

# FY 2023 Market Highlights

#### Summary

In 2023, against the backdrop of the Israel-Gaza war, the continuation of the war in Ukraine and increased political tensions, the domestic market capitalisation went up considerably (13.6%) year on year, while the value traded, number of new listings and investment flows went down. Meanwhile the volumes of derivatives continued to rise significantly (especially options volumes), which suggests an increased need to hedge against market uncertainty.

#### Key points

#### Cash equity

- **Global equity market capitalisation** increased 13.6% in 2023 compared to the end of 2022, with all regions going up. Over 13 trillion US dollars were added to stock markets worldwide.
- **Trading value** and **volumes** declined 10.6% and 3.4%, respectively, in 2023. All regions recorded their lowest annual trading value in the last three years.
- The average trade size was at its lowest level in the last three years (at USD 2,776.45 /trade).
- The non-IPO listings in the Americas and EMEA region were at their minimum level in the last three years, while
  APAC region recorded its maximum. The capital raised through already listed companies registered its minimum
  level in each region.
- The **number of IPOs** in every region was at its lowest in the last three years, markets welcoming only 1,217 IPOs in 2023.
- The **capital raised through IPOs** fell sharply compared to 2022 (-59.3%). While APAC and EMEA regions declined 43.3% and -86.1%, respectively, the Americas experienced a significant increase (71.3%).
- The average size of an IPO followed the same trend. While in the APAC and EMEA regions, it recorded its lowest level in the last three years, amounting to USD 86.11 million/IPO and USD 88.11 million/IPO, respectively, in the Americas it almost doubled, reaching USD 126.41 million/IPO. Despite this decline, global markets hosted five unicorns in the second half of the year (in addition to the three unicorns listed in the first half of the year).
  - American markets welcomed to 139 IPOs in 2023 generating USD 17.57 billion, result made possible thanks to some noteworthy IPOs: in September Nasdaq hosted ARM Holding Plc, the largest IPO of the year, an IT company, generating USD 4.87 billion; in the same month, it welcomed Maplebear Inc (a consumer staples company) and RayzeBio Inc (a healthcare company), generating USD 660 million and USD 311 million, respectively; Nasdaq was also the venue of choice for Oddity Tech Ltd (a consumer discretionary company) and Apogee Therapeutics Inc (a healthcare company) to go public in July, generating USD 423.68 million and USD 300.05 million, respectively.
  - APAC markets opened their doors to 875 IPOs in 2023 generating USD 75.35 billion. The largest IPO of the region, Hua Hong Semiconductor Ltd, went public on Shanghai Stock Exchange in August, generating USD 3.14 billion. In the same month, Shanghai Stock Exchange welcomed also Huaqin Technology Company (which designs and sells smartphones, tablets, notebooks and other products), generating USD 866.44 million, after in July having hosted Baimtec Material Co (which manufactures and distributes aviation and aerospace parts and materials), generating USD 1.05 billion. In the same month Indonesia Stock Exchange opened its doors to Amman Mineral International (a basic materials company), generating USD 696.74 million. Japan Exchange Group hosted in October Kokusai Electric Corp (an electric appliances company), generating USD 821 million.



• EMEA markets hosted 203 IPOs in 2023, raising USD 18.03 billion. The largest EMEA region IPO in 2023, Hidroelectrica SA, an electricity producer, chose Bucharest Stock Exchange to list its shares in July, generating USD 2.06 billion. In the same month, Deutsche Boerse AG hosted Thyssenkrup Nucera AG, a renewable energies company, generating USD 665.84 million, while in September the same venue listed Schott Pharma AG, generating USD 859.75 million. In October, Saudi Exchange (Tadawul) welcomed Ades Holding Co, an oil and gas driller, generating USD 1.22 billion, while in November it hosted SAL Saudi Logistics Services Co, which generated USD 678.04 million.

#### Exchange-traded derivatives

- The **number of exchange-traded derivatives contracts**, including both options and futures, reached their highest level in the last three years, amounting to 104.06 billion for options and 30.33 billion for futures (134.40 billion derivatives contracts traded). This represents a 58.9% increase compared to 2022.
  - This increase was driven mostly by options, which rose 89.4% (and account for 77% of all derivatives contracts traded), while futures increased 2.4%. Such an increase in option trading volume could be due to the increasing need to hedge against market uncertainty.
  - Volumes across all underlying asset classes increased, except for single stock futures, stock index futures, currency futures and ETF futures, where volumes fell year-on-year. Notably, stock index options and commodity options recorded three digit increases of 130.6% and 135.8%, respectively. Exchanges with an excellent performance were National Stock Exchange of India (142% year-on-year increase in stock index options) and for commodity options: Zhengzhou Commodity Exchange (+204.8%), Dalian Commodity Exchange (+112.7%) and Multi Commodity Exchange of India (+249.2%).
  - All three regions recorded their peak over the last three years: the Americas region 27.83 billion, APAC region 98.78 billion, and EMEA region 7.79 billion contracts traded. However, the growth varied significantly between regions. While APAC grew 96.2%, EMEA recorded a 2.5% increase and the Americas region rose 4.6%.
- While **equity, commodity, interest rate and ETF derivatives** volumes witnessed double digit increases (78.1%, 27%, 19.4% and 12.4% respectively), c**urrency derivatives** were the only product line whose overall volumes (that is, considering both futures and options) increased only 7.6% in 2023.
- While **equity derivatives** increased their share in volumes traded, **currency**, **commodity** and **interest rate** and **ETF derivatives** decreased their share, but each product line reached its maximum volume in the last three years.
- Stock index options, currency options, commodity options, interest rate options, interest rate futures and ETF
  options reached their peak in volumes in the last three years, while ETF futures recorded its lowest level during
  the same period.
- **Stock index options** are by far the most traded (60.8% share) of derivatives contracts with 96.4% of them being traded on **National Stock Exchange of India**. The same exchange accounts for 98% of the **currency options** market.
- Interest rate options performance is mostly due to the CME Group, which accounts for 64% share of global volumes and increased 26.8% year on year. The same exchange accounts for 50% share of global volumes of interest rate futures.
- Interest rate derivatives: Year-on-year, short-term (STIR) derivatives and long-term (LTIR) derivatives volumes increased 16.9% and 11.7%, respectively, with all product lines going up: STIR options (38.2%), STIR futures (9.8%), LTIR options (5.8%), LTIR futures (12.6%).
- Commodity derivatives: Most commodity derivatives rose year-on-year: agriculture (30.4%), energy (32.3%), precious metals (8.5%), non-precious metals (13.4%) and other commodity derivatives (29.8%). Only index commodity derivatives declined 68.7%.



#### Other products

- While the number of listed exchange-traded funds (ETFs) increased (+6.4%) when compared to 2022, the ETF value traded declined (-14.4%). The EMEA region registered declines in both number of listings and value traded, while in APAC region both changes were positive.
- The same trend was noticed in the **number of listed securitised derivatives (SD)** which increased (+12.7%) year-on-year, but the **value traded** fell (-22.5%).
- The **number of listed investment funds (IF)** went down year-on-year (-4.4%) while the value traded rose (+7.4%). EMEA region recorded declines in both number of listed investment funds and value traded.

For feedback or questions about this report, please contact the Statistics team <a href="mailto:statistics@world-exchanges.org">statistics@world-exchanges.org</a>
This data was extracted from <a href="mailto:wFE Statistics Portal">WFE Statistics Portal</a>. The definition of our indicators can be found in the <a href="mailto:wFE Definitions Manual">WFE Definitions Manual</a>. This data was collected as of December 2023.



## Cash equity

Chart 1: Domestic market capitalisation

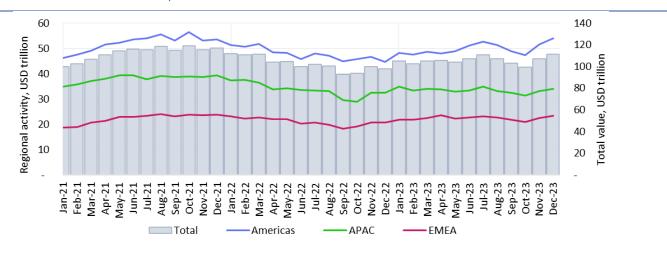


Chart 2: Value traded through Electronic Order Book (EOB)

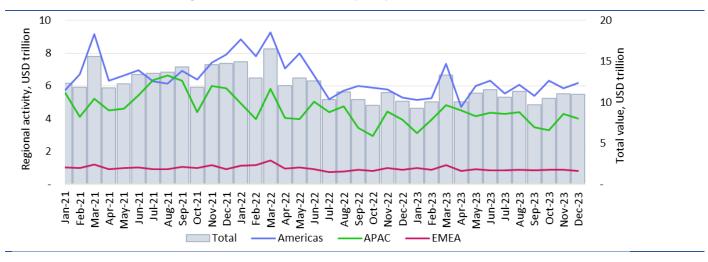


Chart 3: Number of trades through EOB

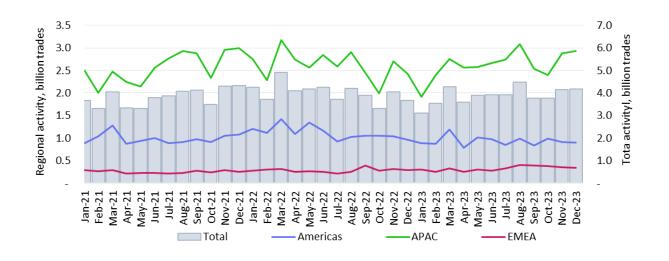
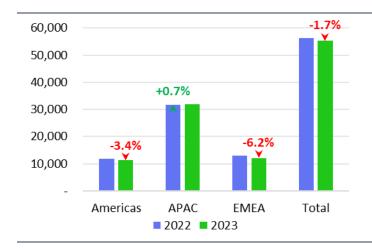




Chart 4A: Number of listed companies

Chart 4B: Change in the number of listed companies



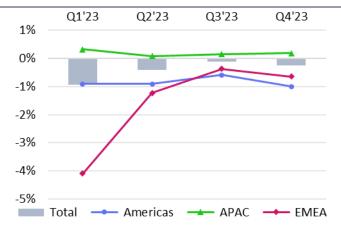
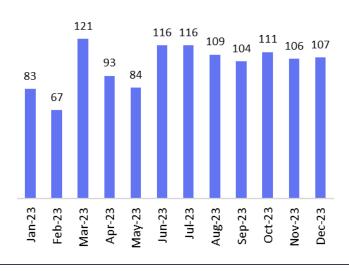


Chart 5: Number of IPOs

Chart 6: Number of IPOs by region



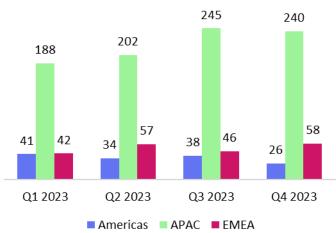
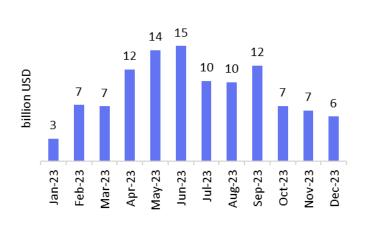
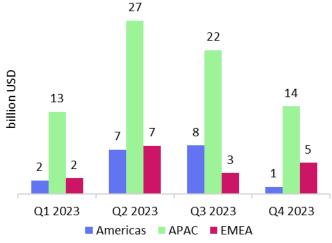


Chart 7: Capital raised through IPOs

Chart 8: Capital raised through IPO by region







#### Chart 9: IPO activity

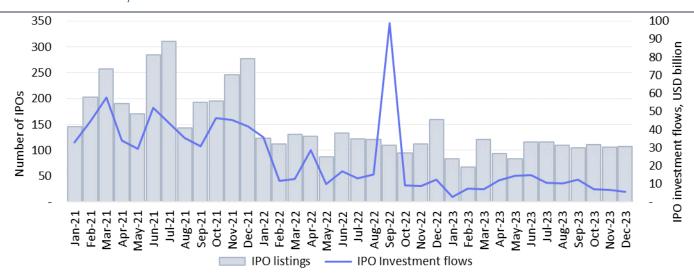


Chart 10: New listings (IPO and non-IPO)

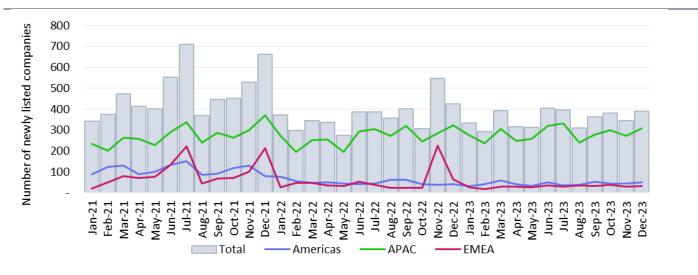
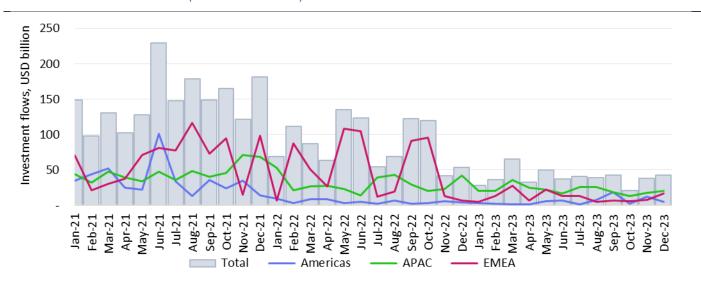


Chart 11: Investment flows (IPO and non-IPO)





## Exchange-traded derivatives

Chart 12: Derivatives total volumes



Chart 13: Volumes of exchange-traded derivatives, by region

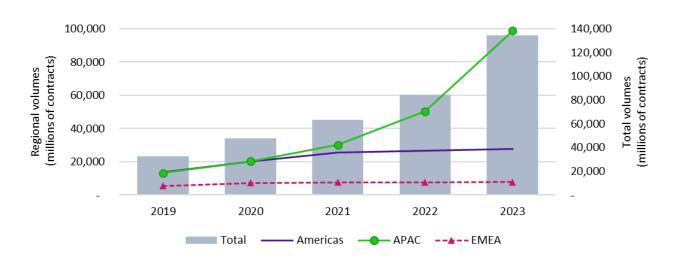




Chart 14: Share of total volumes: breakdown by regions

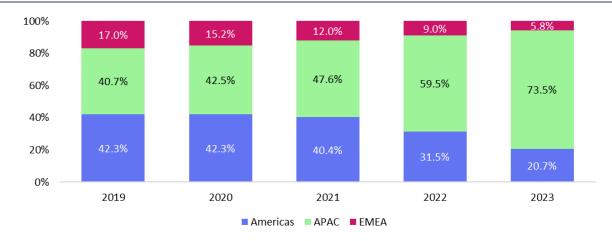


Chart 15: Product composition over time by share of total volume

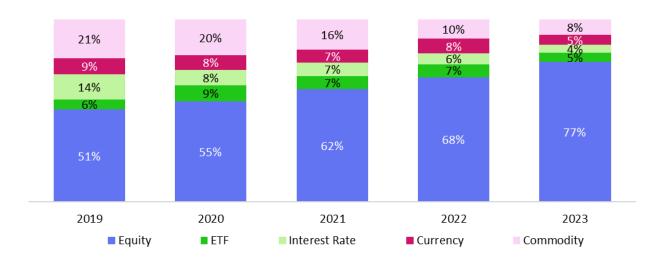


Chart 16: Share of total volumes in 2022, by region and asset class

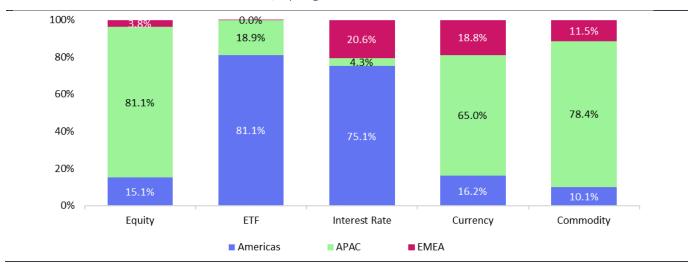




Chart 17: Volumes by asset class over five years (billions of contracts traded)

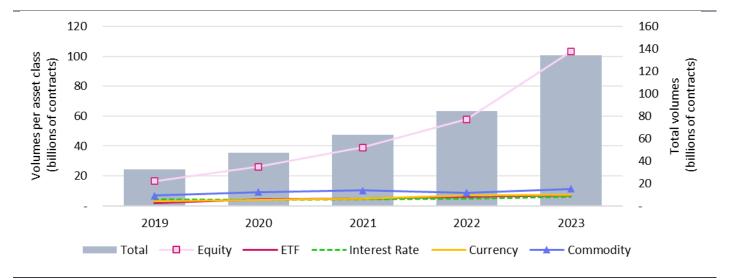


Chart 18: Volumes of equity derivatives over five years (billions of contracts traded)

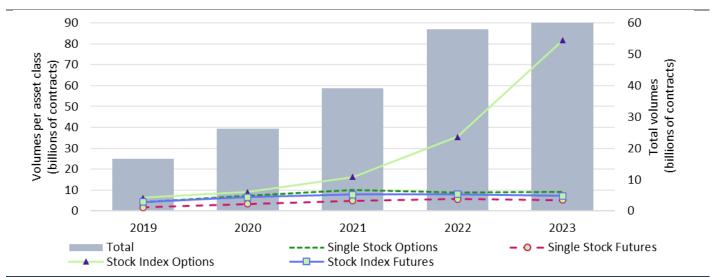
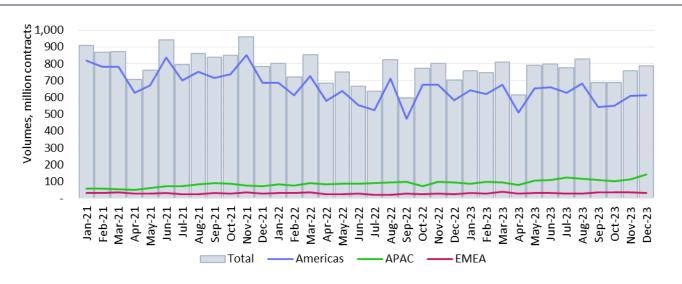


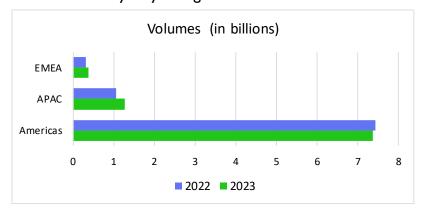
Chart 19: Single stock options

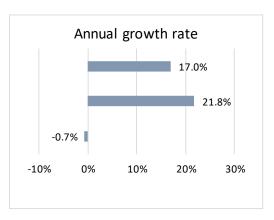




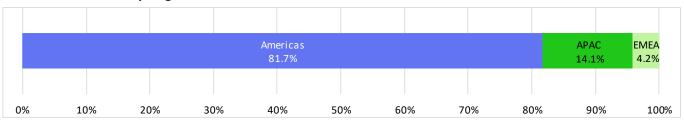
#### Chart 20: Single stock options

#### A. Volumes and yearly change





#### B. Share of volume by region



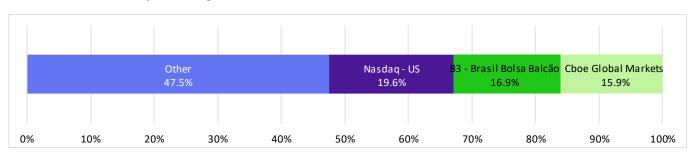


Table 1: Top 10 single stock options contracts traded in 2023<sup>1</sup>

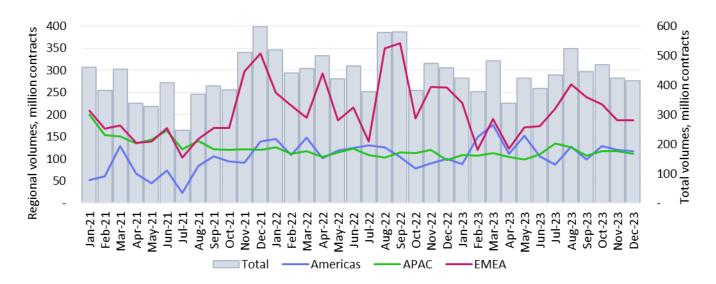
			Volume	Notional value	Open interest
Contract Name	Contract size	Exchange name	2023	2023	2023
Tesla Inc (TSLA)	100 shares	Cboe Global Markets	173,325,784	3,699,283	8,712,165
Tesla Inc (TSLA)	100 shares	Nasdaq - US	120,810,293	5,138,456	1,584,183,214
Apple Inc (AAPL)	100 shares	Nasdaq - US	107,794,532	1,504,293	1,964,399,392
Tesla Inc (TSLA)	100 shares	MIAX Exchange Group	105,437,899	NA	NA
Apple Inc (AAPL)	100 shares	Cboe Global Markets	73,472,047	1,259,029	7,008,029
NVIDIA Corp (NVDA)	100 shares	Cboe Global Markets	64,538,915	2,470,235	3,746,160

<sup>&</sup>lt;sup>1</sup> Notional value is expressed in million US dollars, the volume and open interest in full numbers. As contract sizes vary dramatically across markets, these figures should always be read with reference to the notional value traded (where available) as the largest markets by contracts traded are not always the largest by notional value traded.



RELIANCE	250 shares	National Stock Exchange of India	61,444,597	462,261	84,321
Amazon.com Inc. (AMZN)	100 shares	Cboe Global Markets	57,254,111	683,395	6,825,502
Amazon.com Inc. (AMZN)	100 shares	Nasdaq - US	53,881,867	2,217,025	1,579,719,172
NVIDIA Corp (NVDA)	100 shares	Nasdaq - US	48,374,096	778,721	711,980,225

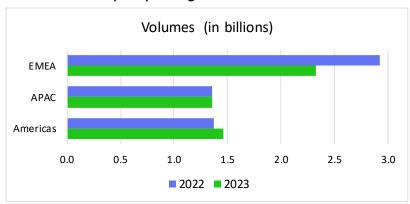
Chart 21: Single stock futures

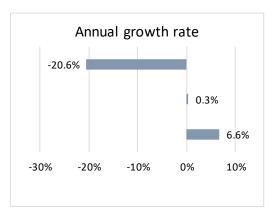




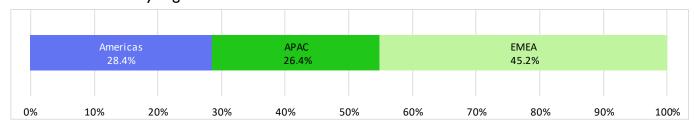
## Chart 22: Single stock futures

## A. Volumes and yearly change





#### B. Share of volume by region



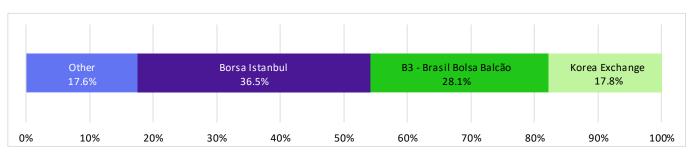
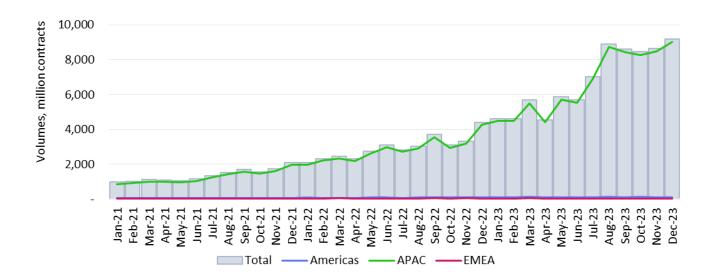


Table 2: Top 10 single stock futures contracts traded in 2023

Contract Name	Contract size	Exchange name	Volume 2023	Notional value 2023	Open interest 2023
DRV Futures SamsungElec	10 shares	Korea Exchange	264,208,938	137,910	1,351,962
EKGYO	100 shares	Borsa Istanbul	219,173,227	5,949	1,017,050
YKBNK	100 shares	Borsa Istanbul	208,914,608	10,070	1,262,703
ISCTR	100 shares	Borsa Istanbul	167,042,797	9,557	762,644
AKBNK	100 shares	Borsa Istanbul	132,405,823	10,874	554,567
ODAS	100 shares	Borsa Istanbul	115,117,731	4,121	593,957
DRV Futures SK hynix	10 shares	Korea Exchange	57,184,852	48,533	241,469
DRV Futures Doosan Enerbility	10 shares	Korea Exchange	35,994,862	4,689	107,617
DRV Futures Kakao	10 shares	Korea Exchange	28,440,923	11,584	737,571
DRV Futures POSCO DX	10 shares	Korea Exchange	25,319,846	7,037	200,119



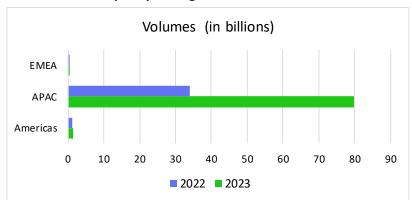
Chart 23: Stock index options

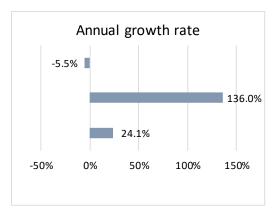




#### Chart 24: Stock index options

## A. Volumes and yearly change





## B. Share of volume by region

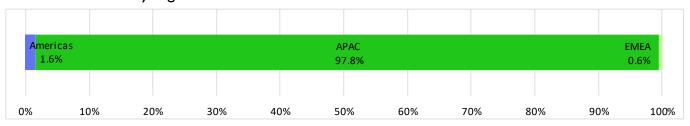




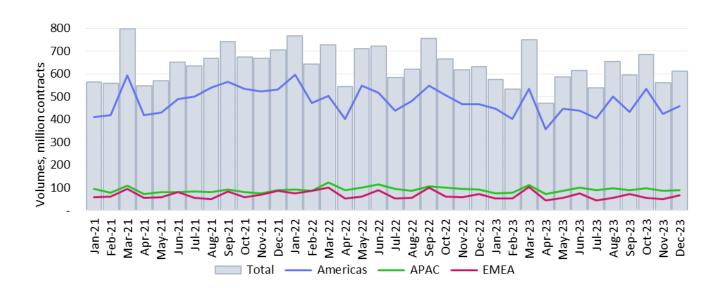
Table 3: Top 10 stock index options contracts traded in 2023

Contract Name	Contract size	Exchange name	Volume 2023	Notional value 2023	Open interest 2023
BANKNIFTY	15 units	National Stock Exchange of India	39,031,865,039	392,652,524	4,918,343
NIFTY	50 units	National Stock Exchange of India	22,726,670,033	261,044,459	5,049,083
FINNIFTY	40 units	National Stock Exchange of India	14,837,992,075	139,920,881	953,785
MIDCPNIFTY	75 units	National Stock Exchange of India	2,219,689,894	18,476,403	762,906
S&P 500 Index options (SPX)	100 shares of the underlying index	Cboe Global Markets	729,346,246	312,956,780	20,821,531
DRV option KOSPI 200 Weekly	KRW 250,000	Korea Exchange	448,080,320	86,117	1,859,995



E-MINI S&P 500 OPTIONS	\$50 x S&P 500 Index	CME Group	332,762,432	71,796,192	5,009,314
OPT ON EURO STOXX 50	EUR 10 x index pts	Deutsche Boerse AG	252,669,116	11,212,307	27,685,588
CBOE Volatility Index (VIX)	US\$ 1,000 x index pts	Cboe Global Markets	241,390,695	316,692	11,822,672
DRV Option KOSPI 200 Weekly	KRW 250,000	Korea Exchange	240,757,040	25,192	31,243

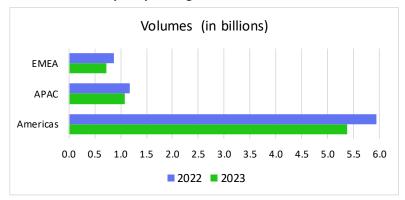
Chart 25: Stock index futures

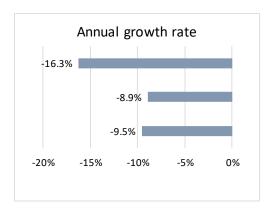




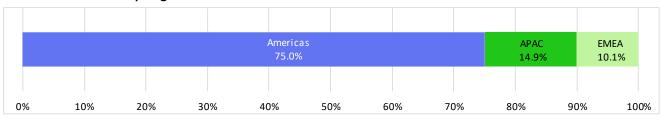
#### Chart 26: Stock index futures

#### A. Volumes and yearly change





## B. Share of volume by region



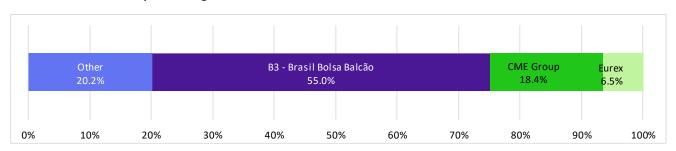


Table 4: Top 10 stock index futures contracts traded in 2023

			Volume	Notional value	Open interest
Contract Name	Contract size	Exchange name	2023	2023	2023
E-MINI S&P 500 FUTURES	US\$ 50 x S&P 500 Index	CME Group	452,701,954	97,084,415	2,210,568
MICRO E-MINI NASDAQ 100 FUTURE	US\$ 2 x Nasdaq-100 Index	CME Group	273,085,353	7,782,474	84,325
MICRO E-MINI S&P 500 FUTURES	\$5 x S&P 500 Index	CME Group	248,272,150	5,289,226	126,922
FUT ON EURO STOXX 50	EUR 10 x index pts	Deutsche Boerse AG	245,759,267	11,577,162	2,557,226
E-MINI NASDAQ 100 FUTURES	US\$ 20 x Nasdaq-100 Index	CME Group	166,975,397	47,613,994	284,624
FTSE China A50 Index futures	US\$ 1 x futures price	Singapore Exchange	88,569,512	NA	933,790
FUT ON EURO STOXX BANKS	EUR 50 x index pts	Deutsche Boerse AG	71,140,765	420,746	872,925
DRV Futures KOSPI 200	KRW 250,000	Korea Exchange	63,693,515	4,053,549	343,922
SET50 Index Futures	THB 200 x index pts	Thailand Futures Exchange	62,142,760	670,437	549,607
BIST30	10 x BIST30 index	Borsa Istanbul	60,638,950	143,291	245,474



Chart 27: Currency derivatives

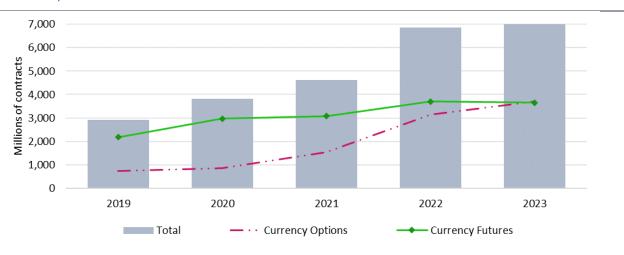


Chart 28: Currency options

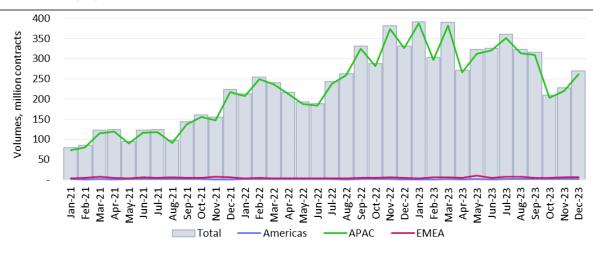
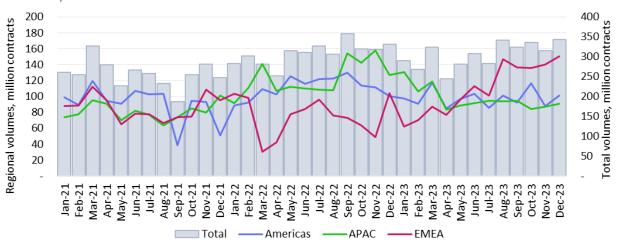


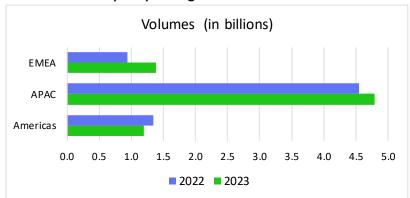
Chart 29: Currency futures

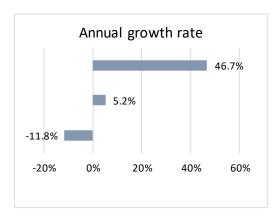




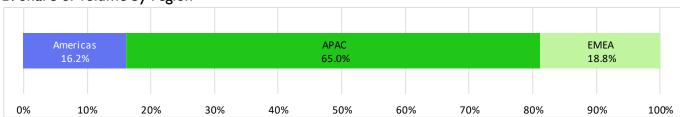
#### Chart 30: Currency derivatives

## A. Volumes and yearly change





## B. Share of volume by region



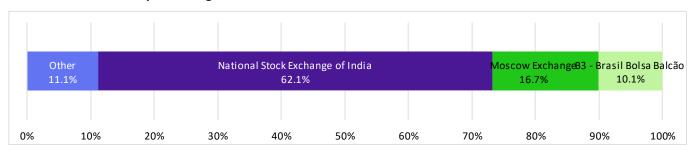


Table 5: Top 10 currency derivatives contracts traded in 2023

Contract Name	Contract size	Exchange name	Volume 2023	Notional value 2023	Open interest 2023
USD/INR options	US\$ 1,000	National Stock Exchange of India	3,620,372,162	3,596,697	11,574,294
USD/INR futures	US\$ 1,000	National Stock Exchange of India	788,813,312	783,472	6,019,974
DLR futures	US\$ 1,000	Matba Rofex	189,413,867	80,426	919,663
DRV futures USD	US\$ 10,000	Korea Exchange	108,034,964	1,087,524	891,938
GBP/INR futures	GBP 1,000	National Stock Exchange of India	77,131,286	95,417	333,974
EURO FX futures	EUR 125,000	CME Group	58,393,916	7,901,544	716,725
USD/TRY futures	US\$ 1,000	Borsa Istanbul	56,359,634	46,661	1,847,364
EUR/INR futures	EUR 1,000	National Stock Exchange of India	55,931,315	60,198	454,663
USD/INR futures	US\$ 1,000	Metropolitan Stock Exchange of India	55,139,166	27,393	115,998
JAPANESE YEN futures	JPY 12,500,000	CME Group	44,265,092	3,965,732	186,824



Chart 31: Interest rate derivatives over five years (millions of contracts traded)<sup>2</sup>

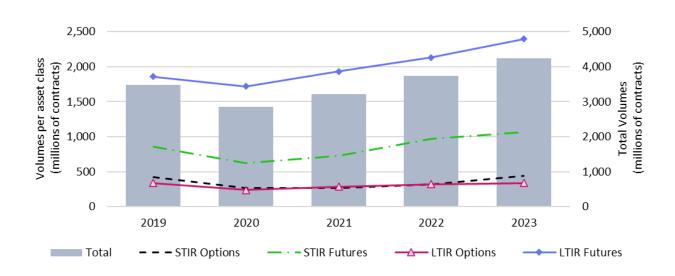
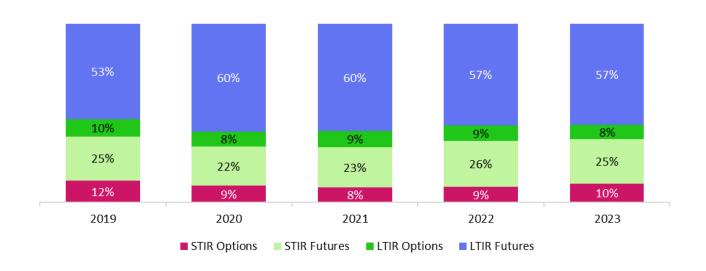


Chart 32: Share of interest rate derivatives over five years



<sup>&</sup>lt;sup>2</sup> Not all exchanges who trade interest rate derivatives provided the breakdown into short-term and long-term options and futures, therefore the sum of the breakdown is lower than that of the interest rate options and futures.



Chart 33: Interest rate options

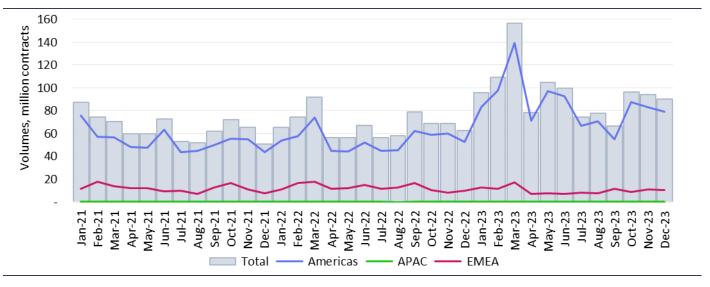
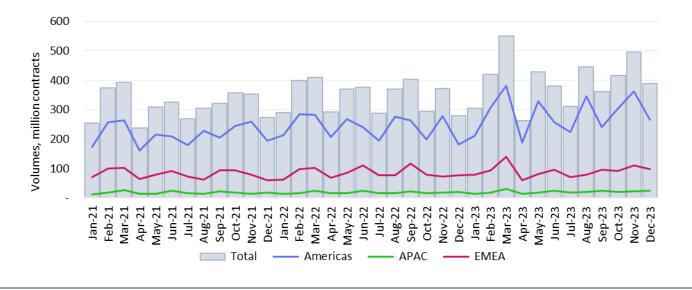


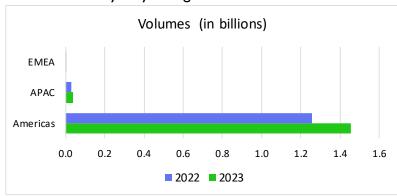
Chart 34: Interest rate futures

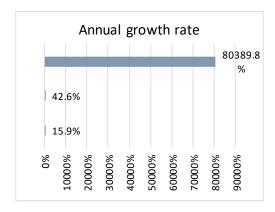




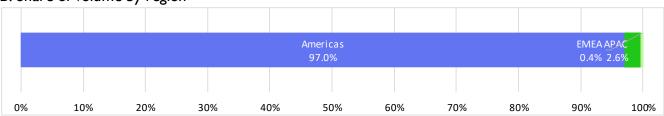
#### Chart 35: Short term interest rate derivatives

## A. Volumes and yearly change





#### B. Share of volume by region



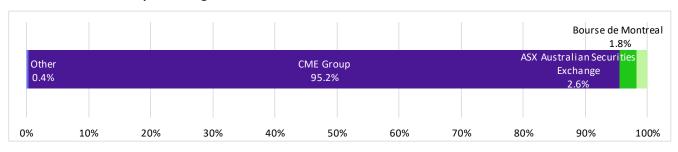


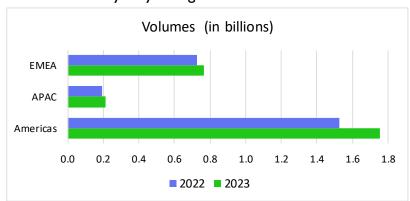
Table 6: Top 10 short-term interest rate derivatives contracts traded in 2023

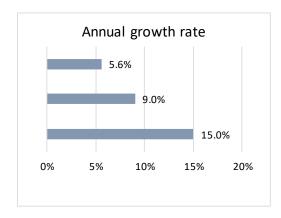
			Volume	Notional value	Open interest
Contract Name	Contract size	Exchange name	2023	2023	2023
3-Month SOFR futures	US\$ 1,000,000	CME Group	809,156,568	809,156,568	9,817,468
3-Month SOFR options	US\$ 1,000,000	CME Group	431,589,091	431,589,091	34,425,020
30 DAY FED FUND futures	US\$ 5,000,000	CME Group	110,495,840	552,479,200	1,639,549
1-Month SOFR futures	US\$ 5,000,000	CME Group	39,716,486	198,582,430	1,062,187
DRV Futures KTB3	KRW 1,000,000	Korea Exchange	39,325,259	3,159,131	367,124
90-Day Bank Bill (IR) futures	A\$1,000,000 face value	ASX Australian Securities Exchange	34,668,533	22,909,276	1,156,465
Eurodollar futures	US\$ 1,000,000	CME Group	28,319,809	28,319,809	0
3-Month Canadian Bankers' Acceptance futures (BAX)	CA\$ 2,500	Bourse de Montreal	18,247,287	NA	401,466
Eurodollar options	US\$ 1,000,000	CME Group	10,165,169	10,165,169	0
Three-Month CORRA Futures (CRA)	CA\$ 2,500	Bourse de Montreal	8,352,374	NA	577,382



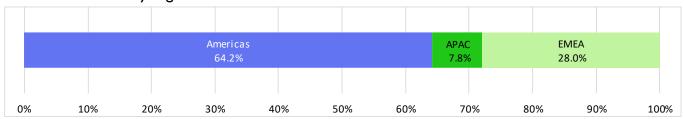
#### Chart 36: Long term interest rate derivatives

## A. Volumes and yearly change





## B. Share of volume by region



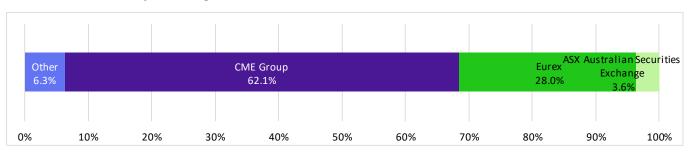


Table 7: Top 10 long-term interest rate derivatives contracts traded in 2023

			Volume	Notional value	Open interest
Contract Name	Contract size	Exchange name	2023	2023	2023
10Y TREASURY NOTE FUTURES	US\$ 100,000	CME Group	498,258,217	49,825,822	4,610,253
5 YR TREASURY NOTE FUTURES	US\$ 100,000	CME Group	389,403,706	38,940,371	5,808,699
FUT 8 1/2-10 1/2 Y.GOV.BOND 6%	EUR 1,000,000	Deutsche Boerse AG	221,867,540	32,655,774	1,088,347
2 YEAR TREASURY NOTE FUTURES	US\$ 200,000	CME Group	203,664,150	40,732,830	3,770,486
FUT 4 1/2-5 1/2Y.GOV.BONDS 6%	EUR 1,000,000	Deutsche Boerse AG	178,320,158	22,978,136	1,226,202
10Y TREASURY NOTE OPTIONS	US\$ 100,000	CME Group	177,085,547	17,708,555	2,189,100
FUT 1 3/4-2 1/4 Y.GOV.BONDS 6%	EUR 1,000,000	Deutsche Boerse AG	157,732,186	18,343,254	1,600,663
ULTRA 10-YEAR U S TREASURY NOTE futures	US\$ 100,000	CME Group	125,569,436	12,556,944	2,065,913
30 YR U.S. TREASURY BOND FUTURES	US\$ 100,000	CME Group	111,513,523	11,151,352	1,411,655
5 YR TREASURY NOTE OPTIONS	US\$ 100,000	CME Group	68,983,941	6,898,394	835,202



Chart 37: ETF derivatives

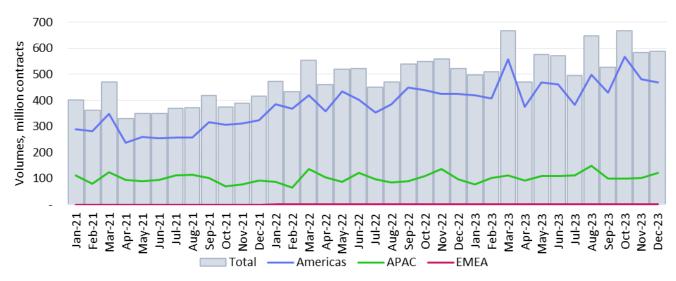


Chart 38: ETF derivatives



Chart 39: Commodity derivatives

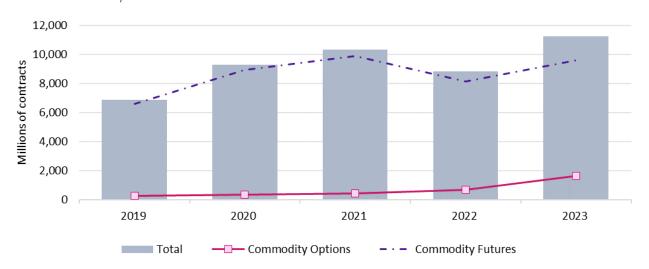




Chart 40: Commodity options

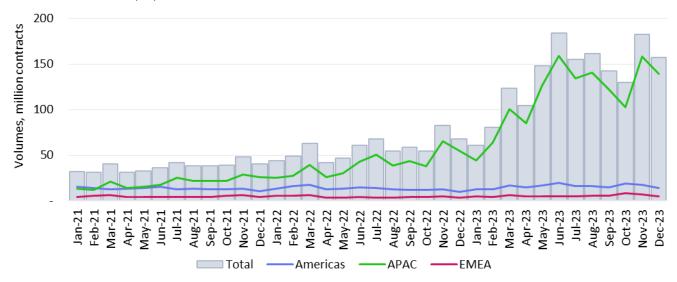
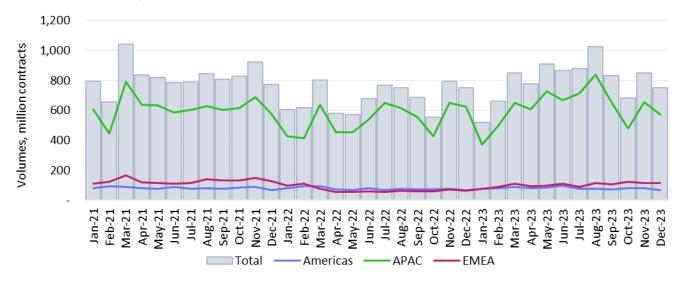


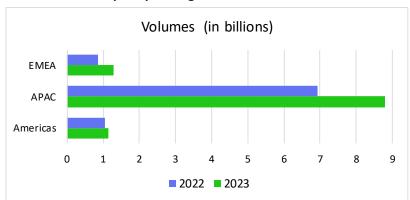
Chart 41: Commodity futures

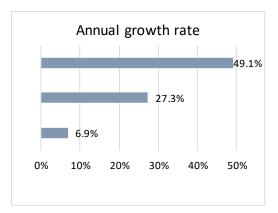




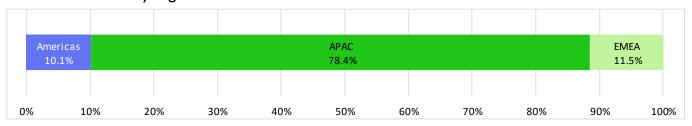
#### Chart 42: Commodity derivatives

## A. Volumes and yearly change





#### B. Share of volume by region



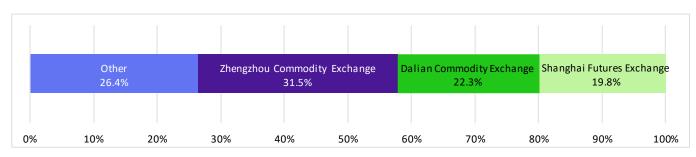


Table 8: Top 10 commodity derivatives contracts traded in 2023

Contract Name	Contract size	Exchange name	Volume 2023	Notional value 2023	Open interest 2023
Soda Ash futures	20 metric tons/lot	Zhengzhou Commodity Exchange	556,206,354	3,178,774	2,245,550
PTA futures	5 metric tons/lot	Zhengzhou Commodity Exchange	520,811,647	2,307,138	1,463,622
Methanol futures	10 metric tons/lot	Zhengzhou Commodity Exchange	399,309,189	2,114,730	1,215,575
Flat Glass futures	20 metric tons/lot	Zhengzhou Commodity Exchange	362,031,143	1,848,739	1,111,050
Soybean Meal futures	10 metric tons/lot	Dalian Commodity Exchange	354,530,779	1,893,271	2,612,235
Polyvinyl Chloride futures	5 metric tons/lot	Dalian Commodity Exchange	268,918,838	1,156,676	1,160,896
Rapeseed Meal futures	10 metric tons/lot	Zhengzhou Commodity Exchange	230,593,113	1,768,032	1,068,714
CRUDEOIL options	100 barrels	Multi Commodity Exchange of India	218,147,350	1,721,339	100,341



RBD Palm Olein futures	10 metric tons/lot	Dalian Commodity Exchange	214,926,469	2,241,567	545,180
Crude Oil Light Sweet futures	1,000 barrels	CME Group	204,473,362	15,705,893	1,581,928

Chart 43: Commodity derivatives by type of underlying

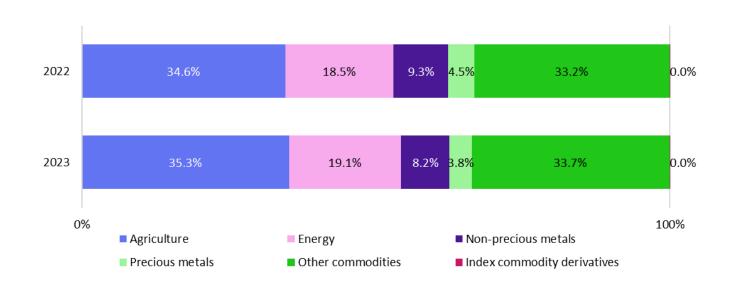
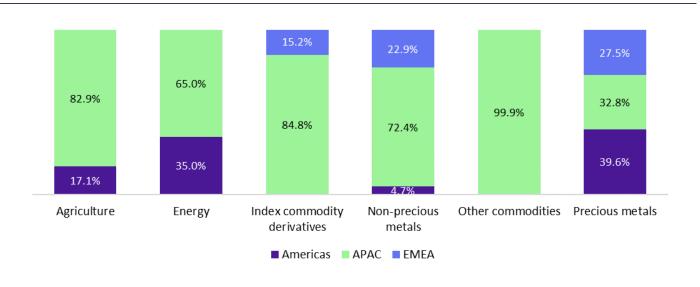


Chart 44: Commodity derivatives by type of underlying: regional breakdown





## Tables

		Cash equ	ity			
	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2023	% change 2023/2022
Domestic Market Capitalisation	105,120,346	107,007,508	103,142,194	111,213,632	111,213,632	13.64%
(million USD)				,	,	
Americas	48,759,326	51,005,049	48,861,706	53,941,094	53,941,094	20.81%
APAC	33,934,709	33,414,316	32,509,075	34,001,817	34,001,817	4.53%
EMEA	22,426,311	22,588,143	21,771,413	23,270,721	23,270,721	12.48%
Value of Share Trading	32,600,023	32,563,377	31,681,779	32,471,483	129,316,661	-10.61%
(million USD)	32,000,023	32,303,377	31,001,773	32,471,403	123,310,001	10.0170
Americas	17,701,247	16,989,065	16,967,609	18,350,172	70,008,092	-14.01%
APAC	11,886,348	13,005,989	12,143,817	11,610,543	48,646,697	-5.79%
EMEA	3,012,428	2,568,323	2,570,354	2,510,768	10,661,872	-8.19%
Number of trades EOB	10,915,330	11,416,318	12,150,531	12,094,093	46,576,271	-3.41%
(thousands of trades)	10,913,330	11,410,310	12,130,331	12,034,033	40,370,271	-3.41%
Americas	2,956,308	2,780,699	2,669,393	2,804,163	11,210,563	-16.28%
APAC	7,068,393	7,805,603	8,359,290	8,217,796	31,451,082	0.12%
EMEA	890,629	830,016	1,121,847	1,072,134	3,914,627	14.49%
Number of listed companies	55,648	55,417	55,351	55,216	55,216	-1.72%
(full number)	33,046	55,417	55,551	33,210	33,210	-1.72%
Americas	11,599	11,493	11,425	11,311	11,311	-3.37%
APAC	31,683	31,710	31,758	31,816	31,816	0.75%
EMEA	12,366	12,214	12,168	12,089	12,089	-6.24%
Number of newly listed companies	1 017	1 022	1 000	1 112	4 221	-4.60%
(full number)	1,017	1,033	1,068	1,113	4,231	-4.00%
IPOs	271	293	329	324	1,217	-15.01%
Other	746	740	739	789	3,014	0.37%
Investment flows, IPOs	17,272	41,178	33,023	19,472	110,945	-59.32%
(million USD)	17,272	41,170	55,025	19,472	110,545	-33.32%
Americas	2,082	6,883	7,525	1,081	17,570	71.29%
APAC	12,742	26,796	22,247	13,562	75,347	-43.30%
EMEA	2,448	7,499	3,251	4,830	18,028	-86.09%
Investment flows, other companies	112.000	70 450		02.202	264 000	F2 4F0/
(million USD)	112,080	78,458	89,067	82,302	361,908	-53.45%
Americas	4,782	7,451	20,143	18,253	50,630	-2.64%
APAC	64,648	36,261	47,650	37,985	186,544	-19.39%
EMEA	42,650	34,746	21,274	26,064	124,734	-74.75%



	Derivatives markets (volumes)						
	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2023	% change 2023/2022	
Single Stock Options	2,311,700,639	2,202,902,519	2,289,206,241	2,233,379,050	9,037,188,449	2.64%	
Americas	1,935,664,845	1,821,520,887	1,849,714,618	1,773,630,003	7,380,530,353	-0.68%	
APAC	277,453,095	292,691,560	350,829,433	357,221,256	1,278,195,344	21.79%	
EMEA	98,582,699	88,690,072	88,662,190	102,527,791	378,462,752	16.98%	
Single Stock Futures	1,280,823,318	1,150,441,864	1,400,866,831	1,307,545,422	5,139,677,435	-8.96%	
Americas	414,261,045	368,963,925	312,592,308	365,582,133	1,461,399,411	6.62%	
APAC	330,237,805	313,145,439	367,740,435	345,714,362	1,356,838,041	0.32%	
EMEA	536,324,468	468,332,500	720,534,088	596,248,927	2,321,439,983	-20.56%	
Stock Index Options	14,909,137,663	16,084,944,471	24,483,310,193	26,266,784,280	81,744,176,607	130.61%	
Americas	313,808,787	312,343,327	334,766,968	377,266,274	1,338,185,356	24.11%	
APAC	14,456,073,166	15,669,252,035	24,043,627,493	25,768,373,334	79,937,326,028	135.99%	
EMEA	139,255,710	103,349,109	104,915,732	121,144,672	468,665,223	-5.47%	
Stock Index Futures	1,859,532,225	1,671,192,890	1,786,410,342	1,856,939,326	7,174,074,783	-10.17%	
Americas	1,384,979,337	1,241,087,142	1,339,777,869	1,414,093,053	5,379,937,401	-9.54%	
APAC	266,167,373	257,268,268	275,514,252	273,431,020	1,072,380,913	-8.90%	
EMEA	208,385,515	172,837,480	171,118,221	169,415,253	721,756,469	-16.26%	
Interest Rate Options	361,062,839	282,851,535	218,764,980	279,980,051	1,142,659,405	42.35%	
Americas	319,950,836	261,188,832	191,693,717	249,678,937	1,022,512,322	57.25%	
APAC	45,297	55,231	34,996	43,777	179,301	85.98%	
EMEA	41,066,706	21,607,472	27,036,267	30,257,337	119,967,782	-21.26%	
Interest Rates Futures	1,273,461,040	1,071,109,714	1,117,694,207	1,298,133,992	4,760,398,953	14.93%	
Americas	899,291,938	772,770,696	809,150,657	930,423,011	3,411,636,302	18.07%	
APAC	62,615,543	58,927,876	62,094,776	68,374,320	252,012,515	13.18%	
EMEA	311,553,559	239,411,142	246,448,774	299,336,661	1,096,750,136	6.49%	
Commodity Options	265,348,387	436,648,265	459,301,857	469,744,805	1,631,043,314	135.76%	
Americas	41,770,649	51,180,582	46,736,278	49,394,303	189,081,812	18.48%	
APAC	208,489,933	371,168,017	397,057,367	400,151,547	1,376,866,864	186.03%	
EMEA	15,087,805	14,299,666	15,508,212	20,198,955	65,094,638	27.99%	
Commodity Futures	2,033,230,994	2,553,883,501	2,735,541,206	2,278,288,057	9,600,943,758	17.77%	
Americas	240,887,760	256,865,869	221,299,718	224,166,472	943,219,819	4.84%	
APAC	1,517,108,463	2,000,962,048	2,206,013,879	1,706,245,781	7,430,330,171	15.43%	
EMEA	275,234,771	296,055,584	308,227,609	347,875,804	1,227,393,768	50.46%	



Currency Options	1,085,336,092	919,599,999	998,363,239	706,470,350	3,709,769,680	18.04%
Americas	3,949,055	3,246,391	3,684,111	3,983,036	14,862,593	-5.12%
APAC	1,066,514,493	898,001,608	975,153,051	686,038,626	3,625,707,778	17.65%
EMEA	14,872,544	18,352,000	19,526,077	16,448,688	69,199,309	52.15%
Currency Futures	881,994,044	833,901,968	946,692,534	993,570,412	3,656,158,958	-1.26%
Americas	306,136,342	285,155,242	279,018,373	305,143,001	1,175,452,958	-11.87%
APAC	356,170,481	263,475,928	283,037,574	261,937,212	1,164,621,195	-20.78%
EMEA	219,687,221	285,270,798	384,636,587	426,490,199	1,316,084,805	46.40%
ETF Options	1,675,155,930	1,617,020,607	1,667,706,539	1,839,827,044	6,799,710,120	12.38%
Americas	1,384,817,120	1,305,183,397	1,310,002,334	1,517,534,133	5,517,536,984	13.96%
APAC	290,251,609	311,762,563	357,653,520	322,243,765	1,281,911,457	6.05%
EMEA	87,201	74,647	50,685	49,146	261,679	-12.69%
ETF Futures	146,100	134,202	125,265	193,432	598,999	-22.80%
Americas	0	0	0	2,920	2,920	NA
APAC	146,000	134,063	125,202	190,512	595,777	-22.99%
EMEA	100	139	63	0	302	-86.82%



Derivatives by asset class (volumes)						
	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2023	% change 2023/2022
Equity Derivatives	20,361,193,845	21,109,481,744	29,959,793,607	31,664,648,078	103,095,117,274	78.11%
Americas	4,048,714,014	3,743,915,281	3,836,851,763	3,930,571,463	15,560,052,521	-1.69%
APAC	15,329,931,439	16,532,357,302	25,037,711,613	26,744,739,972	83,644,740,326	123.33%
EMEA	982,548,392	833,209,161	1,085,230,231	989,336,643	3,890,324,427	-15.49%
Interest Rate Derivatives	1,634,523,879	1,353,961,249	1,336,459,187	1,578,114,043	5,903,058,358	19.38%
Americas	1,219,242,774	1,033,959,528	1,000,844,374	1,180,101,948	4,434,148,624	25.27%
APAC	62,660,840	58,983,107	62,129,772	68,418,097	252,191,816	13.21%
EMEA	352,620,265	261,018,614	273,485,041	329,593,998	1,216,717,918	2.91%
Commodity Derivatives	2,298,579,381	2,990,531,766	3,194,843,063	2,748,032,862	11,231,987,072	27.00%
Americas	282,658,409	308,046,451	268,035,996	273,560,775	1,132,301,631	6.90%
APAC	1,725,598,396	2,372,130,065	2,603,071,246	2,106,397,328	8,807,197,035	27.30%
EMEA	290,322,576	310,355,250	323,735,821	368,074,759	1,292,488,406	49.14%
Currency Derivatives	1,967,330,136	1,753,501,967	1,945,055,773	1,700,040,762	7,365,928,638	7.60%
Americas	310,085,397	288,401,633	282,702,484	309,126,037	1,190,315,551	-11.79%
APAC	1,422,684,974	1,161,477,536	1,258,190,625	947,975,838	4,790,328,973	5.24%
EMEA	234,559,765	303,622,798	404,162,664	442,938,887	1,385,284,114	46.68%
ETF Derivatives	1,675,302,030	1,617,154,809	1,667,831,804	1,840,020,476	6,800,309,119	12.38%
Americas	1,384,817,120	1,305,183,397	1,310,002,334	1,517,537,053	5,517,539,904	13.96%
APAC	290,397,609	311,896,626	357,778,722	322,434,277	1,282,507,234	6.03%
EMEA	87,301	74,786	50,748	49,146	261,981	-13.25%
Total	27,936,929,271	28,824,631,535	38,103,983,434	39,530,856,221	134,396,400,461	58.92%
Americas	7,245,517,714	6,679,506,290	6,698,436,951	7,210,897,276	27,834,358,231	4.57%
APAC	18,831,273,258	20,436,844,636	29,318,881,978	30,189,965,512	98,776,965,384	96.16%
EMEA	1,860,138,299	1,708,280,609	2,086,664,505	2,129,993,433	7,785,076,846	2.47%



Commodity derivatives by type of underlying	2023 volume	2022 volume	YoY change
Agriculture	2,796,806,900	2,144,952,527	30.39%
Energy	1,513,537,234	1,144,317,069	32.27%
Index commodity derivatives	163,076	521,242	-68.71%
Non-precious metals	650,929,149	574,203,286	13.36%
Other commodities	2,670,019,328	2,056,588,957	29.83%
Precious metals	302,238,539	278,587,518	8.49%
Grand Total <sup>3</sup>	7,933,694,226	6,199,170,599	27.98%

Top five exchanges by volumes traded in 2023 and % change on 2022					
	Volume	%/'22	<b>Notional Value</b>	%/'22	
Agriculture					
Dalian Commodity Exchange	1,301,324,704	14.60%	8,450,032	-10.67%	
Zhengzhou Commodity Exchange	1,015,095,103	70.72%	7,712,669	43.18%	
CME Group	376,973,066	16.53%	16,316,793	5.64%	
ICE Futures US	97,986,368	13.40%	3,303,438	35.57%	
MIAX Exchange Group	2,659,095	6.00%	NA	NA	
Energy					
CME Group	529,555,339	4.13%	33,600,818	-74.29%	
Zhengzhou Commodity Exchange	518,298,207	18.77%	1,352,920	-12.10%	
Multi Commodity Exchange of India	350,466,474	184.73%	2,178,756	103.17%	
Dalian Commodity Exchange	113,666,947	52.97%	1,505,925	6.72%	
ASX Australian Securities Exchange	1,128,152	-7.47%	106,517	-26.88%	
Non-precious metals					
Dalian Commodity Exchange	296,319,652	12.74%	2,329,721	-4.18%	
London Metal Exchange	148,977,669	11.05%	19,057,303	3.23%	
Zhengzhou Commodity Exchange	128,673,826	13.84%	644,602	-5.89%	
Singapore Exchange	41,011,883	25.29%	NA	NA	
CME Group	30,493,359	25.80%	2,722,219	18.62%	
Precious metals					
CME Group	119,429,697	12.21%	17,416,310	17.46%	
Multi Commodity Exchange of India	87,561,861	0.32%	588,380	56.06%	
Borsa Istanbul	83,130,739	16.69%	17,392	-7.37%	
Thailand Futures Exchange	11,148,287	-8.32%	NA	NA	
National Stock Exchange of India	439,550	14.15%	3,221	34.54%	
Index commodity derivatives					
Multi Commodity Exchange of India	138,210	-72.45%	1,321	-71.90%	
Deutsche Boerse AG	24,866	26.54%	1,187	-3.36%	
Other commodities					
Zhengzhou Commodity Exchange	1,870,884,951	49.25%	8,380,641	30.31%	
Dalian Commodity Exchange	797,022,519	-0.69%	3,722,309	-19.73%	

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<sup>&</sup>lt;sup>3</sup> Not all exchanges that trade commodity derivatives provided the breakdown by type of underlying, therefore the sum of the underlying is lower than that of the commodity derivatives.



Deutsche Boerse AG	1,532,070	NA	5,929	NA
Singapore Exchange	579,788	35.39%	NA	NA



Other products - Quarterly data							
	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2023	%change 2023/2022	
ETFs	8,236	8,299	8,311	8,638	8,638	6.42%	
(Full number of listed securities)	0,230	0,233	0,311	0,030	0,030	0.42/0	
Americas	2,965	2,966	3,019	3,100	3,100	6.53%	
APAC	2,713	2,807	2,916	3,018	3,018	13.93%	
EMEA	2,558	2,526	2,376	2,520	2,520	-1.49%	
ETFs	7,726,116	7,152,090	7,729,755	8,715,759	31,323,720	-14.43%	
(Value traded, million USD)	7,720,110	7,132,090	1,723,733	6,713,733	31,323,720	-14.43/0	
Americas	6,186,772	5,610,485	6,016,848	7,118,821	24,932,926	-18.94%	
APAC	1,322,902	1,340,182	1,518,838	1,376,948	5,558,870	10.90%	
EMEA	216,442	201,423	194,069	219,990	831,924	-0.26%	
Securitized derivatives	3,474,689	3,313,949	3,510,539	3,690,092	3,690,092	12.72%	
(Full number of listed securities)	3,474,009	3,313,343	5,510,559	3,690,092	3,690,092	12./270	
Americas	379	378	399	411	411	-7.43%	
APAC	40,481	42,320	45,656	47,667	47,667	16.81%	
EMEA	3,433,829	3,271,251	3,464,484	3,642,014	3,642,014	12.67%	
Securitized derivatives	159,259	126 454	138,380	120 920	E64 021	-22.46%	
(Value traded, million USD)	159,259	136,454	138,380	130,839	564,931	-22.46%	
Americas	39	31	54	39	161	7.47%	
APAC	123,361	107,967	108,168	100,281	439,777	-26.13%	
EMEA	35,859	28,456	30,158	30,519	124,992	-6.09%	
Investment funds	10 142	47.042	17.042	17.053	47.053	4.410/	
(Full number of listed securities)	18,143	17,943	17,943	17,853	17,853	-4.41%	
Americas	3,389	3,449	3,489	3,563	3,563	7.16%	
APAC	1,416	1,382	1,342	1,361	1,361	-1.02%	
EMEA	13,338	13,112	13,112	12,929	12,929	-7.50%	
Investment funds	045 050	000 707	202.044	202 504	2 425 242	<b>= 25</b> 0/	
(Value traded, million USD)	815,972	803,785	892,011	893,581	3,405,348	7.36%	
Americas	23,204	20,484	23,430	30,240	97,358	-14.99%	
APAC	761,126	755,092	840,045	831,371	3,187,634	8.91%	
EMEA	31,642	28,208	28,536	31,970	120,356	-7.88%	



## Summary of the methodologies adopted for this report

All data contained in the following equity market tables include the Main/Official market and the Alternative/SME markets supervised and regulated by the Exchange.

#### **Domestic Market Capitalisation**

The market capitalisation figures include:

- shares of listed domestic companies;
- shares of foreign companies which are exclusively listed on an exchange, i.e. the foreign company is not listed on any other exchange;
- common and preferred shares of domestic companies;
- shares without voting rights.

The market capitalisation figures exclude:

- collective investment funds;
- rights, warrants, ETFs, convertible instruments;
- options, futures;
- foreign listed shares other than exclusively listed ones;
- companies whose only business goal is to hold shares of other listed companies, such as holding companies and investment companies, and regardless of their legal status;
- companies admitted to trading (companies admitted to trading are companies whose shares are traded at the exchange but not listed at the exchange).
- Australian Securities Exchange: including investment funds
- BME Spanish Exchanges: including investment companies listed (open-end investment companies) that differ from investment funds included in Table 1.3 because of their legal status and that cannot be distinguished from other listed companies.
- Bolsa de Valores de Lima: Includes 26 foreign companies with shares negotiated under a special modality.
- Borsa Istanbul market capitalisation/listed companies figures include investment companies and holdings.
- **Deutsche Börse**: excluding the market segment "Freiverkehr" (unofficial regulated market).
- **Euronext:** includes Belgium, Ireland, France, Italy, the Netherlands, Norway and Portugal.
- Johannesburg Stock Exchange: figures include the market capitalisation of all listed companies, but exclude listed warrants, convertibles and investment funds.
- Korea Exchange: including Kosdaq market data.
- Nasdaq Nordic Exchanges: includes Copenhagen, Helsinki, Iceland, Stockholm, Tallinn, Riga and Vilnius Stock Exchanges.
- NSE India: including market data from NSE's SME platform "EMERGE"

- Singapore Exchange: market capitalisation includes domestic listings and a substantial number of foreign listings, defined as companies whose principal place of business is outside Singapore. Inactive secondary foreign listings are excluded.
- TMX Group: includes companies listed on TSX Venture.

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When monthly data for an exchange is not available and the missing data is not considered to have a significant impact on aggregate results, the WFE team might perform an estimation based on historical data.

Please note that some technical footnotes available in the monthly statistics published by the WFE are not included here. To obtain further explanation of the time series reported here, the reader is encouraged to consult the footnotes in the monthly tables published by the WFE.

Statistics definitions are also publicly available on the  $\ensuremath{\overline{WFE}}$  website.

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