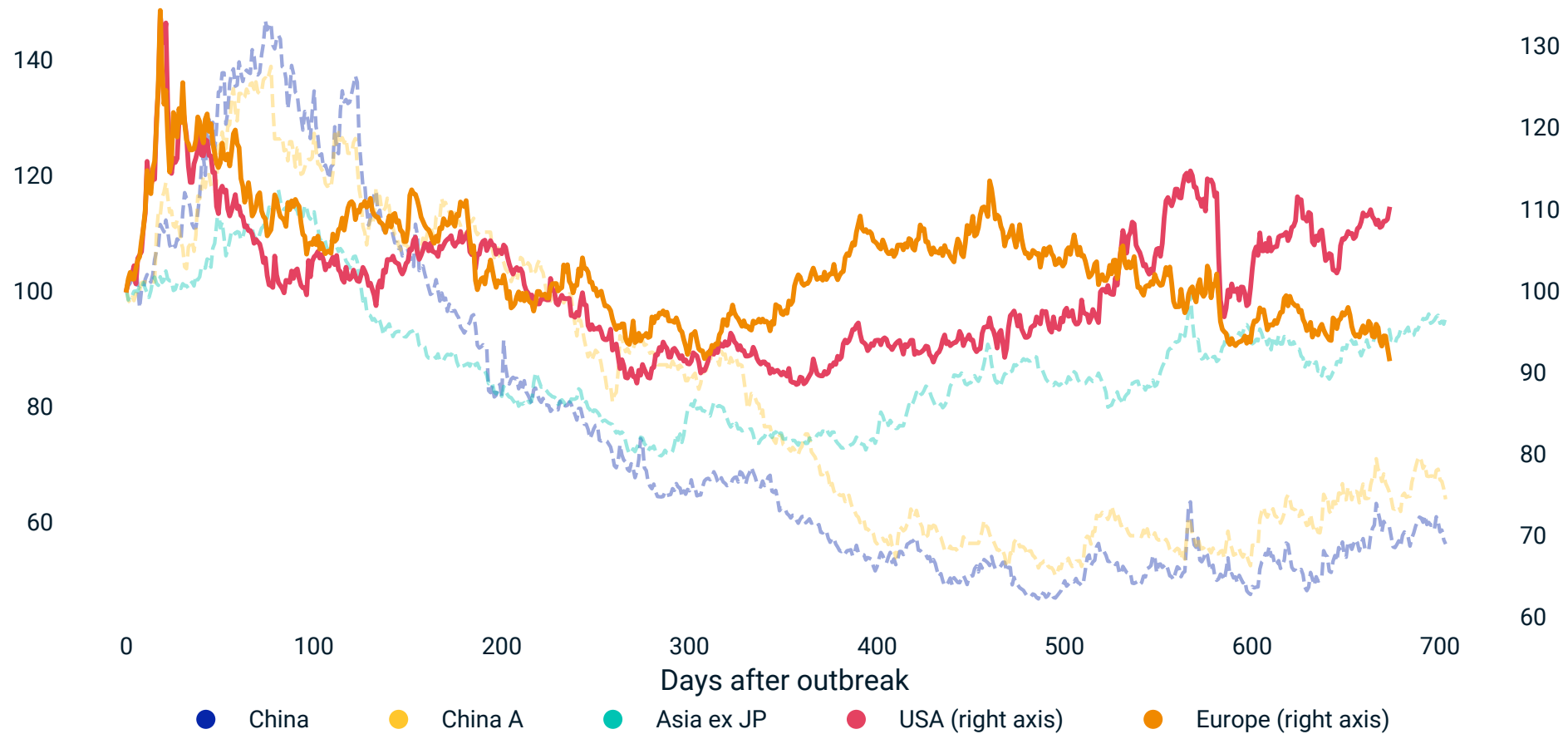


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Food & Staples Retailing

MSCI Food & Staples Retailing relative performance

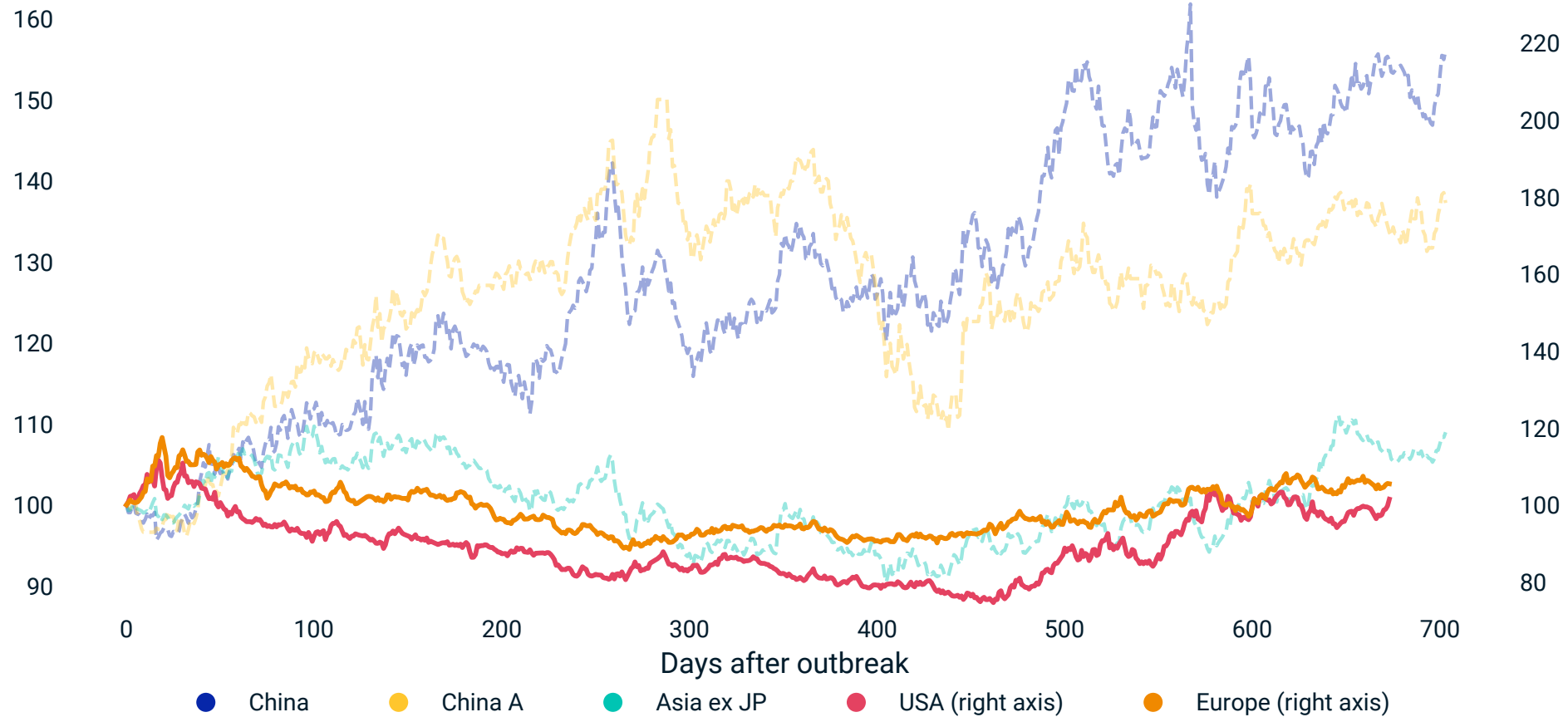


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Food, Beverage & Tobacco

MSCI Food, Beverage & Tobacco relative performance

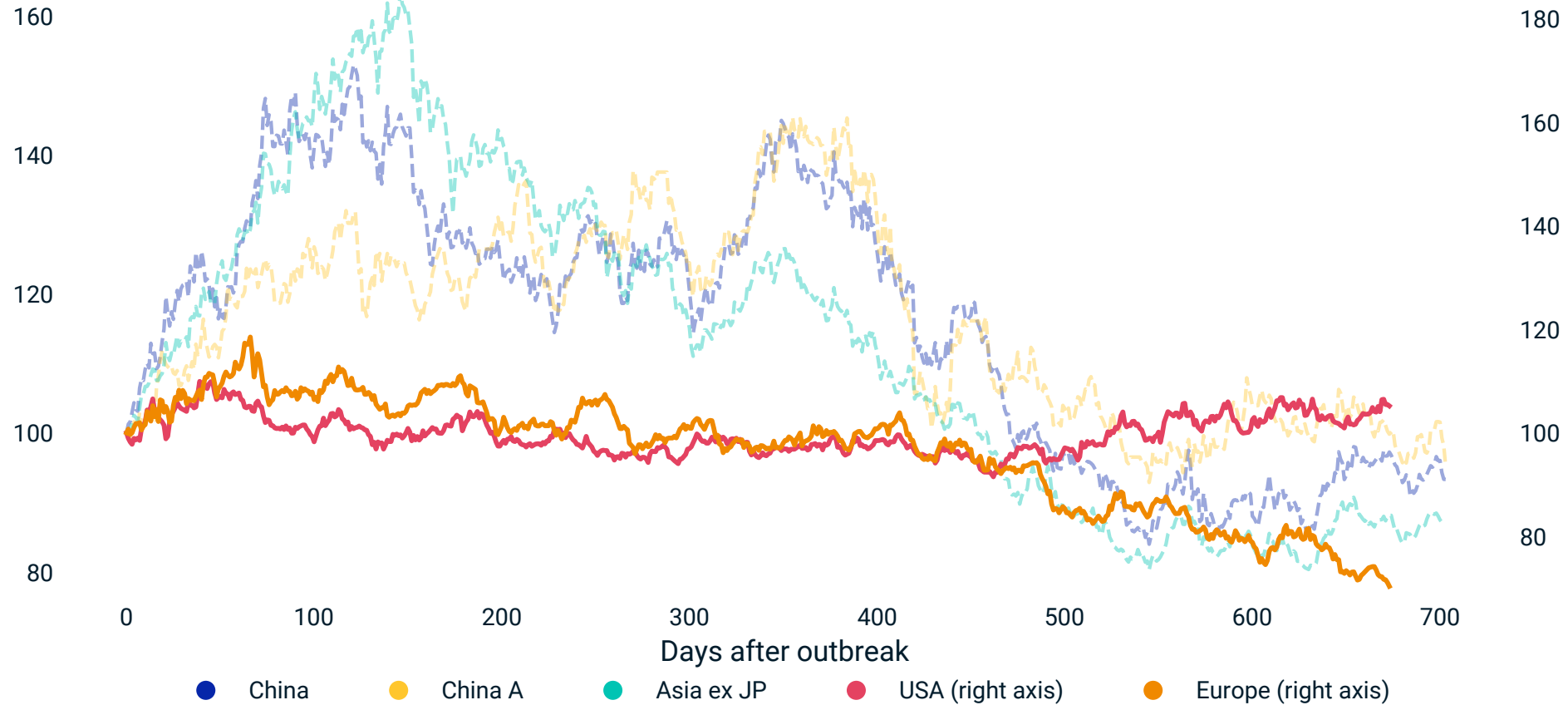


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Health Care Equipment & Services

MSCI Health Care Equipment & Services relative performance

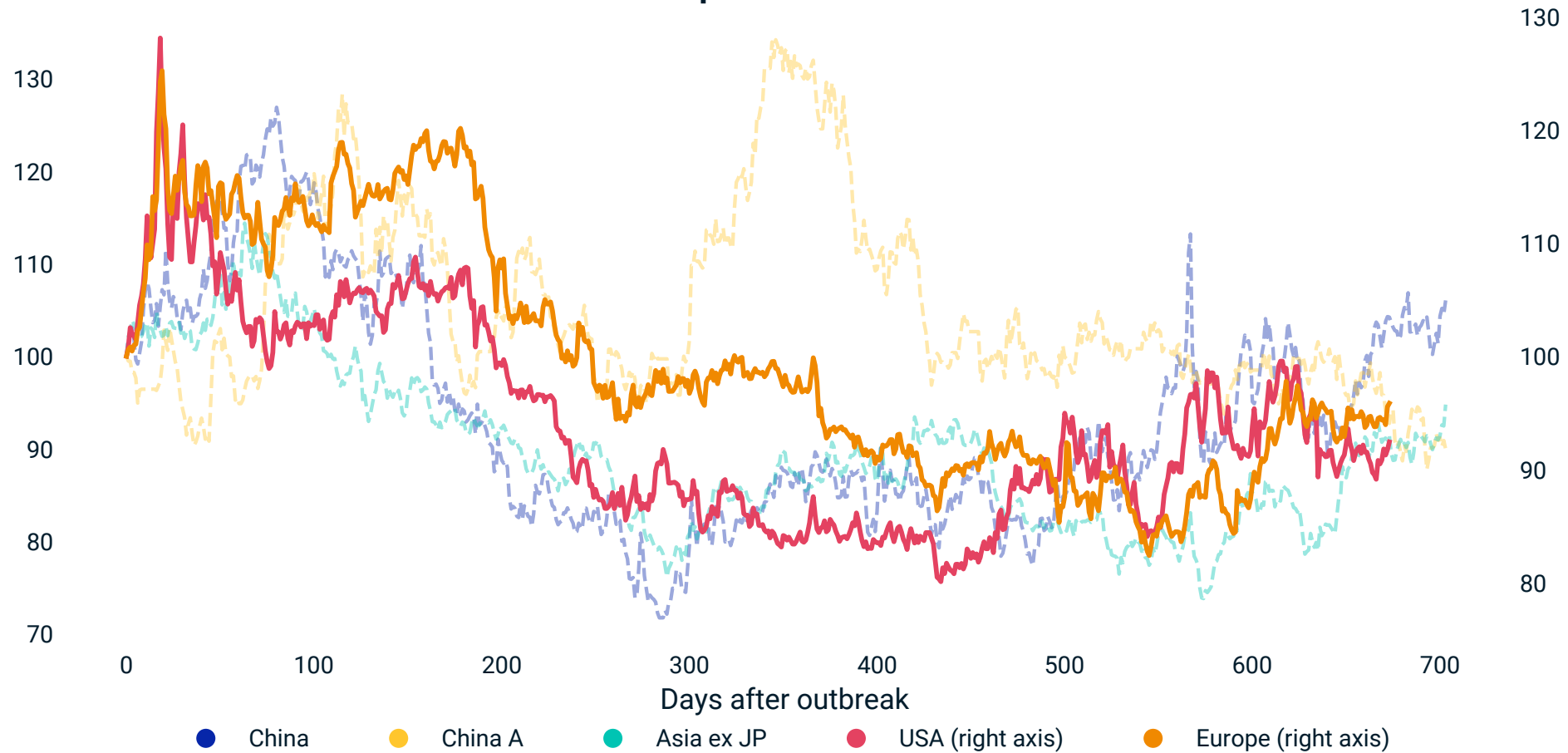


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Household & Personal Products

MSCI Household & Personal Products relative performance

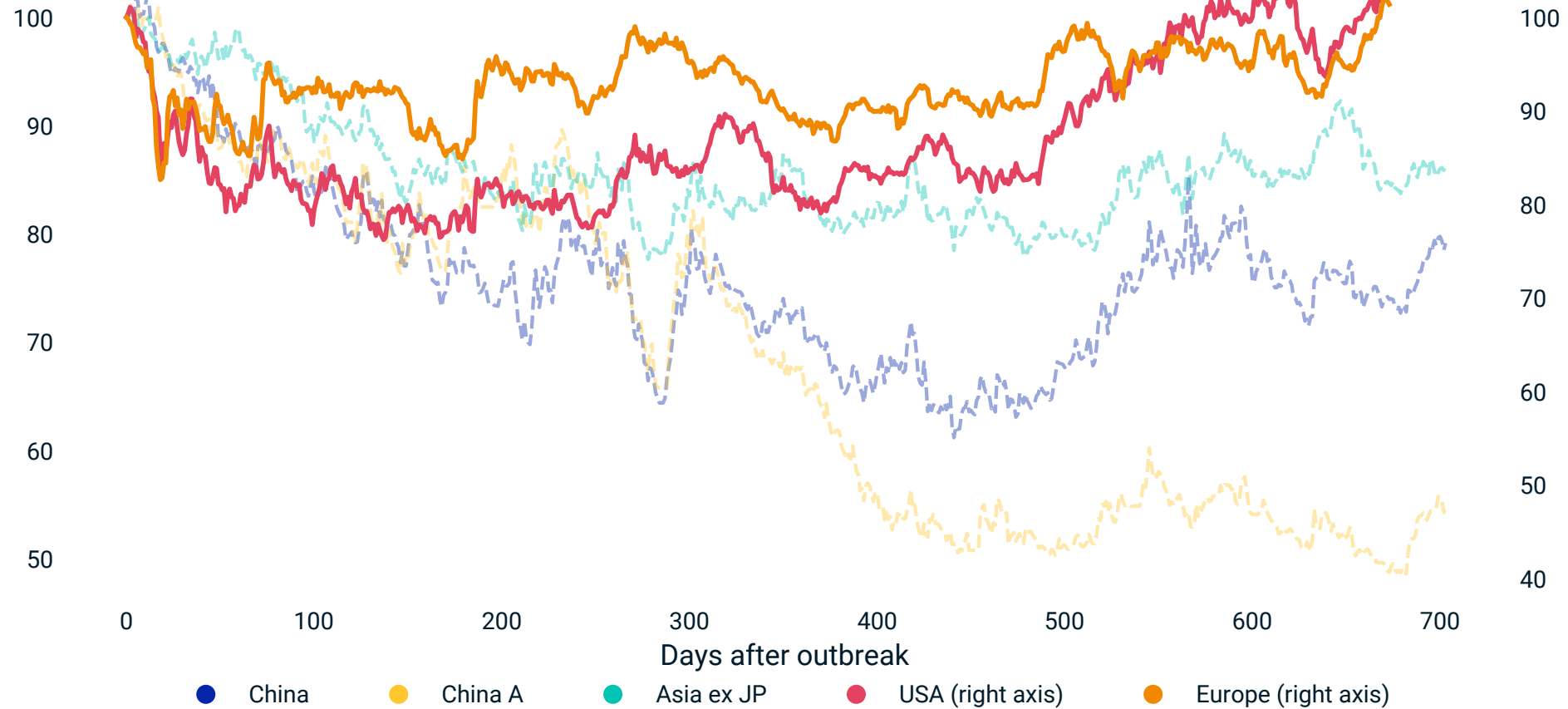


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Insurance

MSCI Insurance relative performance



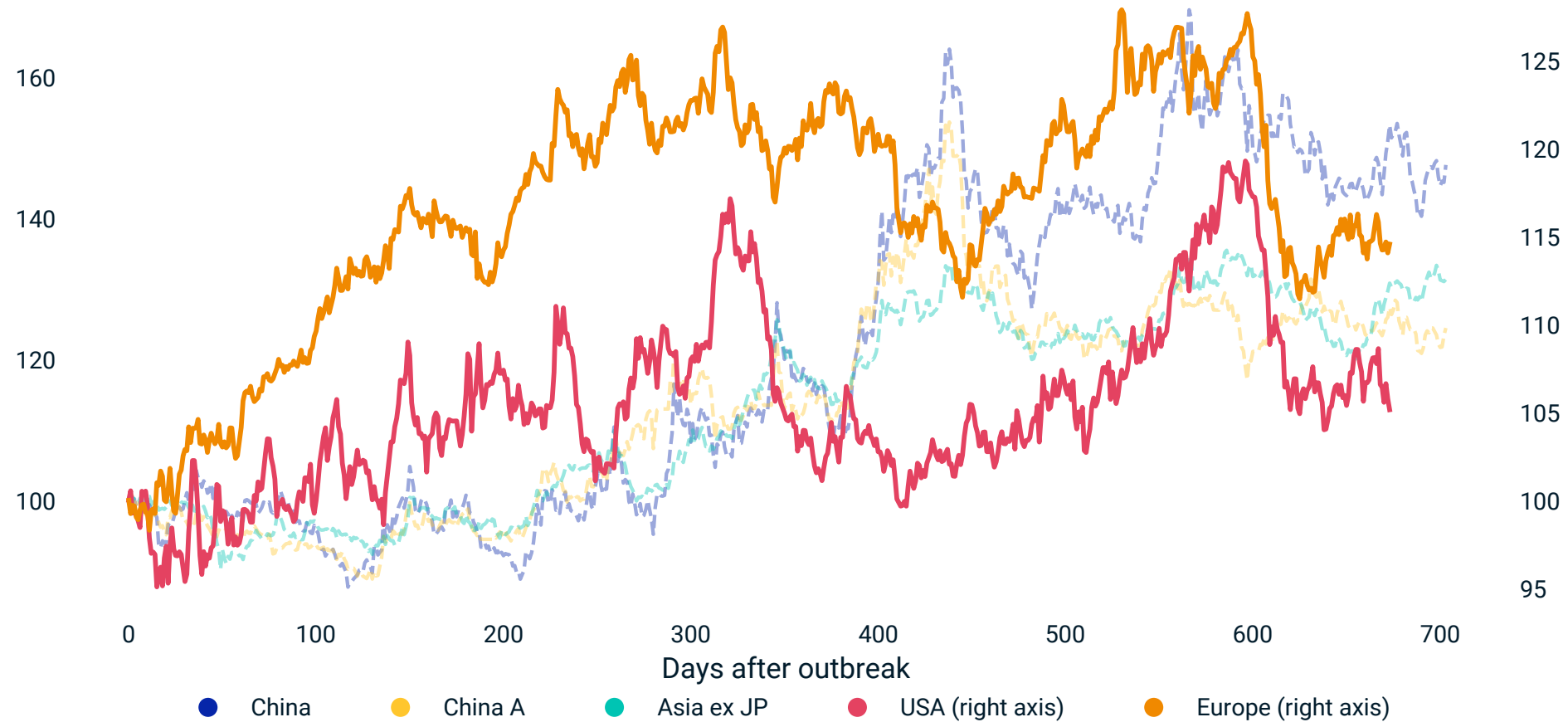
Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index



# Industry Group: Materials

MSCI Materials relative performance

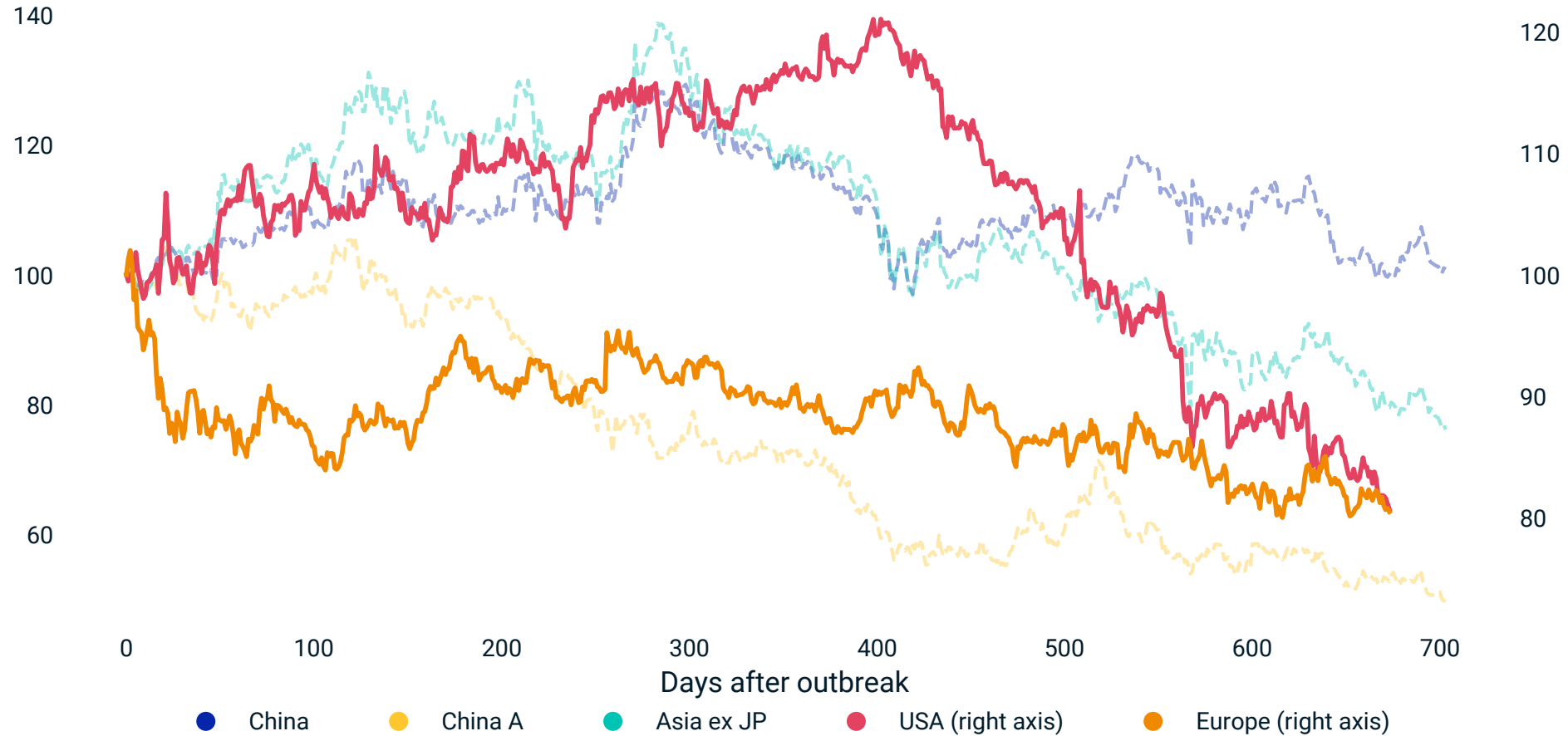


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Media & Entertainment

MSCI Media & Entertainment relative performance

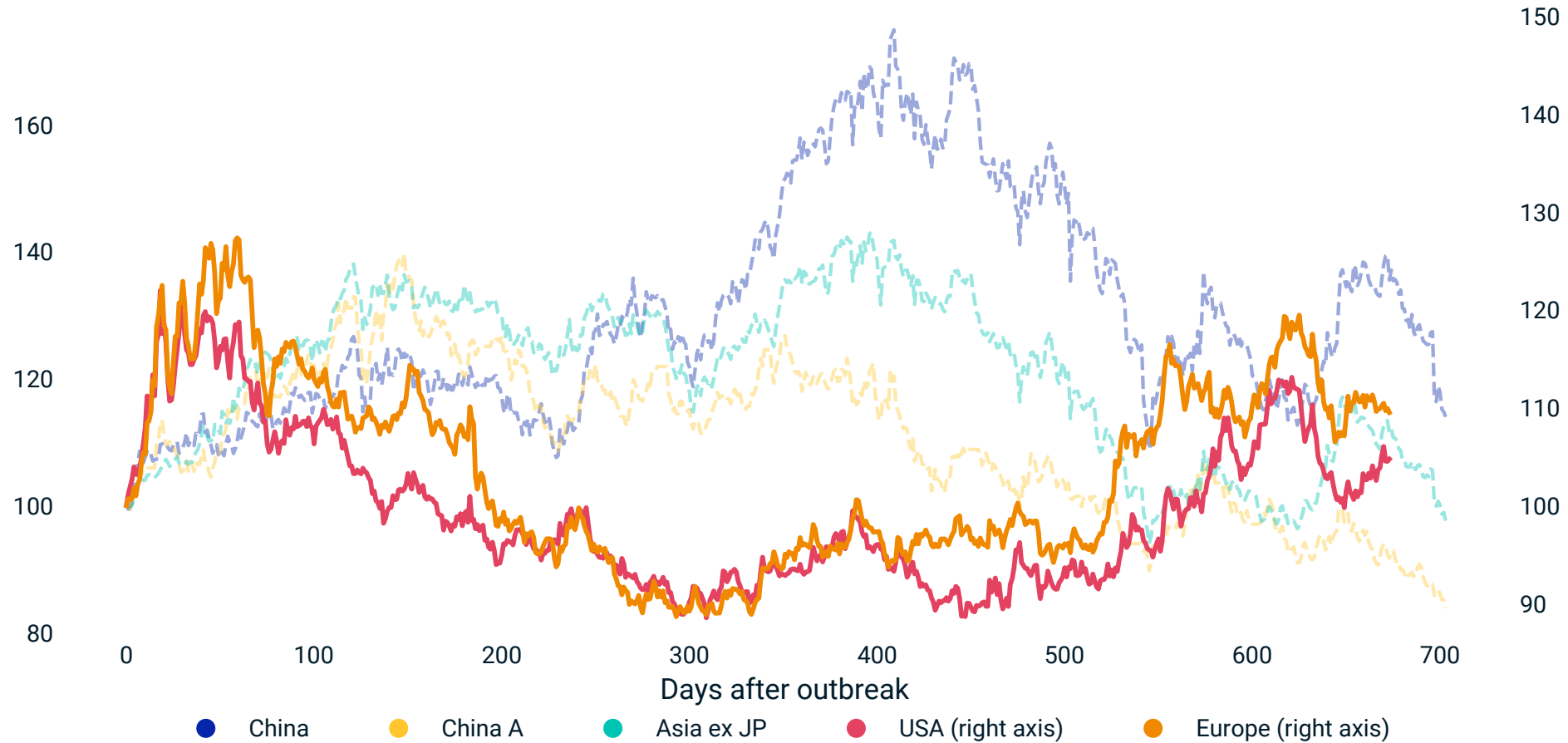


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Pharm, Biotech & Life Sciences

MSCI Pharmaceuticals, Biotechnology & Life Sciences relative performance

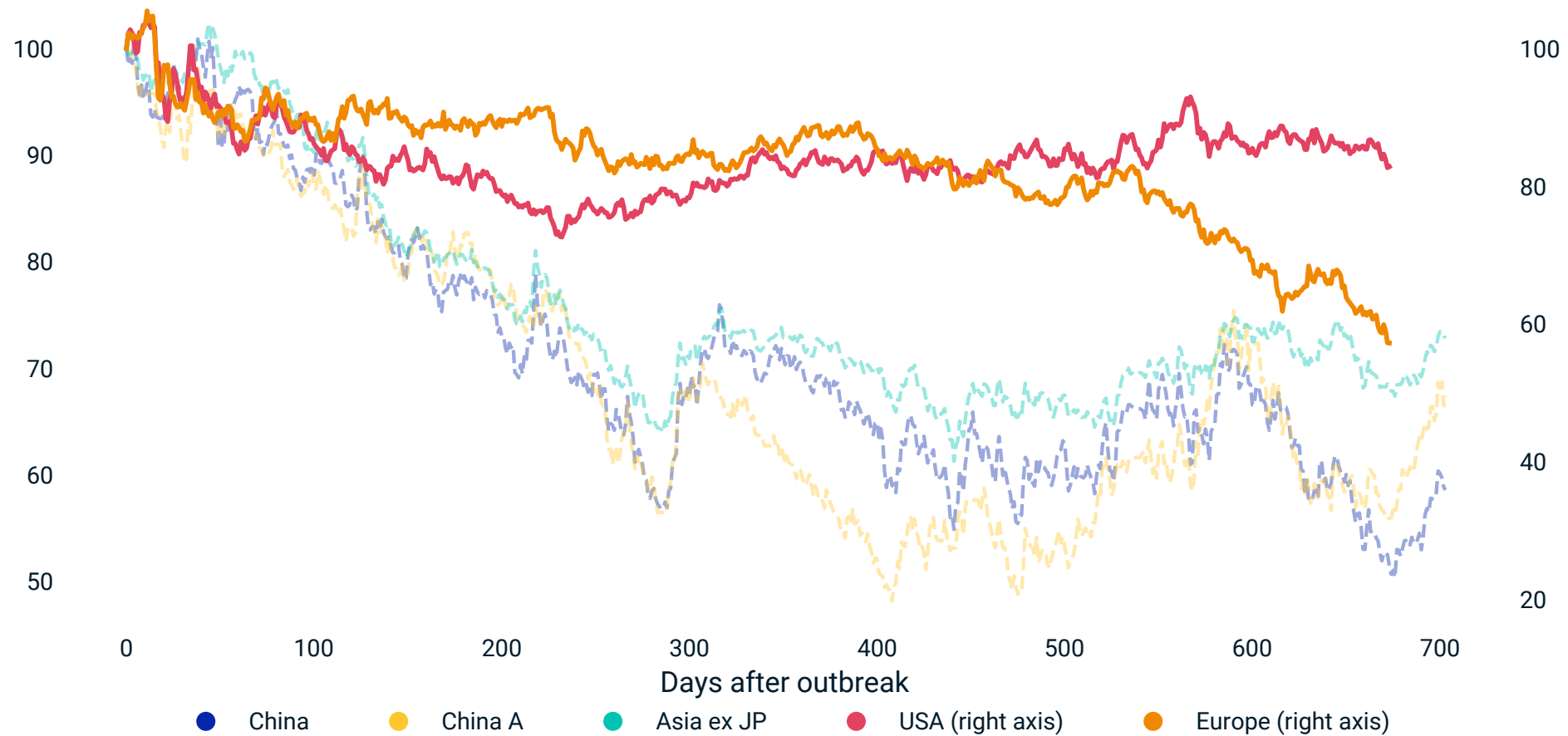


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Real Estate

MSCI Real Estate relative performance

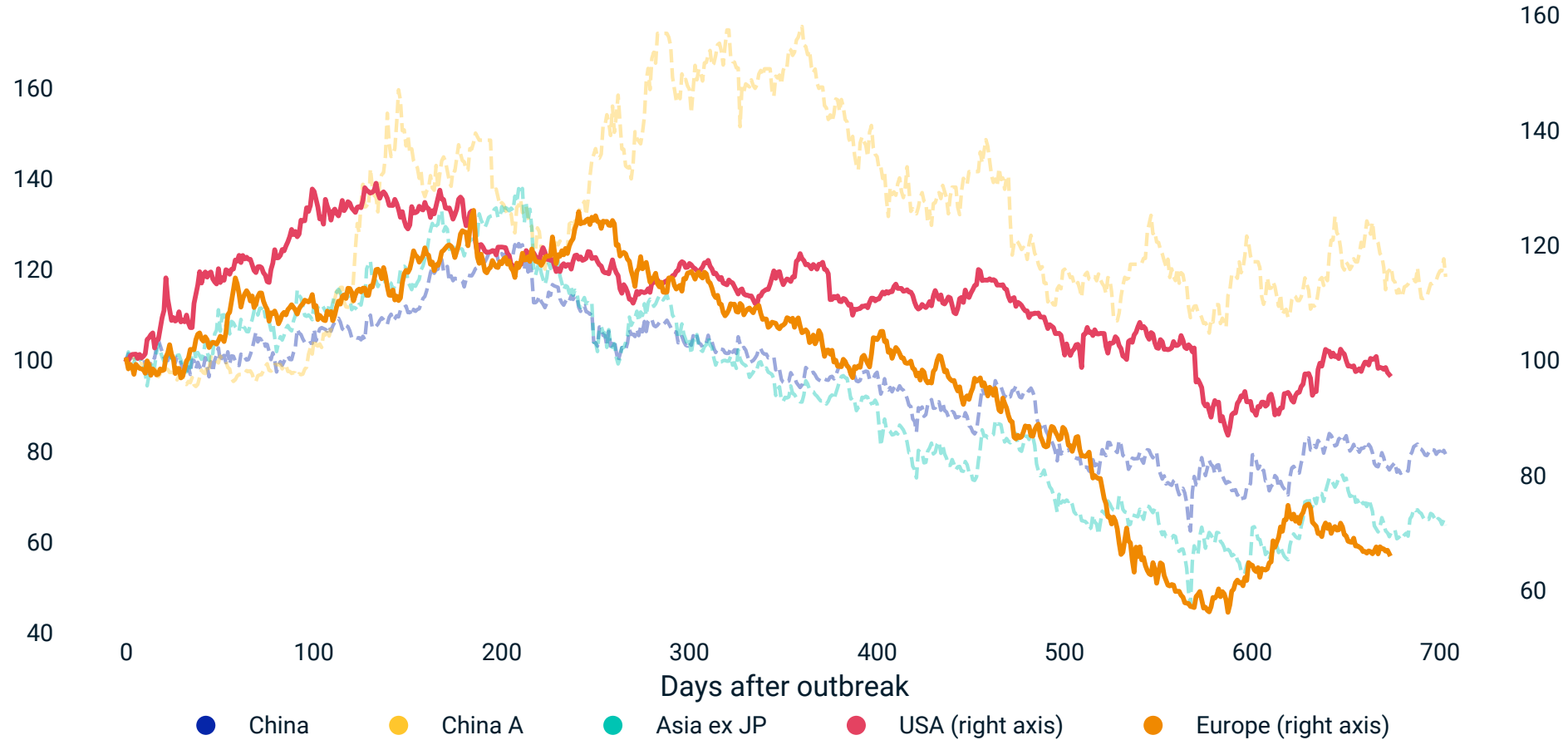


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Retailing

MSCI Retailing relative performance

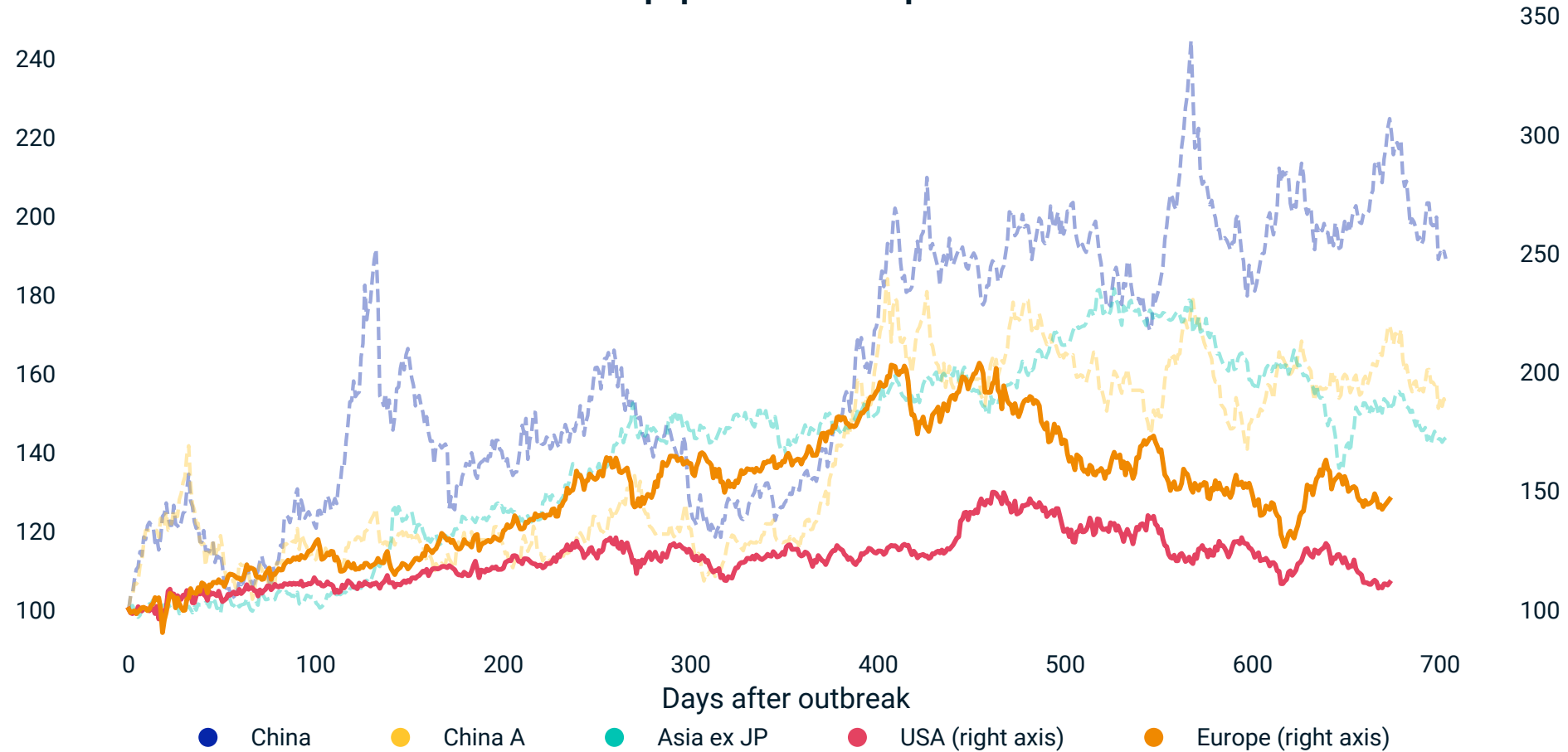


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Semi. & Semi. Equipment

MSCI Semiconductors & Semiconductor Equipment relative performance

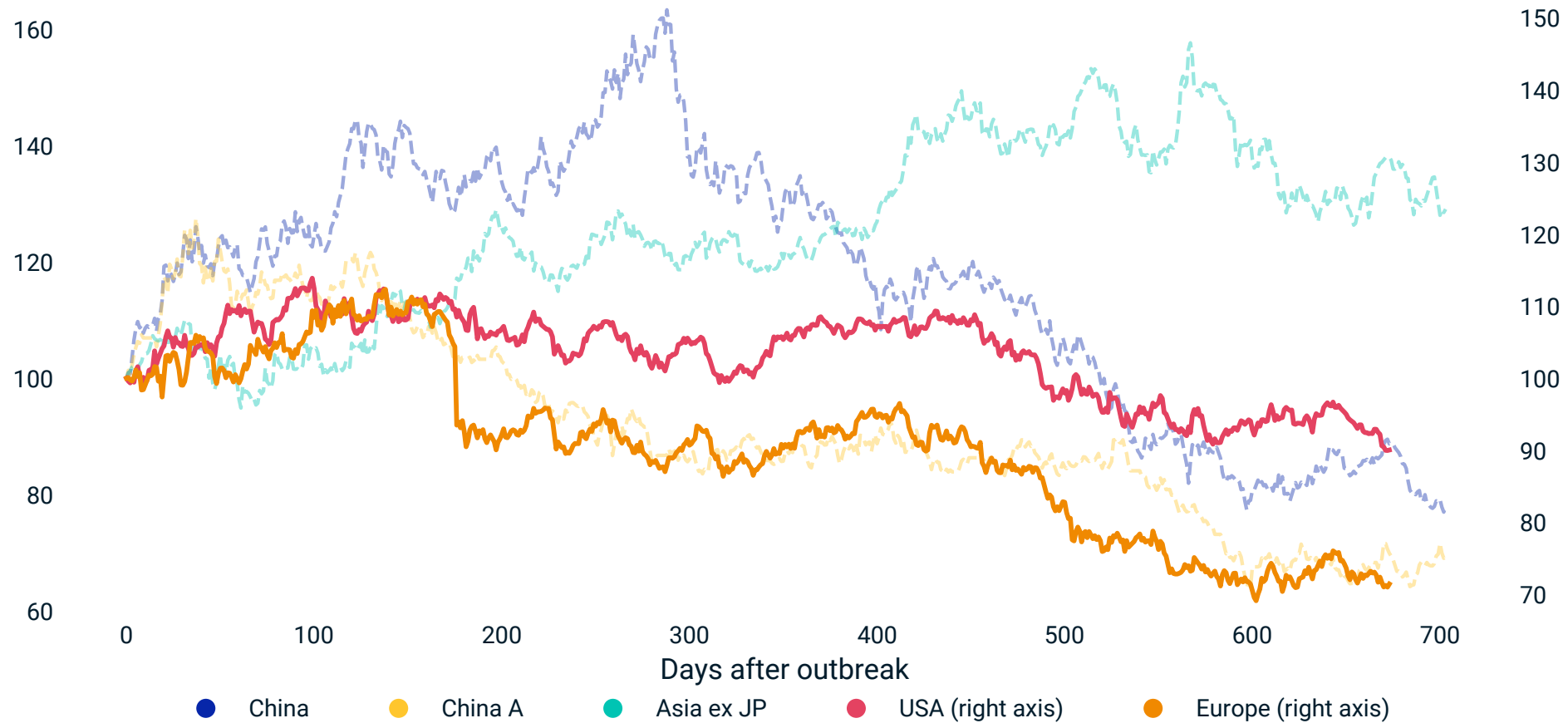


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Software & Services

MSCI Software & Services relative performance

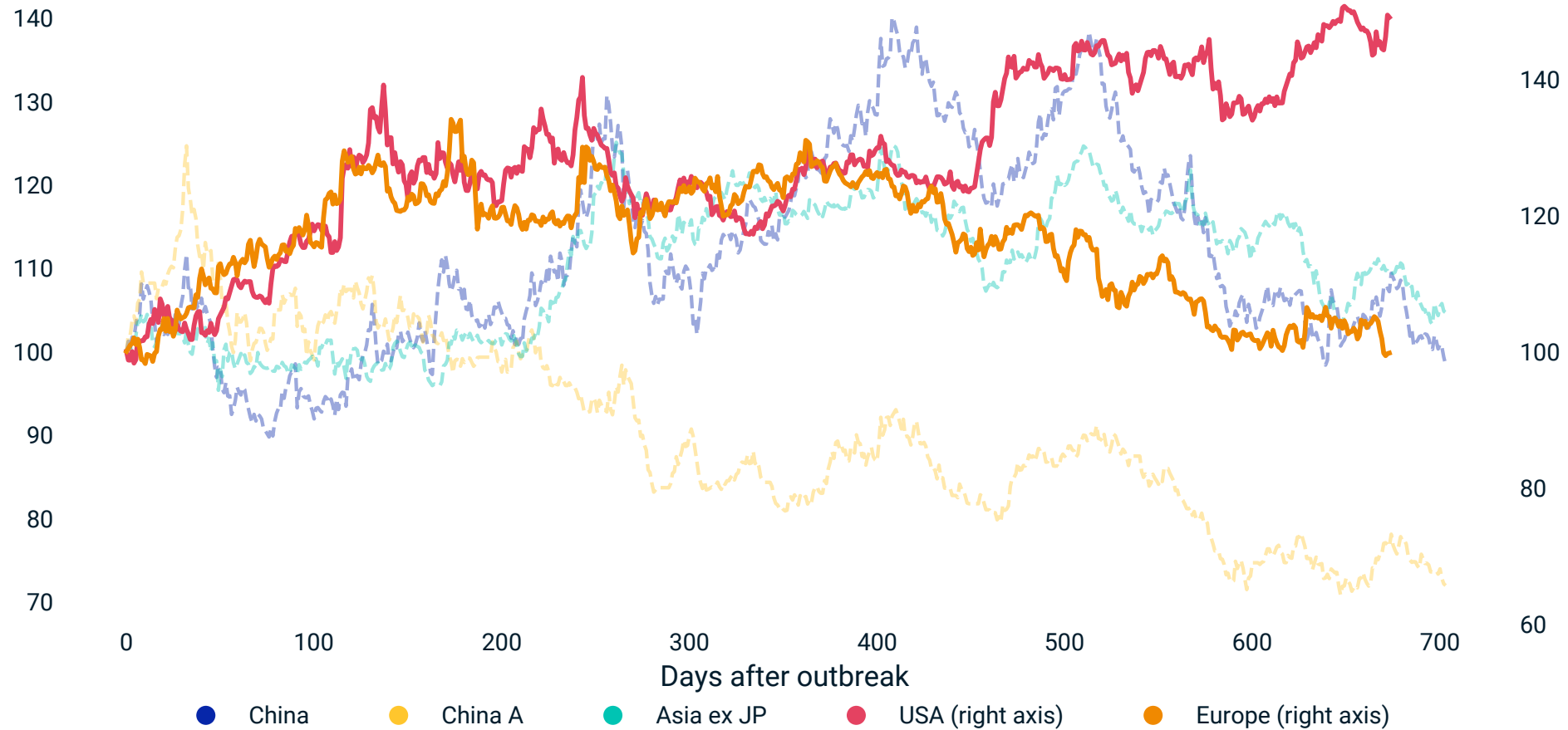


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Technology Hardware & Equipment

MSCI Technology Hardware & Equipment relative performance



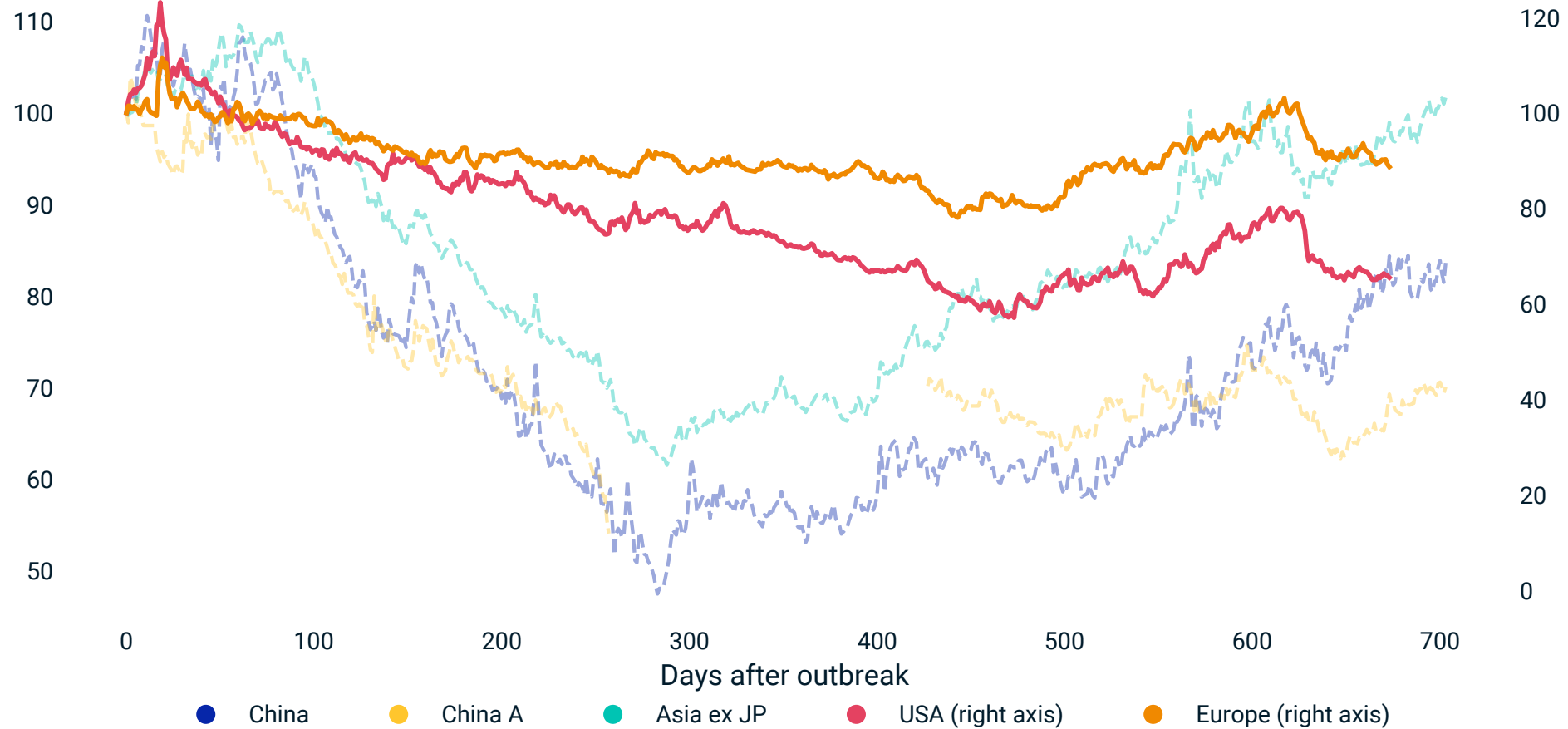
Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index



# Industry Group: Telecommunication Services

MSCI Telecommunication Services relative performance

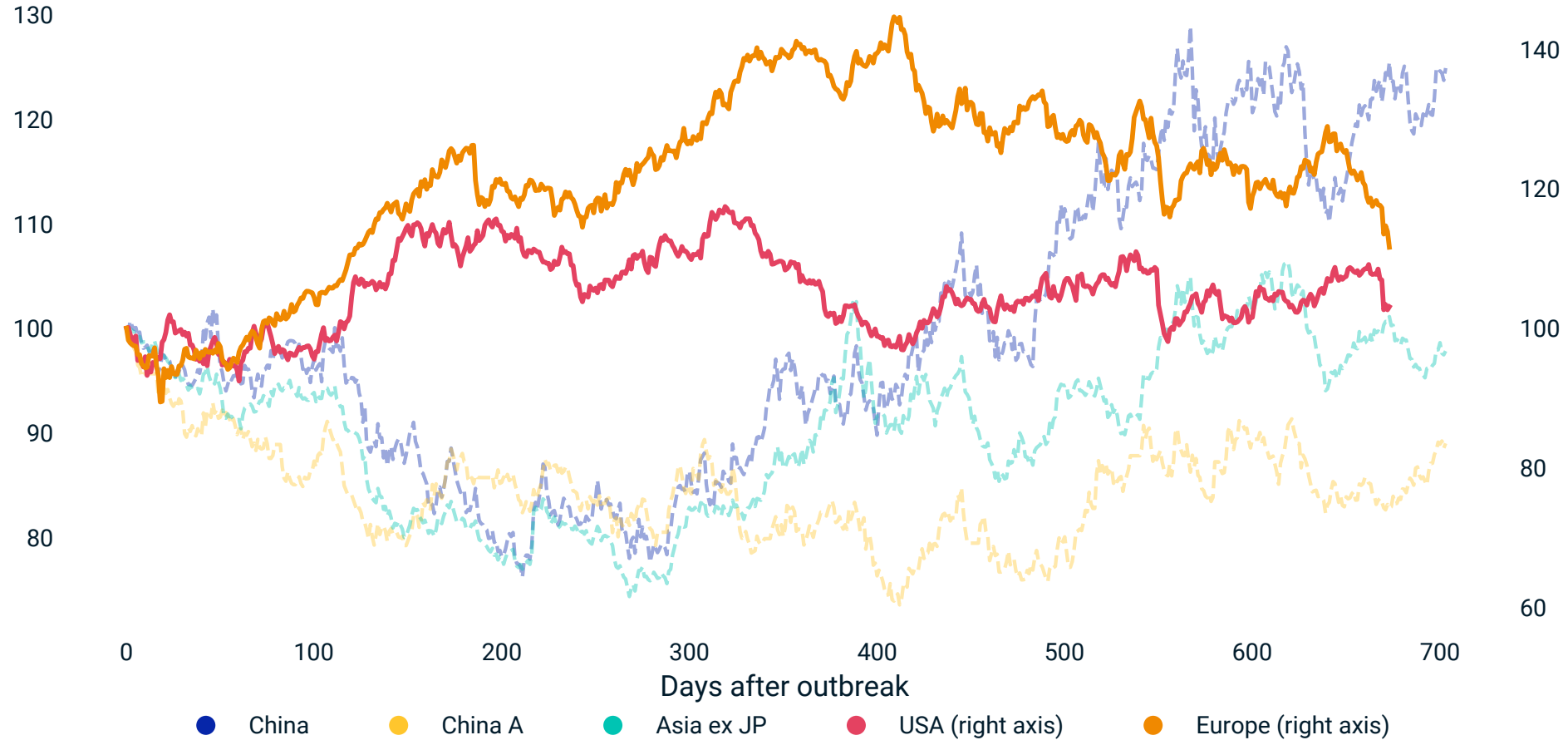


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Transportation

MSCI Transportation relative performance

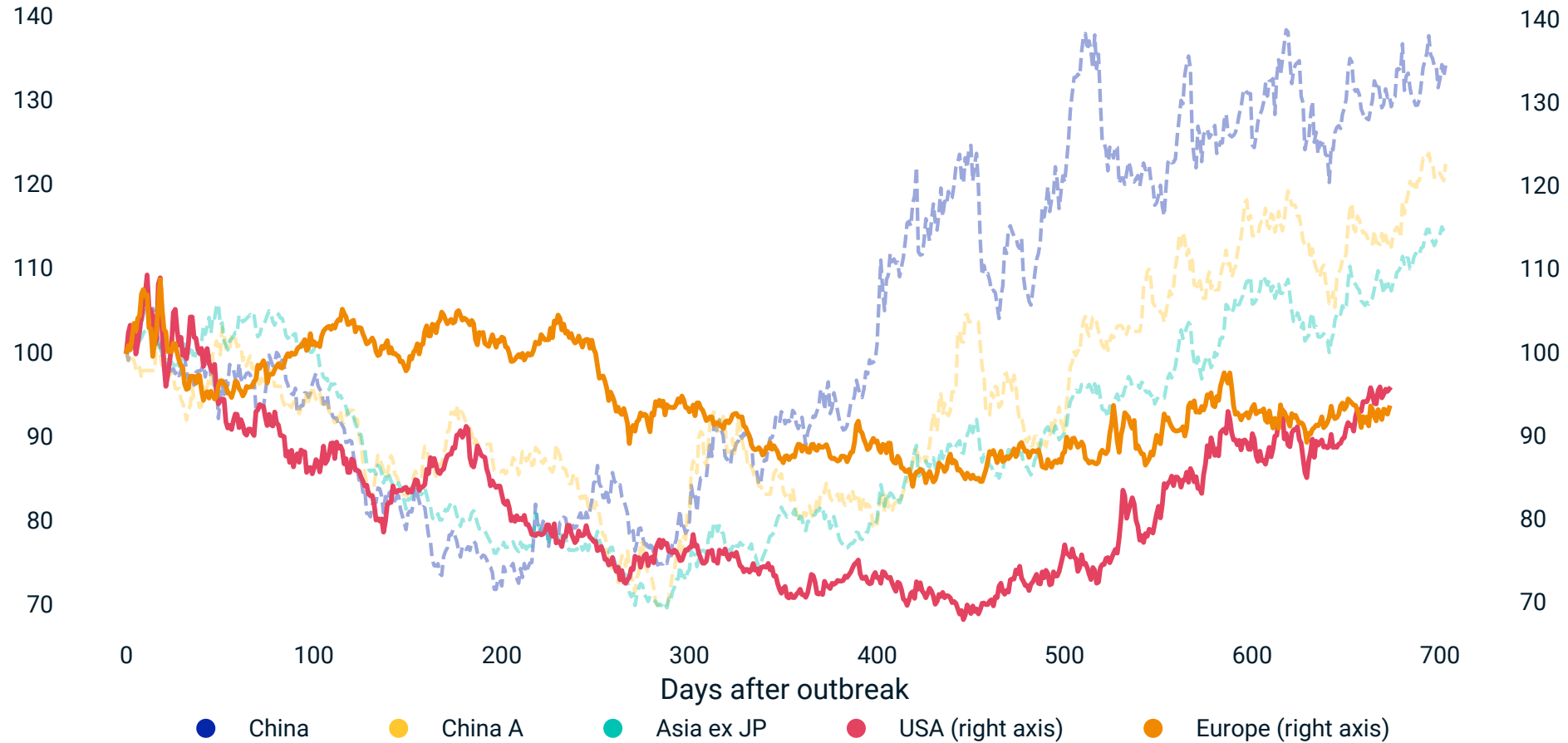


Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# Industry Group: Utilities

MSCI Utilities relative performance



Day 0: Jan 10 for Asia and China, Feb 21 for Europe and USA

Relative performance against benchmark: MSCI China Index, MSCI China A Index, MSCI AC Asia ex Japan Index, MSCI USA Index, MSCI Europe Index

# About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process. To learn more, please visit [www.msci.com](http://www.msci.com).

# Contact us

AMERICAS		EUROPE, MIDDLE EAST & AFRICA		ASIA PACIFIC	
Americas	+ 1 888 588 4567 *	Cape Town	+ 27 21 673 0100	China North	10800 852 1032 *
Atlanta	+ 1 404 551 3212	Frankfurt	+ 49 69 133 859 00	China South	10800 152 1032 *
Boston	+ 1 617 532 0920	Geneva	+ 41 22 817 9777	Hong Kong	+ 852 2844 9333
Chicago	+ 1 312 675 0545	London	+ 44 20 7618 2222	Mumbai	+ 91 22 6784 9160
Monterrey	+ 52 81 1253 4020	Milan	+ 39 02 5849 0415	Seoul	00798 8521 3392 *
New York	+ 1 212 804 3901	Paris	0800 91 59 17 *	Singapore	800 852 3749 *
San Francisco	+ 1 415 836 8800			Sydney	+ 61 2 9033 9333
São Paulo	+ 55 11 3706 1360			Taipei	008 0112 7513 *
Toronto	+ 1 416 628 1007			Thailand	0018 0015 6207 7181 *
* = toll free <a href="https://www.msci.com">msci.com</a> <a href="mailto:clientservice@msci.com">clientservice@msci.com</a> <a href="mailto:esgclientservice@msci.com">esgclientservice@msci.com</a>				Tokyo	+ 81 3 5290 1555

# Notice & Disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the “Information”) is the property of MSCI Inc. or its subsidiaries (collectively, “MSCI”), or MSCI’s licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the “Information Providers”) and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, “Index Linked Investments”). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investable assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on [www.msci.com](http://www.msci.com).

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.’s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.’s company filings on the Investor Relations section of [www.msci.com](http://www.msci.com).

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI’s products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P Global Market Intelligence. “Global Industry Classification Standard (GICS)” is a service mark of MSCI and S&P Global Market Intelligence.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>.