

Retailing Industry

Retail weekly/JMA weather outlook: 26 Jan 2024

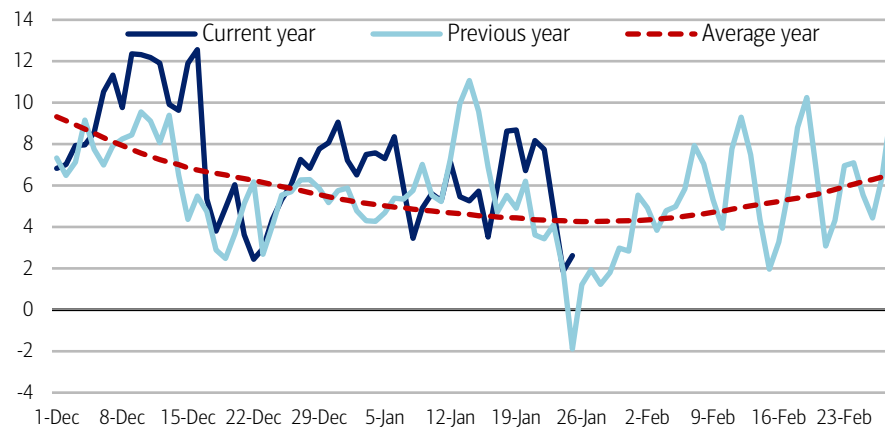
Industry Overview

Weather outlook: Warm, spring merchandise ramp-up

The Japan Meteorological Agency (JMA) updated its one-month forecast on 25 Jan. Over the next month (27 Jan–26 Feb), the JMA expects little impact from cold fronts and the warm weather to continue nationwide. It expects high temperatures in all regions, with temperatures being quite high in the first half of the forecast period in eastern and western Japan, Okinawa, and Amami in particular. The JMA also updated its three-month forecast (Feb–Apr) on 23 Jan. It expects above-average temperatures in eastern and western Japan, Okinawa, and Amami and at or above average temperatures in northern Japan. While winter sales have been impacted by the warm winter we continue to look forward to the start of the spring.

Exhibit 2: Current-/previous-year and average temperatures (average for 10 largest cities)

Temperatures up YoY and above historical average over the past week



Source: Japan Meteorological Agency, BofA Global Research

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26 January 2024

Equity
Japan
Retailing

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Exhibit 1: Next week's events

Please confirm official times with companies

29 Jan (Mon)
Earnings Results (Genky Drugstores, etc.)

30 Jan (Tue)
Earnings Results (Watahan, etc.)

31 Jan (Wed)
Earnings Results (Seria, ZOZO, G-7, etc.)

1 Feb (Thu)
Earnings Results (Yamada HD etc.)
Monthly data (Department stores, Workman, etc.)

2 Feb (Fri)
Earnings Results (Isetan Mitsukoshi, H2O, Edion, etc.)
Monthly data (Apparel specialty retailers, etc.)

Source: BofA Global Research

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Refer to important disclosures on page 25 to 27.

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Timestamp: 26 January 2024 05:54AM EST

Retail share-price performance

Exhibit 3: Retail share price performance (1W, 1M, 3M, 6M, 2023)

TOPIX Retail Index was +0.1 points vs. TOPIX over the last week, -2.6% over the last month, and -2.8%, over the last three months

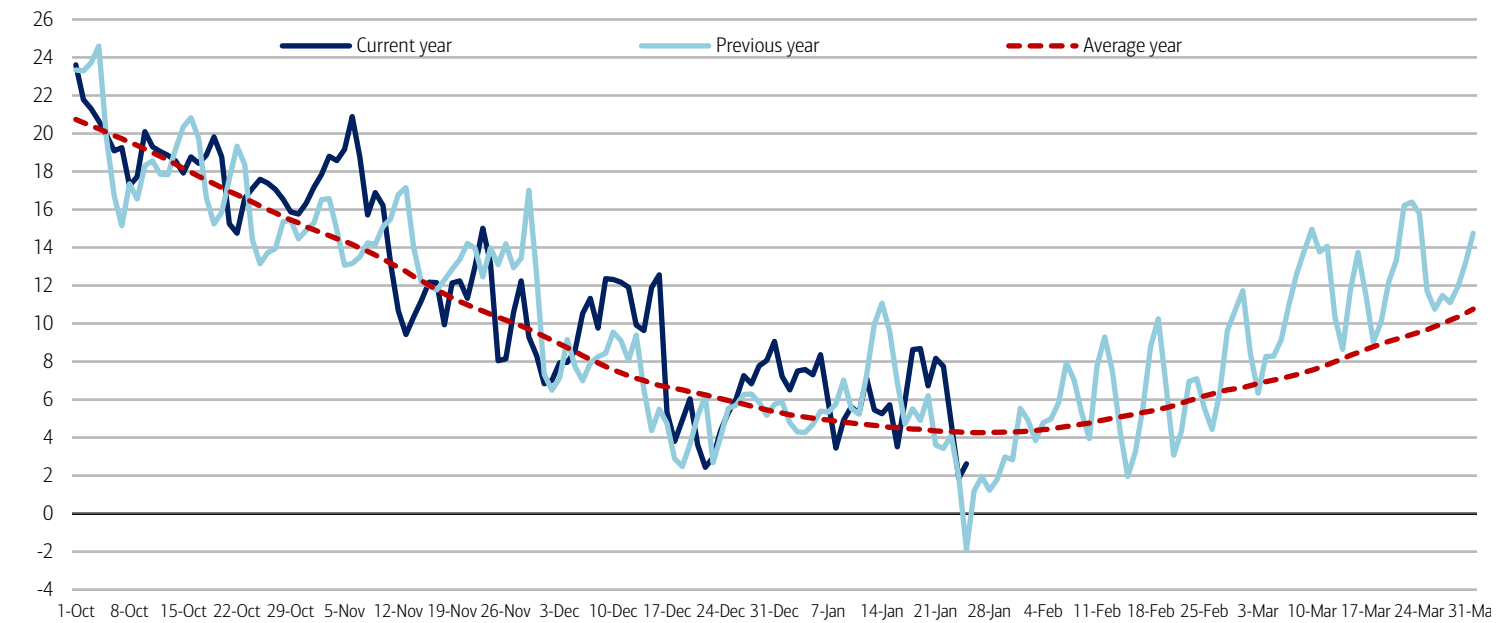
	1 Week	1 Month	3 Month	6 Month	2023	2022
ABC-Mart	5.6 Tokyo Base	19.0 Seria	34.1 Daikokuten Bussan	37.6 Pal	96.4 Takashimaya	72.2
Sugi	4.6 Kura Sushi	14.2 Daikokuten Bussan	31.7 Skylark	30.4 Onward	55.2 Isetan Mitsukoshi	69.1
Seria	4.2 Skylark	14.0 Pal	21.8 Ryohin Keikaku	27.0 Asics	51.6 H2O	59.3
Nitori	3.9 Lawson	13.2 Bic Camera	21.4 Bic Camera	26.5 Ryohin Keikaku	50.7 MatsukiyoCocokara	54.9
Pal	3.2 Life	12.9 Sugi	20.6 Kusuri no Aoki	24.8 Adastria	48.2 PPIH	54.6
ZOZO	2.9 Daikokuten Bussan	12.8 ZOZO	20.0 Kura Sushi	24.1 Lawson	44.8 ABC-Mart	51.5
Alpen	2.8 Mizuno	10.9 FOOD & LIFE	19.8 Nishimatsuya	22.7 Daikokuten Bussan	40.2 Pal	46.2
Komeri	2.0 Isetan Mitsukoshi	10.1 Nitori	18.8 JINS	20.5 Mizuno	39.7 Adastria	45.1
Workman	1.9 Onward	10.0 Lawson	17.9 Arcs	20.2 PPIH	37.1 Goldwin	43.4
World	1.8 Aeon	9.9 Tsuruha	17.4 Lawson	18.7 Skylark	35.2 Shimamura	35.6
7&i	1.7 Fast Retailing	8.9 Fast Retailing	17.3 Shimamura	17.9 Nishimatsuya	33.6 Yonex	35.4
Welcia	1.6 Komeri	8.2 DCM	16.9 Tsuruha	17.4 Kojima	32.1 Bic Camera	33.1
Nishimatsuya	1.5 Sugi	7.4 Kojima	15.5 Mizuno	17.0 Fast Retailing	30.3 Sundrug	30.3
DCM	1.4 MatsukiyoCocokara	7.1 Tokyo Base	14.8 Seria	16.5 World	27.6 Mizuno	25.4
Yonex	1.3 TOPIX	6.8 Onward	14.3 ZOZO	16.4 Tsuruha	26.7 Fast Retailing	23.3
Kusuri no Aoki	1.2 ABC-Mart	6.7 Ryohin Keikaku	13.7 PPIH	15.7 Arcs	26.7 Edion	19.9
Mizuno	0.9 Seria	5.1 World	13.3 Aeon	15.7 Kusuri no Aoki	25.3 Yamada	18.8
Yamada	0.5 World	5.1 Sundrug	13.1 Adastria	15.1 TOPIX	25.1 J.Front	14.7
Cosmos	0.4 Alpen	4.8 TOPIX	12.3 Kojima	15.0 Life	25.0 Asics	14.3
Lawson	0.4 Yamada	4.7 Kura Sushi	12.1 Fast Retailing	13.5 Edion	22.2 DCM	12.9
K's	0.2 Marui	4.5 PPIH	12.0 Pal	13.2 Cosmos	22.1 Nishimatsuya	12.2
United Arrows	0.2 7&i	4.5 Aeon	11.9 Komeri	13.2 Izumi	21.1 7&i	11.9
Fast Retailing	0.1 TOPIX Retail	4.2 ABC-Mart	11.1 Isetan Mitsukoshi	12.9 Shimamura	20.3 World	10.9
Snow Peak	0.0 H2O	4.0 Yaoko	11.0 Kohnan Shoji	12.8 Yaoko	19.0 Kojima	9.2
Sundrug	0.0 Takashimaya	4.0 Komeri	10.6 DCM	12.3 H2O	18.4 TOPIX Retail	8.8
Adastria	-0.2 Arcs	3.9 Nishimatsuya	10.5 Yaoko	12.2 K's	17.1 Komeri	6.9
Onward	-0.2 Shimamura	3.5 Shimamura	10.3 Sugi	12.2 TOPIX Retail	15.8 U.S.M.H.	6.4
Aeon	-0.3 Yaoko	3.3 Skylark	10.2 Nitori	11.9 Sundrug	15.8 Kusuri no Aoki	5.3
U.S.M.H.	-0.4 Edion	3.0 TOPIX Retail	9.5 FOOD & LIFE	10.5 Descente	15.2 Daikokuten Bussan	4.3
TOPIX Retail	-0.4 FOOD & LIFE	2.7 Edion	7.9 Sundrug	9.5 Kohnan Shoji	14.8 Onward	3.7
TOPIX	-0.5 United Arrows	2.6 7&i	7.2 TOPIX	9.4 Kura Sushi	13.7 Arcs	3.0
Bic Camera	-0.5 ZOZO	2.4 Life	6.1 Edion	9.3 MatsukiyoCocokara	13.5 Aeon	2.7
Kobe Bussan	-0.5 J.Front	2.2 Alpen	5.2 TOPIX Retail	8.3 Aeon	13.2 United Arrows	1.1
Edion	-1.0 Nitori	2.1 Kobe Bussan	5.2 Life	6.9 Komeri	13.1 Skylark	1.1
Marui	-1.0 Bic Camera	1.9 Marui	5.0 H2O	5.0 Yonex	12.4 Kohnan Shoji	1.0
Arcs	-1.1 DCM	1.2 Workman	4.8 Asics	4.5 FOOD & LIFE	11.5 K's	0.9
Shimamura	-1.2 Kohnan Shoji	0.8 Cosmos	4.4 Yamada	4.2 Nitori	10.7 Marui	0.7
Kojima	-1.2 K's	0.6 Adastria	4.1 Alpen	4.0 Sugi	10.4 Nitori	-1.0
Yaoko	-1.2 Asics	0.6 Arcs	3.8 Kobe Bussan	2.7 Kobe Bussan	9.9 Workman	-1.8
Kohnan Shoji	-1.3 Sundrug	0.5 Kohnan Shoji	3.6 K's	2.3 Marui	8.4 Yaoko	-3.0
MatsukiyoCocokara	-1.6 Nishimatsuya	0.4 Goldwin	3.2 ABC-Mart	1.7 DCM	7.6 TOPIX	-5.1
Goldwin	-1.7 U.S.M.H.	0.2 MatsukiyoCocokara	3.1 Takashimaya	1.2 Tokyo Base	7.1 Izumi	-7.3
Life	-1.7 Welcia	0.1 Isetan Mitsukoshi	3.0 World	-0.6 J.Front	6.8 Tsuruha	-7.6
H2O	-2.0 Goldwin	-1.1 Kusuri no Aoki	2.8 Marui	-0.7 Isetan Mitsukoshi	6.8 Lawson	-7.7
Skylark	-2.1 Descente	-1.2 United Arrows	0.4 7&i	-1.2 Goldwin	6.1 Alpen	-8.6
Tsuruha	-2.3 Workman	-1.3 Takashimaya	0.3 J.Front	-1.5 Bic Camera	4.8 ZOZO	-9.2
Kura Sushi	-2.6 Snow Peak	-1.4 Mizuno	-0.3 Izumi	-1.9 Takashimaya	4.3 Ryohin Keikaku	-10.7
Descente	-2.7 Ryohin Keikaku	-2.4 H2O	-0.9 MatsukiyoCocokara	-2.1 JINS	2.0 Seria	-14.0
Daikokuten Bussan	-2.8 Tsuruha	-3.1 JINS	-0.9 Cosmos	-2.4 United Arrows	1.9 Welcia	-14.3
J.Front	-2.9 PPIH	-3.5 Welcia	-2.3 Tokyo Base	-4.1 Alpen	-0.6 Kobe Bussan	-14.9
Ryohin Keikaku	-3.0 Cosmos	-3.6 Asics	-3.1 Onward	-6.2 ABC-Mart	-1.0 Sugi	-15.8
FOOD & LIFE	-3.1 Kojima	-3.7 Yamada	-3.2 U.S.M.H.	-9.0 7&i	-1.1 Kura Sushi	-17.4
Asics	-3.2 Izumi	-4.4 U.S.M.H.	-4.2 Yonex	-10.8 ZOZO	-2.6 Cosmos	-21.2
Takashimaya	-3.4 Adastria	-5.6 J.Front	-4.3 Welcia	-11.1 Yamada	-6.1 Life	-22.3
JINS	-3.6 Yonex	-6.3 K's	-4.6 Descente	-12.1 Seria	-8.4 Descente	-23.7
Isetan Mitsukoshi	-4.1 Pal	-6.7 Izumi	-9.9 Goldwin	-13.8 U.S.M.H.	-9.6 Snow Peak	-26.1
Tokyo Base	-4.1 Kobe Bussan	-7.6 Snow Peak	-11.4 Workman	-17.1 Welcia	-19.8 JINS	-34.2
PPIH	-4.7 Kusuri no Aoki	-8.4 Descente	-13.6 United Arrows	-20.7 Workman	-23.0 FOOD & LIFE	-40.3
Izumi	-5.1 JINS	-10.6 Yonex	-22.0 Snow Peak	-50.1 Snow Peak	-60.7 Tokyo Base	-53.3

Note: Includes companies outside of our coverage

Source: Bloomberg, BofA Global Research



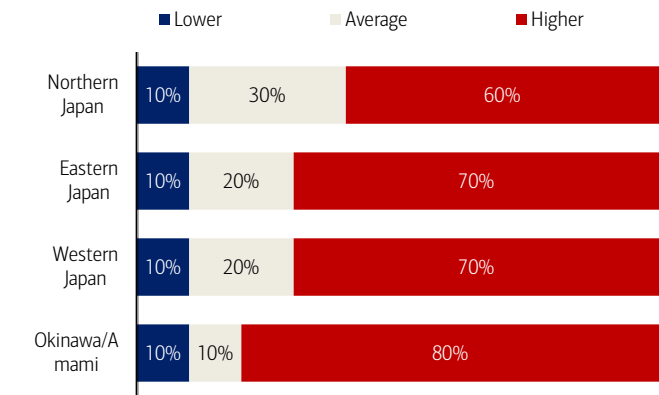
Exhibit 4: Current-/previous-year and average temperatures (average for 10 largest cities)
Temperatures up YoY over the past week, but recently easing to on par with year-earlier levels



Note: Simple average for 10 cities (Tokyo, Yokohama, Osaka, Nagoya, Sapporo, Fukuoka, Kobe, Hiroshima, Sendai, Matsuyama). Average data based on 1991-2020.
Source: Japan Meteorological Agency, BofA Global Research

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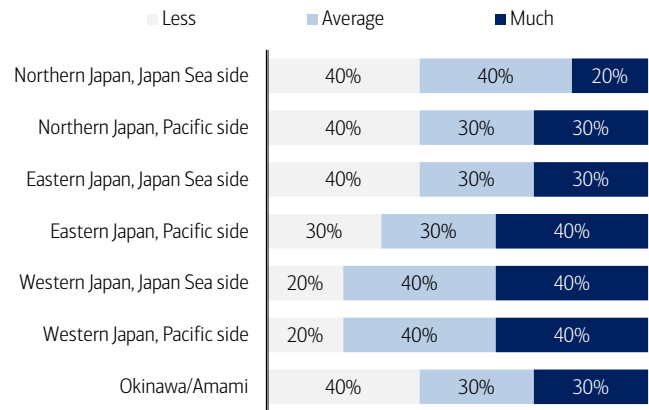
Exhibit 5: Temperature forecasts by region (27 Jan -26 Feb)
Forecast for temperatures above average in all regions



Source: Japan Meteorological Agency, BofA Global Research

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Exhibit 6: Precipitation forecasts by region (27 Jan -26 Feb)
Forecast for at or below average precipitation in all regions



Source: Japan Meteorological Agency, BofA Global Research

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Exhibit 7: Monthly temperature trends

Tokyo, Yokohama, Osaka, Nagoya, Sapporo

	Tokyo				Yokohama				Osaka				Nagoya				Sapporo			
	Average	vs. last year	vs. average	vs. 5 yrs ave	Average	vs. last year	vs. average	vs. 5 yrs ave	Average	vs. last year	vs. average	vs. 5 yrs ave	Average	vs. last year	vs. average	vs. 5 yrs ave	Average	vs. last year	vs. average	vs. 5 yrs ave
2021/1	5.4	-0.2	0.0	-0.5	6.2	-0.4	0.1	-0.5	6.2	-0.3	0.0	-0.4	5.0	-0.1	0.2	-0.4	-4.4	-1.4	-1.2	-1.3
2021/2	8.5	1.3	2.4	1.5	9.1	1.2	2.4	1.5	8.7	0.9	2.1	1.7	7.5	0.3	2.0	1.4	-2.2	0.4	0.5	0.4
2021/3	12.8	2.2	3.4	2.5	13.2	2.2	3.5	2.5	12.2	1.6	2.3	1.5	12.0	1.9	2.8	1.8	3.8	1.3	2.7	1.5
2021/4	15.1	1.5	0.8	0.4	15.2	1.3	0.7	0.2	15.5	0.9	0.3	0.0	15.2	1.1	0.6	0.3	7.9	-0.1	0.6	0.2
2021/5	19.6	-0.4	0.8	-0.3	19.6	-0.2	0.8	-0.3	20.0	-1.0	-0.1	-0.8	19.5	-0.9	0.1	-0.9	13.1	-2.6	0.1	-1.3
2021/6	22.7	0.9	0.8	0.3	22.7	0.8	0.9	0.3	23.9	0.2	0.3	0.3	23.4	0.3	0.4	0.1	18.9	1.5	1.9	2.0
2021/7	25.9	1.8	0.2	0.0	26.0	1.7	0.4	0.2	27.9	1.4	0.2	0.1	27.4	1.5	0.5	0.3	23.9	2.2	2.8	2.3
2021/8	27.4	-1.0	0.5	-0.4	27.5	-0.9	0.5	-0.4	28.1	-1.0	-0.9	-1.5	27.8	-1.1	-0.4	-1.3	22.9	0.4	0.6	0.4
2021/9	22.3	-2.8	-1.0	-1.6	22.6	-2.7	-1.1	-1.6	24.8	-1.8	-0.4	-0.5	24.1	-2.6	-0.4	-0.8	18.8	-0.5	0.2	-0.3
2021/10	18.2	-1.2	0.2	-0.1	18.7	-1.2	0.2	-0.1	20.3	-0.4	0.8	0.7	19.9	-0.4	1.3	0.9	12.5	-0.8	0.4	0.2
2021/11	13.7	0.6	1.2	0.8	14.3	0.3	0.9	0.6	14.1	-0.1	0.3	0.2	13.0	-0.4	0.4	-0.1	7.3	3.4	2.1	2.7
2021/12	7.9	-0.6	0.2	-0.1	8.8	-0.6	0.1	-0.2	8.8	-0.7	0.1	0.0	7.3	-1.5	0.1	-0.3	-0.5	0.3	0.4	0.8
2022/1	4.9	-2.2	-0.5	-0.8	5.5	-2.3	-0.6	-1.1	5.6	-3.0	-0.6	-0.9	4.1	-3.5	-0.7	-1.2	-3.2	-0.9	0.0	0.0
2022/2	5.2	-3.1	-0.9	-2.1	5.8	-3.1	-0.9	-2.1	5.5	-2.5	-1.1	-1.7	4.5	-2.6	-1.0	-1.8	-2.2	-0.1	0.5	0.4
2022/3	10.9	0.2	1.5	0.1	11.3	0.1	1.6	0.1	11.4	0.0	1.5	0.4	11.0	0.3	1.8	0.5	2.6	-0.7	1.5	-0.1
2022/4	15.3	2.5	1.0	0.7	15.4	2.0	0.9	0.5	16.8	3.1	1.6	1.5	16.8	3.4	2.2	2.0	9.1	2.3	1.8	1.4
2022/5	18.8	-0.7	0.0	-1.0	19.0	-0.7	0.2	-0.8	20.0	-0.8	-0.1	-0.6	19.5	-1.1	0.1	-0.7	14.9	1.2	1.9	0.8
2022/6	23.0	-0.2	1.1	0.6	22.9	-0.5	1.1	0.4	24.4	-0.5	0.8	0.7	24.3	-0.3	1.3	0.9	16.8	-1.5	-0.2	-0.6
2022/7	27.4	3.1	1.7	1.4	27.1	2.7	1.5	1.1	28.4	2.4	0.7	0.7	27.5	2.1	0.6	0.3	23.1	1.9	2.0	0.9
2022/8	27.5	-1.6	0.6	-0.4	27.6	-1.5	0.6	-0.3	29.5	-1.2	0.5	0.1	28.5	-1.8	0.3	-0.5	22.7	-0.6	0.4	0.4
2022/9	24.4	0.2	1.1	0.9	24.7	0.1	1.0	0.9	26.2	0.4	1.0	1.1	26.1	0.7	1.6	1.4	19.8	-0.3	1.2	0.8
2022/10	17.2	-0.3	-0.8	-1.0	17.9	0.0	-0.6	-0.8	19.0	0.3	-0.5	-0.6	18.7	0.7	0.1	-0.3	12.6	-0.5	0.5	0.0
2022/11	14.5	0.5	2.0	1.2	15.2	0.5	1.8	1.1	15.2	0.5	1.4	1.2	14.6	0.6	2.0	1.5	7.1	0.8	1.9	1.5
2022/12	7.5	-0.2	-0.2	-0.3	8.4	-0.4	-0.3	-0.4	7.9	-0.8	-0.8	-0.8	6.6	-0.8	-0.6	-0.9	-1.4	0.2	-0.5	-0.2
2023/1	5.7	0.3	0.3	0.2	6.4	0.2	0.3	0.1	6.5	0.3	0.3	0.1	5.2	0.2	0.4	0.1	-4.4	0.0	-1.2	-1.3
2023/2	7.3	-1.2	1.2	0.4	7.9	-1.2	1.2	0.4	7.0	-1.7	0.4	-0.1	6.5	-1.0	1.0	0.3	-2.7	-0.5	0.0	0.0
2023/3	12.9	0.1	3.5	1.6	13.2	0.0	3.5	1.5	13.0	0.8	3.1	1.6	12.7	0.7	3.5	1.7	4.9	1.1	3.8	2.0
2023/4	16.3	1.2	2.0	1.5	16.6	1.4	2.1	1.6	15.9	0.4	0.7	0.4	15.9	0.7	1.3	0.7	9.2	1.3	1.9	1.2
2023/5	19.0	-0.6	0.2	-0.5	19.0	-0.6	0.2	-0.6	20.0	0.0	-0.1	-0.4	20.2	0.7	0.8	0.2	13.8	0.7	0.8	-0.4
2023/6	23.2	0.5	1.3	0.6	23.2	0.5	1.4	0.6	23.8	-0.1	0.2	-0.3	23.8	0.4	0.8	0.0	19.3	0.4	2.3	1.7
2023/7	28.7	2.8	3.0	2.7	28.2	2.2	2.6	2.2	28.9	1.0	1.2	1.2	28.9	1.5	2.0	1.8	23.8	-0.1	2.7	1.5
2023/8	29.2	1.8	2.3	1.1	29.1	1.6	2.1	1.0	29.9	1.8	0.9	0.5	29.4	1.6	1.2	0.4	26.7	3.8	4.4	4.2
2023/9	26.7	4.4	3.4	2.9	26.9	4.3	3.2	2.8	27.9	3.1	2.7	2.4	27.3	3.2	2.8	2.1	21.5	2.7	2.9	2.1
2023/10	18.9	0.7	0.9	0.6	19.5	0.8	1.0	0.7	19.3	-1.0	-0.2	-0.4	18.3	-1.6	-0.3	-0.9	13.3	0.8	1.2	0.4
2023/11	14.4	0.7	1.9	0.5	15.2	0.9	1.8	0.6	14.4	0.3	0.6	-0.2	13.6	0.6	1.0	-0.2	6.7	-0.6	1.5	0.5
2023/12	9.4	1.5	1.7	1.4	10.2	1.4	1.5	1.3	9.3	0.5	0.6	0.4	8.4	1.1	1.2	0.8	-0.7	-0.2	0.2	0.4
2024/1	7.1	2.2	1.7	1.4	8.0	2.5	1.9	1.5	7.1	1.5	0.9	0.4	6.1	2.0	1.3	0.7	-2.3	0.9	0.9	1.2

Source: Japan Meteorological Agency, BofA Global Research

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Exhibit 8: Monthly temperature trends

Fukuoka, Kobe, Hiroshima, Sendai, Matsuyama

	Fukuoka				Kobe				Hiroshima				Sendai				Matsuyama			
	Average	vs. last year	vs. average	vs. 5 yrs ave	Average	vs. last year	vs. average	vs. 5 yrs ave	Average	vs. last year	vs. average	vs. 5 yrs ave	Average	vs. last year	vs. average	vs. 5 yrs ave	Average	vs. last year	vs. average	vs. 5 yrs ave
2021/1	7.0	-1.0	0.1	-0.5	6.1	-0.6	-0.1	-0.7	5.2	-1.2	-0.2	-0.8	1.2	-1.2	-0.8	-1.3	6.2	-1.0	0.0	-0.6
2021/2	10.2	0.8	2.4	1.9	8.8	0.8	2.3	1.7	8.2	0.6	2.0	1.7	3.7	0.0	1.3	0.5	8.9	0.7	2.1	1.6
2021/3	13.5	1.6	2.7	1.9	12.3	1.5	2.5	1.6	12.1	1.5	2.6	1.8	8.6	1.6	3.1	1.7	12.7	1.8	2.8	2.0
2021/4	16.7	1.3	1.3	0.7	15.3	0.8	0.3	-0.1	15.4	0.6	0.6	0.2	11.6	1.4	0.9	0.4	15.5	0.7	0.7	0.2
2021/5	20.4	-0.7	0.5	-0.4	19.7	-0.9	-0.1	-0.8	19.5	-1.0	-0.1	-0.8	17.0	-0.4	1.4	0.0	19.5	-0.8	0.1	-0.6
2021/6	24.2	0.8	0.9	0.5	23.7	0.3	0.3	0.4	23.8	0.6	0.6	0.5	20.6	1.6	1.4	0.8	23.4	0.4	0.5	0.2
2021/7	28.9	2.5	1.5	1.2	27.5	1.1	0.4	0.2	27.6	1.2	0.4	0.2	24.1	1.7	1.2	0.6	27.2	1.1	0.1	-0.1
2021/8	27.5	-0.5	-0.9	-1.9	27.8	-1.0	-0.8	-1.5	27.4	-1.1	-1.1	-1.9	24.9	-1.3	0.5	-0.4	27.5	-0.3	-0.6	-1.5
2021/9	25.9	0.0	1.2	1.0	25.1	-1.8	-0.3	-0.4	25.0	-1.3	0.3	0.3	20.8	-1.6	-0.4	-1.0	25.0	-1.3	0.4	0.1
2021/10	21.0	0.5	1.4	1.0	20.6	-0.6	0.8	0.6	19.9	-1.1	1.1	0.7	15.8	-1.1	0.1	-0.1	20.1	-0.6	1.0	0.4
2021/11	13.9	-1.0	-0.3	-0.6	14.5	-0.1	0.3	0.2	13.1	-0.4	0.2	-0.1	11.1	1.1	1.3	1.3	13.7	-0.4	0.1	-0.1
2021/12	9.1	-1.2	0.0	-0.3	8.9	-1.0	0.1	-0.2	7.8	-0.8	0.3	0.0	4.7	-0.7	0.2	0.1	8.8	-0.9	0.3	0.1
2022/1	6.9	-2.6	0.0	-0.6	5.7	-3.1	-0.5	-0.9	5.3	-2.8	-0.1	-0.6	1.7	-2.3	-0.3	-0.6	5.9	-2.8	-0.3	-0.8
2022/2	6.3	-3.4	-1.5	-2.5	5.6	-2.6	-0.9	-1.7	4.8	-3.0	-1.4	-2.1	1.9	-2.5	-0.5	-1.4	5.2	-3.2	-1.6	-2.4
2022/3	12.7	0.3	1.9	0.7	11.5	0.1	1.7	0.5	11.5	0.5	2.0	0.8	6.4	-1.1	0.9	-0.8	11.9	0.5	2.0	0.8
2022/4	16.4	2.3	1.0	0.4	16.6	3.0	1.6	1.5	16.4	3.2	1.6	1.4	11.8	1.7	1.1	0.6	15.9	2.6	1.1	0.7
2022/5	20.6	0.2	0.7	-0.1	19.8	-0.8	0.0	-0.5	20.0	-0.3	0.4	-0.1	16.5	-0.3	0.9	-0.5	19.3	-0.8	-0.1	-0.7
2022/6	24.8	-0.1	1.5	0.9	23.9	-0.4	0.5	0.5	24.2	0.0	1.0	0.8	20.2	-1.0	1.0	0.3	24.1	-0.1	1.2	0.9
2022/7	28.9	3.4	1.5	1.1	28.0	2.3	0.9	0.7	28.1	2.9	0.9	0.8	24.9	3.6	2.0	1.2	27.8	2.2	0.7	0.7
2022/8	29.8	-0.4	1.4	0.8	29.2	-0.8	0.6	0.2	29.2	-0.7	0.7	0.3	25.1	-1.5	0.7	0.0	29.1	-0.6	1.0	0.5
2022/9	25.7	1.2	1.0	0.6	26.7	0.8	1.3	1.4	26.0	1.0	1.3	1.3	22.2	-0.3	1.0	0.7	26.2	1.0	1.6	1.3
2022/10	19.6	0.2	0.0	-0.4	19.5	0.4	-0.3	-0.4	18.9	0.2	0.1	-0.3	15.5	-0.1	-0.2	-0.4	19.2	0.4	0.1	-0.3
2022/11	16.2	0.9	2.0	1.8	15.8	0.7	1.6	1.4	14.9	0.7	2.0	1.7	11.9	1.1	2.1	1.6	15.5	0.8	1.9	1.7
2022/12	7.7	-0.8	-1.4	-1.4	7.9	-0.9	-0.9	-1.0	6.4	-0.8	-1.1	-1.2	4.2	0.3	-0.3	-0.2	7.4	-0.5	-1.1	-1.1
2023/1	7.2	0.2	0.3	-0.2	6.6	0.5	0.4	0.1	5.7	0.5	0.3	-0.2	2.1	0.9	0.1	0.0	6.5	0.3	0.3	-0.1
2023/2	9.0	-1.2	1.2	0.6	7.2	-1.6	0.7	0.0	6.9	-1.3	0.7	0.3	3.0	-0.7	0.6	0.0	7.6	-1.3	0.8	0.4
2023/3	13.6	0.1	2.8	1.1	13.0	0.7	3.2	1.5	12.6	0.5	3.1	1.4	9.3	0.7	3.8	1.9	12.7	0.0	2.8	1.0
2023/4	16.7	0.0	1.3	0.8	15.9	0.6	0.9	0.6	15.7	0.3	0.9	0.5	13.3	1.7	2.6	2.1	15.9	0.4	1.1	0.7
2023/5	20.2	-0.2	0.3	-0.5	19.8	0.1	0.0	-0.3	19.9	0.4	0.3	-0.1	16.6	-0.4	1.0	-0.3	19.8	0.3	0.4	0.0
2023/6	24.4	0.2	1.1	0.2	23.4	-0.3	0.0	-0.3	23.3	-0.5	0.1	-0.4	21.6	1.0	2.4	1.3	23.1	-0.3	0.2	-0.4
2023/7	28.9	0.0	1.5	1.2	28.0	0.5	0.9	0.7	27.9	0.3	0.7	0.6	26.6	2.5	3.7	3.0	28.0	0.8	0.9	1.0
2023/8	29.7	2.2	1.3	0.6	29.7	1.9	1.1	0.7	30.0	2.6	1.5	1.0	28.6	3.7	4.2	3.1	28.9	1.4	0.8	0.2
2023/9	26.9	1.0	2.2	1.5	27.9	2.8	2.5	2.1	27.2	2.2	2.5	2.0	25.1	4.3	3.9	3.4	27.3	2.3	2.7	1.9
2023/10	19.8	-1.2	0.2	-0.1	19.6	-1.0	-0.2	-0.5	18.9	-1.0	0.1	-0.4	16.7	0.9	1.0	0.6	19.4	-0.7	0.3	-0.2
2023/11	15.1	1.2	0.9	0.2	14.7	0.2	0.5	-0.3	14.0	0.9	1.1	0.2	11.4	0.3	1.6	0.5	14.8	1.1	1.2	0.5
2023/12	9.9	0.8	0.8	0.7	9.7	0.8	0.9	0.7	8.2	0.4	0.7	0.5	5.7	1.0	1.2	1.2	9.3	0.5	0.8	0.7
2024/1	8.7	1.8	1.8	1.0	7.4	1.7	1.2	0.6	6.8	1.5	1.4	0.7	4.3	2.6	2.3	2.0	7.6	1.7	1.4	0.7

Source: Japan Meteorological Agency, BofA Global Research

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Exhibit 9: Monthly precipitation trends

Tokyo, Yokohama, Osaka, Nagoya, Sapporo

	Tokyo			Yokohama			Osaka			Nagoya			Sapporo		
	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave
2021/1	-68%	-27%	-30%	-63%	-28%	-27%	6%	37%	37%	2%	11%	48%	76%	-17%	18%
2021/2	490%	57%	196%	200%	51%	125%	-30%	-26%	-14%	-13%	-28%	-3%	-50%	-15%	-2%
2021/3	32%	49%	32%	32%	57%	38%	44%	41%	61%	36%	75%	65%	-26%	2%	0%
2021/4	-47%	17%	6%	-36%	9%	6%	92%	120%	98%	73%	51%	20%	113%	105%	130%
2021/5	-16%	-29%	-16%	16%	-26%	-10%	251%	149%	162%	88%	69%	71%	68%	38%	60%
2021/6	-21%	0%	-4%	-53%	-40%	-44%	-8%	-7%	-13%	-40%	-27%	-28%	-2%	-16%	-54%
2021/7	15%	98%	111%	-3%	102%	79%	-35%	54%	27%	-23%	48%	22%	-87%	-92%	-91%
2021/8	522%	147%	135%	471%	97%	136%	175%	178%	140%	2569%	149%	153%	-13%	-14%	-37%
2021/9	89%	-1%	-5%	85%	-18%	-29%	96%	26%	11%	-3%	-3%	8%	36%	-49%	-28%
2021/10	-3%	-15%	-30%	-5%	-13%	-23%	-67%	-50%	-63%	-76%	-61%	-75%	128%	37%	39%
2021/11	541%	-3%	11%	1317%	18%	63%	110%	36%	138%	96%	-10%	60%	36%	35%	50%
2021/12	792%	100%	149%	669%	103%	104%	341%	47%	46%	305%	57%	64%	309%	-5%	18%
2022/1	-48%	-62%	-58%	-55%	-68%	-64%	-69%	-57%	-57%	-54%	-49%	-32%	88%	57%	113%
2022/2	-20%	26%	96%	-39%	-8%	40%	-63%	-73%	-63%	-27%	-47%	-23%	43%	22%	52%
2022/3	-36%	-5%	-24%	-53%	-26%	-36%	-28%	1%	3%	-58%	-27%	-40%	-31%	-30%	-35%
2022/4	44%	68%	45%	64%	79%	74%	-48%	14%	-12%	-30%	5%	-15%	-87%	-73%	-75%
2022/5	99%	42%	79%	56%	16%	44%	-76%	-41%	-53%	-35%	9%	-4%	-13%	20%	21%
2022/6	-62%	-62%	-63%	-23%	-54%	-54%	-41%	-45%	-39%	-14%	-37%	-32%	41%	18%	-27%
2022/7	-25%	49%	21%	-43%	15%	-5%	-35%	0%	-31%	17%	73%	29%	740%	-31%	-4%
2022/8	-73%	-32%	-33%	-47%	5%	15%	-77%	-35%	-55%	-44%	41%	7%	115%	84%	70%
2022/9	39%	38%	39%	55%	27%	19%	-6%	18%	4%	16%	12%	35%	20%	-38%	-7%
2022/10	-41%	-50%	-61%	-41%	-49%	-59%	35%	-32%	-51%	-14%	-66%	-77%	-47%	-27%	-35%
2022/11	10%	6%	37%	-18%	-3%	41%	-17%	12%	73%	59%	44%	162%	-46%	-28%	-25%
2022/12	-51%	-2%	7%	-52%	-4%	-14%	-78%	-68%	-65%	-72%	-56%	-53%	10%	4%	65%
2023/1	-31%	-74%	-71%	-21%	-74%	-71%	130%	-2%	5%	-4%	-51%	-35%	-58%	-34%	-28%
2023/2	-43%	-28%	-14%	-31%	-37%	-20%	103%	-45%	-15%	29%	-32%	6%	-7%	13%	23%
2023/3	31%	25%	-4%	35%	0%	-15%	-27%	-26%	-33%	12%	-18%	-34%	-35%	-54%	-55%
2023/4	-60%	-33%	-49%	-63%	-34%	-45%	69%	93%	44%	7%	13%	-6%	307%	12%	24%
2023/5	-20%	14%	13%	25%	44%	51%	190%	70%	39%	5%	15%	-9%	-68%	-61%	-62%
2023/6	442%	107%	110%	281%	76%	84%	159%	42%	71%	221%	102%	122%	88%	121%	73%
2023/7	-87%	-81%	-87%	-78%	-74%	-81%	-42%	-42%	-64%	-61%	-32%	-53%	-2%	-32%	-2%
2023/8	26%	-14%	-11%	-25%	-21%	-13%	122%	45%	5%	-20%	12%	-12%	-70%	-45%	-59%
2023/9	-26%	2%	-6%	-51%	-39%	-41%	-76%	-71%	-76%	-62%	-57%	-56%	67%	3%	96%
2023/10	25%	-37%	-34%	9%	-44%	-38%	-16%	-43%	-36%	108%	-29%	-24%	11%	-19%	-24%
2023/11	-60%	-57%	-52%	-45%	-47%	-30%	13%	28%	78%	-38%	-11%	24%	53%	11%	25%
2023/12	-65%	-66%	-68%	-48%	-50%	-60%	8%	-65%	-61%	140%	6%	13%	-61%	-59%	-42%
2024/1	132%	-40%	-23%	97%	-50%	-27%	-54%	-55%	-51%	6%	-48%	-25%	97%	30%	50%

Source: Japan Meteorological Agency, BofA Global Research

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Exhibit 10: Monthly precipitation trends

Fukuoka, Kobe, Hiroshima, Sendai, Matsuyama

	Fukuoka			Kobe			Hiroshima			Sendai			Matsuyama		
	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave
2021/1	-70%	-39%	-50%	-13%	42%	36%	-42%	9%	-12%	-92%	-78%	-82%	-61%	-28%	-37%
2021/2	23%	14%	28%	-38%	-39%	-39%	-7%	-12%	-14%	282%	120%	312%	25%	5%	7%
2021/3	-26%	12%	10%	-3%	3%	14%	-16%	20%	20%	136%	44%	58%	-8%	-12%	-13%
2021/4	-20%	-44%	-48%	70%	67%	52%	-8%	0%	-17%	-40%	3%	-18%	-36%	-4%	-21%
2021/5	-9%	0%	12%	172%	83%	89%	92%	48%	96%	-29%	-32%	-27%	153%	111%	166%
2021/6	-67%	-51%	-53%	-58%	-42%	-53%	-48%	-18%	-37%	43%	-57%	-44%	-50%	-48%	-49%
2021/7	-94%	-85%	-88%	-69%	-2%	-39%	-51%	36%	0%	-52%	6%	17%	-73%	-34%	-50%
2021/8	1699%	320%	437%	1947%	256%	256%	34700%	430%	527%	152%	16%	4%	3414%	273%	423%
2021/9	-21%	41%	-9%	32%	19%	-8%	52%	36%	-4%	-34%	-35%	-30%	1%	-9%	-44%
2021/10	-32%	-53%	-70%	-72%	-64%	-71%	-87%	-89%	-93%	127%	-5%	-37%	-75%	-74%	-78%
2021/11	510%	67%	206%	120%	71%	197%	316%	50%	204%	829%	11%	309%	150%	98%	232%
2021/12	6%	-33%	-37%	237%	-7%	3%	-26%	-47%	-55%	167%	30%	148%	-22%	-51%	-54%
2022/1	5%	-35%	-42%	-70%	-57%	-60%	-76%	-74%	-78%	68%	-62%	-62%	4%	-25%	-29%
2022/2	-72%	-68%	-61%	-47%	-68%	-56%	-70%	-73%	-70%	-65%	-23%	-12%	-62%	-60%	-57%
2022/3	-6%	5%	-4%	-9%	-7%	1%	-13%	5%	-8%	-33%	-4%	-19%	2%	-11%	-13%
2022/4	114%	20%	40%	-38%	3%	-16%	6%	6%	4%	2%	4%	-1%	42%	37%	23%
2022/5	-66%	-66%	-58%	-62%	-31%	-37%	-88%	-82%	-78%	23%	-17%	-9%	-79%	-55%	-57%
2022/6	13%	-45%	-33%	-14%	-50%	-50%	-46%	-56%	-57%	183%	22%	93%	-15%	-56%	-43%
2022/7	132%	-65%	-69%	33%	30%	-23%	-16%	14%	-23%	88%	100%	90%	74%	14%	-15%
2022/8	-70%	27%	-15%	-56%	58%	0%	-79%	13%	-36%	-21%	-9%	-14%	-86%	-49%	-64%
2022/9	-12%	24%	9%	-30%	-17%	-36%	1%	37%	4%	-9%	-41%	-20%	-15%	-23%	-45%
2022/10	57%	-27%	-42%	108%	-24%	-40%	91%	-80%	-83%	-72%	-73%	-84%	59%	-59%	-63%
2022/11	-78%	-63%	-37%	1%	73%	152%	-60%	-39%	9%	5%	17%	216%	-50%	-1%	19%
2022/12	-20%	-47%	-30%	-62%	-64%	-55%	-9%	-52%	-48%	-54%	-40%	-7%	-5%	-53%	-45%
2023/1	102%	30%	24%	230%	42%	42%	279%	-2%	-2%	-38%	-76%	-76%	64%	23%	23%
2023/2	167%	-14%	13%	53%	-51%	-23%	262%	-4%	30%	21%	-7%	-1%	88%	-25%	-5%
2023/3	-18%	-14%	-29%	-3%	-9%	-13%	-48%	-45%	-56%	-15%	-18%	-30%	-19%	-28%	-34%
2023/4	29%	54%	100%	55%	61%	35%	64%	75%	81%	-49%	-47%	-49%	55%	112%	82%
2023/5	447%	84%	145%	169%	85%	63%	723%	50%	86%	36%	13%	37%	349%	101%	106%
2023/6	22%	-32%	-15%	154%	26%	38%	121%	-3%	12%	-1%	20%	57%	172%	20%	70%
2023/7	409%	79%	62%	-62%	-50%	-74%	-4%	10%	-31%	-56%	-13%	-30%	7%	22%	-17%
2023/8	-38%	-22%	-53%	23%	93%	10%	-67%	-63%	-80%	-79%	-81%	-80%	53%	-23%	-41%
2023/9	-52%	-40%	-52%	-75%	-80%	-83%	-48%	-29%	-45%	138%	41%	96%	-93%	-95%	-96%
2023/10	-67%	-76%	-69%	-45%	-58%	-50%	-61%	-92%	-84%	15%	-69%	-76%	-84%	-93%	-87%
2023/11	53%	-43%	-7%	-22%	35%	51%	-21%	-52%	-23%	-34%	-23%	33%	-33%	-34%	-25%
2023/12	24%	-34%	-18%	9%	-61%	-49%	115%	4%	5%	89%	13%	55%	28%	-40%	-29%
2024/1	-39%	-20%	-25%	-76%	-66%	-68%	-16%	-18%	-14%	725%	95%	148%	-53%	-42%	-42%

Source: Japan Meteorological Agency, BofA Global Research

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Exhibit 11: Monthly sunshine hours

Tokyo, Yokohama, Osaka, Nagoya, Sapporo

	Tokyo			Yokohama			Osaka			Nagoya			Sapporo		
	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave
2021/1	23%	-10%	-13%	17%	-4%	-8%	40%	20%	14%	10%	-7%	-11%	17%	21%	22%
2021/2	10%	26%	26%	12%	36%	32%	37%	35%	24%	-11%	-6%	-9%	15%	10%	11%
2021/3	6%	10%	6%	11%	13%	7%	2%	13%	0%	-4%	-3%	-11%	-7%	12%	-4%
2021/4	2%	22%	14%	0%	21%	14%	-3%	15%	8%	-14%	10%	3%	11%	18%	8%
2021/5	-14%	-16%	-27%	-12%	-13%	-24%	-23%	-17%	-27%	-29%	-26%	-33%	-28%	-26%	-34%
2021/6	-3%	6%	-9%	7%	9%	-5%	-1%	13%	-4%	-6%	1%	-16%	83%	45%	59%
2021/7	236%	6%	16%	210%	11%	17%	101%	4%	10%	124%	6%	13%	43%	70%	46%
2021/8	-31%	1%	-2%	-36%	-7%	-10%	-44%	-26%	-34%	-37%	-17%	-26%	-1%	11%	6%
2021/9	-5%	-21%	-7%	-7%	-18%	-9%	-7%	-23%	-9%	-15%	-21%	-11%	44%	26%	15%
2021/10	43%	26%	41%	41%	25%	40%	11%	22%	32%	11%	17%	30%	3%	8%	3%
2021/11	32%	38%	34%	34%	38%	34%	10%	25%	10%	-1%	20%	7%	25%	6%	6%
2021/12	21%	16%	20%	22%	16%	21%	-4%	19%	14%	-6%	-1%	0%	16%	33%	30%
2022/1	20%	7%	7%	4%	0%	-4%	-8%	11%	3%	22%	13%	12%	-22%	-6%	-10%
2022/2	-11%	12%	5%	-13%	18%	7%	-10%	22%	10%	4%	-3%	-3%	6%	17%	14%
2022/3	1%	12%	4%	2%	15%	5%	-1%	12%	0%	6%	3%	-1%	-18%	-9%	-21%
2022/4	-22%	-5%	-17%	-21%	-4%	-16%	-2%	13%	1%	-9%	0%	-10%	17%	38%	22%
2022/5	20%	1%	-7%	11%	-4%	-11%	26%	5%	-3%	39%	2%	-2%	51%	12%	7%
2022/6	27%	35%	16%	16%	27%	10%	23%	38%	15%	33%	34%	12%	-34%	-4%	-6%
2022/7	10%	17%	25%	-1%	10%	13%	-1%	3%	12%	10%	16%	25%	-37%	7%	-14%
2022/8	-14%	-14%	-18%	-10%	-16%	-19%	30%	-3%	-6%	-7%	-23%	-27%	-19%	-9%	-10%
2022/9	34%	6%	19%	37%	12%	24%	43%	10%	26%	30%	3%	12%	-3%	23%	7%
2022/10	-27%	-8%	-4%	-22%	-3%	0%	-1%	21%	22%	-4%	12%	17%	4%	12%	5%
2022/11	-22%	7%	-5%	-21%	9%	-4%	-3%	21%	3%	-4%	15%	-1%	-8%	-2%	-5%
2022/12	-13%	1%	3%	-11%	3%	6%	0%	18%	10%	4%	3%	7%	-26%	-2%	-11%
2023/1	-6%	1%	3%	0%	-1%	0%	0%	10%	3%	-5%	7%	5%	46%	37%	29%
2023/2	-6%	5%	-2%	-13%	3%	-7%	-22%	-4%	-17%	12%	9%	11%	-15%	-1%	-9%
2023/3	-16%	-6%	-13%	-13%	0%	-10%	17%	31%	17%	4%	7%	4%	36%	24%	15%
2023/4	16%	10%	-1%	18%	13%	1%	-11%	0%	-12%	1%	1%	-9%	-33%	-8%	-23%
2023/5	8%	9%	5%	15%	11%	8%	6%	11%	5%	7%	10%	7%	0%	12%	6%
2023/6	-18%	11%	-6%	-14%	10%	-6%	-39%	-15%	-29%	-37%	-15%	-28%	24%	20%	16%
2023/7	42%	65%	81%	48%	63%	75%	28%	32%	44%	25%	45%	53%	-4%	2%	-16%
2023/8	48%	28%	13%	52%	27%	17%	2%	-1%	-5%	39%	7%	3%	15%	4%	7%
2023/9	7%	13%	25%	17%	31%	40%	5%	16%	29%	11%	14%	26%	-27%	-10%	-23%
2023/10	68%	55%	55%	58%	53%	52%	6%	29%	16%	15%	29%	22%	8%	22%	12%
2023/11	9%	17%	3%	6%	15%	2%	4%	25%	6%	-5%	9%	-7%	9%	7%	3%
2023/12	13%	14%	21%	11%	15%	23%	10%	30%	21%	9%	12%	18%	33%	31%	20%
2024/1	-23%	-22%	-20%	-15%	-16%	-14%	-23%	-15%	-20%	-27%	-21%	-22%	-48%	-28%	-37%

Source: Japan Meteorological Agency, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 12: Monthly sunshine hours

Fukuoka, Kobe, Hiroshima, Sendai, Matsuyama

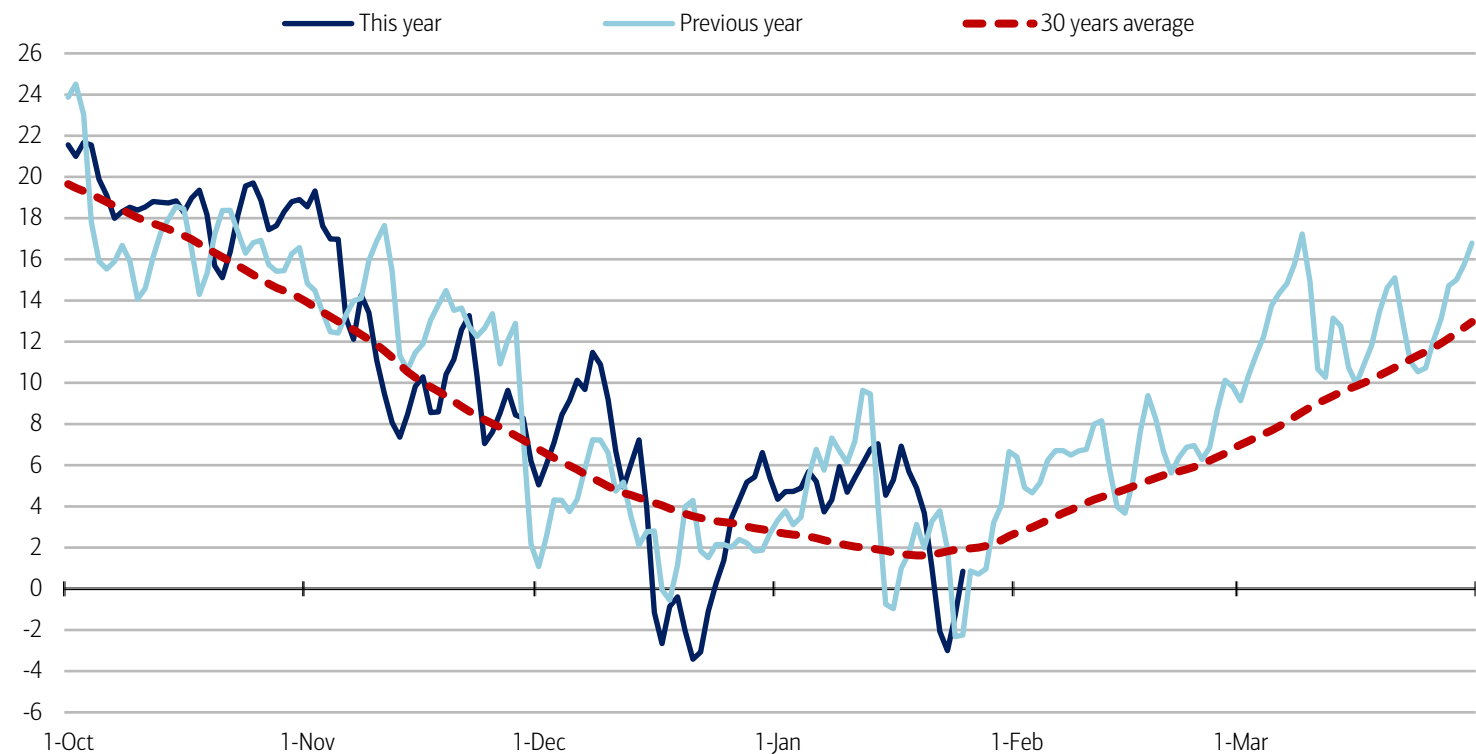
	Fukuoka			Kobe			Hiroshima			Sendai			Matsuyama		
	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave	vs. last year	vs. average	vs. 5 yrs ave
2021/1	27%	14%	12%	31%	15%	11%	21%	21%	15%	7%	-4%	-4%	25%	21%	23%
2021/2	28%	41%	34%	30%	36%	28%	26%	41%	33%	25%	14%	8%	14%	26%	25%
2021/3	5%	16%	4%	-3%	12%	2%	6%	13%	3%	6%	9%	0%	14%	11%	4%
2021/4	-7%	14%	7%	-2%	16%	10%	-7%	13%	4%	10%	18%	15%	-7%	16%	7%
2021/5	-17%	-12%	-22%	-23%	-17%	-27%	-25%	-25%	-31%	2%	1%	-10%	-30%	-23%	-31%
2021/6	1%	29%	5%	6%	10%	-1%	-8%	6%	-5%	-8%	14%	-2%	-7%	9%	-2%
2021/7	132%	17%	11%	112%	4%	10%	105%	-100%	-100%	177%	9%	9%	85%	6%	9%
2021/8	-43%	-28%	-41%	-46%	-28%	-36%	-44%	-29%	-38%	-33%	-4%	-8%	-46%	-29%	-37%
2021/9	-11%	-9%	9%	-6%	-22%	-9%	-27%	-31%	-17%	52%	9%	12%	-22%	-29%	-13%
2021/10	4%	25%	40%	14%	22%	37%	9%	29%	44%	9%	-6%	-1%	17%	28%	43%
2021/11	-1%	8%	-2%	6%	22%	7%	-8%	14%	2%	11%	29%	19%	-8%	17%	3%
2021/12	-9%	6%	12%	-16%	6%	3%	-7%	4%	14%	11%	-1%	-7%	0%	16%	19%
2022/1	28%	46%	30%	-4%	10%	4%	-3%	17%	5%	25%	21%	17%	-2%	18%	7%
2022/2	-18%	16%	0%	-9%	25%	13%	-12%	24%	8%	-13%	-2%	-8%	-11%	12%	5%
2022/3	-8%	6%	-7%	-5%	6%	-3%	-15%	-4%	-13%	3%	11%	3%	-10%	1%	-6%
2022/4	5%	20%	7%	-5%	10%	-1%	2%	15%	3%	-3%	15%	8%	-6%	9%	-5%
2022/5	25%	10%	2%	31%	8%	-1%	55%	16%	12%	13%	14%	2%	35%	4%	-1%
2022/6	1%	30%	0%	11%	23%	6%	14%	20%	3%	-1%	13%	-5%	23%	34%	15%
2022/7	-6%	9%	7%	5%	9%	19%	-11%	-11%	-2%	4%	12%	12%	-11%	-6%	2%
2022/8	40%	1%	-7%	27%	-9%	-12%	30%	-8%	-11%	-18%	-22%	-20%	35%	-3%	-6%
2022/9	5%	-4%	7%	39%	9%	24%	15%	-21%	-8%	-11%	-3%	-8%	3%	-27%	-14%
2022/10	-3%	21%	20%	-9%	11%	13%	-8%	18%	15%	10%	3%	16%	-7%	19%	18%
2022/11	26%	36%	20%	1%	23%	5%	8%	23%	7%	-12%	14%	-1%	13%	32%	11%
2022/12	-11%	-6%	1%	9%	16%	12%	3%	7%	13%	-8%	-9%	-14%	-11%	3%	3%
2023/1	-20%	16%	1%	-1%	9%	5%	1%	18%	7%	-28%	-13%	-18%	-4%	13%	3%
2023/2	-9%	6%	-8%	-25%	-7%	-19%	-20%	0%	-15%	5%	3%	-3%	-8%	3%	-5%
2023/3	16%	23%	7%	21%	28%	17%	26%	21%	11%	0%	11%	0%	20%	20%	12%
2023/4	-9%	9%	-5%	-8%	1%	-10%	-9%	5%	-8%	-2%	13%	4%	-4%	5%	-10%
2023/5	-11%	-2%	-7%	2%	11%	4%	-14%	0%	-3%	-4%	10%	-2%	-2%	2%	0%
2023/6	-23%	0%	-23%	-35%	-20%	-29%	-29%	-15%	-26%	0%	13%	-3%	-42%	-22%	-34%
2023/7	-9%	-1%	-1%	13%	23%	32%	28%	14%	26%	45%	63%	73%	15%	8%	21%
2023/8	10%	12%	8%	15%	5%	3%	11%	2%	1%	114%	67%	58%	-7%	-10%	-11%
2023/9	10%	5%	14%	7%	17%	30%	19%	-6%	11%	7%	4%	9%	45%	6%	27%
2023/10	-1%	20%	7%	15%	28%	18%	5%	24%	10%	34%	38%	44%	4%	24%	11%
2023/11	-21%	8%	-10%	-4%	19%	0%	-3%	19%	0%	4%	19%	2%	-8%	21%	-2%
2023/12	0%	-6%	-2%	4%	21%	15%	-1%	6%	10%	19%	8%	7%	7%	10%	9%
2024/1	-21%	-8%	-24%	-23%	-17%	-20%	-31%	-18%	-29%	7%	-7%	-9%	-22%	-12%	-22%

Source: Japan Meteorological Agency, BofA Global Research

BofA GLOBAL RESEARCH

China temperature trends

Exhibit 13: China temperature trends (current-year, previous-year, and 30-year averages)
Temperatures above historical average over the past few days



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 14: China monthly temperatures (simple average)
Above historical average and up YoY for Jan, as of 25 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	-4.5	0.3	0.9	-1.2	0.5	0.7	1.5	-0.9	-0.2	2.0	-2.6	-0.3	2.9	0.2	-0.3	1.0	0.2	-0.1	-0.6	0.6	1.5	-1.6	1.1	0.3												
vs. average year	-1.0	2.8	1.5	0.1	1.5	1.7	2.1	1.6	0.2	2.5	-1.2	1.4	1.9	3.0	1.2	1.0	1.6	1.6	1.5	2.2	1.8	0.9	-0.1	1.9												

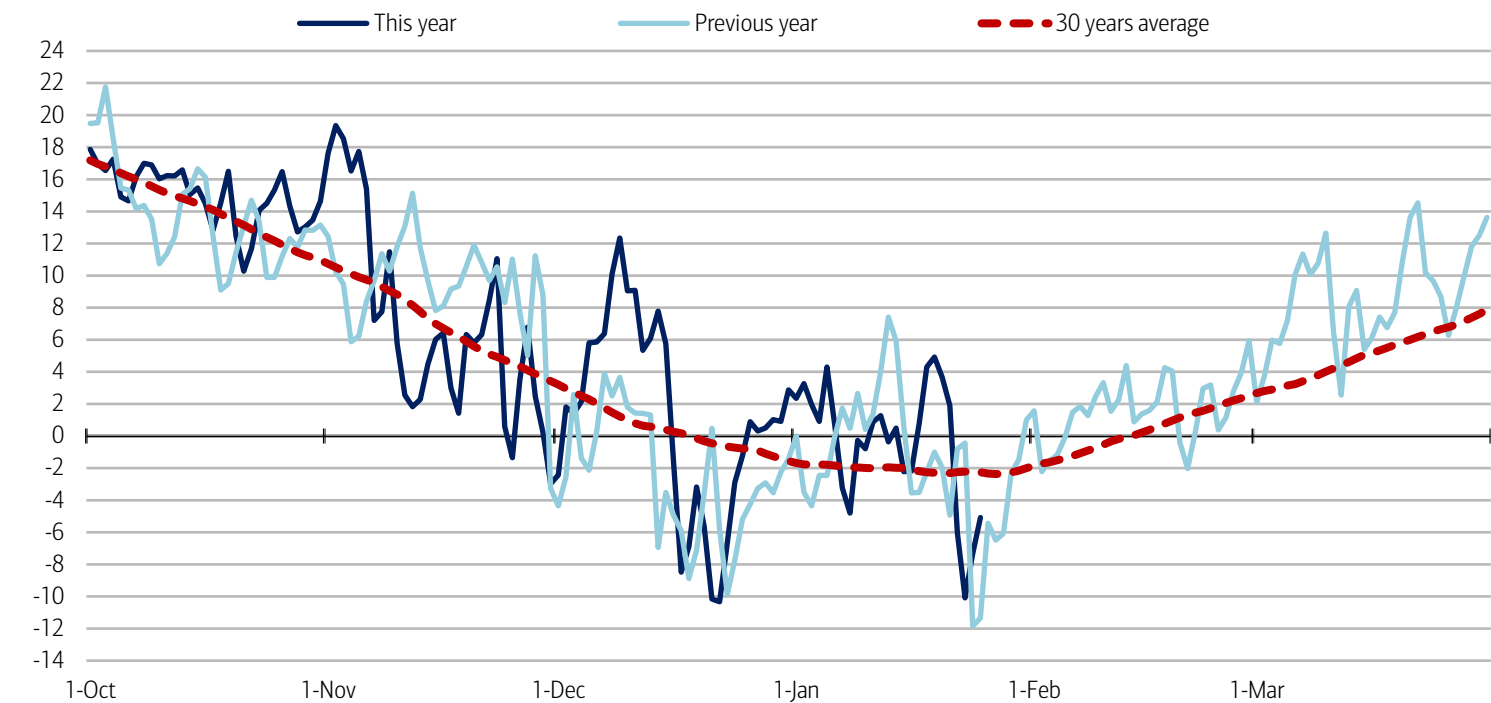
Note: Jan 2024 temperature is the average as of 25 Jan
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Korea temperature trends

Exhibit 15: Korea temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY over the past few days



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 16: Korea monthly temperatures (simple average)
The Jan average was also up YoY, as of 25 Jan

	2022												2023												2024	
	2	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12	1	
vs. last year	-3.5	-0.9	0.5	1.4	0.6	-0.3	0.2	-0.6	-1.3	1.6	-3.3		0.4	2.8	1.5	-0.6	0.1	0.1	-0.2	1.3	1.6	1.2	-2.3	3.7	0.8	
vs. average year	-1.5	1.9	2.5	1.9	2.0	2.6	1.0	1.2	-0.3	2.4	-3.0		0.4	1.3	3.5	1.9	2.0	2.0	2.4	2.2	2.8	0.9	0.0	0.7	1.6	

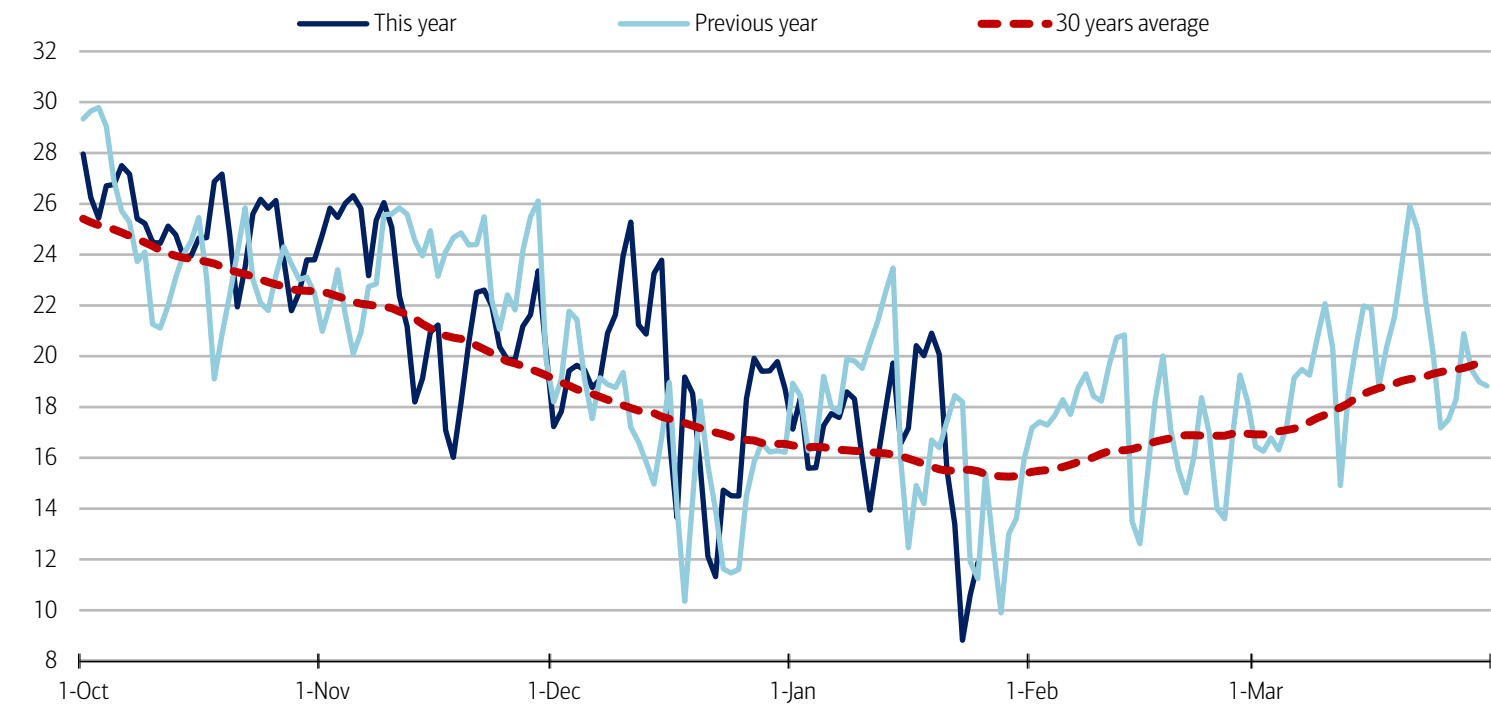
Note: Jan 2024 temperature is the average as of 25 Jan
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Taiwan temperature trends

Exhibit 17: Taiwan temperature trends (current-year, previous-year, and 30-year averages)
Temperatures recently rising to on par with year-earlier levels



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 18: Taiwan monthly temperatures (simple average)
The Jan average was down YoY, as of 25 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	-2.7	0.4	-0.2	-4.8	-1.3	0.1	1.3	-2.1	-1.2	2.3	-1.7	-0.4	1.1	-1.2	0.4	2.4	0.7	-0.3	-1.0	1.6	1.0	-1.4	2.2	-1.0												
vs. average year	-0.1	2.5	0.4	-1.6	0.4	1.2	1.6	0.2	0.3	2.5	-1.1	0.9	0.9	1.4	0.9	0.8	1.1	0.9	0.7	1.8	1.3	1.1	1.1	0.6												

Note: Jan 2024 temperature is the average as of 25 Jan

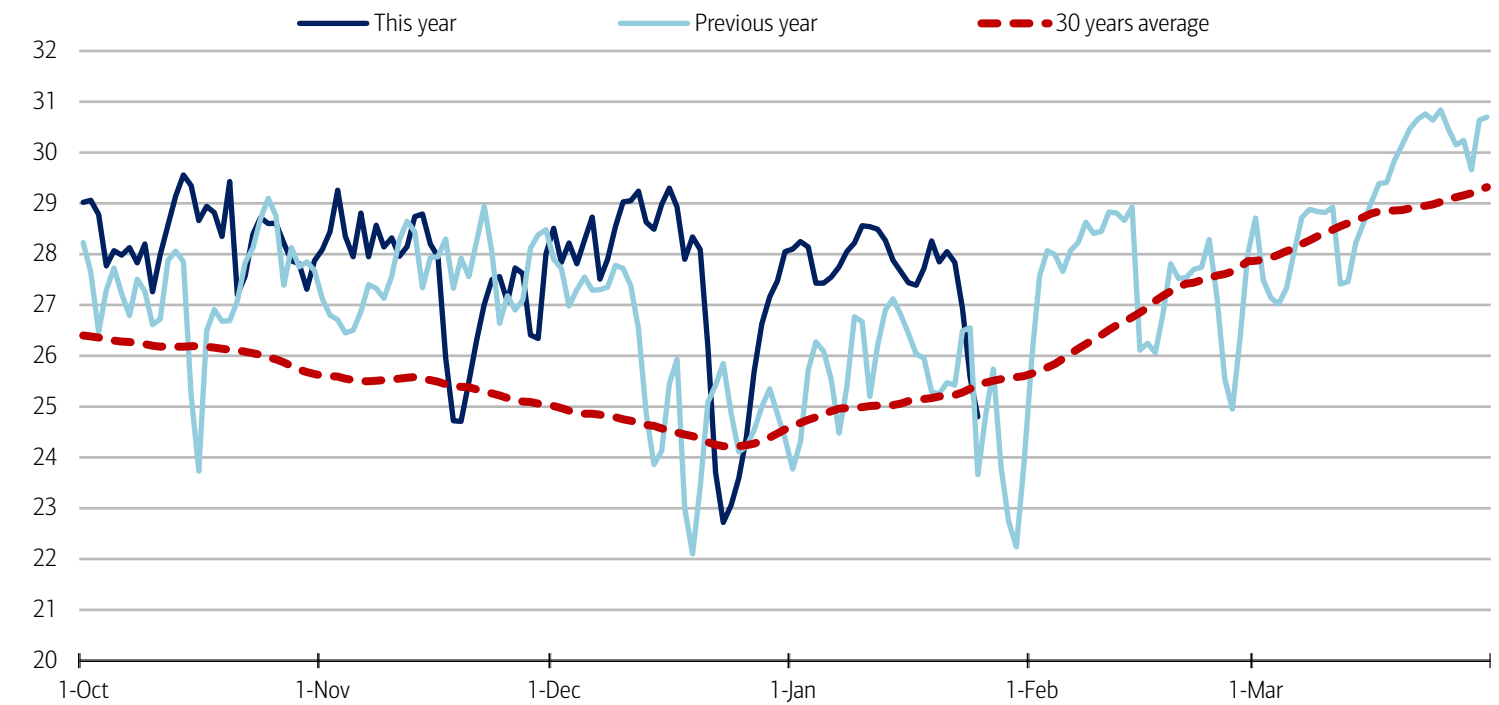
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Thailand temperature trends

Exhibit 19: Thailand temperature trends (current-year, previous-year, and 30-year averages)
Temperatures down to year-earlier levels over the past few days



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 20: Thailand monthly temperatures (simple average)
The Jan average was up YoY, as of 25 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	-0.3	-0.3	0.5	-1.2	-0.6	-0.1	-0.5	0.0	-0.3	0.1	0.0	-1.5	0.5	-0.2	1.9	2.5	0.8	0.7	1.1	0.9	1.0	-0.1	1.7	1.9												
vs. average year	0.2	0.7	-0.5	-0.4	1.2	1.3	1.2	0.9	1.2	2.2	1.1	0.3	0.7	0.5	1.4	2.2	2.0	2.0	2.2	1.8	2.2	2.1	2.8	2.7												

Note: Jan 2024 temperature is the average as of 25 Jan

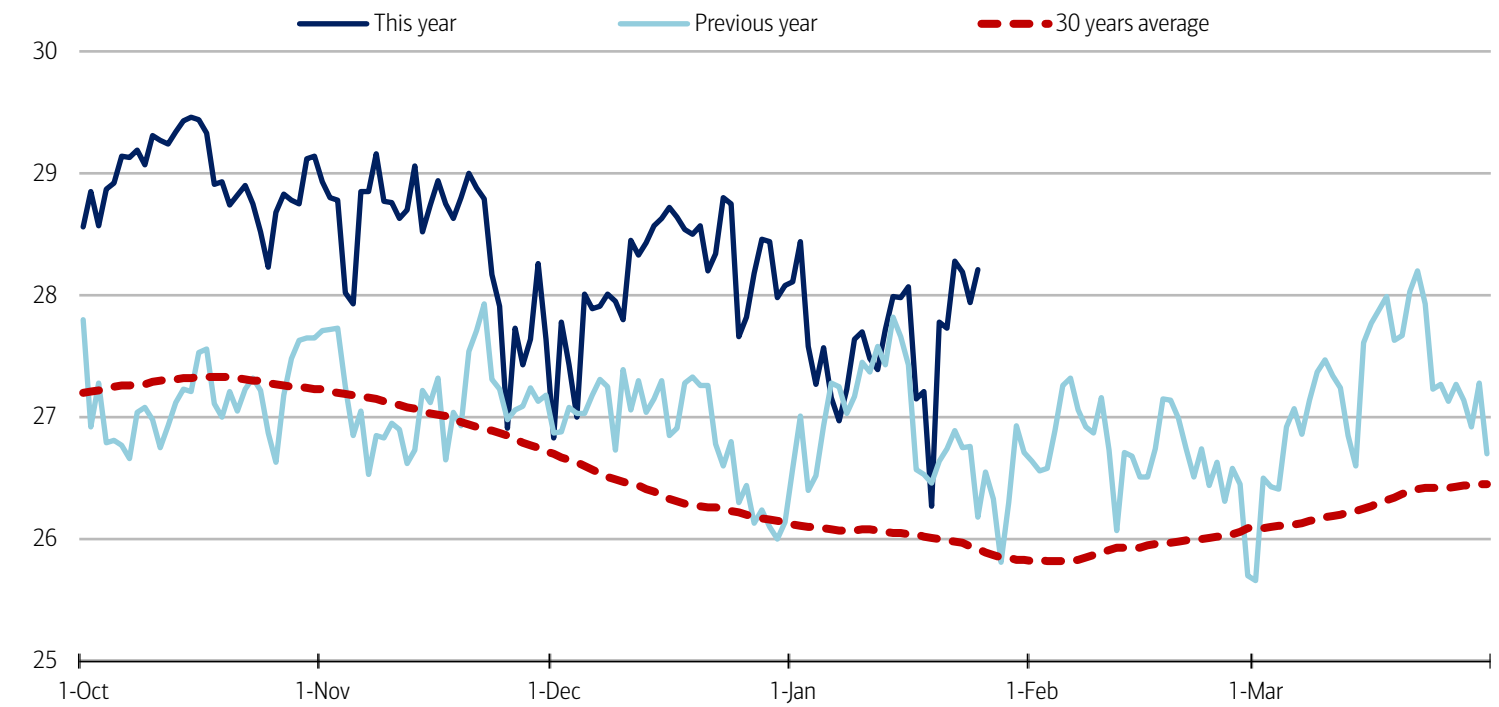
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Indonesia temperature trends

Exhibit 21: Indonesia temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY and above historical average over the past few days



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 22: Indonesia monthly temperatures (simple average)
Monthly average remains up YoY in Jan, as of 25 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	0.1	0.2	0.1	-0.2	-0.5	-0.1	0.0	-0.3	-0.9	-0.2	-0.4	-0.3	-0.2	-0.4	0.2	0.5	0.9	0.2	0.3	0.8	1.8	1.3	1.3	0.7												
vs. average year	1.1	1.3	1.1	1.0	0.5	1.2	1.0	0.5	-0.1	0.1	0.5	0.9	0.8	0.9	1.3	1.5	1.4	1.3	1.3	1.3	1.7	1.5	1.8	1.6												

Note: Jan 2024 temperature is the average as of 25 Jan

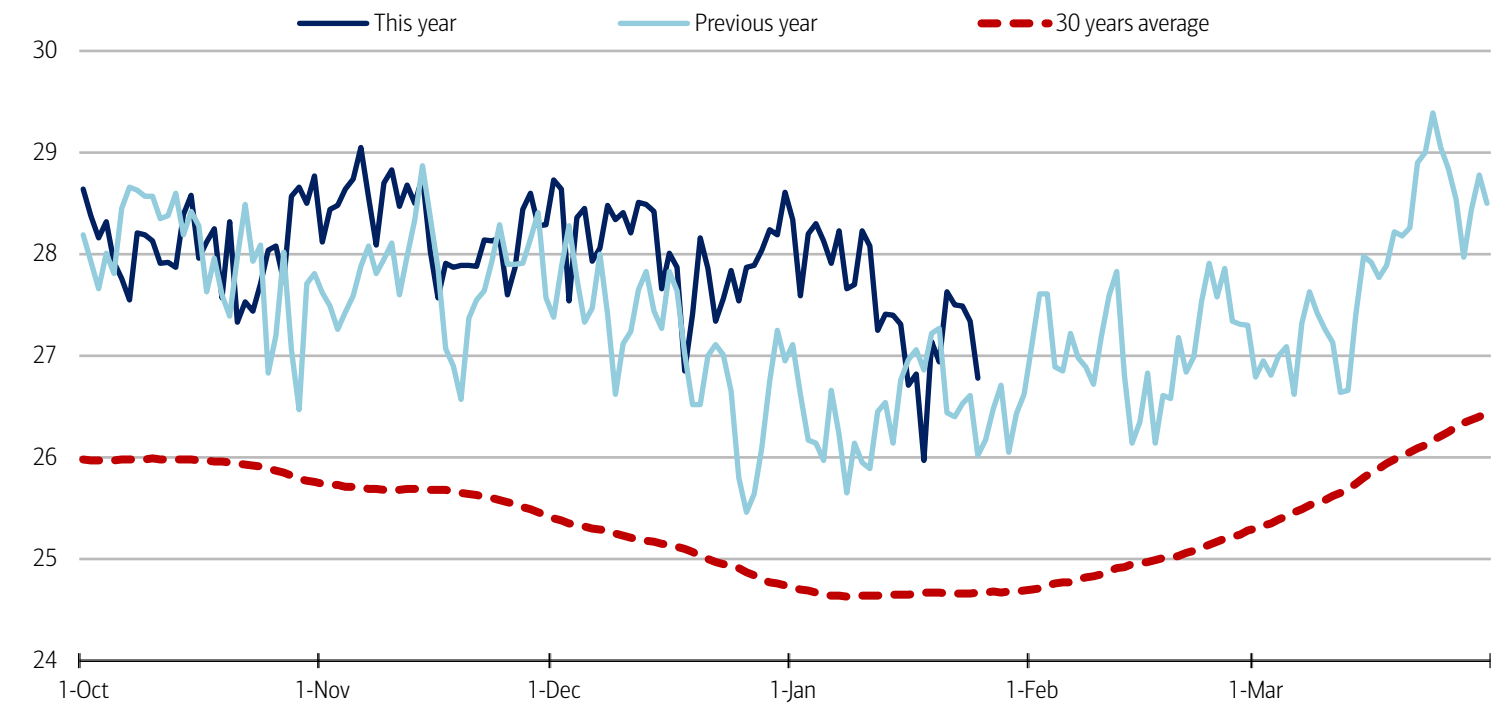
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Philippines temperature trends

Exhibit 23: Philippines temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY over the past week or so



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 24: Philippines monthly temperatures (simple average)
Monthly average remains up YoY in Jan, as of 25 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1												
vs. last year	0.2	0.0	-0.4	-0.6	0.2	0.0	-0.4	0.2	0.1	-0.1	0.1	-0.4	0.0	-0.3	0.7	0.6	-0.1	0.1	0.7	0.1	0.1	0.5	1.0	1.1												
vs. average year	2.1	2.2	1.1	1.5	1.9	2.0	1.6	1.9	2.0	2.1	2.0	1.8	2.1	2.0	1.8	2.0	1.8	2.1	2.3	2.0	2.1	2.6	3.0	2.9												

Note: Jan 2024 temperature is the average as of 25 Jan

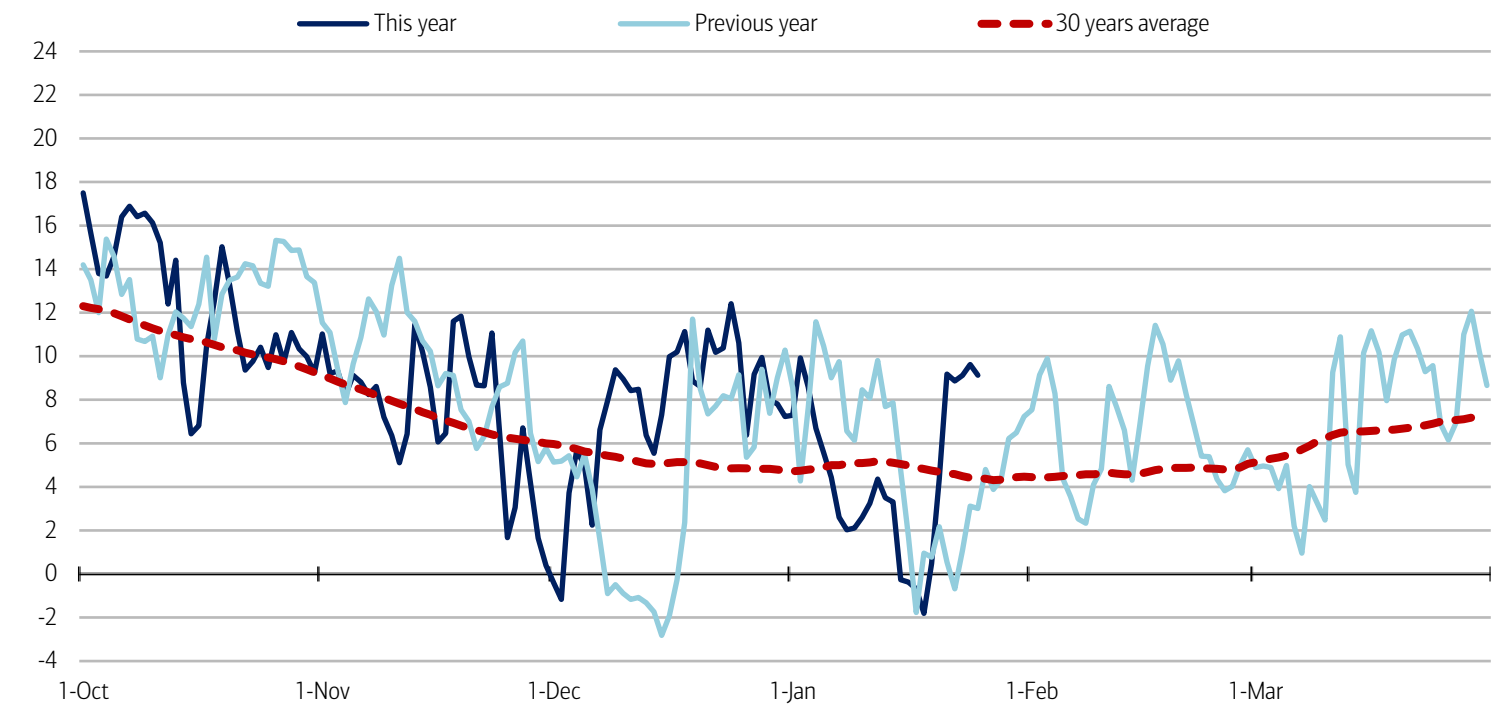
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



UK temperature trends

Exhibit 25: UK temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY and above historical average over the past week or so



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 26: UK monthly temperatures (simple average)
Below historical average and down YoY for Jan, as of 25 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	1.8	0.6	2.5	2.8	-0.6	1.0	3.1	-1.5	0.7	1.7	-2.9	0.1	-0.8	-0.9	-0.7	-0.5	1.7	-2.6	-2.6	2.6	-0.6	-2.0	3.5	-0.7												
vs. average year	2.7	1.8	1.4	1.9	1.5	2.7	2.9	0.9	2.2	2.2	-1.0	0.5	1.9	0.9	0.6	1.3	3.3	0.1	0.3	3.5	1.6	0.2	2.4	-0.3												

Note: Jan 2024 temperature is the average as of 25 Jan

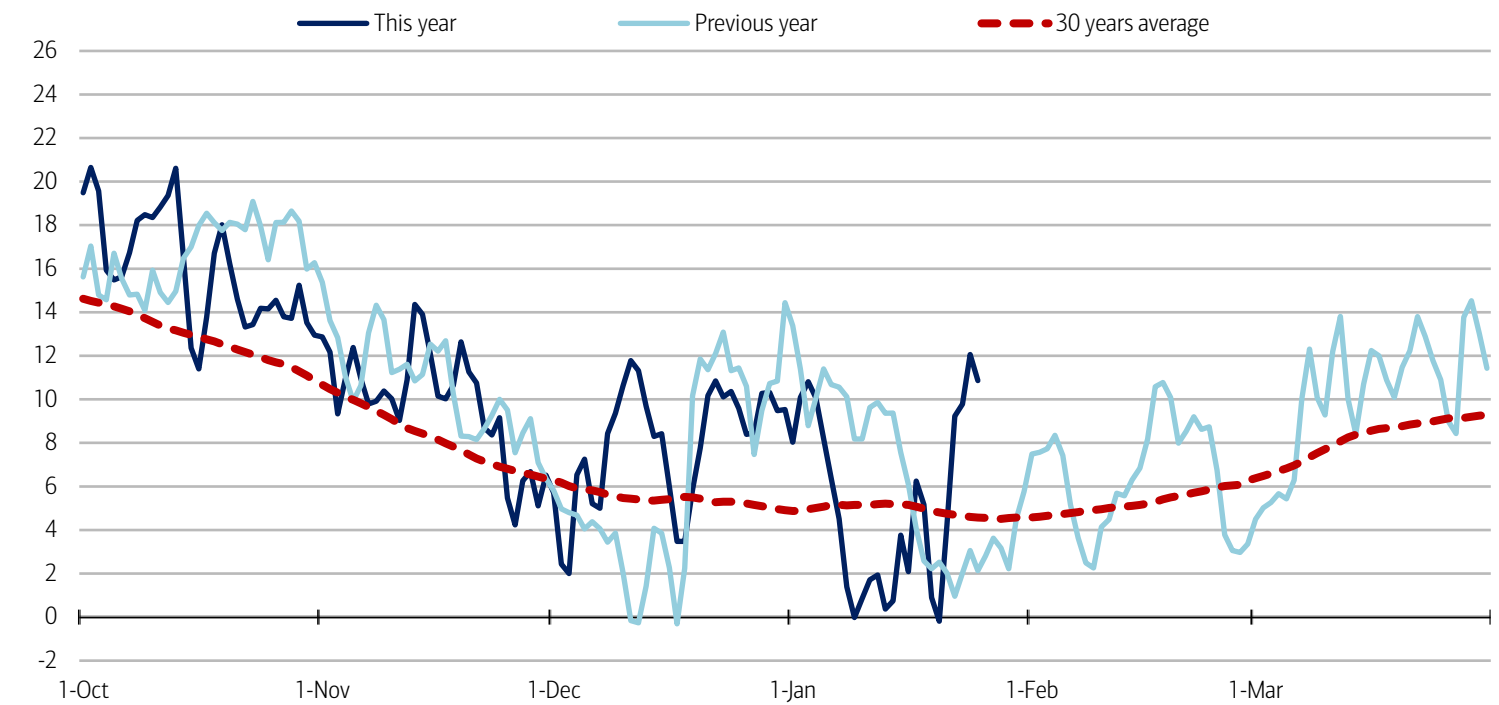
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



France temperature trends

Exhibit 27: France temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY and above historical average over the past week or so



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 28: France monthly temperatures (simple average)
Down YoY for Jan, as of 25 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	0.2	1.1	1.6	3.9	0.7	2.8	3.7	-1.1	3.5	2.9	-0.5	1.5	-1.6	0.0	-0.4	-1.8	0.5	-1.6	-2.1	2.8	-0.7	-0.8	1.5	-1.9												
vs. average year	2.9	1.8	1.3	3.0	2.9	2.9	3.1	1.5	3.8	2.3	1.0	1.5	1.3	1.9	0.9	1.2	3.5	1.3	1.1	4.3	3.1	1.5	2.5	0.2												

Note: Jan 2024 temperature is the average as of 25 Jan

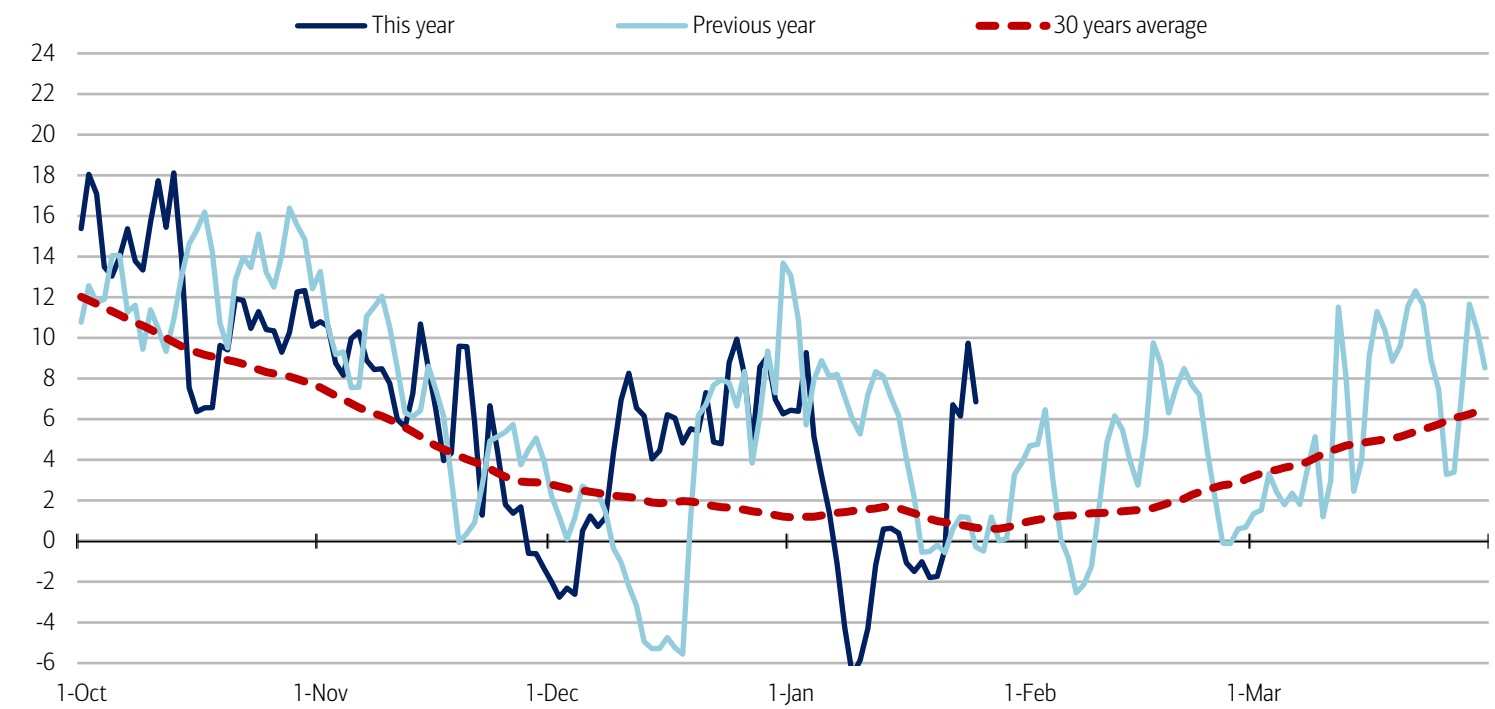
Source: Bloomberg, BofA Global Research

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Germany temperature trends

Exhibit 29: Germany temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY and above historical average over the past few days



Source: Bloomberg, BofA Global Research

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Exhibit 30: Germany monthly temperatures (simple average)
Down YoY for Jan, as of 25 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	3.1	0.2	1.7	3.6	-0.9	0.4	3.8	-1.8	2.5	1.1	-0.8	0.8	-1.4	0.6	-0.2	-1.4	0.4	-0.4	-2.1	4.0	-0.5	-0.4	2.4	-3.7												
vs. average year	3.4	0.9	-0.1	1.8	2.7	1.2	2.8	0.0	3.2	1.7	0.2	3.1	2.0	1.4	-0.3	0.4	3.0	0.8	0.7	4.0	2.7	1.2	2.6	0.0												

Note: Jan 2024 temperature is the average as of 25 Jan

Source: Bloomberg, BofA Global Research

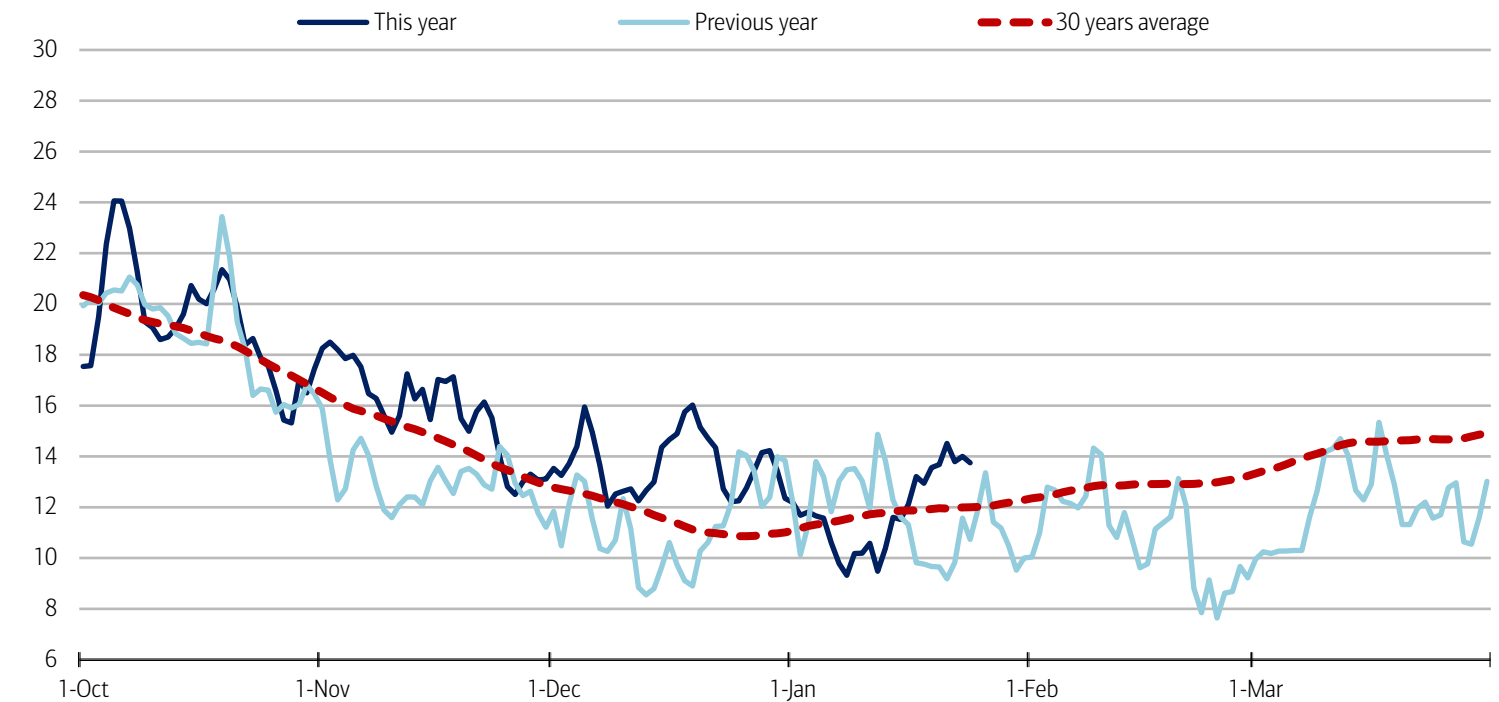
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US temperature trends

Average temperature trends for the US’s five states (California, Texas, Florida, New York, Washington) are shown below.

Exhibit 31: California temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY and above historical average over the past week



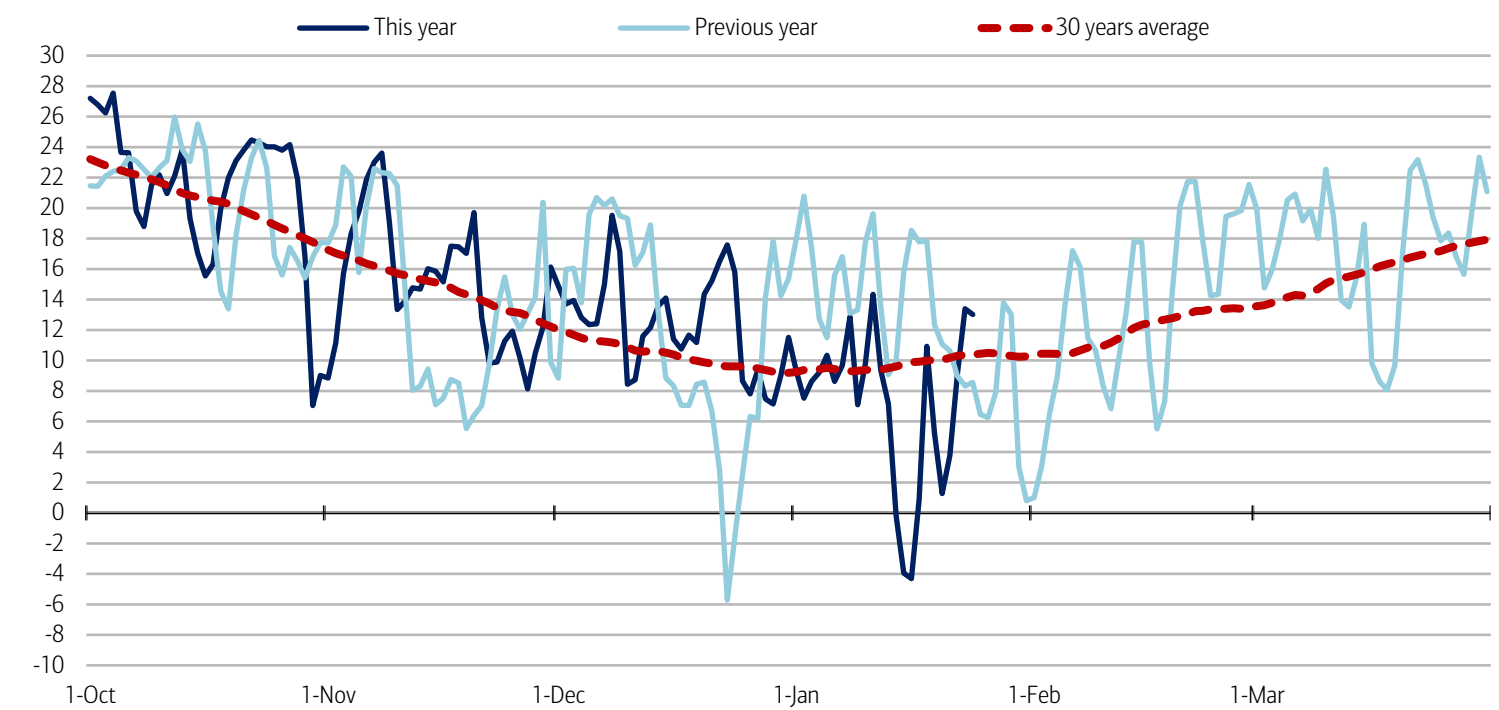
Source: Bloomberg, BofA Global Research, BofA GLOBAL RESEARCH

Exhibit 32: California monthly temperatures (simple average)
Below historical average and down YoY for Jan, as of 24 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	0.1	1.7	0.3	-0.1	0.4	-0.7	1.0	2.5	1.2	-2.4	0.4	-0.7	-2.3	-2.9	-1.3	-1.1	-2.7	0.7	-0.4	-2.8	0.4	2.8	2.4	0.1												
vs. average year	0.5	0.6	0.5	0.0	1.3	-0.1	1.2	2.4	0.2	-1.7	-0.3	-0.2	-1.8	-2.3	-0.8	-1.1	-1.3	0.6	0.9	-0.4	0.6	1.1	2.1	0.2												

Note: Jan 2024 temperature is the average as of 24 Jan
Source: Bloomberg, BofA Global Research BofA GLOBAL RESEARCH

Exhibit 33: Texas temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY and above historical average over the past few days



Source: Bloomberg, BofA Global Research

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Exhibit 34: Texas monthly temperatures (simple average)
Below historical average and down YoY for Jan, as of 24 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	0.7	-1.3	2.4	3.3	2.1	3.4	0.3	0.2	-1.5	-1.2	-5.1	3.3	4.0	2.0	-2.4	-2.2	-0.9	-0.2	3.2	2.2	0.6	1.0	0.6	-6.9												
vs. average year	-2.8	-0.1	1.9	2.4	2.1	2.4	0.1	0.9	0.2	-0.9	1.5	2.8	1.2	1.8	-0.5	0.1	1.2	2.1	3.3	3.1	0.8	0.1	2.1	-2.5												

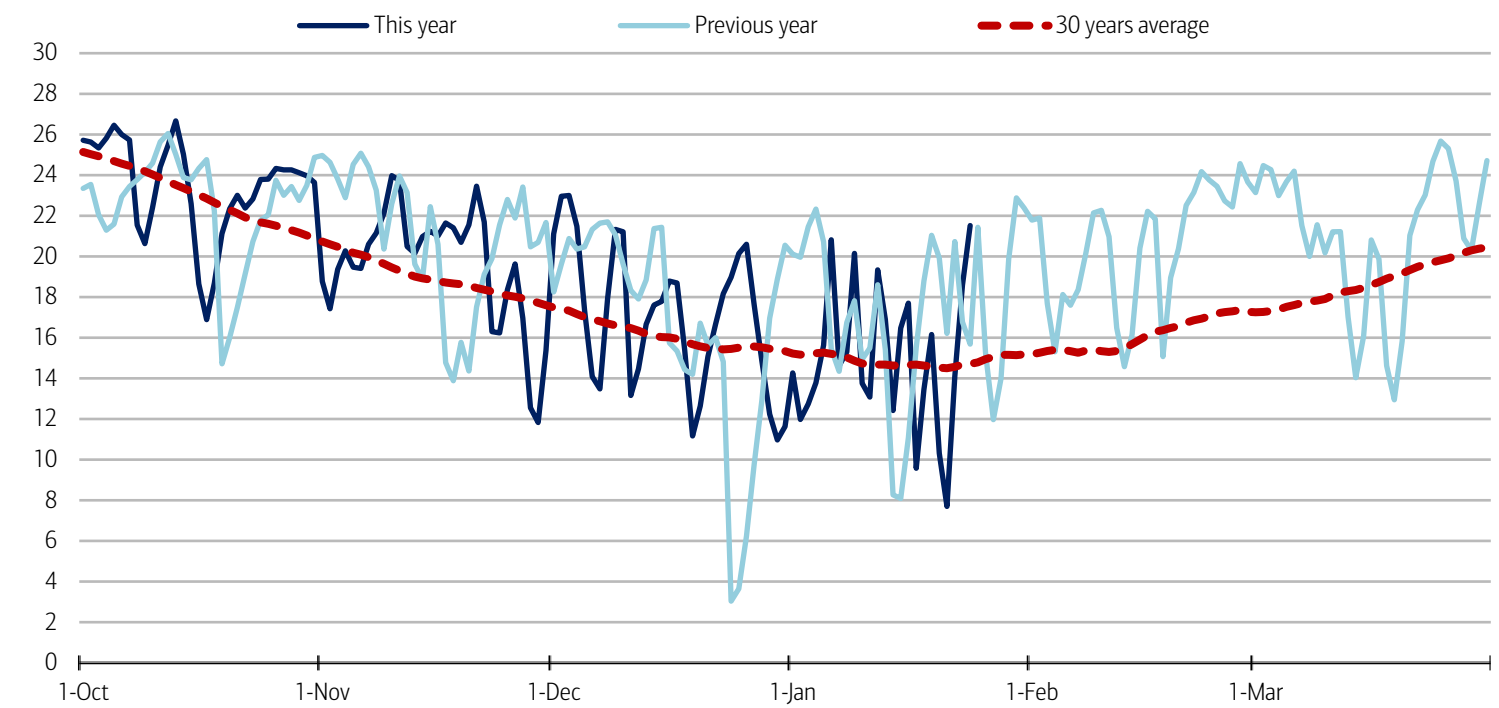
Note: Jan 2024 temperature is the average as of 24 Jan

Source: Bloomberg, BofA Global Research

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Exhibit 35: Florida temperature trends (current-year, previous-year, and 30-year averages)
On par with last year



Source: Bloomberg, BofA Global Research

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Exhibit 36: Florida monthly temperatures (simple average)
The Jan average was down YoY, as of 24 Jan

	2022												2023												2024	
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1		
vs. last year	0.2	0.8	1.1	0.9	1.4	1.0	0.3	0.3	-1.5	3.5	-2.6	2.6	2.7	0.6	1.0	-0.9	-0.8	0.5	1.2	0.5	0.9	-1.5	0.3	-1.9		
vs. average year	1.6	1.9	0.8	0.8	0.9	0.6	0.4	0.1	-0.4	2.1	0.6	2.3	4.3	2.4	1.8	0.0	0.1	1.1	1.7	0.6	0.5	0.6	0.9	0.2		

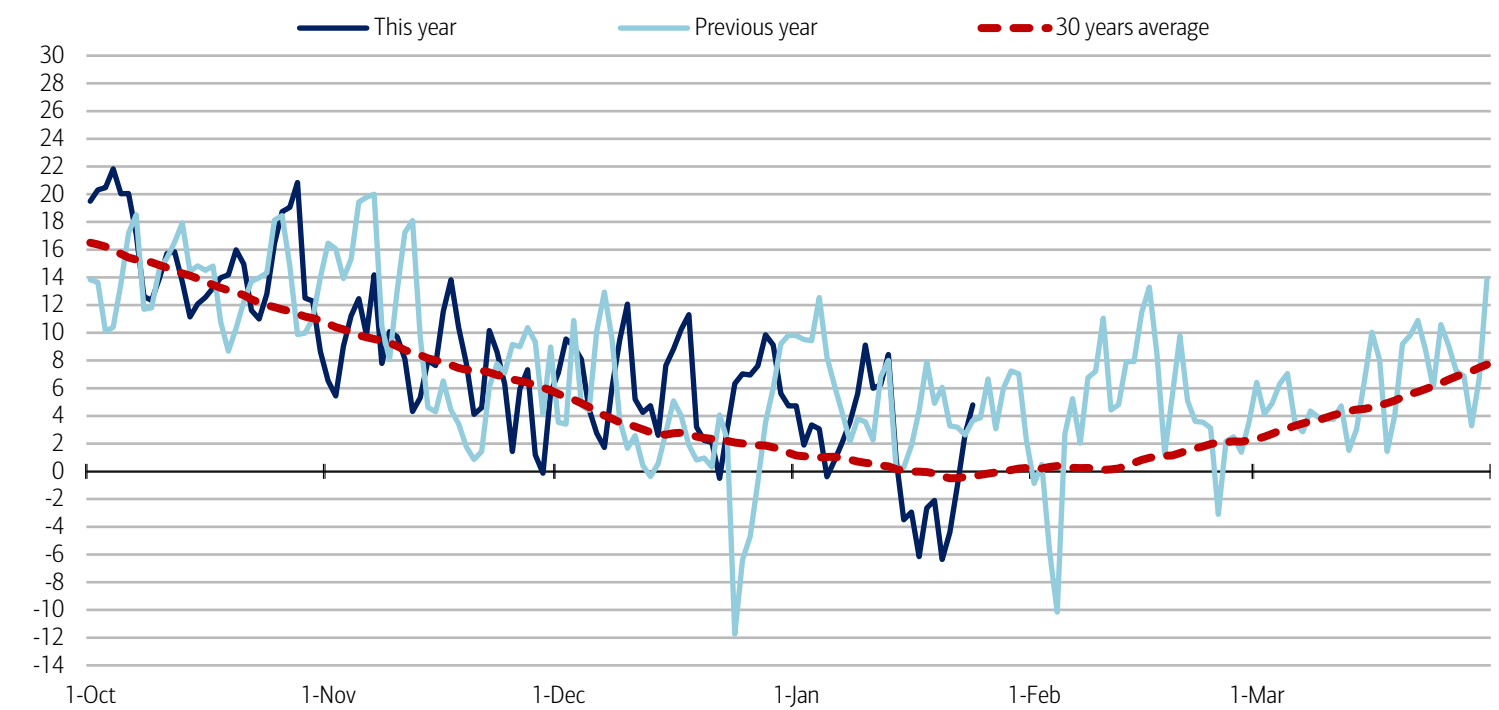
Note: Jan 2024 temperature is the average as of 24 Jan

Source: Bloomberg, BofA Global Research

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Exhibit 37: New York temperature trends (current-year, previous-year, and 30-year averages)
Temperatures recently rising to on par with year-earlier levels



Source: Bloomberg, BofA Global Research

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Exhibit 38: New York monthly temperatures (simple average)
The Jan average was down YoY, as of 24 Jan

	2022												2023												2024	
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1		
vs. last year	1.4	-0.3	-1.0	0.6	-1.5	1.8	0.5	-0.9	-3.0	2.0	-3.1	6.5	1.9	-0.6	2.3	-0.7	-1.1	-0.5	-2.1	0.0	1.7	-2.3	3.1	-3.8		
vs. average year	1.2	1.8	0.1	1.2	0.1	1.6	2.0	0.6	0.0	1.8	0.1	4.9	3.1	1.2	2.4	0.5	-1.0	1.1	-0.1	0.6	1.7	-0.5	3.2	1.0		

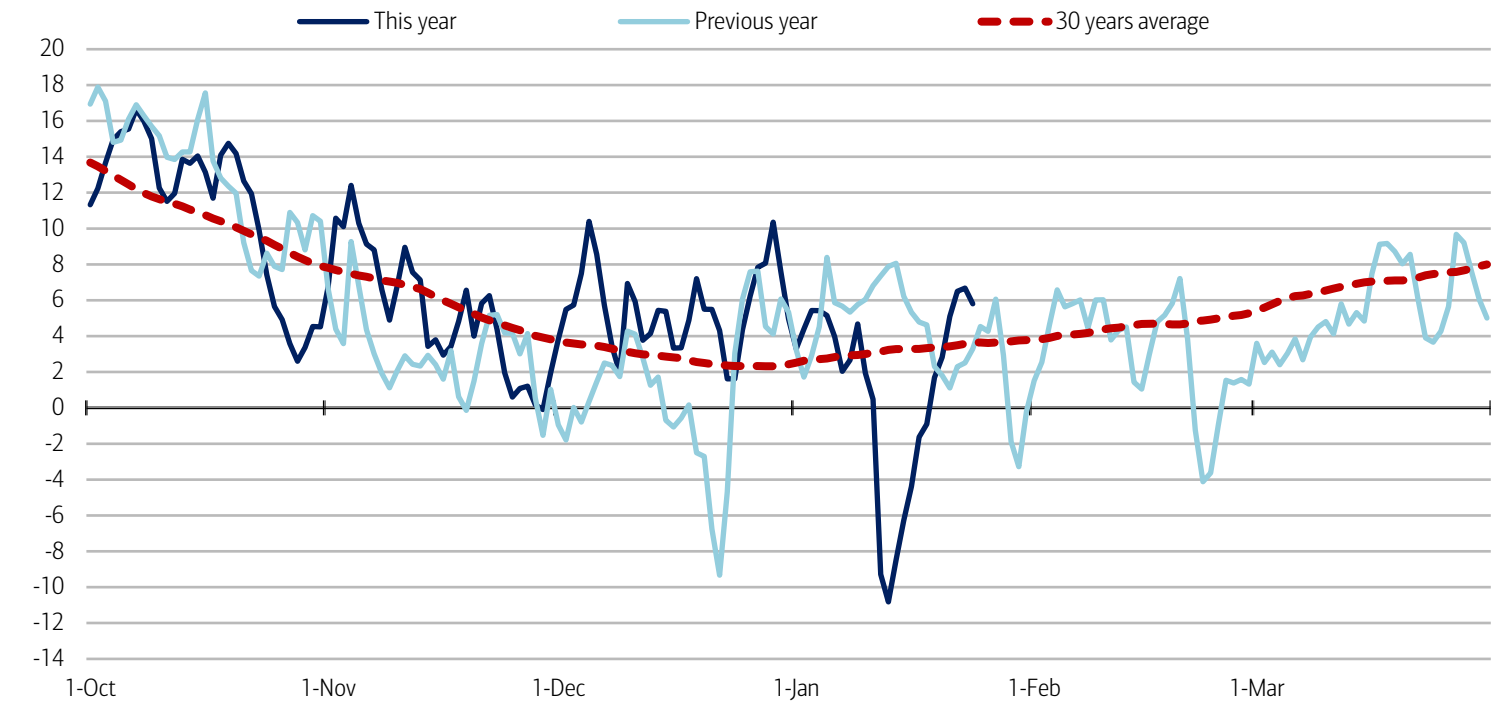
Note: Jan 2024 temperature is the average as of 24 Jan

Source: Bloomberg, BofA Global Research

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Exhibit 39: Washington temperature trends (current-year, previous-year, and 30-year averages)
Temperatures up YoY and above historical average over the past few days



Source: Bloomberg, BofA Global Research

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Exhibit 40: Washington monthly temperatures (simple average)
Below historical average and down YoY for Jan, as of 24 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	0.6	1.1	-3.4	-2.3	-3.5	-0.2	1.7	1.5	2.9	-4.2	-0.5	1.4	-0.5	-1.9	1.2	5.0	1.0	0.0	-0.5	-1.5	-1.8	2.3	4.4	-3.7												
vs. average year	-0.8	0.5	-2.4	-2.1	0.1	1.5	2.2	1.5	2.3	-2.9	-1.7	0.8	-1.4	-1.4	-1.1	2.9	1.1	1.4	1.7	0.0	0.5	-0.5	2.7	-2.0												

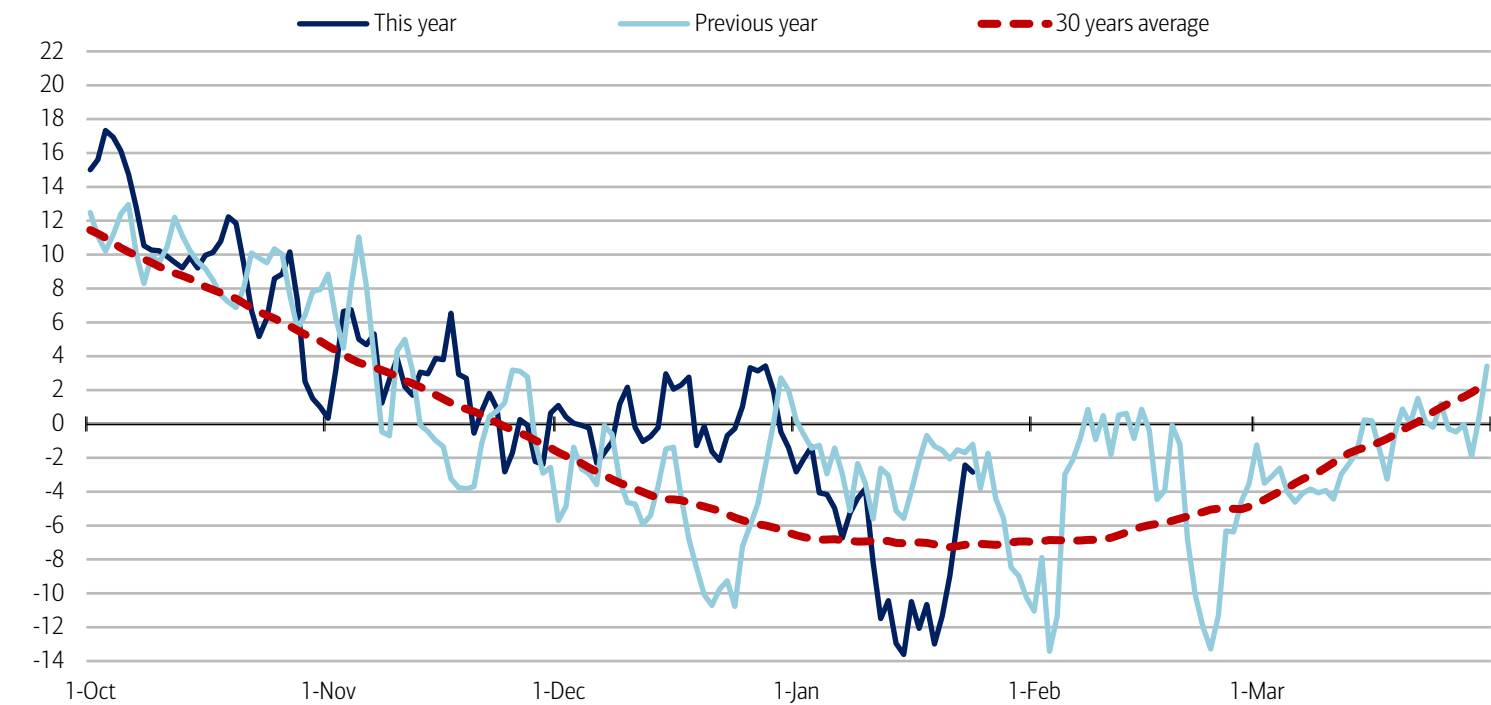
Note: Jan 2024 temperature is the average as of 24 Jan

Source: Bloomberg, BofA Global Research

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Canada temperature trends

Exhibit 41: Canada temperature trends (current-year, previous-year, and 30-year averages)
Temperatures recently rising to on par with year-earlier levels



Source: Bloomberg, BofA Global Research

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Exhibit 42: Canada monthly temperatures (simple average)
Below historical average and down YoY for Jan, as of 24 Jan

	2022												2023												2024											
	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
vs. last year	1.6	-1.9	-2.0	1.0	-2.3	0.5	-0.2	-0.1	-1.0	-0.8	-0.2	5.7	1.4	-1.4	1.6	0.4	0.6	-0.3	-1.8	0.6	0.5	0.5	4.9	-4.8												
vs. average year	0.0	1.1	-0.6	1.7	0.7	1.2	1.8	1.1	1.4	0.0	-0.1	3.7	1.4	-0.3	1.0	2.1	1.3	0.9	0.0	1.7	1.9	0.5	4.7	-0.3												

Note: Jan 2024 temperature is the average as of 24 Jan
Source: Bloomberg, BofA Global Research

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Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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