

Retailing Industry

Retail weekly/JMA weather outlook: 9 Feb 2024

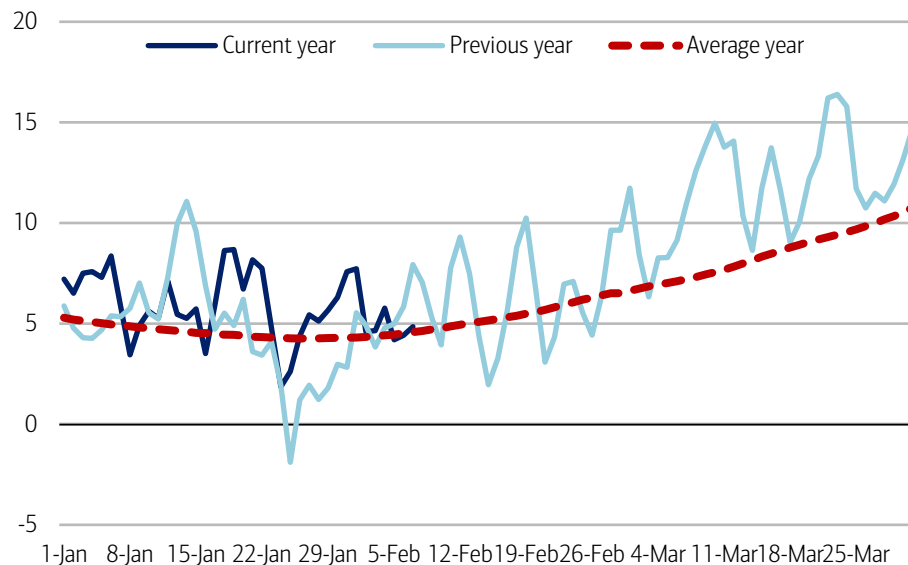
Industry Overview

Weather outlook: Especially warm in mid-February

The Japan Meteorological Agency (JMA) updated its one-month forecast on 8 February. Over the next month (10 Feb–9 Mar), the JMA expects little impact from cold fronts and warm temperatures nationwide. It expects especially warm weather across Japan in mid-Feb. Looking at FY3/24 3Q earnings, which included December, weather conditions do appear to have been challenging for winter goods (apparel, household appliances, etc.). Even so, some merchandise has sold well, including The North Face's Nuptse and Baltra ranges and Descente's Mizusawa Down range, so our first impression is that consumers continue to modulate their spending patterns. Companies will need to reevaluate their approach for the 2024 fall/winter sales season, but as the season changes, we now expect the focus to shift toward how well spring items do out of the gate.

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

Temperatures were up YoY and above average in late Jan and early Feb but are more recently below year-earlier levels



Source: Japan Meteorological Agency, BofA Global Research

BofA GLOBAL RESEARCH

09 February 2024

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Exhibit 1: Next week's events

Please confirm official times with companies

12 Feb (Mon)
Public holiday
13 Feb (Tue)
Earnings results (PPIH, Snow Peak, etc.)
Monthly data (7EI, Ryohin Keikaku, etc.)
14 Feb (Wed)
Earnings results (Matsukiyo Cocokara, Sundrug, etc.)
15 Feb (Thu)
Monthly data (Matsukiyo Cocokara, Department stores, etc.)

Source: BofA Global Research

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Timestamp: 09 February 2024 07:12AM EST

Retail share-price performance

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

Retail Index was +1.1 points vs. TOPIX over the last week, -0.7% over the last month, and -0.6%, over the last three months

	1 Week	1 Month	3 Month	6 Month	2023	2022
Lawson	19.5 Lawson	39.9 Daikokuten Bussan	48.2 Lawson	42.3 Pal	96.4 Takashimaya	72.2
Mizuno	13.7 Isetan Mitsukoshi	25.1 Lawson	44.7 Daikokuten Bussan	40.7 Onward	55.2 Isetan Mitsukoshi	69.1
Isetan Mitsukoshi	10.8 Mizuno	23.6 Seria	37.2 Nitori	30.5 Asics	51.6 H2O	59.3
World	10.4 Daikokuten Bussan	21.7 Nitori	30.2 Skylark	27.4 Ryohin Keikaku	50.7 MatsukiyoCocokara	54.9
Nitori	8.5 Nitori	17.5 Isetan Mitsukoshi	20.0 Bic Camera	27.0 Adastria	48.2 PPIH	54.6
H2O	7.9 Fast Retailing	15.2 FOOD & LIFE	19.3 ZOZO	26.9 Lawson	44.8 ABC-Mart	51.5
JFront	5.8 H2O	15.0 DCM	19.3 Seria	25.5 Daikokuten Bussan	40.2 Pal	46.2
Welcia	4.6 JFront	15.0 World	17.7 Nishimatsuya	25.5 Mizuno	39.7 Adastria	45.1
7&i	4.5 World	12.5 Bic Camera	17.5 Kura Sushi	23.8 PPIH	37.1 Goldwin	43.4
FOOD & LIFE	4.4 Takashimaya	11.7 Nishimatsuya	16.2 Adastria	23.3 Skylark	35.2 Shimamura	35.6
Daikokuten Bussan	4.3 Skylark	10.7 Kojima	15.7 Isetan Mitsukoshi	18.3 Nishimatsuya	33.6 Yonex	35.4
Yonex	4.3 Aeon	10.1 Aeon	15.0 World	18.2 Kojima	32.1 Bic Camera	33.1
Takashimaya	4.2 Kura Sushi	9.8 Pal	14.5 Mizuno	17.7 Fast Retailing	30.3 Sundrug	30.3
Asics	4.0 Life	9.8 Sundrug	12.1 Fast Retailing	17.2 World	27.6 Mizuno	25.4
Adastria	3.1 Asics	9.7 Adastria	12.1 Aeon	15.7 Tsuruha	26.7 Fast Retailing	23.3
ZOZO	3.1 Adastria	8.6 Sugi	11.6 PPIH	15.6 Arcs	26.7 Edion	19.9
Fast Retailing	2.3 7&i	7.7 Mizuno	11.6 FOOD & LIFE	15.4 Kusuri no Aoki	25.3 Yamada	18.8
TOPIX Retail	1.8 Onward	7.6 Onward	11.3 DCM	15.4 TOPIX	25.1 JFront	14.7
DCM	1.8 Seria	7.2 Fast Retailing	10.9 H2O	14.9 Life	25.0 Asics	14.3
PPIH	1.3 TOPIX	6.0 H2O	10.7 Pal	14.6 Edion	22.2 DCM	12.9
Aeon	1.3 ABC-Mart	5.7 PPIH	10.7 Arcs	14.6 Cosmos	22.1 Nishimatsuya	12.2
Yamada	0.9 TOPIX Retail	5.3 Yaoko	10.6 Kojima	13.8 Izumi	21.1 7&i	11.9
TOPIX	0.7 FOOD & LIFE	4.8 ZOZO	10.1 TOPIX	12.1 Shimamura	20.3 World	10.9
Kohnan Shoji	0.6 DCM	4.4 TOPIX	9.5 Shimamura	12.0 Yaoko	19.0 Kojima	9.2
Tsuruha	0.5 Nishimatsuya	4.1 Kura Sushi	9.5 Kohnan Shoji	11.9 H2O	18.4 TOPIX Retail	8.8
Nishimatsuya	0.4 Pal	3.4 TOPIX Retail	8.9 Ryohin Keikaku	10.7 K's	17.1 Komeri	6.9
ABC-Mart	0.3 Sugi	3.1 Takashimaya	8.8 Yaoko	10.3 TOPIX Retail	15.8 U.S.M.H.	6.4
Sundrug	0.2 MatsukiyoCocokara	2.6 Shimamura	8.7 JINS	9.8 Sundrug	15.8 Kusuri no Aoki	5.3
Seria	0.1 Yaoko	2.2 Life	8.6 TOPIX Retail	9.7 Descente	15.2 Daikokuten Bussan	4.3
Life	0.0 Welcia	2.1 7&i	8.4 Komeri	8.8 Kohnan Shoji	14.8 Onward	3.7
Pal	0.0 Komeri	1.9 JFront	6.7 Edion	8.2 Kura Sushi	13.7 Arcs	3.0
Kojima	-0.1 Marui	1.1 Welcia	6.1 Sugi	5.4 MatsukiyoCocokara	13.5 Aeon	2.7
Marui	-0.2 Shimamura	0.6 Kohnan Shoji	5.9 Sundrug	5.2 Aeon	13.2 United Arrows	1.1
Skylark	-0.4 Arcs	0.3 Skylark	5.7 Kusuri no Aoki	4.5 Komeri	13.1 Skylark	1.1
Shimamura	-0.5 ZOZO	-0.1 ABC-Mart	4.8 Life	4.3 Yonex	12.4 Kohnan Shoji	1.0
Izumi	-0.7 PPIH	-0.1 Arcs	4.3 JFront	3.3 FOOD & LIFE	11.5 K's	0.9
U.S.M.H.	-0.7 Yamada	-1.0 Edion	4.2 Tsuruha	3.0 Nitori	10.7 Marui	0.7
MatsukiyoCocokara	-0.9 Alpen	-1.4 Komeri	4.0 Takashimaya	3.0 Sugi	10.4 Nitori	-1.0
Bic Camera	-0.9 Kohnan Shoji	-1.7 Yamada	3.8 Alpen	3.0 Kobe Bussan	9.9 Workman	-1.8
Yaoko	-1.1 Edion	-2.1 MatsukiyoCocokara	3.3 Marui	2.3 Marui	8.4 Yaoko	-3.0
Komeri	-1.2 Workman	-2.4 Marui	3.0 7&i	2.1 DCM	7.6 TOPIX	-5.1
Onward	-1.3 Bic Camera	-2.6 Alpen	2.6 K's	1.7 Tokyo Base	7.1 Izumi	-7.3
Workman	-1.6 U.S.M.H.	-2.6 Tsuruha	2.5 ABC-Mart	1.6 JFront	6.8 Tsuruha	-7.6
Arcs	-1.7 Sundrug	-3.0 Kobe Bussan	2.0 Onward	1.3 Isetan Mitsukoshi	6.8 Lawson	-7.7
Sugi	-2.0 K's	-3.8 Cosmos	-0.4 Yamada	0.2 Goldwin	6.1 Alpen	-8.6
Kura Sushi	-2.3 Cosmos	-4.5 Ryohin Keikaku	-0.5 Tokyo Base	0.0 Bic Camera	4.8 ZOZO	-9.2
Cosmos	-2.4 Izumi	-5.2 K's	-0.6 Asics	-1.5 Takashimaya	4.3 Ryohin Keikaku	-10.7
K's	-2.4 Kojima	-5.7 Tokyo Base	-1.6 MatsukiyoCocokara	-2.8 JINS	2.0 Seria	-14.0
Kobe Bussan	-2.4 United Arrows	-6.3 United Arrows	-2.1 Izumi	-3.2 United Arrows	1.9 Welcia	-14.3
Alpen	-3.0 Ryohin Keikaku	-7.5 Workman	-3.4 Kobe Bussan	-3.5 Alpen	-0.6 Kobe Bussan	-14.9
Ryohin Keikaku	-3.5 Goldwin	-7.7 Kusuri no Aoki	-3.8 Welcia	-5.0 ABC-Mart	-1.0 Sugi	-15.8
Snow Peak	-3.6 Kobe Bussan	-8.0 U.S.M.H.	-4.3 Cosmos	-8.2 7&i	-1.1 Kura Sushi	-17.4
Kusuri no Aoki	-3.7 Tokyo Base	-9.6 Asics	-6.2 U.S.M.H.	-10.4 ZOZO	-2.6 Cosmos	-21.2
Tokyo Base	-3.8 Snow Peak	-9.6 Izumi	-8.6 Goldwin	-12.9 Yamada	-6.1 Life	-22.3
JINS	-3.9 Yonex	-10.5 JINS	-11.6 Yonex	-18.3 Seria	-8.4 Descente	-23.7
Edion	-5.5 Kusuri no Aoki	-11.6 Snow Peak	-15.4 United Arrows	-18.7 U.S.M.H.	-9.6 Snow Peak	-26.1
Descente	-6.6 Tsuruha	-16.0 Goldwin	-18.4 Descente	-20.9 Welcia	-19.8 JINS	-34.2
Goldwin	-7.2 JINS	-18.9 Yonex	-27.1 Workman	-21.6 Workman	-23.0 FOOD & LIFE	-40.3
United Arrows	-7.8 Descente	-19.3 Descente	-28.3 Snow Peak	-48.9 Snow Peak	-60.7 Tokyo Base	-53.3

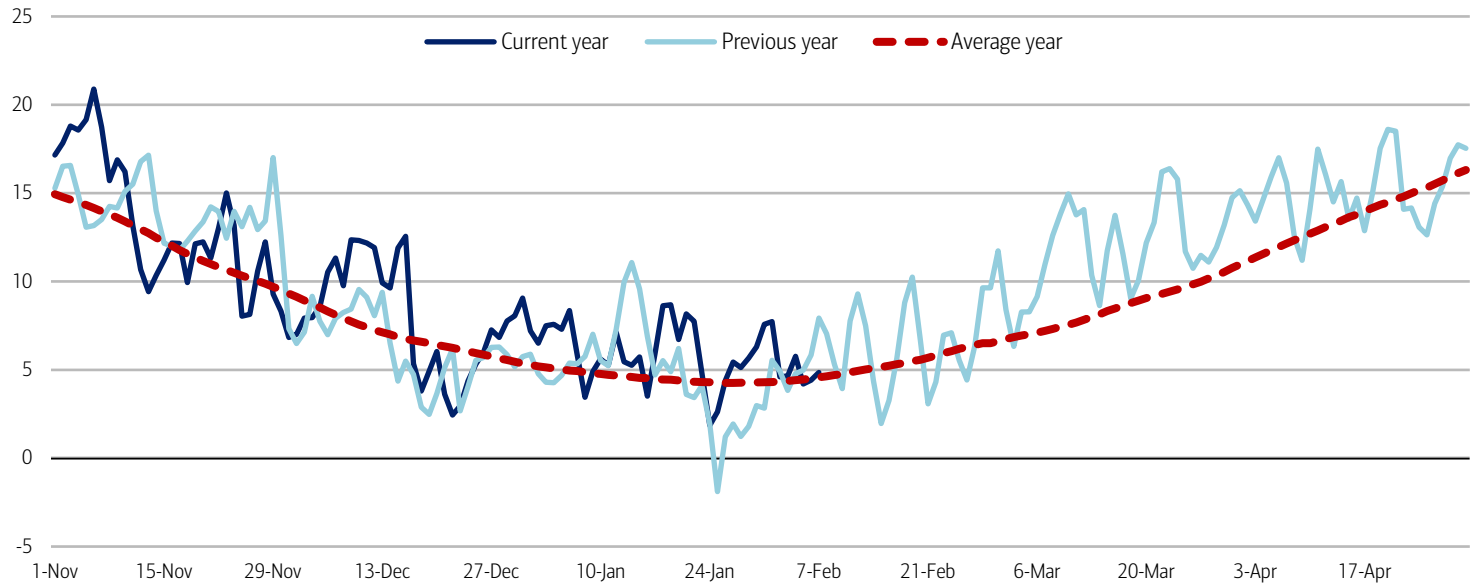
Note: Includes companies outside of our coverage

Source: Bloomberg, BofA Global Research



Exhibit 4: Current-/previous-year and average temperatures (average for 10 largest cities)

Temperatures were up YoY and above average in late Jan and early Feb but are more recently below year-earlier levels



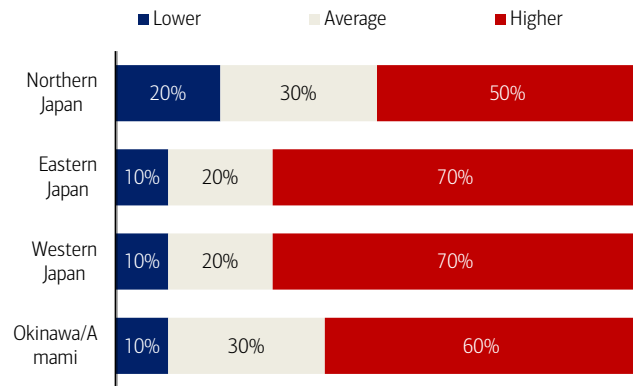
Note: Simple average for 10 cities (Tokyo, Yokohama, Osaka, Nagoya, Sapporo, Fukuoka, Kobe, Hiroshima, Sendai, Matsuyama). Average data based on 1991-2020.

Source: Japan Meteorological Agency, BofA Global Research

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Exhibit 5: Temperature forecasts by region (10 Feb - 9 Mar)

Forecast for temperatures above average in all regions

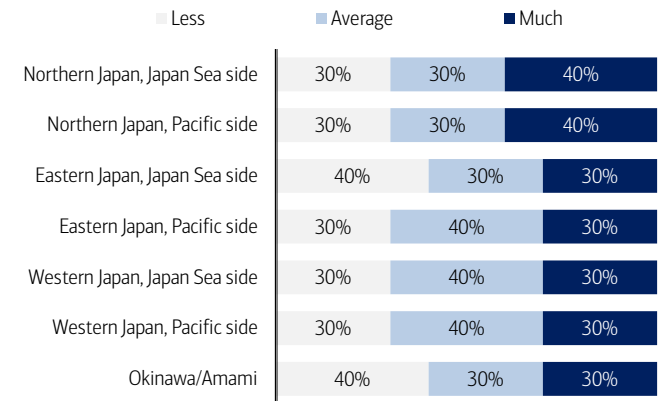


Source: Japan Meteorological Agency, BofA Global Research

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Exhibit 6: Precipitation forecasts by region (10 Feb - 9 Mar)

Forecast for at or above 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	-1.7	0.0	-0.5	6.2	-1.6	0.1	-0.5	6.2	-2.4	0.0	-0.4	5.0	-2.6	0.2	-0.4	-4.4	-2.1	-1.2	-1.3
2021/2	8.5	0.2	2.4	1.5	9.1	0.2	2.4	1.5	8.7	0.7	2.1	1.7	7.5	0.4	2.0	1.4	-2.2	-0.1	0.5	0.4
2021/3	12.8	2.1	3.4	2.5	13.2	2.0	3.5	2.5	12.2	0.8	2.3	1.5	12.0	1.3	2.8	1.8	3.8	0.5	2.7	1.5
2021/4	15.1	2.3	0.8	0.4	15.2	1.8	0.7	0.2	15.5	1.8	0.3	0.0	15.2	1.8	0.6	0.3	7.9	1.1	0.6	0.2
2021/5	19.6	0.1	0.8	-0.3	19.6	-0.1	0.8	-0.3	20.0	-0.8	-0.1	-0.8	19.5	-1.1	0.1	-0.9	13.1	-0.6	0.1	-1.3
2021/6	22.7	-0.5	0.8	0.3	22.7	-0.7	0.9	0.3	23.9	-1.0	0.3	0.3	23.4	-1.2	0.4	0.1	18.9	0.6	1.9	2.0
2021/7	25.9	1.6	0.2	0.0	26.0	1.6	0.4	0.2	27.9	1.9	0.2	0.1	27.4	2.0	0.5	0.3	23.9	2.7	2.8	2.3
2021/8	27.4	-1.7	0.5	-0.4	27.5	-1.6	0.5	-0.4	28.1	-2.6	-0.9	-1.5	27.8	-2.5	-0.4	-1.3	22.9	-0.4	0.6	0.4
2021/9	22.3	-1.9	-1.0	-1.6	22.6	-2.0	-1.1	-1.6	24.8	-1.0	-0.4	-0.5	24.1	-1.3	-0.4	-0.8	18.8	-1.3	0.2	-0.3
2021/10	18.2	0.7	0.2	-0.1	18.7	0.8	0.2	-0.1	20.3	1.6	0.8	0.7	19.9	1.9	1.3	0.9	12.5	-0.6	0.4	0.2
2021/11	13.7	-0.3	1.2	0.8	14.3	-0.4	0.9	0.6	14.1	-0.6	0.3	0.2	13.0	-1.0	0.4	-0.1	7.3	1.0	2.1	2.7
2021/12	7.9	0.2	0.2	-0.1	8.8	0.0	0.1	-0.2	8.8	0.1	0.1	0.0	7.3	-0.1	0.1	-0.3	-0.5	1.1	0.4	0.8
2022/1	4.9	-0.5	-0.5	-0.8	5.5	-0.7	-0.6	-1.1	5.6	-0.6	-0.6	-0.9	4.1	-0.9	-0.7	-1.2	-3.2	1.2	0.0	0.0
2022/2	5.2	-3.3	-0.9	-2.1	5.8	-3.3	-0.9	-2.1	5.5	-3.2	-1.1	-1.7	4.5	-3.0	-1.0	-1.8	-2.2	0.0	0.5	0.4
2022/3	10.9	-1.9	1.5	0.1	11.3	-1.9	1.6	0.1	11.4	-0.8	1.5	0.4	11.0	-1.0	1.8	0.5	2.6	-1.2	1.5	-0.1
2022/4	15.3	0.2	1.0	0.7	15.4	0.2	0.9	0.5	16.8	1.3	1.6	1.5	16.8	1.6	2.2	2.0	9.1	1.2	1.8	1.4
2022/5	18.8	-0.8	0.0	-1.0	19.0	-0.6	0.2	-0.8	20.0	0.0	-0.1	-0.6	19.5	0.0	0.1	-0.7	14.9	1.8	1.9	0.8
2022/6	23.0	0.3	1.1	0.6	22.9	0.2	1.1	0.4	24.4	0.5	0.8	0.7	24.3	0.9	1.3	0.9	16.8	-2.1	-0.2	-0.6
2022/7	27.4	1.5	1.7	1.4	27.1	1.1	1.5	1.1	28.4	0.5	0.7	0.7	27.5	0.1	0.6	0.3	23.1	-0.8	2.0	0.9
2022/8	27.5	0.1	0.6	-0.4	27.6	0.1	0.6	-0.3	29.5	1.4	0.5	0.1	28.5	0.7	0.3	-0.5	22.7	-0.2	0.4	0.4
2022/9	24.4	2.1	1.1	0.9	24.7	2.1	1.0	0.9	26.2	1.4	1.0	1.1	26.1	2.0	1.6	1.4	19.8	1.0	1.2	0.8
2022/10	17.2	-1.0	-0.8	-1.0	17.9	-0.8	-0.6	-0.8	19.0	-1.3	-0.5	-0.6	18.7	-1.2	0.1	-0.3	12.6	0.1	0.5	0.0
2022/11	14.5	0.8	2.0	1.2	15.2	0.9	1.8	1.1	15.2	1.1	1.4	1.2	14.6	1.6	2.0	1.5	7.1	-0.2	1.9	1.5
2022/12	7.5	-0.4	-0.2	-0.3	8.4	-0.4	-0.3	-0.4	7.9	-0.9	-0.8	-0.8	6.6	-0.7	-0.6	-0.9	-1.4	-0.9	-0.5	-0.2
2023/1	5.7	0.8	0.3	0.2	6.4	0.9	0.3	0.1	6.5	0.9	0.3	0.1	5.2	1.1	0.4	0.1	-4.4	-1.2	-1.2	-1.3
2023/2	7.3	2.1	1.2	0.4	7.9	2.1	1.2	0.4	7.0	1.5	0.4	-0.1	6.5	2.0	1.0	0.3	-2.7	-0.5	0.0	0.0
2023/3	12.9	2.0	3.5	1.6	13.2	1.9	3.5	1.5	13.0	1.6	3.1	1.6	12.7	1.7	3.5	1.7	4.9	2.3	3.8	2.0
2023/4	16.3	1.0	2.0	1.5	16.6	1.2	2.1	1.6	15.9	-0.9	0.7	0.4	15.9	-0.9	1.3	0.7	9.2	0.1	1.9	1.2
2023/5	19.0	0.2	0.2	-0.5	19.0	0.0	0.2	-0.6	20.0	0.0	-0.1	-0.4	20.2	0.7	0.8	0.2	13.8	-1.1	0.8	-0.4
2023/6	23.2	0.2	1.3	0.6	23.2	0.3	1.4	0.6	23.8	-0.6	0.2	-0.3	23.8	-0.5	0.8	0.0	19.3	2.5	2.3	1.7
2023/7	28.7	1.3	3.0	2.7	28.2	1.1	2.6	2.2	28.9	0.5	1.2	1.2	28.9	1.4	2.0	1.8	23.8	0.7	2.7	1.5
2023/8	29.2	1.7	2.3	1.1	29.1	1.5	2.1	1.0	29.9	0.4	0.9	0.5	29.4	0.9	1.2	0.4	26.7	4.0	4.4	4.2
2023/9	26.7	2.3	3.4	2.9	26.9	2.2	3.2	2.8	27.9	1.7	2.7	2.4	27.3	1.2	2.8	2.1	21.5	1.7	2.9	2.1
2023/10	18.9	1.7	0.9	0.6	19.5	1.6	1.0	0.7	19.3	0.3	-0.2	-0.4	18.3	-0.4	-0.3	-0.9	13.3	0.7	1.2	0.4
2023/11	14.4	-0.1	1.9	0.5	15.2	0.0	1.8	0.6	14.4	-0.8	0.6	-0.2	13.6	-1.0	1.0	-0.2	6.7	-0.4	1.5	0.5
2023/12	9.4	1.9	1.7	1.4	10.2	1.8	1.5	1.3	9.3	1.4	0.6	0.4	8.4	1.8	1.2	0.8	-0.7	0.7	0.2	0.4
2024/1	7.1	1.4	1.7	1.4	8.0	1.6	1.9	1.5	7.1	0.6	0.9	0.4	6.0	0.8	1.2	0.6	-1.8	2.6	1.4	1.7
2024/2	5.4	-1.9			6.2	-1.7			6.5	-0.5			6.2	-0.3			-4.1	-1.4		

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	Average	vs. last year	vs. average	vs. 5 yrs	Average	vs. last year	vs. average	vs. 5 yrs	Average	vs. last year	vs. average	vs. 5 yrs	Average	vs. last year	vs. average	vs. 5 yrs
2021/1	7.0	-2.5	0.1	-0.5	6.1	-2.7	-0.1	-0.7	5.2	-2.9	-0.2	-0.8	1.2	-2.8	-0.8	-1.3	6.2	-2.5	0.0	-0.6
2021/2	10.2	0.5	2.4	1.9	8.8	0.6	2.3	1.7	8.2	0.4	2.0	1.7	3.7	-0.7	1.3	0.5	8.9	0.5	2.1	1.6
2021/3	13.5	1.1	2.7	1.9	12.3	0.9	2.5	1.6	12.1	1.1	2.6	1.8	8.6	1.1	3.1	1.7	12.7	1.3	2.8	2.0
2021/4	16.7	2.6	1.3	0.7	15.3	1.7	0.3	-0.1	15.4	2.2	0.6	0.2	11.6	1.5	0.9	0.4	15.5	2.2	0.7	0.2
2021/5	20.4	0.0	0.5	-0.4	19.7	-0.9	-0.1	-0.8	19.5	-0.8	-0.1	-0.8	17.0	0.2	1.4	0.0	19.5	-0.6	0.1	-0.6
2021/6	24.2	-0.7	0.9	0.5	23.7	-0.6	0.3	0.4	23.8	-0.4	0.6	0.5	20.6	-0.6	1.4	0.8	23.4	-0.8	0.5	0.2
2021/7	28.9	3.4	1.5	1.2	27.5	1.8	0.4	0.2	27.6	2.4	0.4	0.2	24.1	2.8	1.2	0.6	27.2	1.6	0.1	-0.1
2021/8	27.5	-2.7	-0.9	-1.9	27.8	-2.2	-0.8	-1.5	27.4	-2.5	-1.1	-1.9	24.9	-1.7	0.5	-0.4	27.5	-2.2	-0.6	-1.5
2021/9	25.9	1.4	1.2	1.0	25.1	-0.8	-0.3	-0.4	25.0	0.0	0.3	0.3	20.8	-1.7	-0.4	-1.0	25.0	-0.2	0.4	0.1
2021/10	21.0	1.6	1.4	1.0	20.6	1.5	0.8	0.6	19.9	1.2	1.1	0.7	15.8	0.2	0.1	-0.1	20.1	1.3	1.0	0.4
2021/11	13.9	-1.4	-0.3	-0.6	14.5	-0.6	0.3	0.2	13.1	-1.1	0.2	-0.1	11.1	0.3	1.3	1.3	13.7	-1.0	0.1	-0.1
2021/12	9.1	0.6	0.0	-0.3	8.9	0.1	0.1	-0.2	7.8	0.6	0.3	0.0	4.7	0.8	0.2	0.1	8.8	0.9	0.3	0.1
2022/1	6.9	-0.1	0.0	-0.6	5.7	-0.4	-0.5	-0.9	5.3	0.1	-0.1	-0.6	1.7	0.5	-0.3	-0.6	5.9	-0.3	-0.3	-0.8
2022/2	6.3	-3.9	-1.5	-2.5	5.6	-3.2	-0.9	-1.7	4.8	-3.4	-1.4	-2.1	1.9	-1.8	-0.5	-1.4	5.2	-3.7	-1.6	-2.4
2022/3	12.7	-0.8	1.9	0.7	11.5	-0.8	1.7	0.5	11.5	-0.6	2.0	0.8	6.4	-2.2	0.9	-0.8	11.9	-0.8	2.0	0.8
2022/4	16.4	-0.3	1.0	0.4	16.6	1.3	1.6	1.5	16.4	1.0	1.6	1.4	11.8	0.2	1.1	0.6	15.9	0.4	1.1	0.7
2022/5	20.6	0.2	0.7	-0.1	19.8	0.1	0.0	-0.5	20.0	0.5	0.4	-0.1	16.5	-0.5	0.9	-0.5	19.3	-0.2	-0.1	-0.7
2022/6	24.8	0.6	1.5	0.9	23.9	0.2	0.5	0.5	24.2	0.4	1.0	0.8	20.2	-0.4	1.0	0.3	24.1	0.7	1.2	0.9
2022/7	28.9	0.0	1.5	1.1	28.0	0.5	0.9	0.7	28.1	0.5	0.9	0.8	24.9	0.8	2.0	1.2	27.8	0.6	0.7	0.7
2022/8	29.8	2.3	1.4	0.8	29.2	1.4	0.6	0.2	29.2	1.8	0.7	0.3	25.1	0.2	0.7	0.0	29.1	1.6	1.0	0.5
2022/9	25.7	-0.2	1.0	0.6	26.7	1.6	1.3	1.4	26.0	1.0	1.3	1.3	22.2	1.4	1.0	0.7	26.2	1.2	1.6	1.3
2022/10	19.6	-1.4	0.0	-0.4	19.5	-1.1	-0.3	-0.4	18.9	-1.0	0.1	-0.3	15.5	-0.3	-0.2	-0.4	19.2	-0.9	0.1	-0.3
2022/11	16.2	2.3	2.0	1.8	15.8	1.3	1.6	1.4	14.9	1.8	2.0	1.7	11.9	0.8	2.1	1.6	15.5	1.8	1.9	1.7
2022/12	7.7	-1.4	-1.4	-1.4	7.9	-1.0	-0.9	-1.0	6.4	-1.4	-1.1	-1.2	4.2	-0.5	-0.3	-0.2	7.4	-1.4	-1.1	-1.1
2023/1	7.2	0.3	0.3	-0.2	6.6	0.9	0.4	0.1	5.7	0.4	0.3	-0.2	2.1	0.4	0.1	0.0	6.5	0.6	0.3	-0.1
2023/2	9.0	2.7	1.2	0.6	7.2	1.6	0.7	0.0	6.9	2.1	0.7	0.3	3.0	1.1	0.6	0.0	7.6	2.4	0.8	0.4
2023/3	13.6	0.9	2.8	1.1	13.0	1.5	3.2	1.5	12.6	1.1	3.1	1.4	9.3	2.9	3.8	1.9	12.7	0.8	2.8	1.0
2023/4	16.7	0.3	1.3	0.8	15.9	-0.7	0.9	0.6	15.7	-0.7	0.9	0.5	13.3	1.5	2.6	2.1	15.9	0.0	1.1	0.7
2023/5	20.2	-0.4	0.3	-0.5	19.8	0.0	0.0	-0.3	19.9	-0.1	0.3	-0.1	16.6	0.1	1.0	-0.3	19.8	0.5	0.4	0.0
2023/6	24.4	-0.4	1.1	0.2	23.4	-0.5	0.0	-0.3	23.3	-0.9	0.1	-0.4	21.6	1.4	2.4	1.3	23.1	-1.0	0.2	-0.4
2023/7	28.9	0.0	1.5	1.2	28.0	0.0	0.9	0.7	27.9	-0.2	0.7	0.6	26.6	1.7	3.7	3.0	28.0	0.2	0.9	1.0
2023/8	29.7	-0.1	1.3	0.6	29.7	0.5	1.1	0.7	30.0	0.8	1.5	1.0	28.6	3.5	4.2	3.1	28.9	-0.2	0.8	0.2
2023/9	26.9	1.2	2.2	1.5	27.9	1.2	2.5	2.1	27.2	1.2	2.5	2.0	25.1	2.9	3.9	3.4	27.3	1.1	2.7	1.9
2023/10	19.8	0.2	0.2	-0.1	19.6	0.1	-0.2	-0.5	18.9	0.0	0.1	-0.4	16.7	1.2	1.0	0.6	19.4	0.2	0.3	-0.2
2023/11	15.1	-1.1	0.9	0.2	14.7	-1.1	0.5	-0.3	14.0	-0.9	1.1	0.2	11.4	-0.5	1.6	0.5	14.8	-0.7	1.2	0.5
2023/12	9.9	2.2	0.8	0.7	9.7	1.8	0.9	0.7	8.2	1.8	0.7	0.5	5.7	1.5	1.2	1.2	9.3	1.9	0.8	0.7
2024/1	8.3	1.1	1.4	0.6	7.3	0.7	1.1	0.5	6.5	0.8	1.1	0.4	4.2	2.1	2.2	1.9	7.4	0.9	1.2	0.5
2024/2	8.5	-0.5			6.7	-0.5			6.6	-0.3			2.6	-0.4			7.2	-0.4		

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%	-49%	-50%	-45%	18%	-42%	-17%	115%	42%	63%
2024/2	4%			-11%			-40%			-42%			-82%		

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			Fukuoka		
	vs..	vs.	vs.	vs..	vs.	vs.	vs..	vs.	vs.	vs..	vs.	vs.	vs..	vs.	vs.	vs..	vs.	vs..
	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	last year
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	-17%	8%	1%	-71%	-58%	-61%	-7%	-8%	-4%	725%	95%	148%	-46%	-33%	-33%			
2024/2	2%			-44%			-29%			-92%			-34%					

Source: Japan Meteorological Agency, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 11: Monthly sunshine hours

Tokyo, Yokohama, Osaka, Nagoya, Sapporo

	Tokyo			Yokohama			Osaka			Nagoya			Sapporo		
	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.
	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	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	2%	3%	6%	11%	10%	13%	-6%	4%	-2%	-6%	1%	0%	-35%	-10%	-21%
2024/2	-83%			-84%			-81%			-72%			-64%		

Source: Japan Meteorological Agency, BofA Global Research

BofA GLOBAL RESEARCH



Exhibit 12: Monthly sunshine hours

Fukuoka, Kobe, Hiroshima, Sendai, Matsuyama

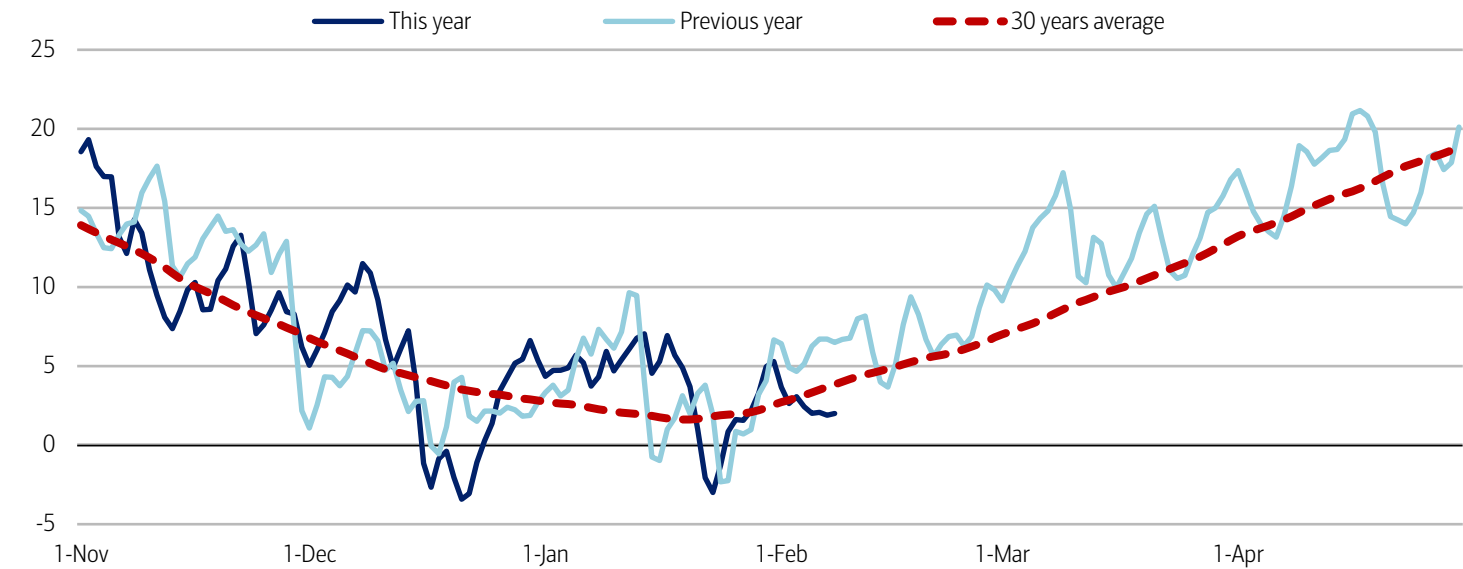
	Fukuoka			Kobe			Hiroshima			Sendai			Matsuyama			Fukuoka
	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.	vs.
	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	5 yrs ave	last year	average	5 yrs ave	last year
2021/1	27%	14%	12%	31%	15%	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	-5%	10%	-8%	-5%	3%	-1%	-14%	2%	-12%	35%	17%	15%	-1%	12%	-1%	
2024/2	-85%			-81%			-84%			-80%			-85%			

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 down YoY and below historical average over the past few days



Source: Bloomberg, BofA Global Research BofA GLOBAL RESEARCH

Exhibit 14: China monthly temperatures (simple average)
Below historical average and down YoY for Feb

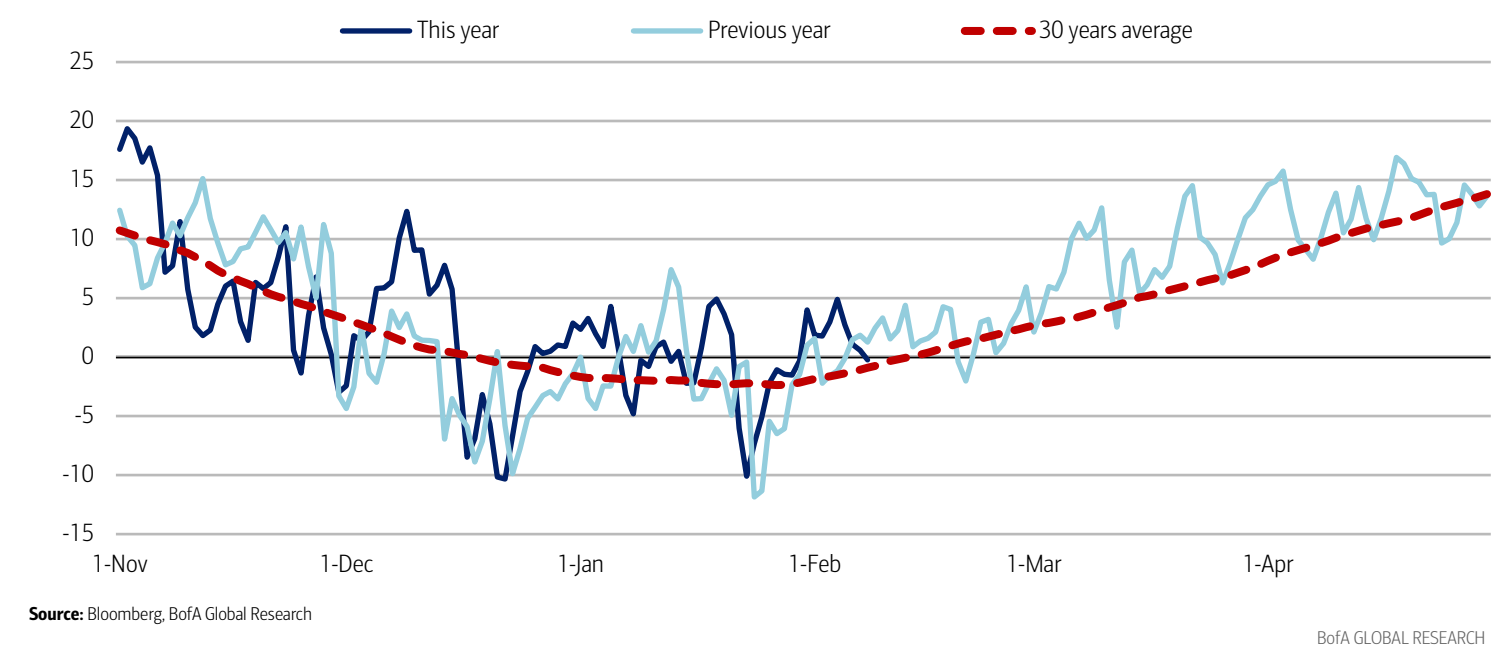
	2022												2023												2024											
	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		1	2										
vs. last year	0.3	0.9	-1.2	0.5	0.7	1.5	-0.9	-0.2	2.0	-2.6		-0.3	2.9	0.2	-0.3	1.0	0.2	-0.1	-0.6	0.6	1.5	-1.6	1.1		0.3	-3.4										
vs. average year	2.8	1.5	0.1	1.5	1.7	2.1	1.6	0.2	2.5	-1.2		1.4	1.9	3.0	1.2	1.0	1.6	1.6	1.5	2.2	1.8	0.9	-0.1		1.7	-0.8										

Note: Feb 2024 temperature is the average as of 8 Feb
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 down YoY



BofA GLOBAL RESEARCH

Exhibit 16: Korea monthly temperatures (simple average)
Above historical average and up YoY for Feb

	2022												2023												2024	
	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		1	2
vs. last year	-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		1.2	1.8
vs. average year	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	3.4

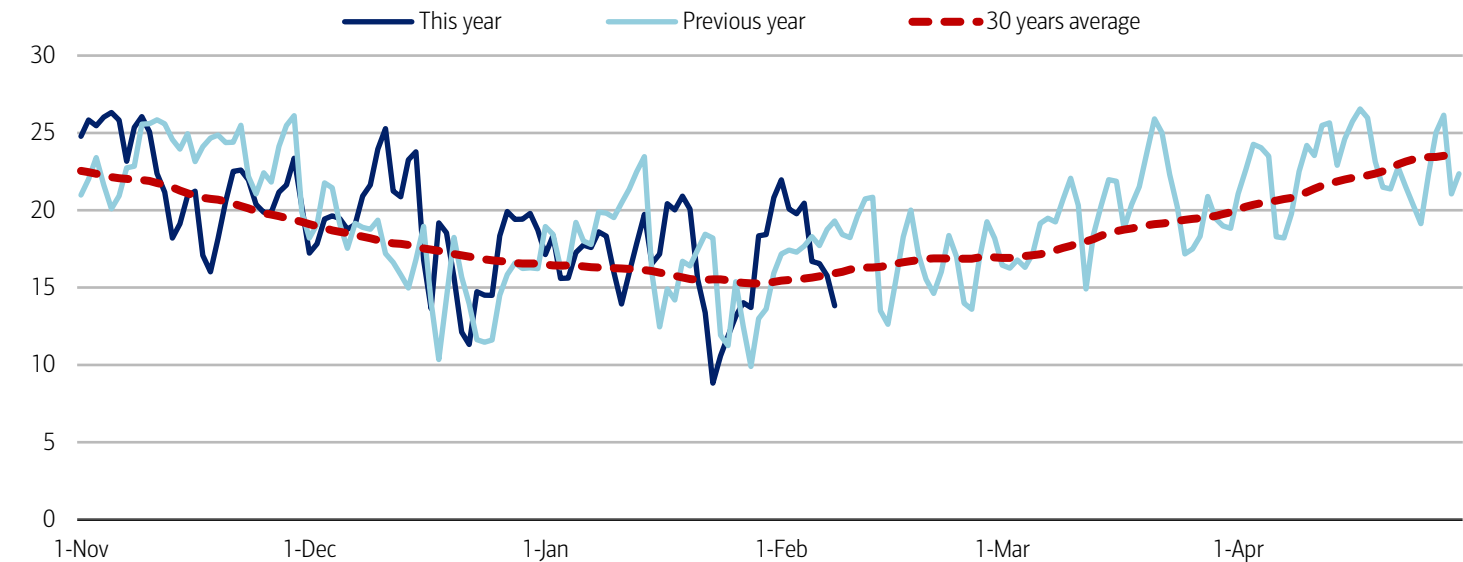
Note: Feb 2024 temperature is the average as of 8 Feb
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Taiwan temperature trends

Exhibit 17: Taiwan temperature trends (current-year, previous-year, and 30-year averages)
Temperatures down YoY and below historical average



Source: Bloomberg, BofA Global Research BofA GLOBAL RESEARCH

Exhibit 18: Taiwan monthly temperatures (simple average)
Above historical average and up YoY for Feb

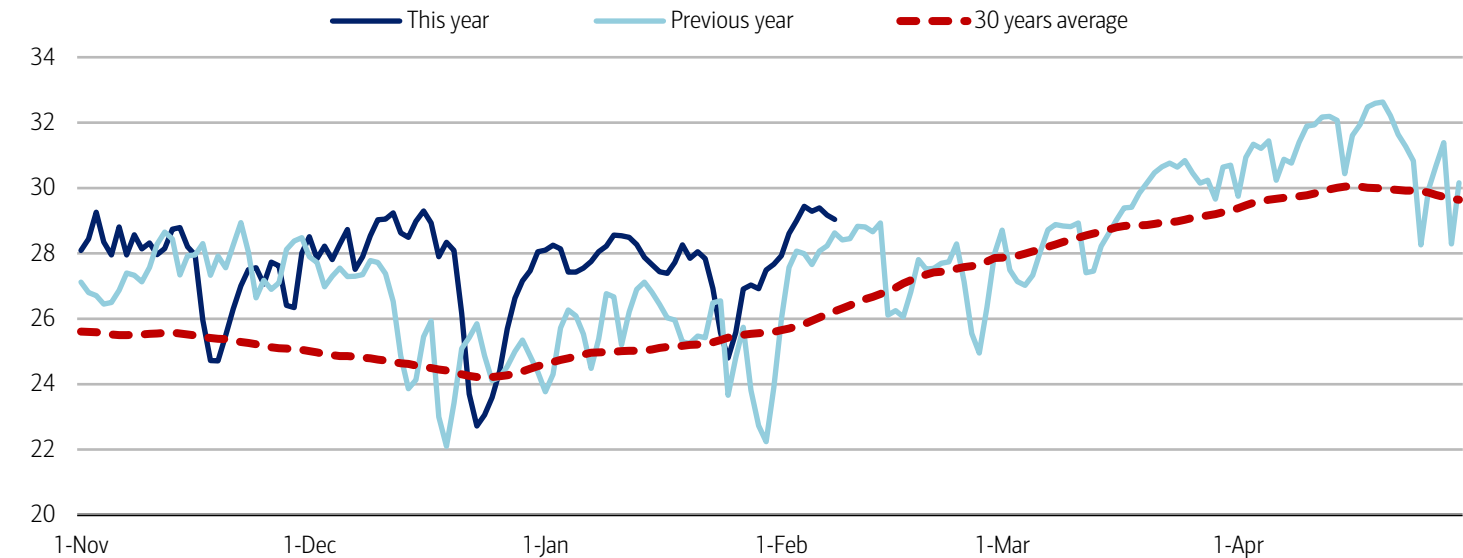
	2022												2023												2024											
	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2												
vs. last year	0.4	-0.2	-4.8	-1.3	0.1	1.3	-2.1	-1.2	2.3	-1.7	-0.4	1.1	-1.2	0.4	2.4	0.7	-0.3	-1.0	1.6	1.0	-1.4	2.2	-0.2	0.2												
vs. average year	2.5	0.4	-1.6	0.4	1.2	1.6	0.2	0.3	2.5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

Note: Feb 2024 temperature is the average as of 8 Feb
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 up YoY and above historical average over the past week or so



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 20: Thailand monthly temperatures (simple average)
Above historical average and up YoY for Feb

	2022												2023												2024											
	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	2
vs. last year	-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	2.2	1.2												
vs. average year	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	2.4	3.1												

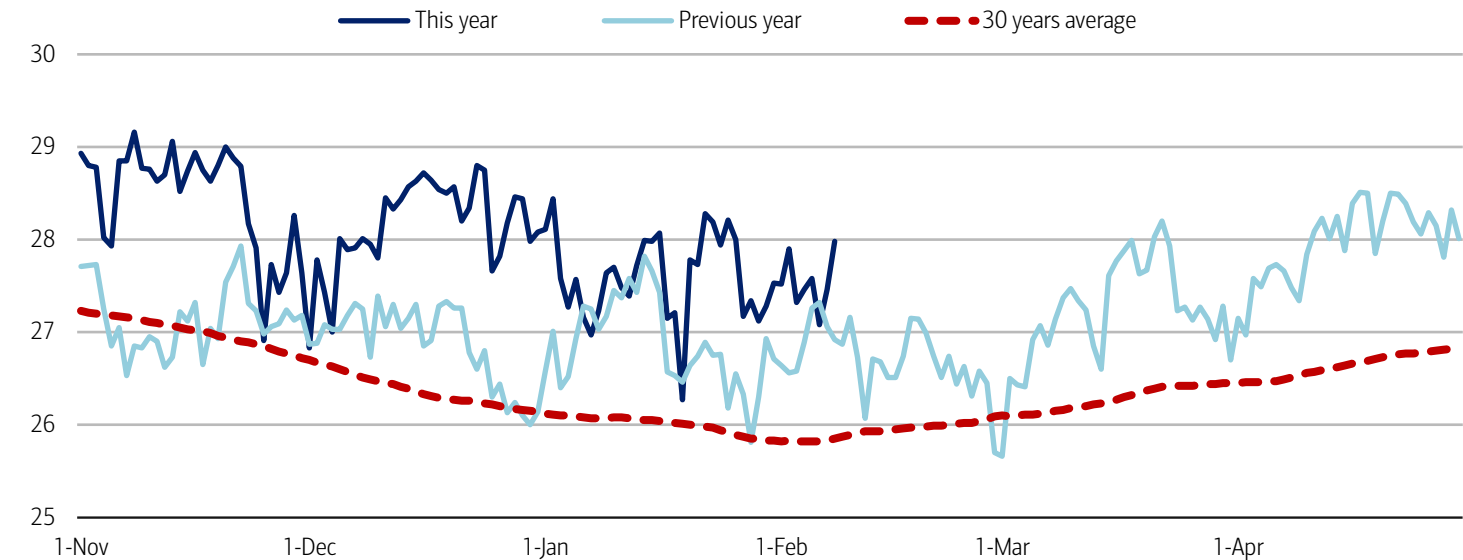
Note: Feb 2024 temperature is the average as of 8 Feb

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)
Up YoY for Feb

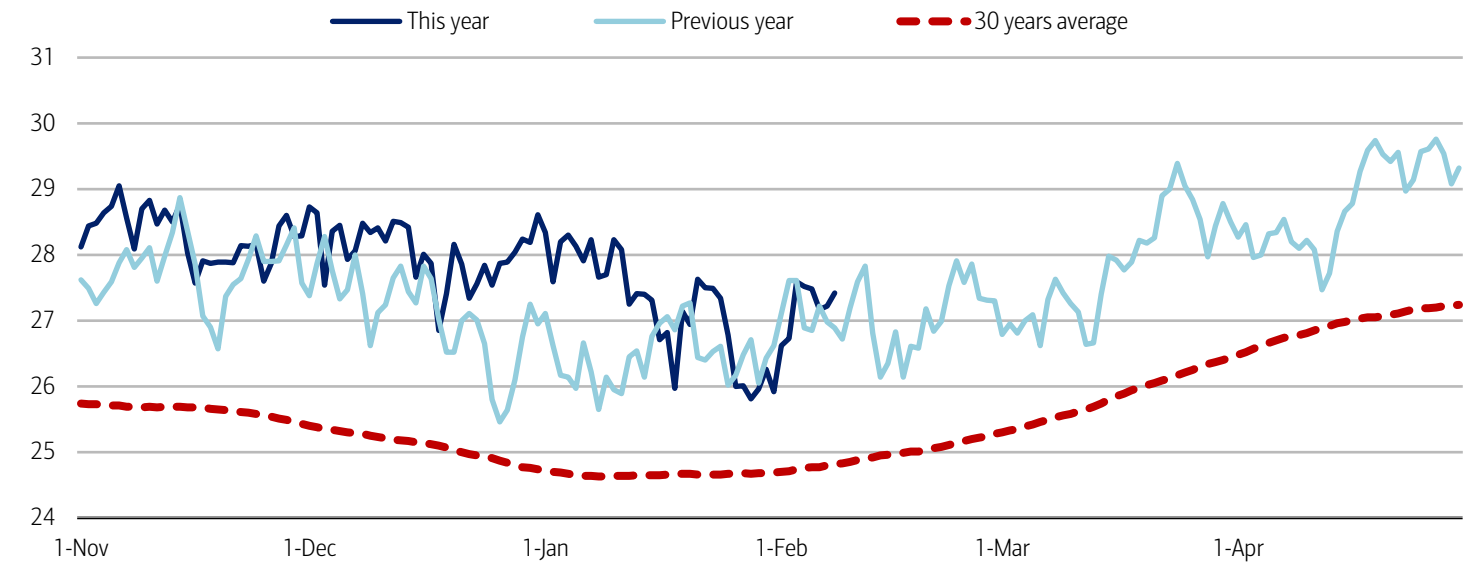
	2022												2023												2024											
	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
vs. last year	0.2	0.1	-0.2	-0.5	-0.1	0.0	-0.3	-0.9	-0.2	-0.4	-0.3	-0.2	-0.4	0.2	0.5	0.9	0.2	0.3	0.8	1.8	1.3	1.3	0.7	0.6												
vs. average year	1.3	1.1	1.0	0.5	1.2	1.0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

Note: Feb 2024 temperature is the average as of 8 Feb
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 recently up YoY



Source: Bloomberg, BofA Global Research BofA GLOBAL RESEARCH

Exhibit 24: Philippines monthly temperatures (simple average)
Up YoY for Feb

	2022												2023												2024											
	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2												
vs. last year	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	0.8	0.1												
vs. average year	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	2.6	2.5												

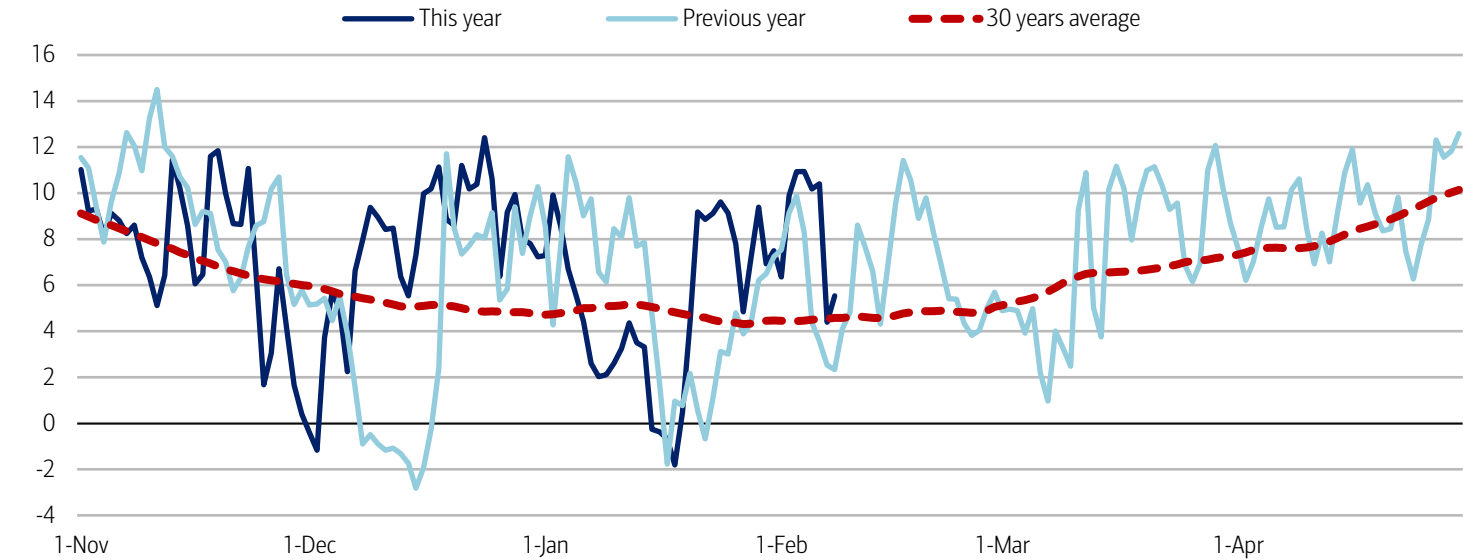
Note: Feb 2024 temperature is the average as of 8 Feb
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



UK temperature trends

Exhibit 25: UK temperature trends (current-year, previous-year, and 30-year averages)
Temperatures recently up YoY



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 26: UK monthly temperatures (simple average)
Up YoY for Feb

	2022												2023												2024	
	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2		
vs. last year	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	-0.2	2.6		
vs. average year	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	4.1		

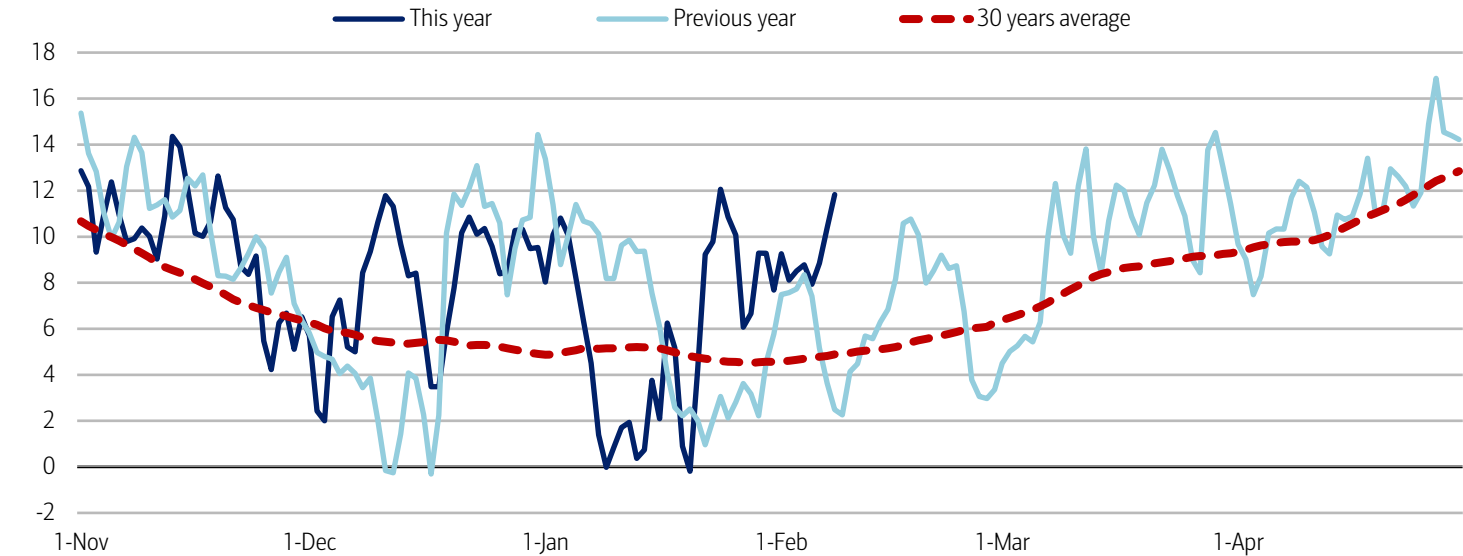
Note: Feb 2024 temperature is the average as of 8 Feb
Source: Bloomberg, BofA Global Research

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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 two weeks



Source: Bloomberg, BofA Global Research

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Exhibit 28: France monthly temperatures (simple average)
Up YoY for Feb

	2022												2023												2024											
	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		1	2										
vs. last year	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		-0.6	3.0										
vs. average year	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		0.8	4.5										

Note: Feb 2024 temperature is the average as of 8 Feb
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



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 two weeks

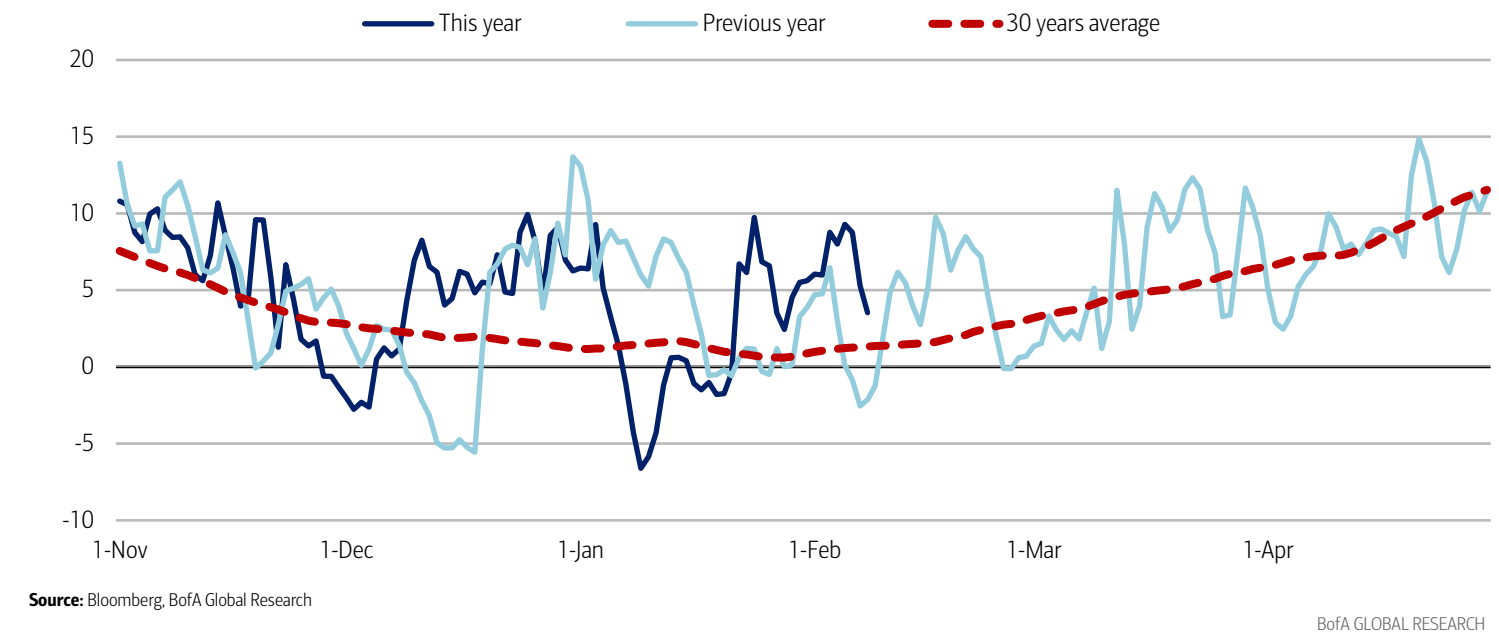


Exhibit 30: Germany monthly temperatures (simple average)
Up YoY for Feb

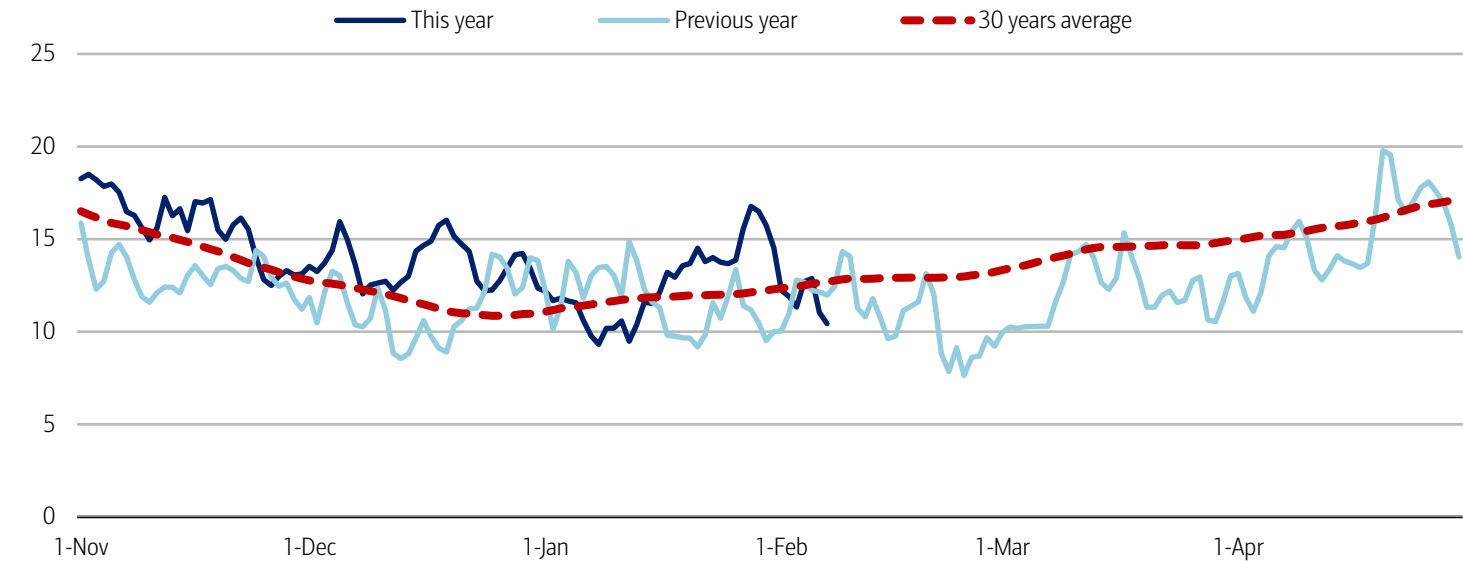
	2022												2023												2024											
	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2												
vs. last year	0.2	1.7	3.6	-0.9	0.4	3.8	-1.8	2.5	1.1	-0.8	0.8	-1.4	0.6	-0.2	-1.4	0.4	-0.4	-2.1	4.0	-0.5	-0.4	2.4	-2.3	5.3												
vs. average year	0.9	-0.1	1.8	2.7	1.2	2.8	0.0	3.2	1.7	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	0.8	5.8												
Note: Feb 2024 temperature is the average as of 8 Feb																																				
Source: Bloomberg, BofA Global Research																																				



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 recently up YoY and above historical average



Source: Bloomberg, BofA Global Research.

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Exhibit 32: California monthly temperatures (simple average)
On par with last year for Feb

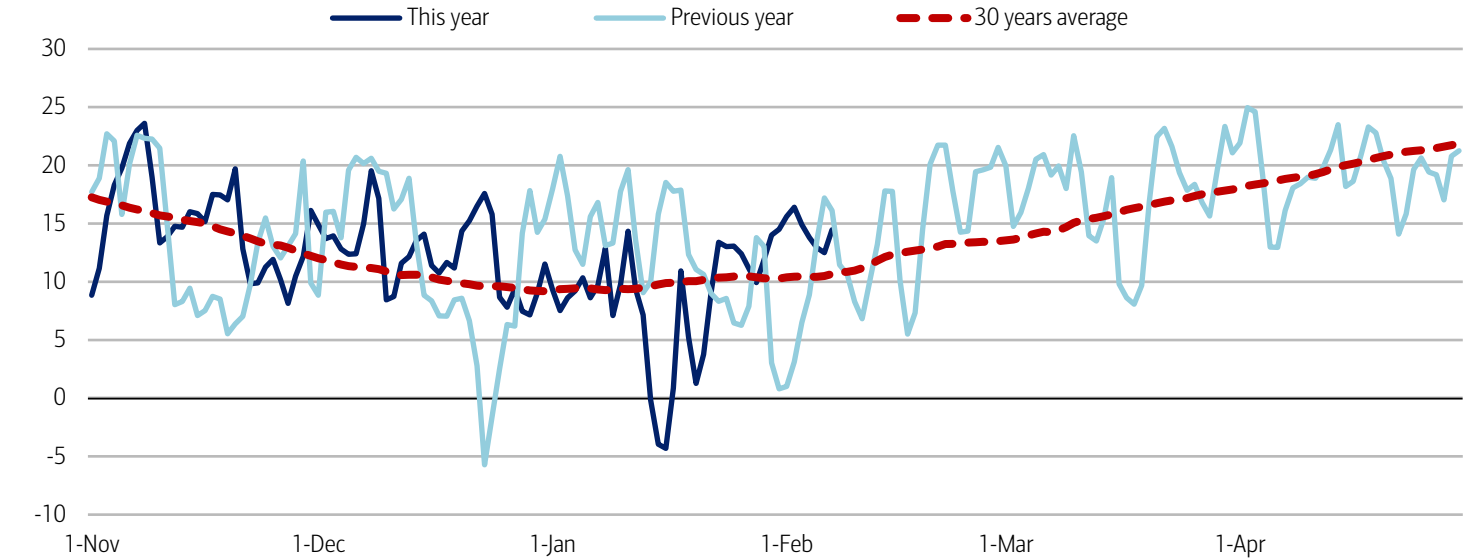
	2022												2023												2024											
	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		1	2										
vs. last year	1.7	0.3	-0.1	0.4	-0.7	1.0	2.5	1.2	-2.4	0.4		-0.7	-2.3	-2.9	-1.3	-1.1	-2.7	0.7	-0.4	-2.8	0.4	2.8	2.4		1.0	0.0										
vs. average year	0.6	0.5	0.0	1.3	-0.1	1.2	2.4	0.2	-1.7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

Note: Feb 2024 temperature is the average as of 7 Feb
Source: Bloomberg, BofA Global Research

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Exhibit 33: Texas temperature trends (current-year, previous-year, and 30-year averages)
On par with last year



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 34: Texas monthly temperatures (simple average)
Above historical average and up YoY for Feb

	2022												2023												2024	
	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		1	2
vs. last year	-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		-4.2	4.9
vs. average year	-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		-1.5	3.9

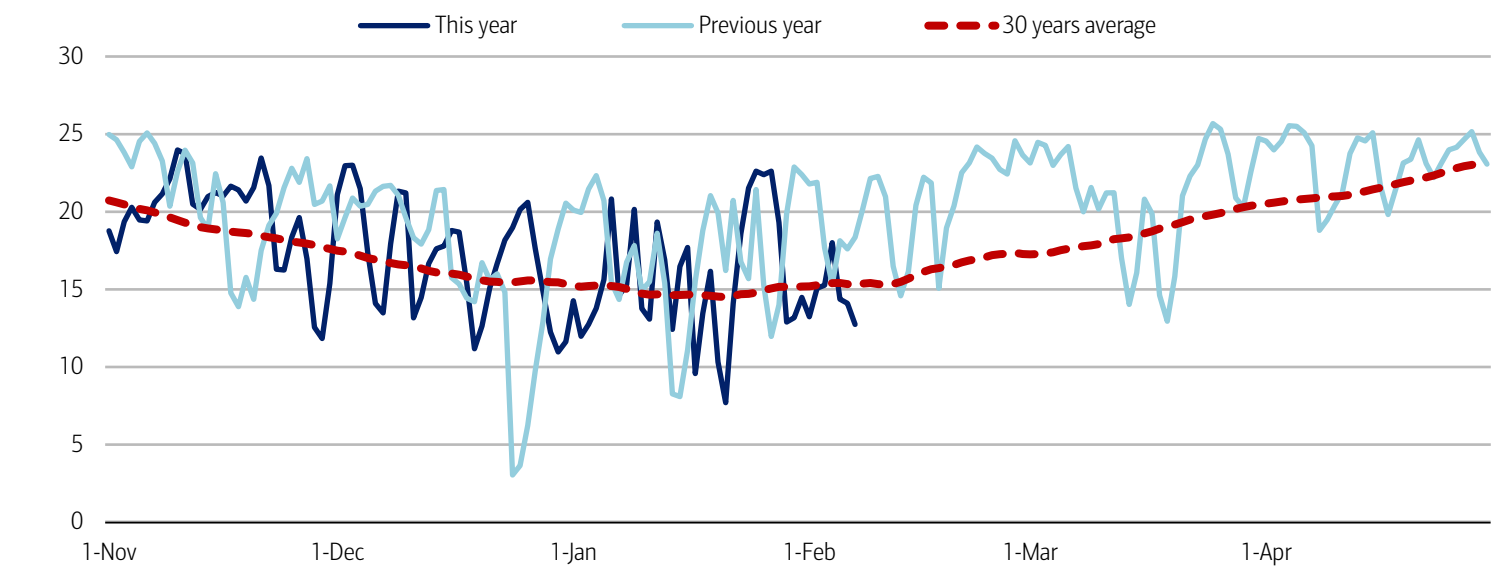
Note: Feb 2024 temperature is the average as of 7 Feb
Source: Bloomberg, BofA Global Research

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

Temperatures recently down YoY and below historical average



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 36: Florida monthly temperatures (simple average)

Below historical average and down YoY for Feb

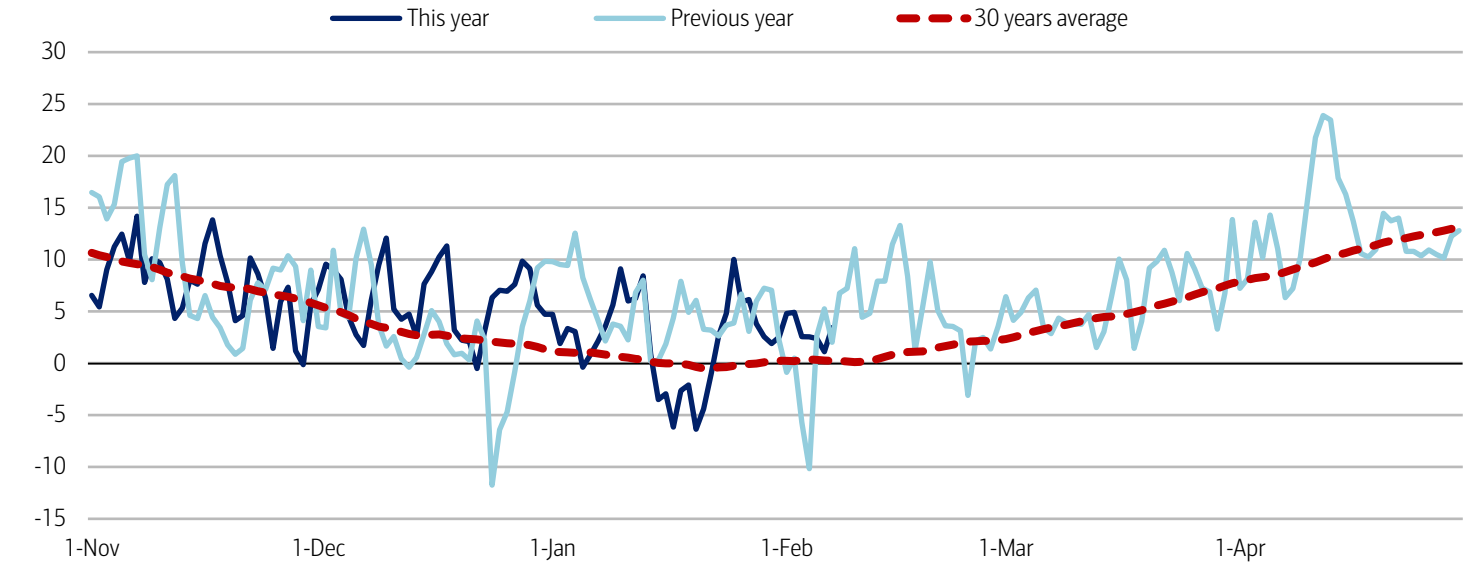
	2022												2023												2024											
	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		1	2										
vs. last year	0.8	1.1	0.9	1.4	1.0	0.3	0.3	-1.5	3.5	-2.6		2.6	2.7	0.6	1.0	-0.9	-0.8	0.5	1.2	0.5	0.9	-1.5	0.3		-1.5	-4.0										
vs. average year	1.9	0.8	0.8	0.9	0.6	0.4	0.1	-0.4	2.1	0.6		2.3	4.3	2.4	1.8	0.0	0.1	1.1	1.7	0.6	0.5	0.6	0.9		0.9	-0.6										

Note: Feb 2024 temperature is the average as of 7 Feb
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Exhibit 37: New York temperature trends (current-year, previous-year, and 30-year averages)
On par with last year



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 38: New York monthly temperatures (simple average)
Above historical average and up YoY for Feb

	2022												2023												2024			
	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	1	2	3	4
vs. last year	-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	-3.0	4.0				
vs. average year	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	1.9	2.8				

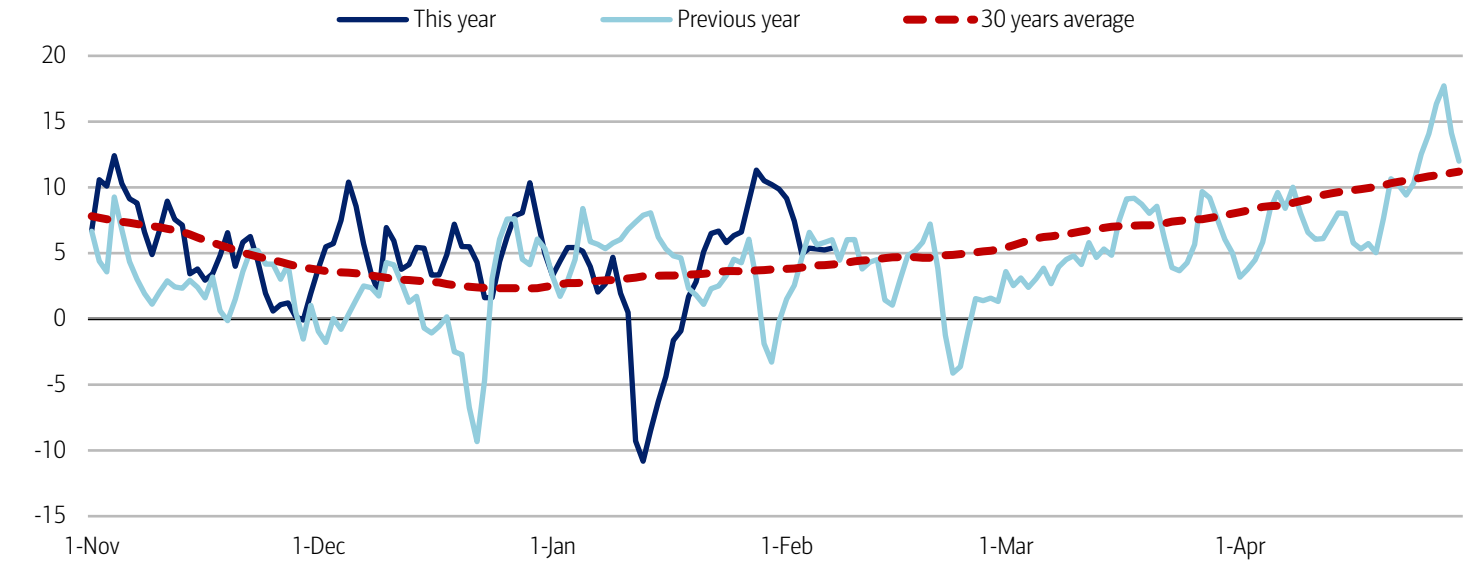
Note: Feb 2024 temperature is the average as of 7 Feb
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Exhibit 39: Washington temperature trends (current-year, previous-year, and 30-year averages)

Down to on par with last year



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 40: Washington monthly temperatures (simple average)

Above historical average and up YoY for Feb

	2022												2023												2024	
	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		1	2
vs. last year	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		-1.2	1.4
vs. average year	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		-0.3	2.1

Note: Feb 2024 temperature is the average as of 7 Feb
Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Canada temperature trends

Exhibit 41: Canada temperature trends (current-year, previous-year, and 30-year averages)
Recently down to on par with last year

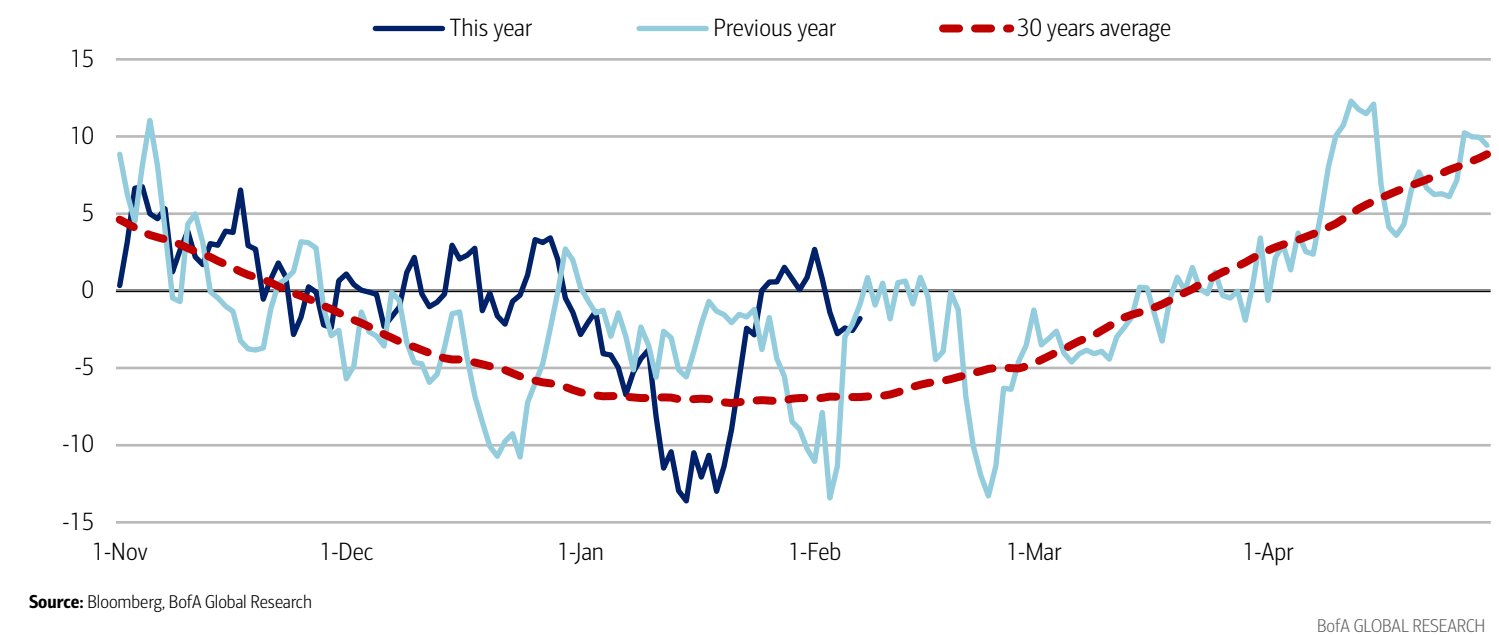


Exhibit 42: Canada monthly temperatures (simple average)
Up YoY for Feb

	2022												2023												2024					
	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		1	2				
vs. last year	-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		-2.2	6.0				
vs. average year	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		1.5	5.8				

Note: Feb 2024 temperature is the average as of 7 Feb

Source: Bloomberg, BofA Global Research



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

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