

FY 2022 Market Highlights

Summary

In 2022, we saw a noticeable decline in the global stock market, both in market capitalisation (-20%) and in value traded (-10%), interrupting the positive trend observed in the two previous years. Several defining themes and drivers emerge. First, the inflationary trends fuelled by strong consumer demand and supply bottlenecks in the aftermath of the pandemic were exacerbated by the war in Ukraine and the sanctions against Russia, which increased energy prices, especially for European countries. In addition, the still stringent COVID lockdown requirements in China, enforced most of the year, strained the global supply chain, increasing prices of imported goods. The high inflation environment, alongside the tightening of monetary policies (including raising interest rates across most economies), cooled down investment in the equity market. The decline in the equity market indicators was more noticeable in the technology sector, which experienced a “tech plunge”. Although the linkages of the crypto markets with the traditional financial markets are still limited, it is worth noting that the collapse of the crypto trading platform FTX brought to the surface a lack of regulatory oversight and proper corporate governance in these platforms, highlighting the importance of regulated exchanges as the trusted, industry gold-standard.

Finally, with the exception of commodity derivatives, volumes of exchange-traded derivatives continued with their positive trend, with a pronounced increase in the case of options, which could be due to a higher need to hedge against (or even speculate on) market uncertainty.

This year, the WFE 2022 Market Highlights report brings together in a single report the equity and derivatives markets, summarising the evolution of multiple key financial market indicators across these markets and offering a comprehensive picture of market activities during 2022.¹

Key points

Cash equity

- **Global equity market capitalisation** declined about 20% in 2022 compared to the end of 2021, with all regions declining significantly. In absolute terms, this represents more than 25 trillion US dollars which have been wiped off the stock markets worldwide.
- While **trading value** fell about 10% globally in 2022, with trading value declining in every region, global **volumes** increased about 5%, with every region contributing to this result. 2022 recorded the highest global volumes in the last six years (48.32 billion trades) and the highest regional volumes during the same period: the Americas (13.44 billion trades), APAC (31.13 billion trades) and the EMEA region (3.74 billion trades).
- The **average trade size** was at its lowest level in the last six years (at USD 3,014.58 /trade), with every region recording a minimum: the Americas (USD 6,048.73/trade), APAC (USD 1,656.34/trade) and the EMEA (USD 3,411.72/trade) This result suggests that more retail investors came to the market in 2022.
- The **number of IPOs and the capital raised through IPOs**² declined sharply compared to 2021 (-50% and -65%, respectively).
 - The drop was recorded across all regions but was particularly intense in the Americas,³ with the number of IPOs and the capital raised through IPOs falling 81% and 95%, respectively.

¹ In previous years, the end-of-year markets report (“Annual Market Highlights”) and the annual derivatives report (“Annual Derivatives Report”) were published separately.

² NYSE did not submit the IPO data in time for this report, which might have impacted the aggregate results.

³ See previous footnote.

- The **average size of an IPO** decreased globally from USD 183.72 million/IPO in 2021 to USD 126.30 million/IPO in 2022, with all regions recording the same trend although with different magnitude. While the average size of IPO in the Americas fell 75%, in APAC the decline was modest (-5.8%).
- **American markets** opened their doors to 127 IPOs in 2022 generating USD 10.23 billion, with an average size of IPOs of USD 80.52 million. This was possible thanks to some notable IPOs: **Nasdaq** hosted in July *ECB Bancorp*, a co-operative bank in Massachusetts, raising USD 89.15 million; in September, *Third Harmonic Bio*, a biotechnology company, generated USD 94.38 million; in October, *Mobileye Global*, a system software company, increased its capital by USD 861 million, making it the largest IPO of the region in the second half of the year; and *Prime Medicine*, that went public for USD 175 million. In November, the same venue was chosen by *Acrivon Therapeutics*, raising USD 94.38 million.
- **APAC markets** hosted 947 IPOs in 2022 generating USD 131.82 billion, an average of USD 139.20 million/IPO. In July **Hong Kong Exchanges and Clearing** was the venue of choice for *Tianqi Lithium Corporation*, a mining company, raising USD 1.71 billion, while in August it hosted *China Tourism Group Duty Free Corporation* which went public for USD 2.34 billion, making it the largest listing of the region in the second half of the year. In the same month **Shanghai Stock Exchange** welcomed *Shanghai United Imaging Healthcare Company*, for USD 1.60 billion, while in October **Shenzhen Stock Exchange** opened its doors to *Arrow Home Group*, which produces and sells smart home products, raising USD 2.27 billion; and to *Mehow Innovative*, which researches and manufactures medical devices, raising USD 2.08 billion.
- **EMEA markets** welcomed 301 IPOs in 2022, raising USD 31.62 billion, with an average of USD 105.06 million/IPO. In September **Deutsche Boerse** hosted *Porsche*, the largest IPO in the world in the second half of the year, which raised USD 9.21 billion. **Saudi Exchange (Tadawul)** welcomed *Arabian Drilling Co* to go public for USD 710.30 million, while ending the year hosting *Americana Restaurants International* for USD 1.8 billion.

Exchange-traded derivatives

- The **number of exchange-traded derivatives contracts**, including both options and futures, reached their highest level in the last six years, amounting to 56.17 billion for options and 29.59 billion for futures (84.76 billion derivatives contracts traded). This represents a 34.4% increase compared to 2021.
 - This increase was driven mostly by options, which rose 63.8% (and account for 65% of all derivatives contracts traded), while futures had a 0.7% uptick. Such an increase in option trading volume could be due to the increasing need to hedge against (or even speculation on) market uncertainty.
 - Volumes across all underlying asset classes increased, with the exception of single stock options, commodity futures and ETF futures, where volumes declined year-on-year.
 - All three regions recorded their peak over the last six years in 2022: the Americas region 26.84 billion, APAC region 50.32 billion, and EMEA region 7.60 billion contracts traded. However, the growth varied significantly between regions. While APAC grew 67.4%, EMEA recorded a 0.1% uptick and the Americas region a 5.6% increase.
- **Commodity derivatives** were the only product line whose overall volumes (that is, considering both futures and options) declined in 2022 (-14.5%), while **equity, currency, and ETF derivatives** volumes witnessed double digit increases (48.4%, 48.2%, and 36.9%, respectively).
- **Interest rate derivatives** volumes increased 8.5% year-on-year.
- While the **equity, currency and ETF derivatives** increased their share in volumes traded, commodity and interest rate derivatives decreased their share.
- **Single stock futures, stock index options, stock index futures, currency options, currency futures, commodity options, interest rate futures and ETF options** reached their highest level in volumes in the last six years.
- **Stock index options**, which account for the highest share (41.8%) of derivatives contracts, recorded the highest increase in volumes (117.4%) of all product lines relative to 2021. Notably, stock index options traded at the

National Stock Exchange of India increased 134.5% compared to 2021, amounting to 32.57 billion contracts, by far their highest annual figure in the last six years.

- After stock index options, **currency options** is the other product line which recorded three digit year-on-year increase (104.9%), mostly due to the same exchange, **National Stock Exchange of India**, where 98% of global volumes of currency options are traded and which grew 111% year-on-year.
- Record volumes of **single stock futures** in 2022, which are mostly traded in the EMEA region (52% share), are due mainly to the performance of **Borsa Istanbul**, which accounts for 44% share of global volumes and grew 42.6% year-on-year, but also to **B3 – Brasil Bolsa Balcao** (24% share) which went up 44.1% in 2022.
- **Interest rate futures** performance is mostly due to the **CME Group**, which accounts for 52% share of global volumes.
- **Interest rate derivatives:**⁴ Year-on-year, short-term (STIR) derivatives and long-term (LTIR) derivatives volumes increased 25.1% and 6.4%, respectively, with all product lines going up: STIR options (19.5%), STIR futures (27.1%), LTIR options (10.9%), LTIR futures (5.7%).
- **Commodity derivatives:**^{5, 6} Most commodity derivatives declined year-on-year: agriculture (-12.9%), energy (-11%), index (-56%) and precious metals (-19%). Other commodity derivatives increased 13.6%, while derivatives on non-precious metals remained constant.

Other products

- While the **number of listed exchange-traded funds (ETFs)** increased only 5% when compared to 2021, the **ETF value traded** increased considerably (32.2%), due to increases in every region.
- The **number of listed securitised derivatives (SD)** went slightly up year-on-year (2.6%), but the **value traded** declined year-on-year (-21.6%), due to declines in every region.
- The **number of listed investment funds (IF)** fell year-on-year (-6.1%) while the value traded increased 12.5%. EMEA region recorded declines in both number of listed investment funds and value traded, while in the Americas both changes were positive. The APAC region recorded the largest drop in the number of listed funds and the largest increase in value traded.

For feedback or questions about this report, please contact the Statistics team statistics@world-exchanges.org

This data was extracted from [WFE Statistics Portal](#). The definition of our indicators can be found in the [WFE Definitions Manual](#).

This data was collected as of December 2022

⁴ B3 – Brasil Bolsa Balcao, Bolsa de Valores de Colombia, ASX Australian Securities Exchange, ICE Futures Europe, Johannesburg Stock Exchange, Moscow Exchange did not provide short-term and long-term interest rate derivatives, but only their total.

⁵ Commodity derivatives are classified by type of underlying in: agriculture; energy; precious and non-precious metals; index commodity derivatives; and “Other” commodity derivatives (which capture all contracts that do not clearly fall into one of the other mentioned categories).

⁶ B3 – Brasil Bolsa Balcao, Bursa Malaysia, India International Exchange, National Stock Exchange of India, Shanghai Futures Exchange, Euronext, ICE Futures Europe, Moscow Exchange did not provide commodity derivatives by underlying, but only their total.

Cash equity

Chart 1: Market capitalisation

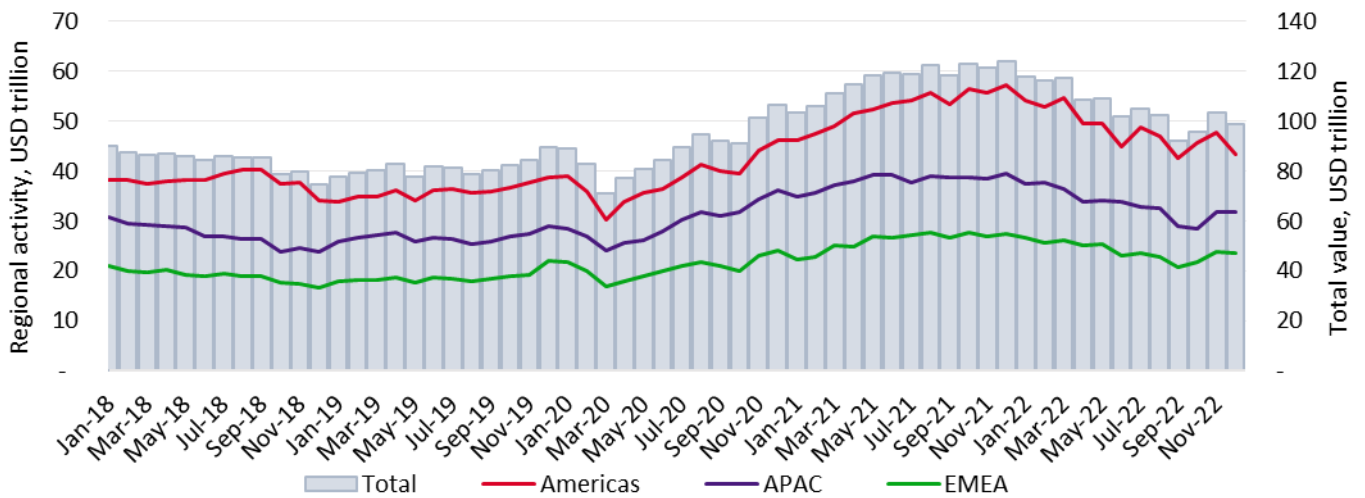


Chart 2: Value traded through Electronic Order Book (EOB)

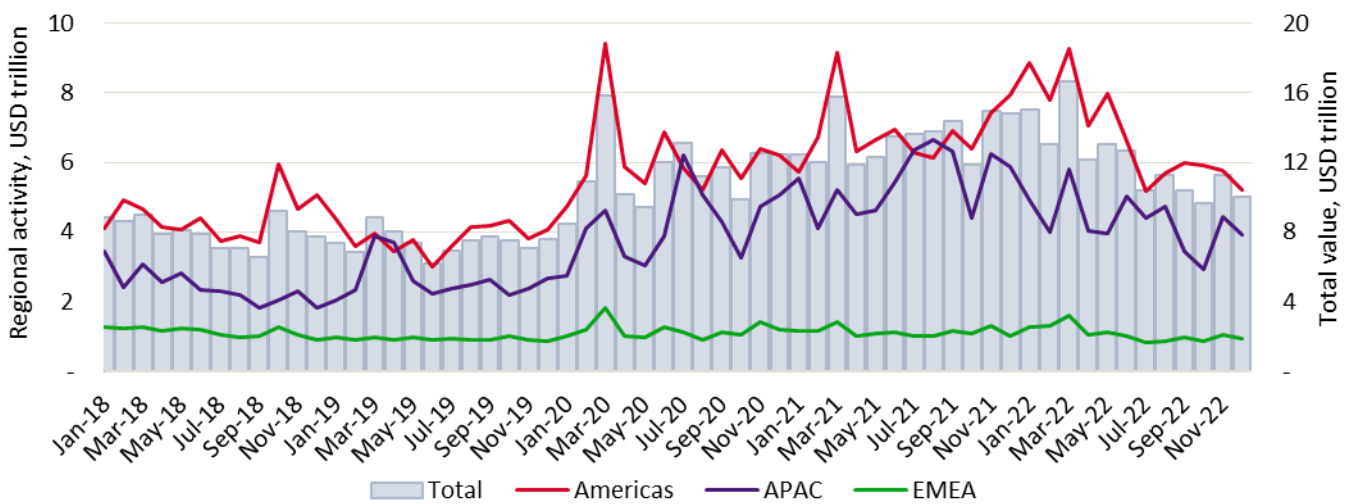


Chart 3: Number of trades through EOB

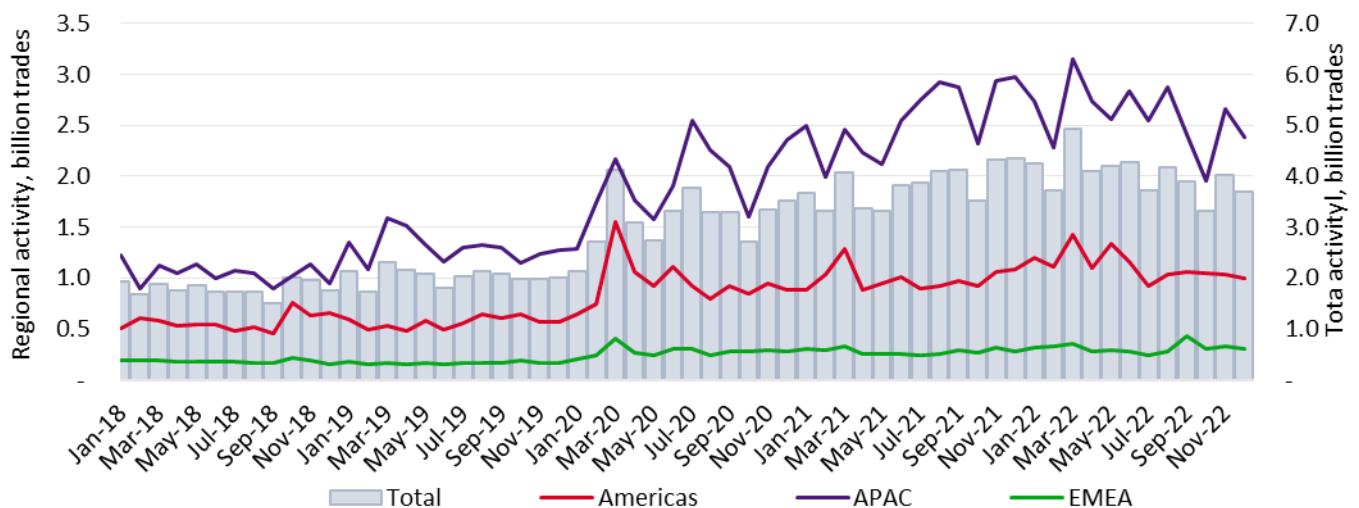


Chart 4A: Number of listed companies

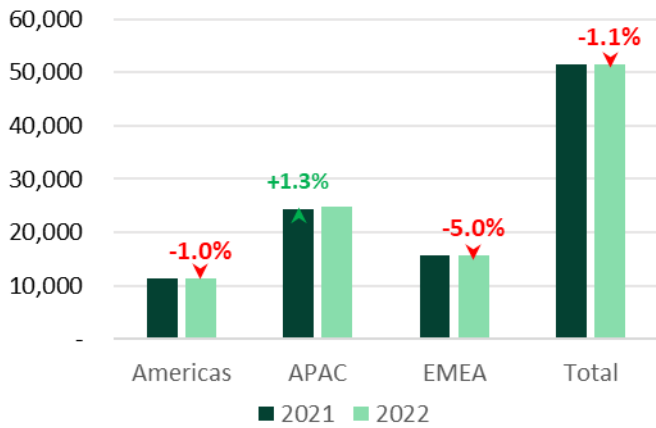


Chart 4B: Change in the number of listed companies

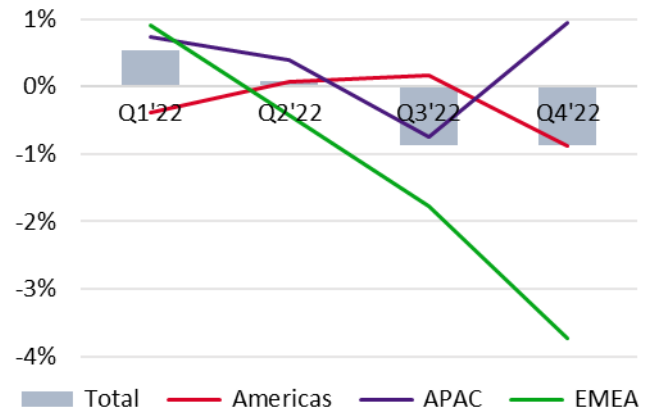


Chart 5: Number of IPOs

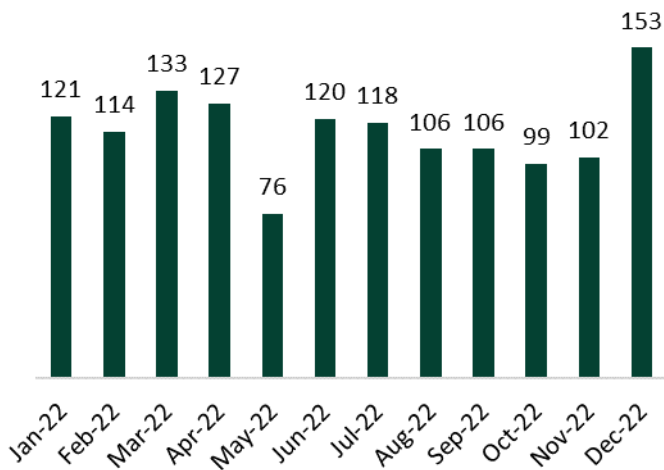


Chart 6: Number of IPOs by region

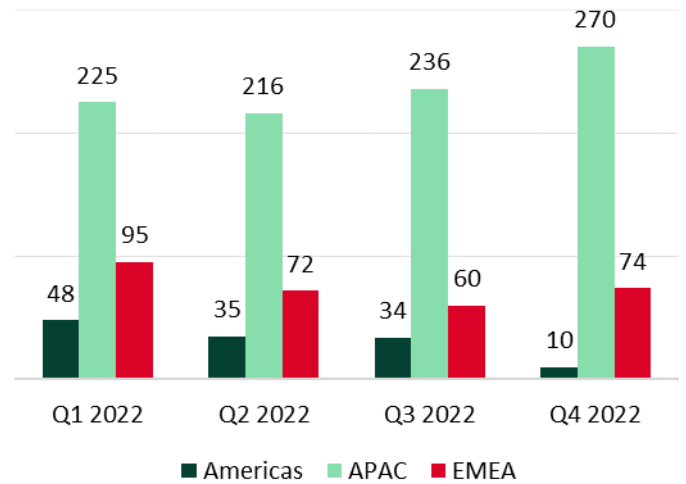


Chart 7: Capital raised through IPOs

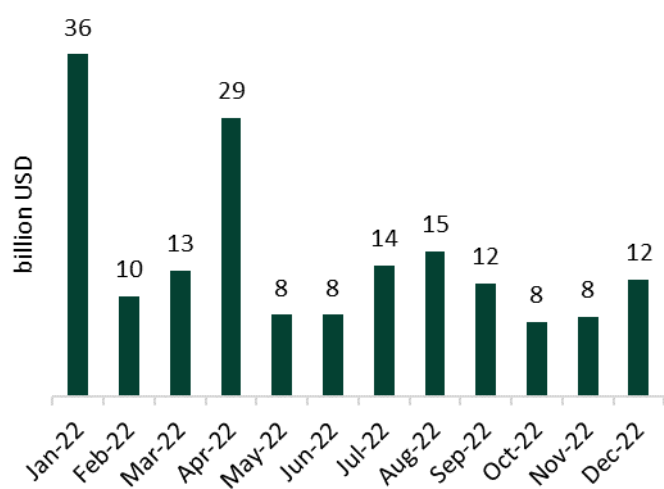


Chart 8: Capital raised through IPO by region

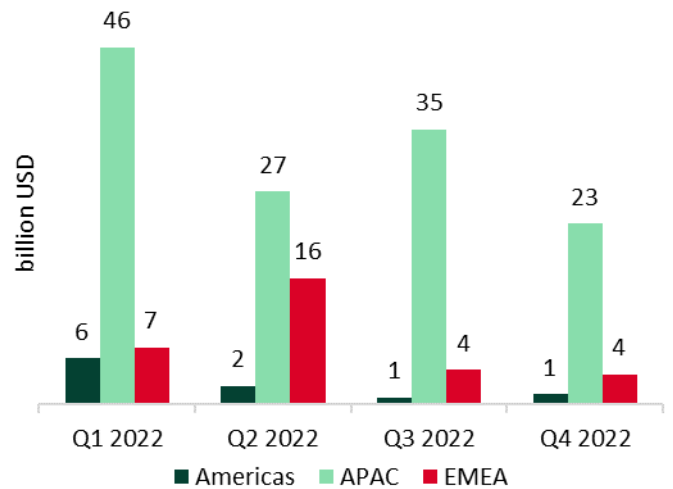


Chart 9: IPO activity

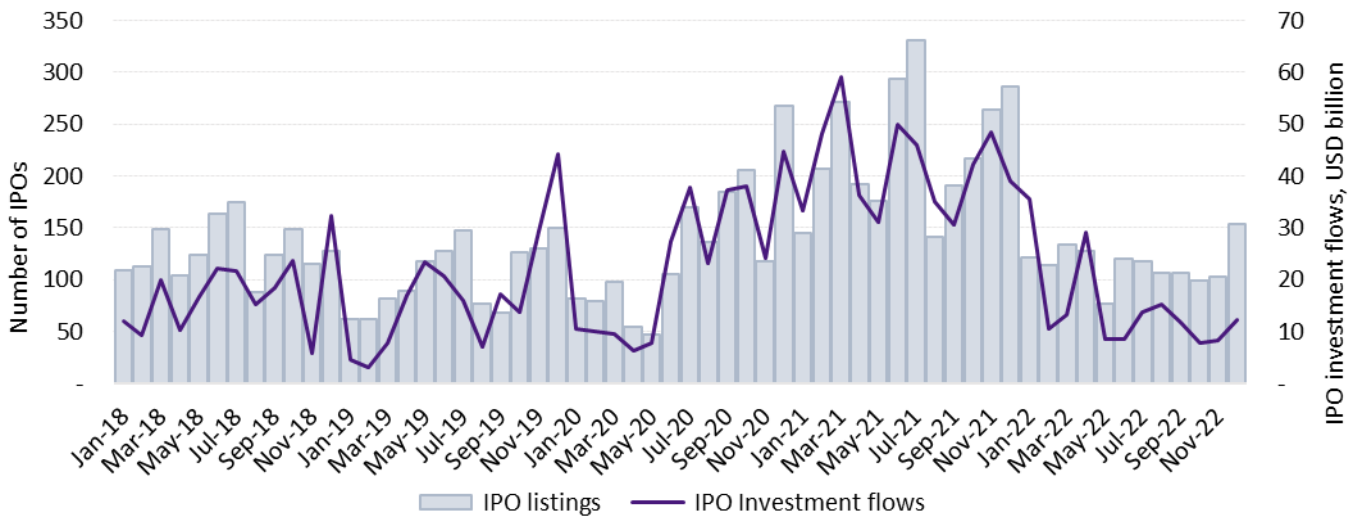


Chart 10: New listings (IPO and non-IPO)

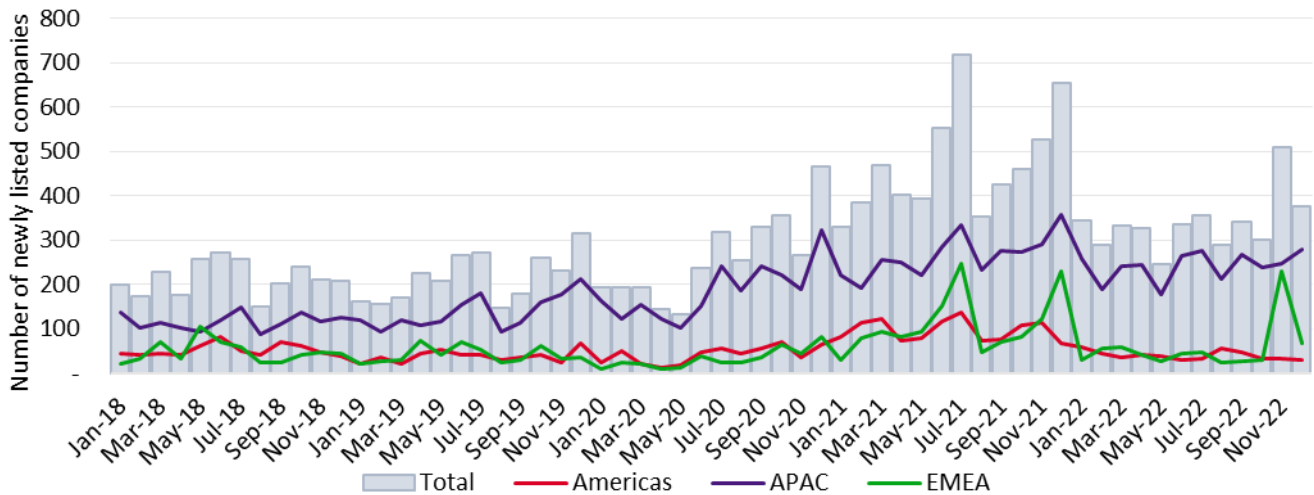
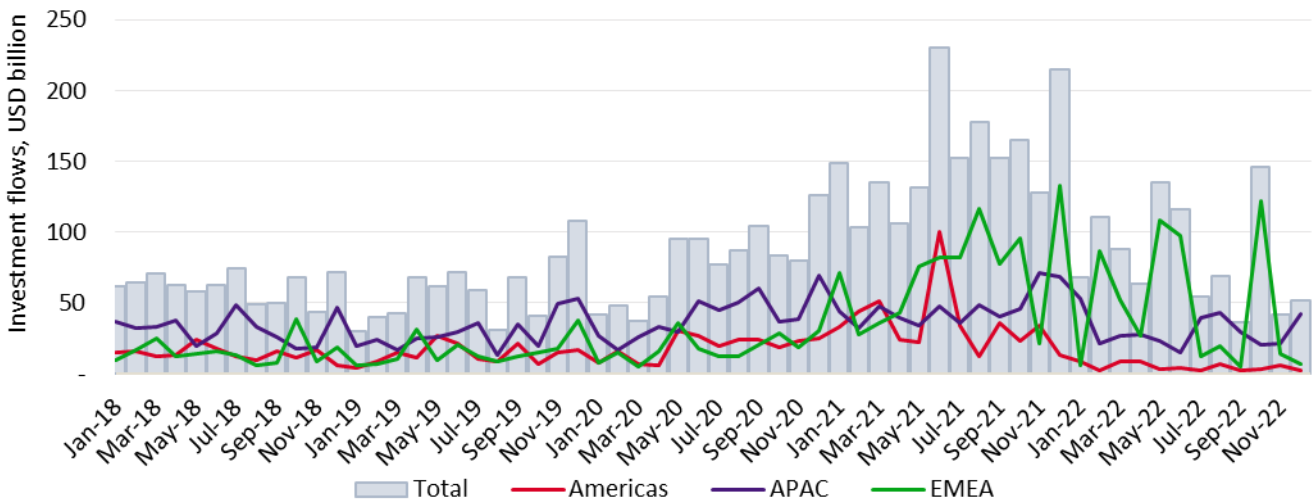


Chart 11: Investment flows (IPO and non-IPO)



Exchange-traded derivatives

Chart 12: Derivatives total volumes

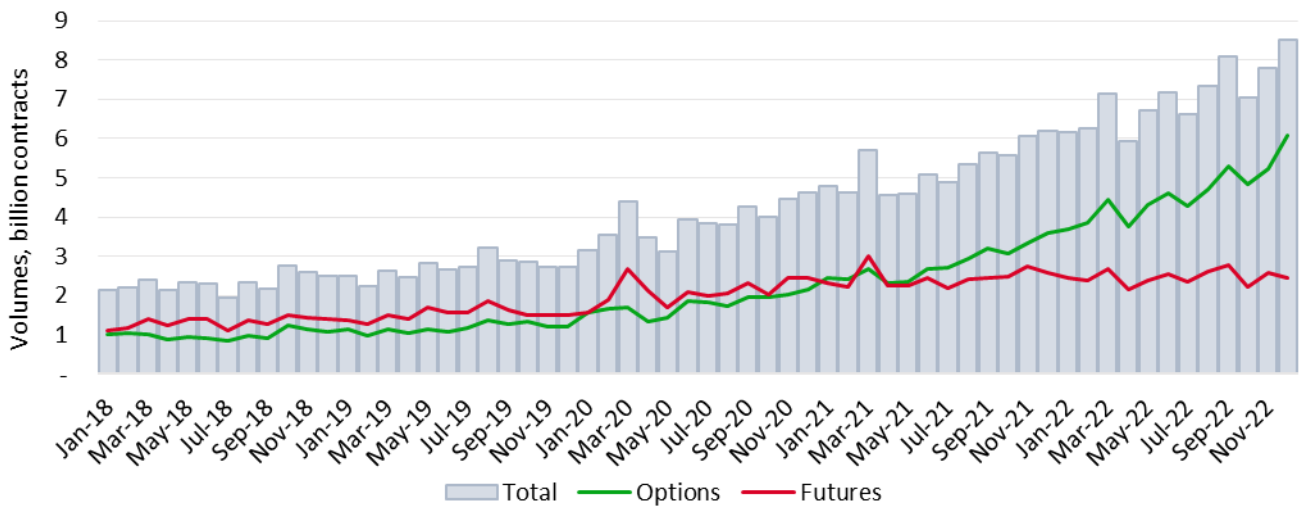


Chart 13: Volumes of exchange-traded derivatives, by region

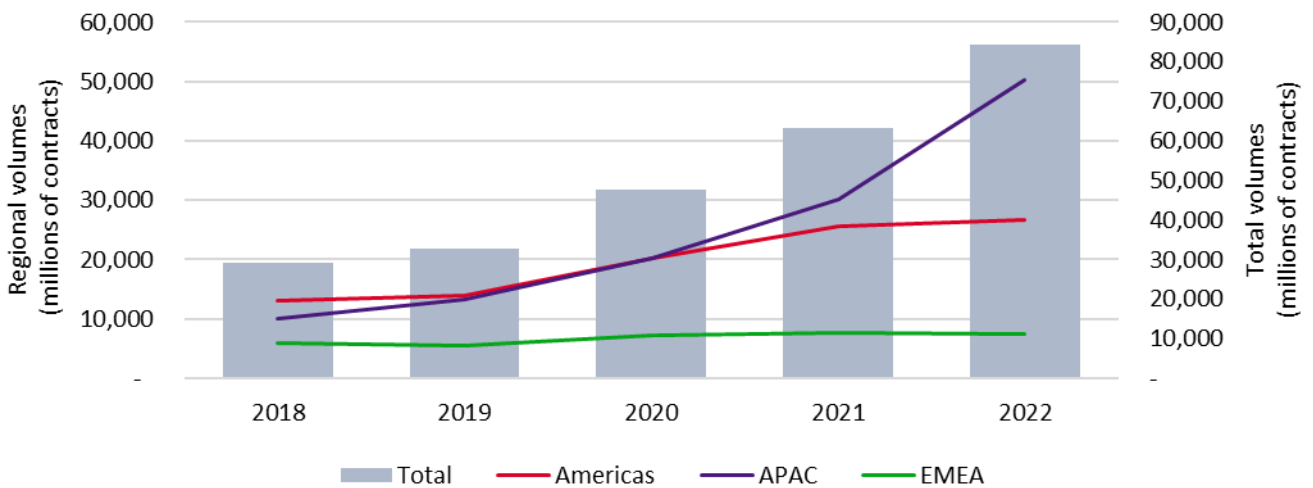


Chart 14: Share of total volumes: breakdown by regions

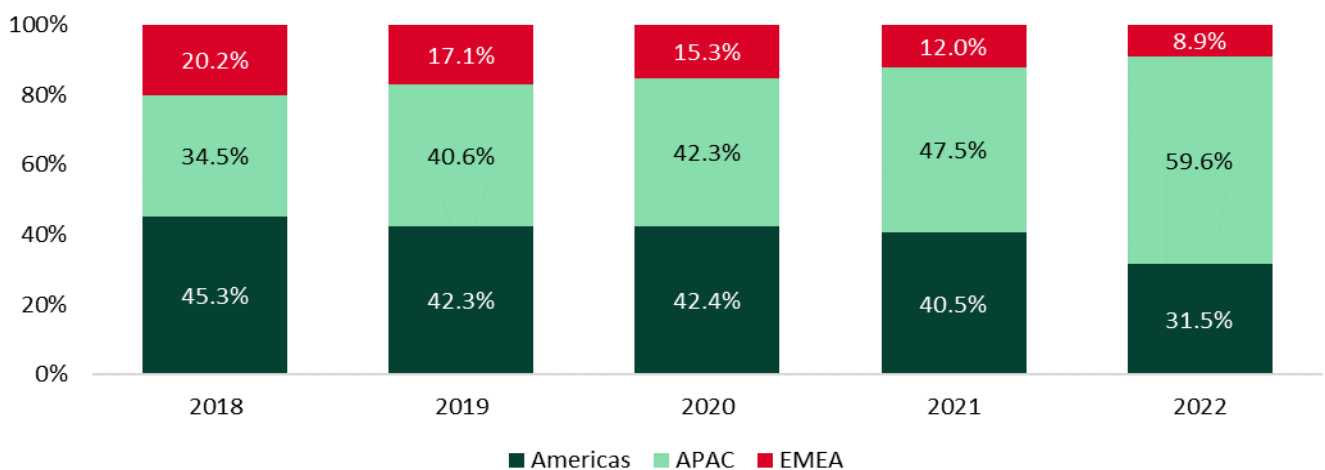


Chart 15: Product composition over time by share of total volume

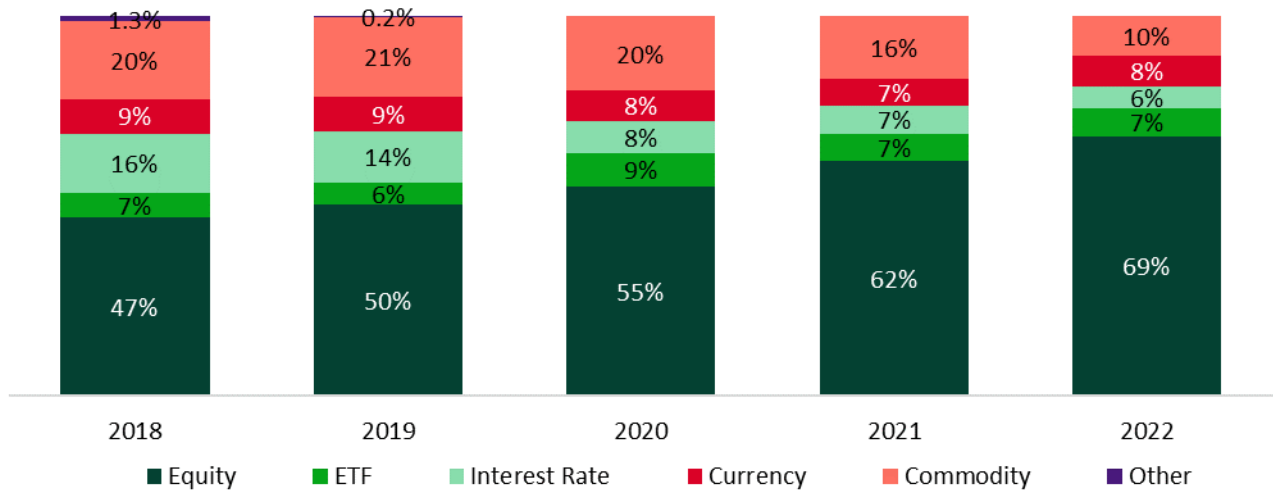


Chart 16: Share of total volumes in 2022, by region and asset class

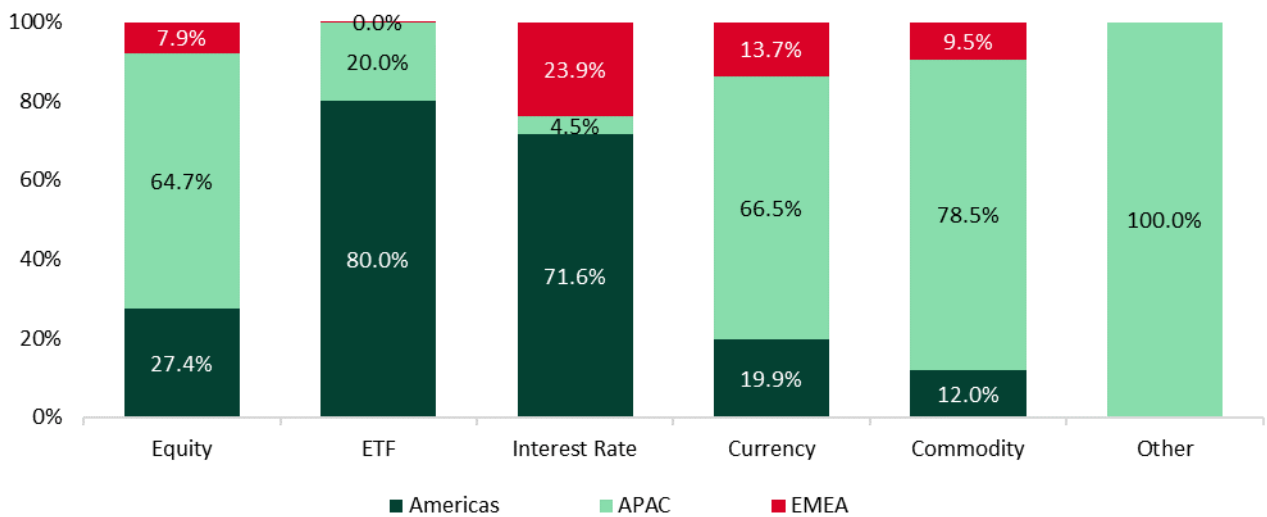


Chart 17: Volumes by asset class over five years (billions of contracts traded)

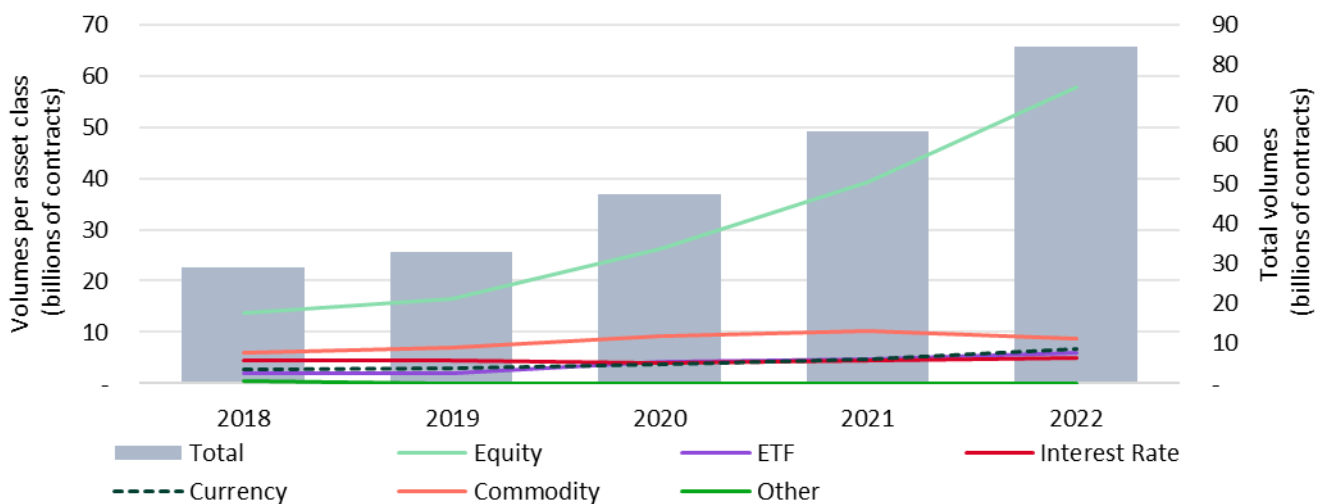


Chart 18: Volumes of equity derivatives over five years (billions of contracts traded)

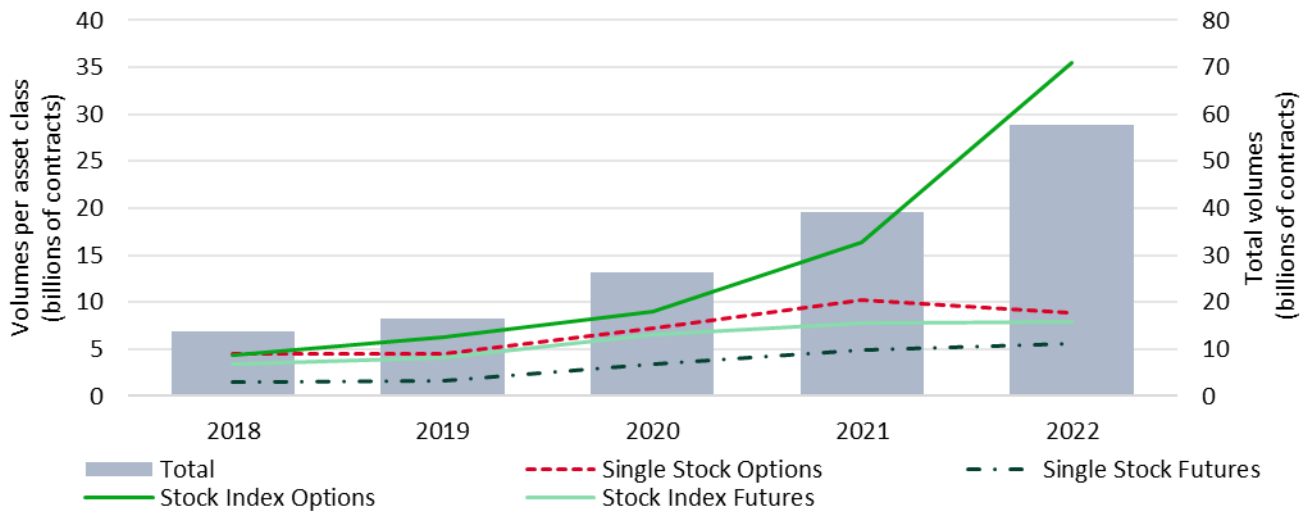


Chart 19: Single stock options

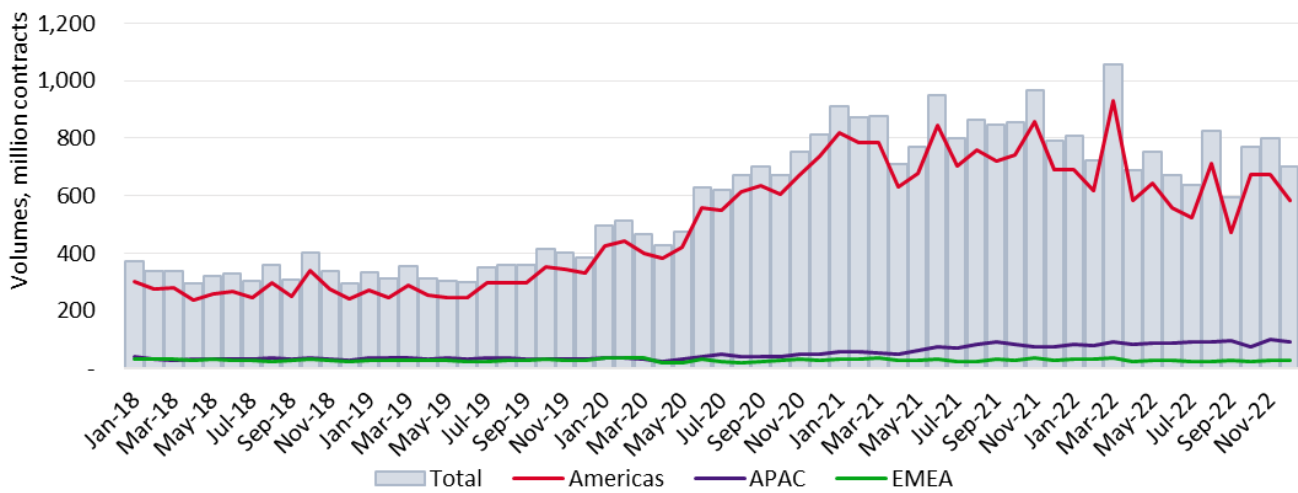
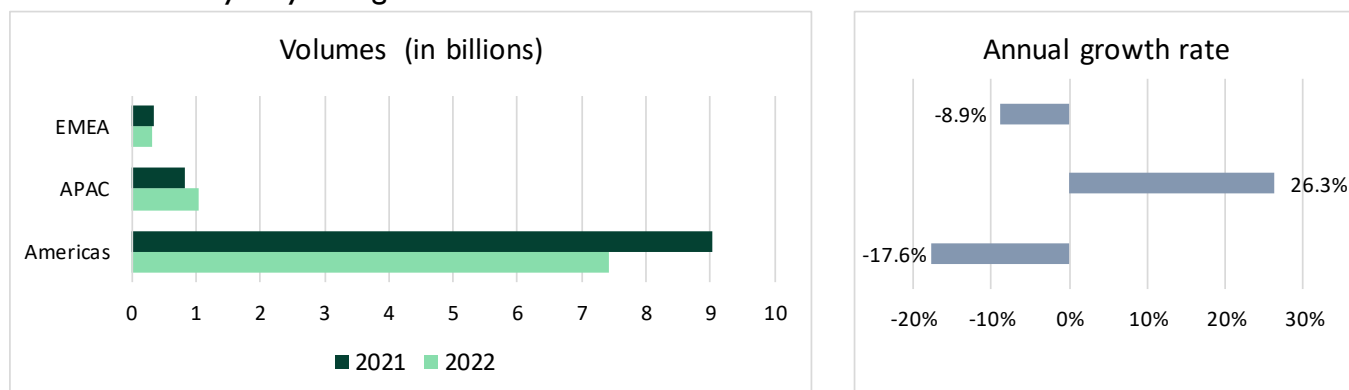
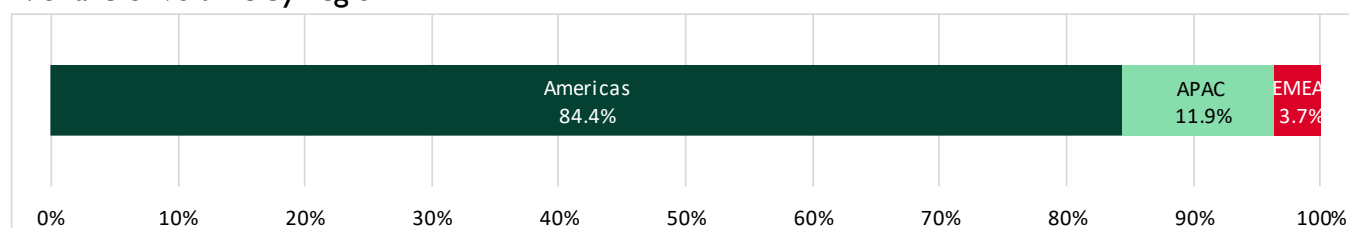


Chart 20: Single stock options

A. Volumes and yearly change



B. Share of volume by region



C. Share of volume by exchange

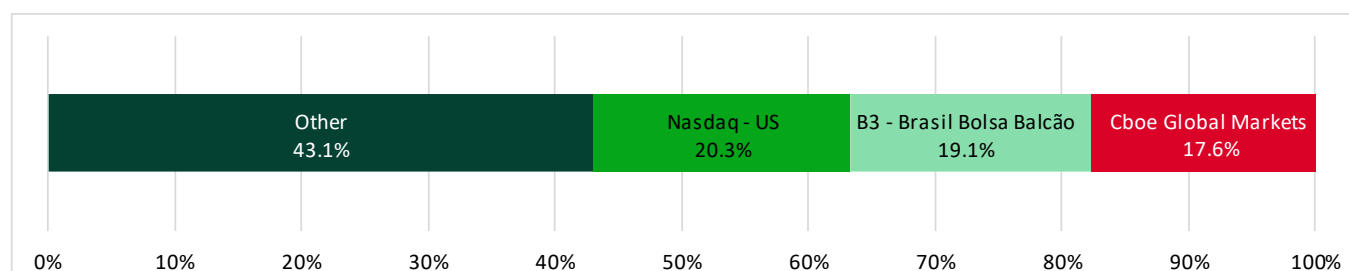


Table 1: Top 10 single stock options contracts traded in 2022⁷

Contract Name	Contract size	Exchange name	Volume 2022	Notional value 2022	Open interest 2022
PETROBRAS	100 shares	B3 - Brasil Bolsa Balcão	70,191,620,208	11,429	16,355,955,656
VALE	100 shares	B3 - Brasil Bolsa Balcão	15,257,015,800	5,359	3,221,525,600
VIA VAREJO		B3 - Brasil Bolsa Balcão	9,522,382,600	952	2,700,189,400
ITAU	100 shares	B3 - Brasil Bolsa Balcão	6,562,766,000	951	2,680,641,800
BANCO DO BRASIL		B3 - Brasil Bolsa Balcão	5,243,121,000	1,157	2,510,705,400
Tesla Inc (TSLA)	100 shares	Cboe Global Markets	120,837,919	NA	NA
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
Apple Inc (AAPL)	100 shares	Cboe Global Markets	104,921,151	NA	NA
Tesla Inc (TSLA)	100 shares	MIAX Exchange Group	77,112,287	NA	NA

⁷ 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.

Chart 21: Single stock futures

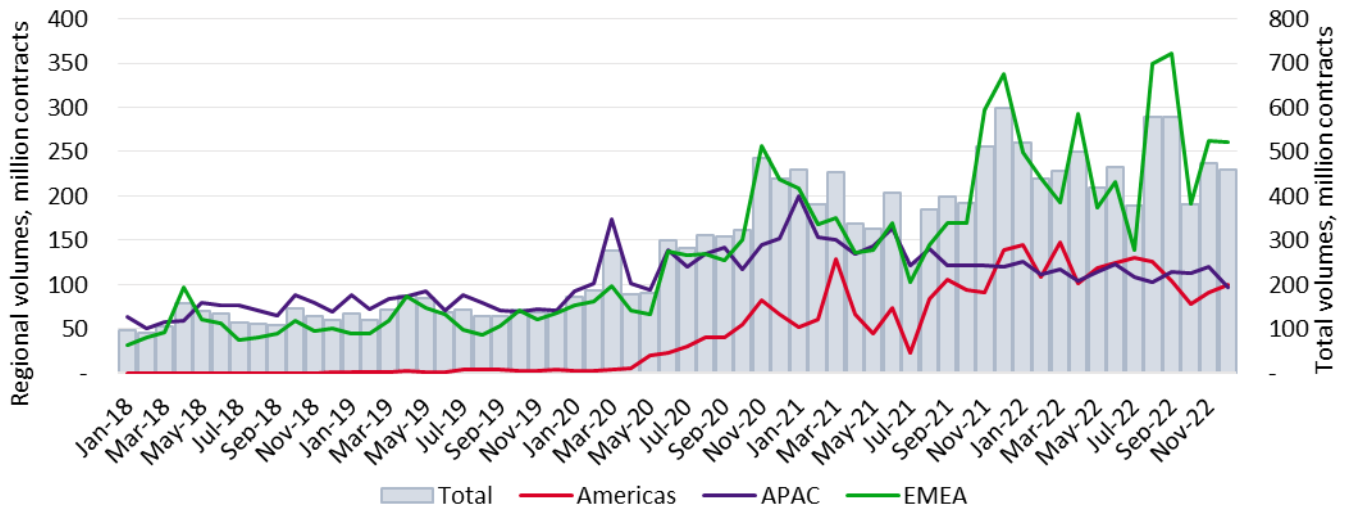
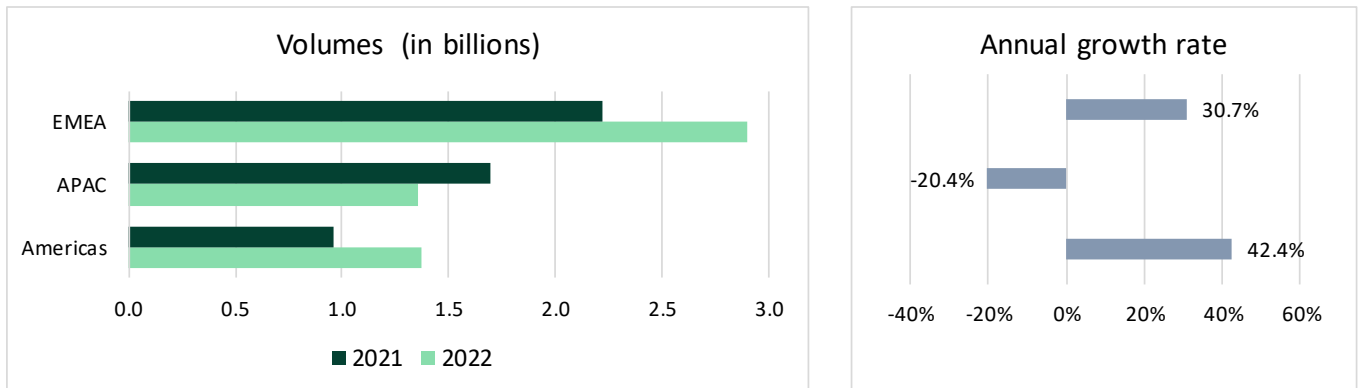
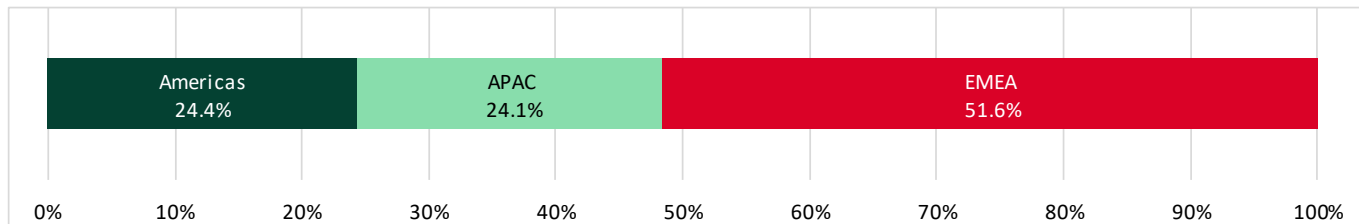


Chart 22: Single stock futures

A. Volumes and yearly change



B. Share of volume by region



C. Share of volume by exchange

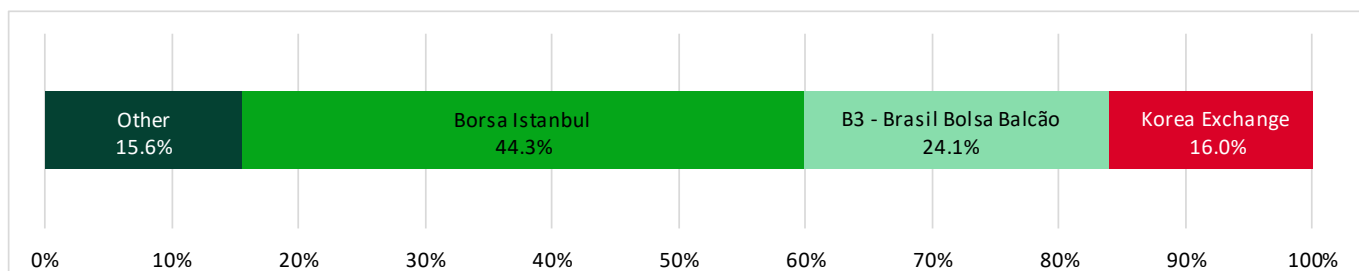


Table 2: Top 10 single stock futures contracts traded in 2022

Contract Name	Contract size	Exchange name	Volume 2022	Notional value 2022	Open interest 2022
VIA VAREJO	NA	B3 - Brasil Bolsa Balcão	298,848,400	196	94,079,100
YKBNK	100 shares	Borsa Istanbul	293,713,100	10,323	1,499,250
EKGYO	100 shares	Borsa Istanbul	285,430,407	6,701	1,593,174
DRV futures SamsungElec	10 shares	Korea Exchange	281,800,639	142,114	1,171,205
AKBNK	100 shares	Borsa Istanbul	181,005,914	11,449	915,982
TSKB	100 shares	Borsa Istanbul	161,760,930	2,533	584,396
VALE	100 shares	B3 - Brasil Bolsa Balcão	158,913,700	2,372	29,708,600
ODAS	100 shares	Borsa Istanbul	148,321,976	3,845	946,761
B3SA3	NA	B3 - Brasil Bolsa Balcão	139,369,900	325	30,293,900
USIMINAS	NA	B3 - Brasil Bolsa Balcão	77,628,900	132	27,674,100

Chart 23: Stock index options

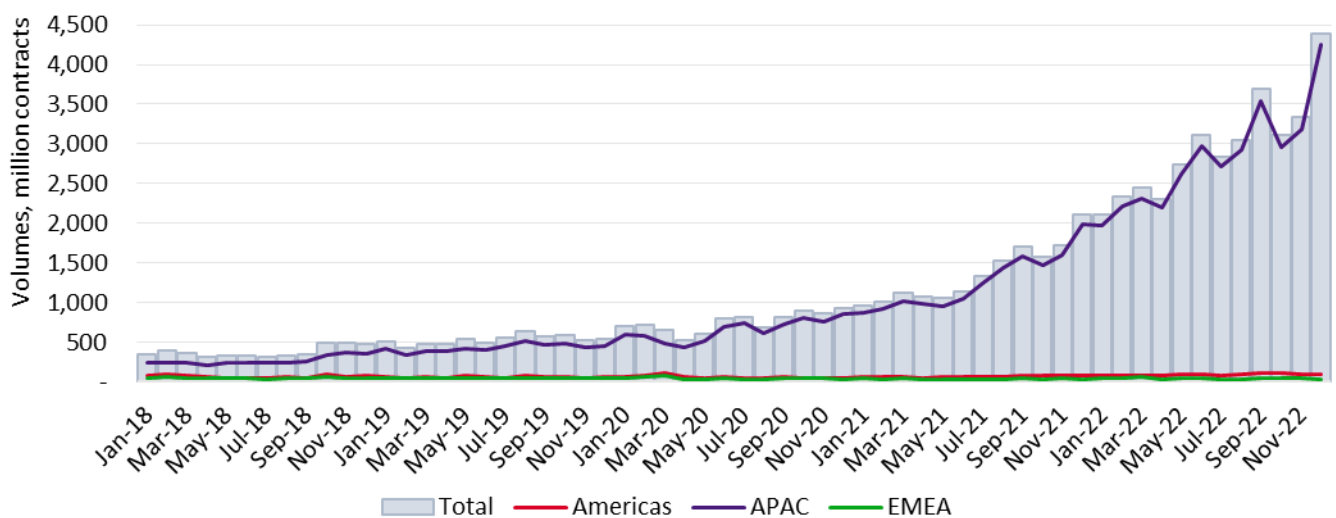
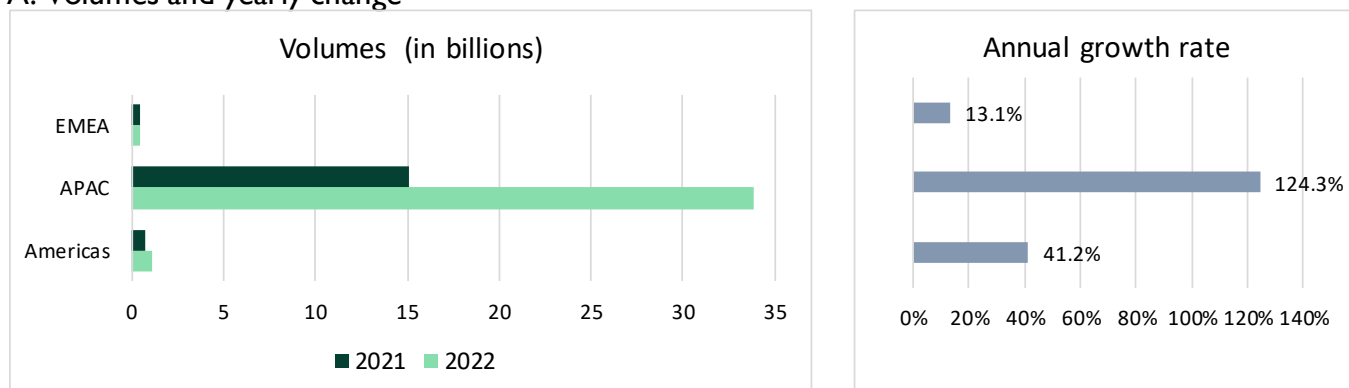
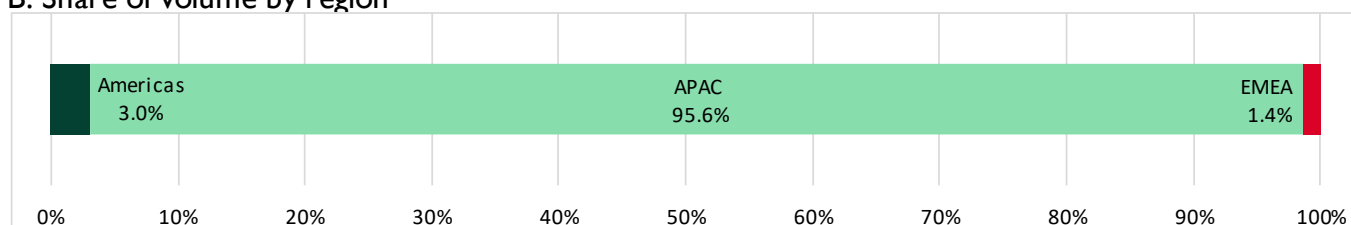


Chart 24: Stock index options

A. Volumes and yearly change



B. Share of volume by region



C. Share of volume by exchange

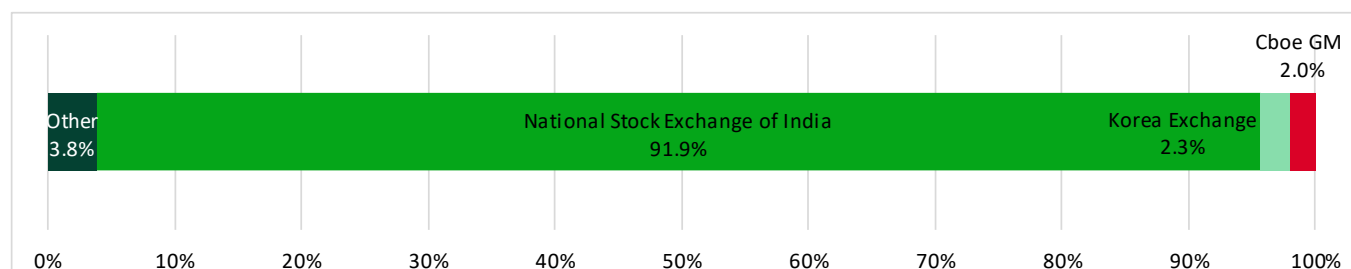


Table 3: Top 10 stock index options contracts traded in 2022

Contract Name	Contract size	Exchange name	Volume 2022	Notional value 2022	Open interest 2022
S&P 500 Index options (SPX)	100 shares of the underlying index	Cboe Global Markets	558,418,890	NA	15,696,618
DRV option KOSPI 200	KRW 250,000	Korea Exchange	523,026,110	114,637	2,202,362
E-MINI S&P 500 options	\$50 x S&P 500 Index	CME Group	287,397,789	58,614,009	3,896,401
DRV option KOSPI 200 Weekly	KRW 250,000	Korea Exchange	248,700,237	29,225	77,062
OPT ON EURO STOXX 50	EUR 10 x index pts	Eurex	246,734,241	9,393,375	29,177,580
TAIEX options	TWD 50 x index pts	Taiwan Futures Exchange	200,743,525	5,129,874	363,908
INDIA 50	1 S&P BSE SENSEX 50	India International Exchange	182,583,048	3,340,620	370
Cboe Volatility Index (VIX)	US\$ 100 x index value	Cboe Global Markets	133,663,358	NA	8,016,439
OPT ON EURO STOXX BANKS	EUR 50 x index pts	Eurex	64,210,405	320,806	9,278,766
DRV option MINI KOSPI 200	KRW 50,000	Korea Exchange	37,743,104	5,303	649,616

Chart 25: Stock index futures

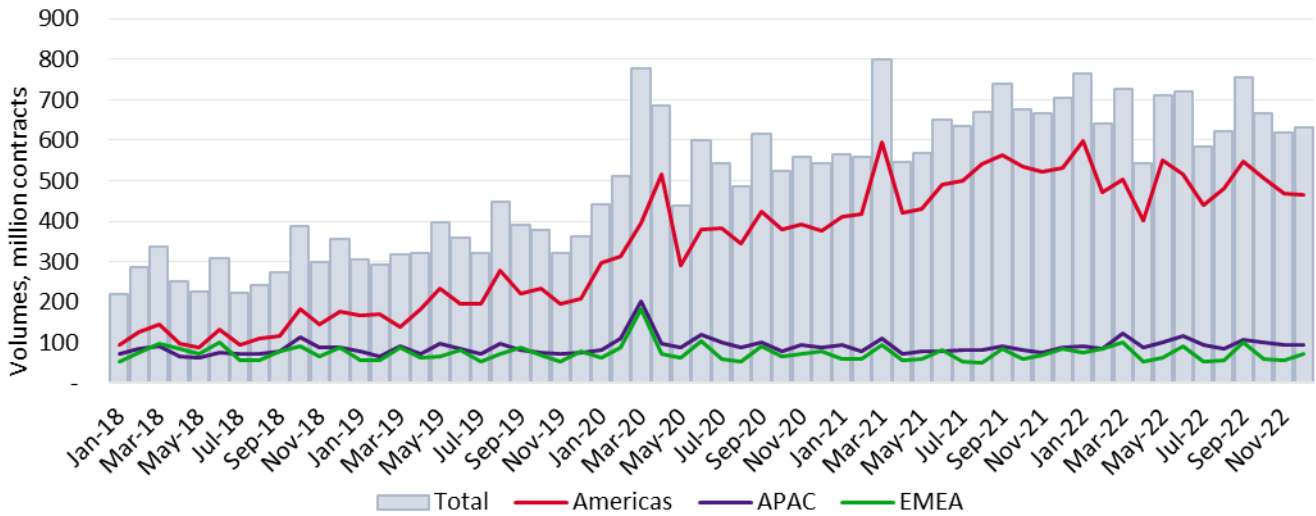
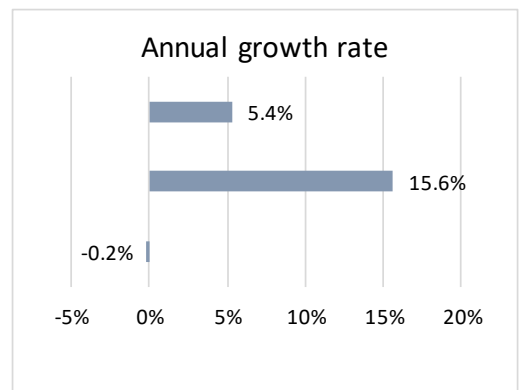
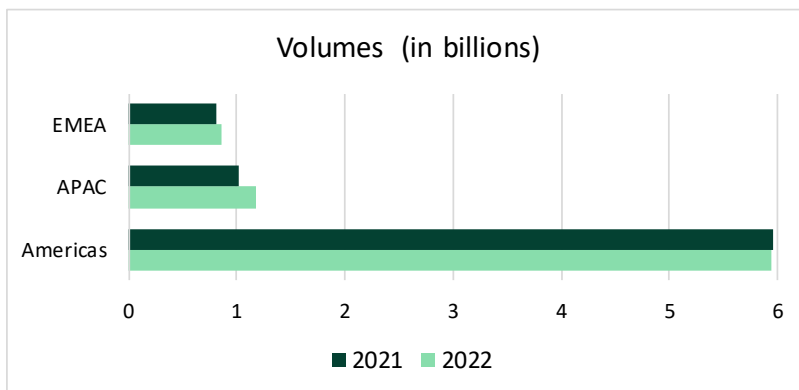
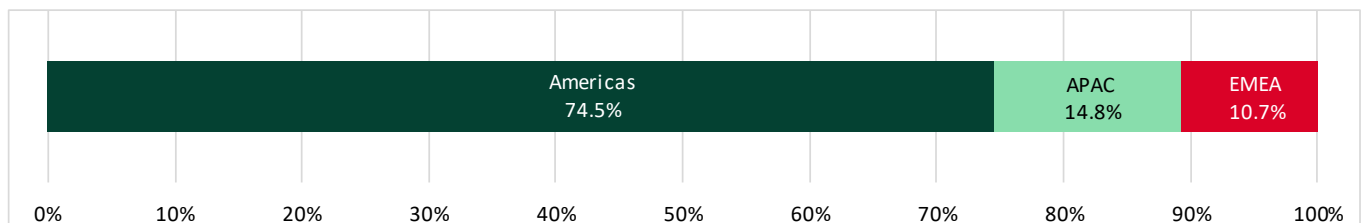


Chart 26: Stock index futures

A. Volumes and yearly change



B. Share of volume by region



C. Share of volume by exchange

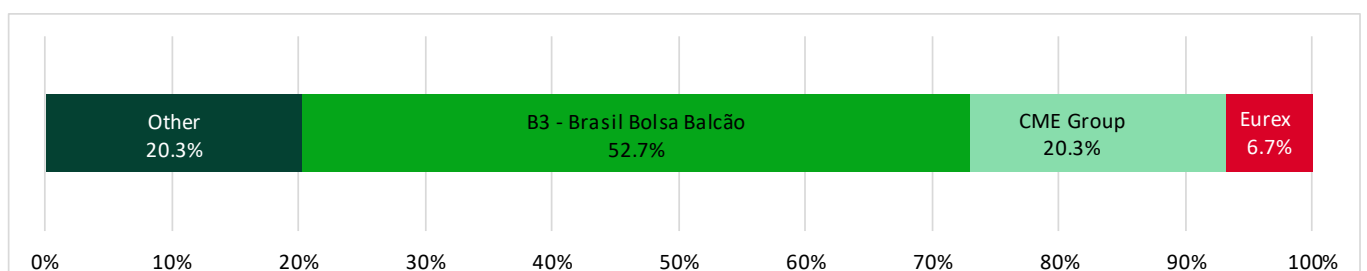


Table 4: Top 10 stock index futures contracts traded in 2022

Contract Name	Contract size	Exchange name	Volume 2022	Notional value 2022	Open interest 2022
E-MINI S&P 500	US\$ 50 x S&P 500 Index	CME Group	503,954,527	102,606,442	2,014,429
MICRO E-MINI NASDAQ 100	US\$ 2 x Nasdaq-100 Index	CME Group	364,950,140	9,328,338	66,540
MICRO E-MINI S&P500	\$5 x S&P 500 Index	CME Group	343,974,047	7,014,309	116,334
FUT ON EURO STOXX 50	EUR 10 x index pts	Eurex	285,374,104	11,343,635	3,836,722
Nikkei 225 mini	JPY 100	Japan Exchange Group	275,463,005	5,685,464	425,037
E-MINI NASDAQ 100	US\$ 20 x Nasdaq-100 Index	CME Group	176,874,262	45,077,202	241,661
FTSE China A50 Index futures	US\$ 1 x futures price	Singapore Exchange	102,992,003	NA	803,849
BIST30	10 x BIST30 index	Borsa Istanbul	89,151,234	153,983	322,487
FUT ON EURO STOXX BANKS	EUR 50 x index pts	Eurex	82,595,882	390,997	1,198,446
Mini-TAIEX futures	TWD 50 x index pts	Taiwan Futures Exchange	80,176,220	2,031,692	53,212

Chart 27: Currency derivatives

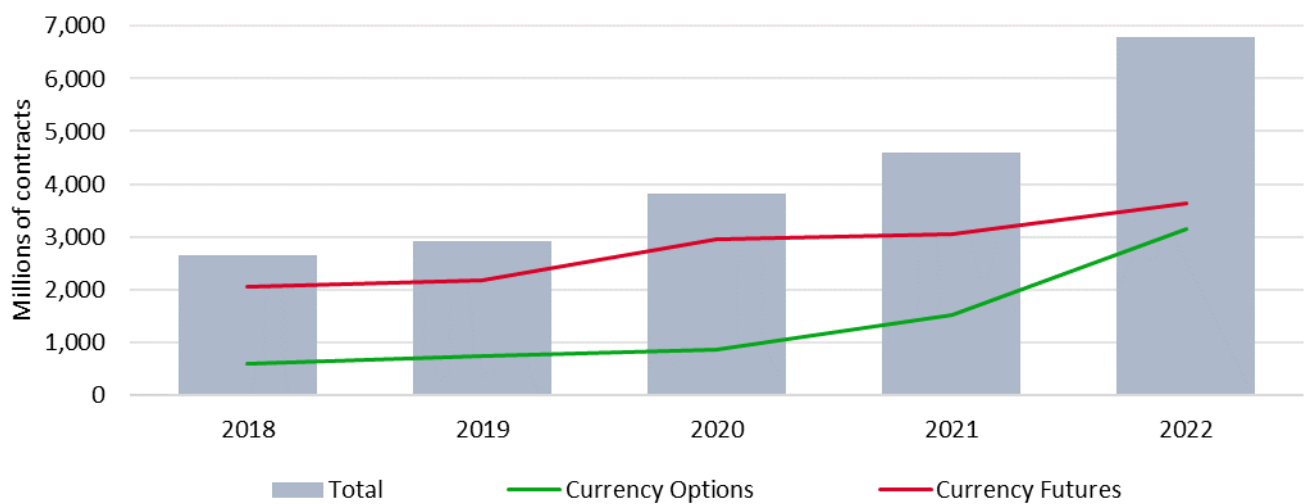


Chart 28: Currency options

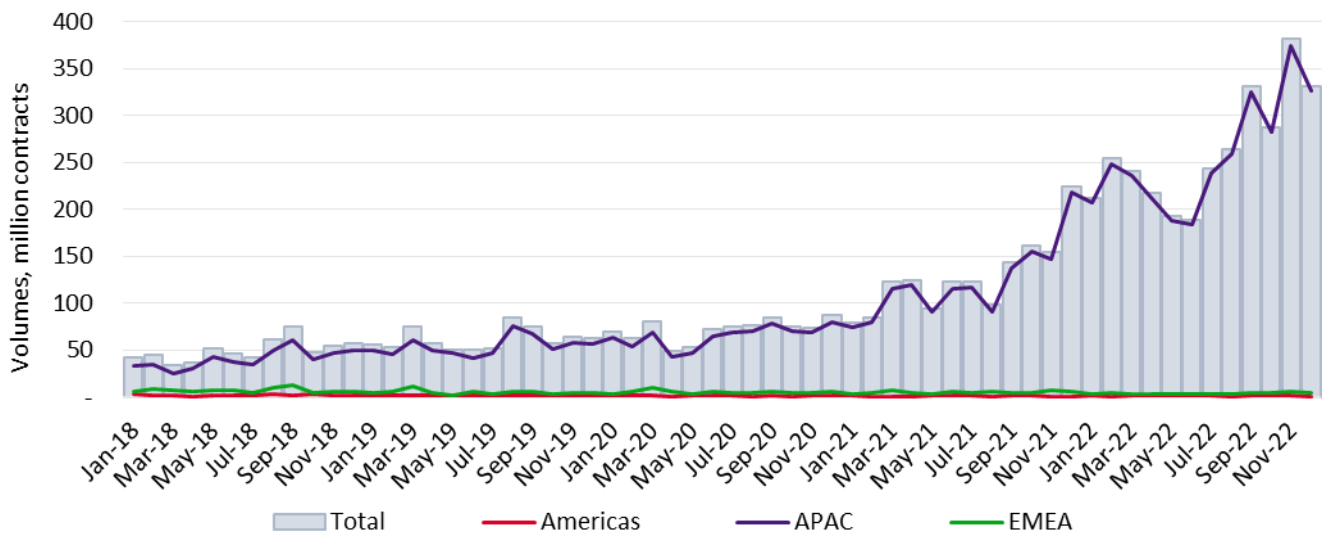


Chart 29: Currency futures

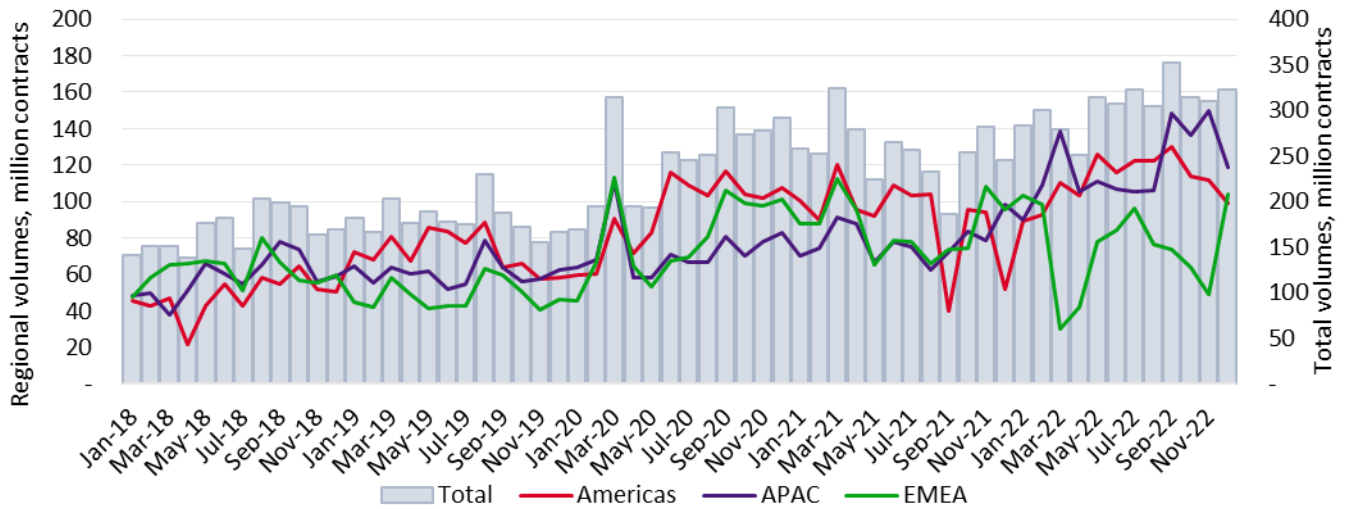
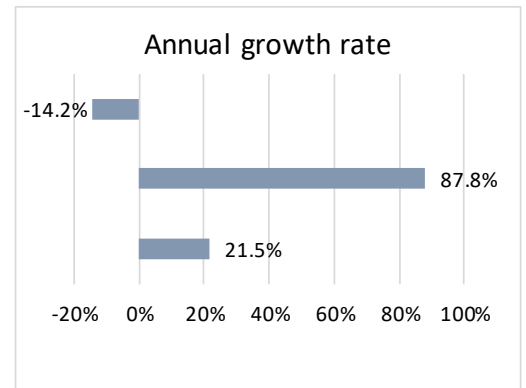
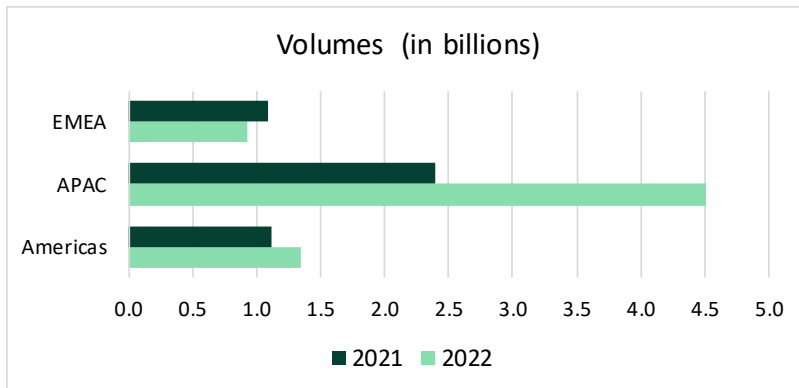
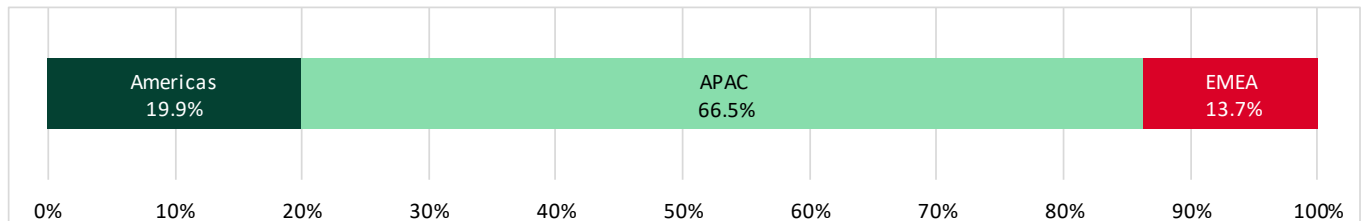


Chart 30: Currency derivatives

A. Volumes and yearly change



B. Share of volume by region



C. Share of volume by exchange

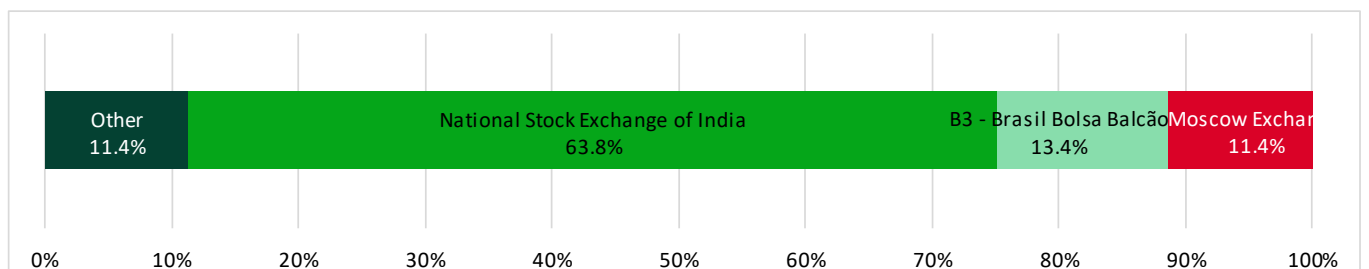


Table 5: Top 10 currency derivatives contracts traded in 2022

Contract Name	Contract size	Exchange name	Volume 2022	Notional value 2022	Open interest 2022
DLR futures	US\$ 1,000	Matba Rofex	173,760,952	143,010	2,643,733
DRV futures USD	US\$ 10,000	Korea Exchange	126,291,637	1,304,345	807,882
US Dollar futures	US\$ 50,000	B3 - Brasil Bolsa Balcão	68,224,835	3,342,499	13,537,697
USD/TRY futures	US\$ 1,000	Borsa Istanbul	63,075,527	56,605	2,916,769
EURO FX futures	EUR 125,000	CME Group	61,532,694	8,090,696	721,958
JAPANESE YEN futures	JPY 12,500,000	CME Group	39,570,152	3,750,227	169,327
BRITISH POUND futures	GBP 62,500	CME Group	31,235,384	2,392,059	201,881
AUSTRALIAN DOLLAR futures	AU\$ 100,000	CME Group	25,495,794	1,768,118	126,083
CANADIAN DOLLAR futures	CAD 100,000	CME Group	22,767,637	1,746,064	135,582
SGX INR/USD FX futures	INR 2,000,000	Singapore Exchange	16,636,558	NA	51,923

Chart 31: Interest rate derivatives over five years (millions of contracts traded)

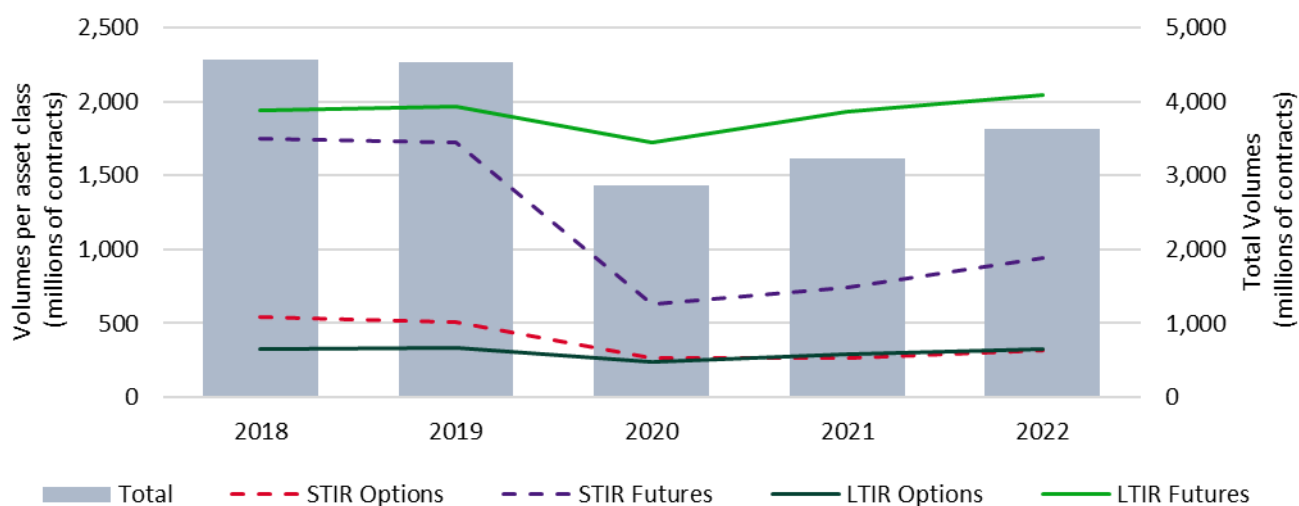


Chart 32: Share of interest rate derivatives over five years

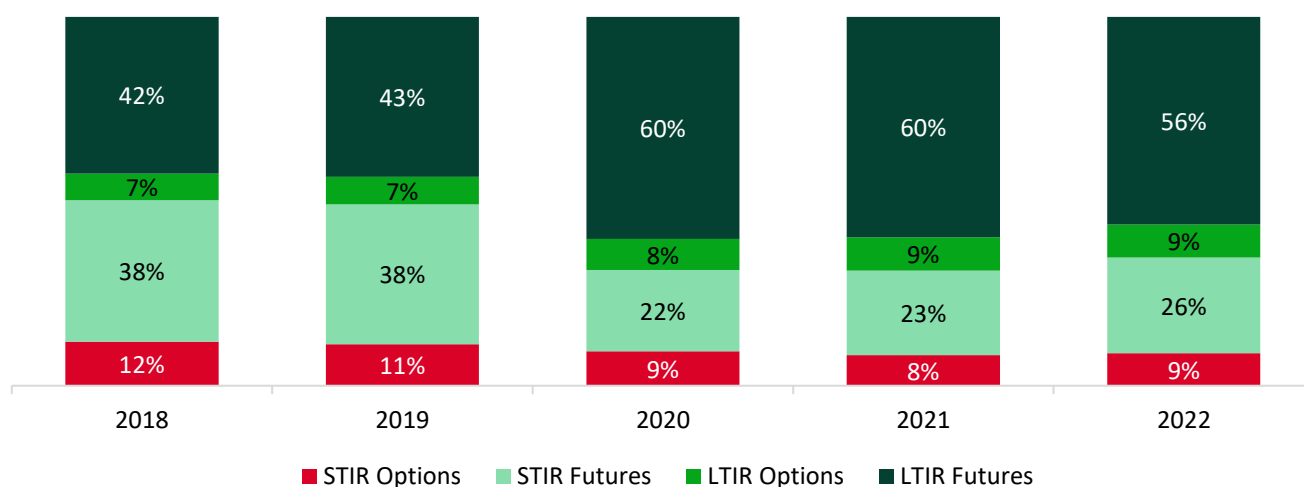


Chart 33: Interest rate options

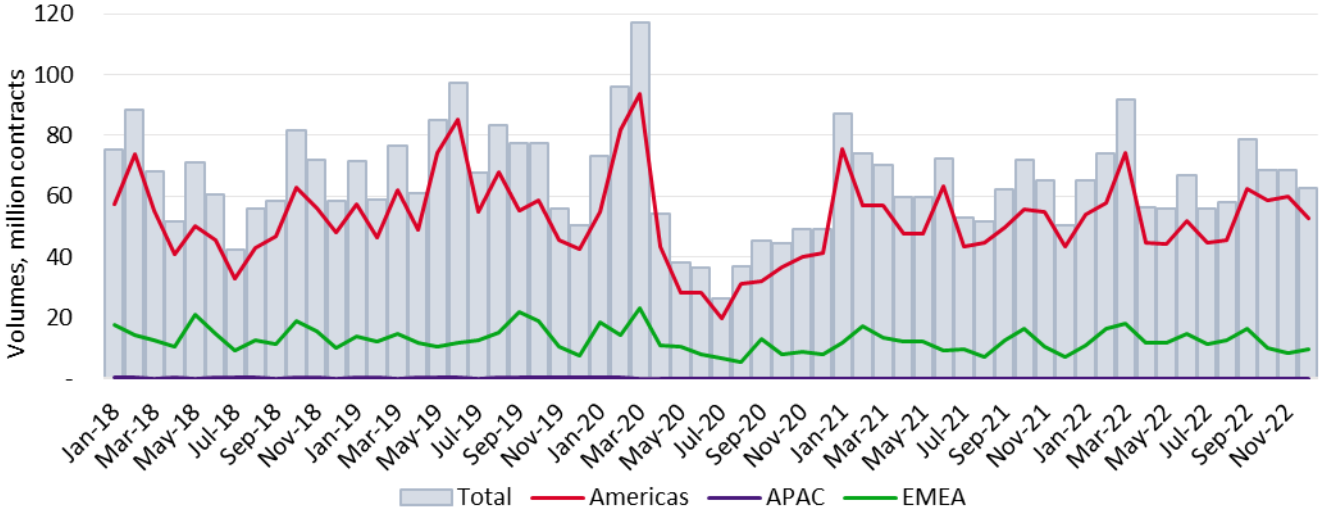


Chart 34: Interest rate futures

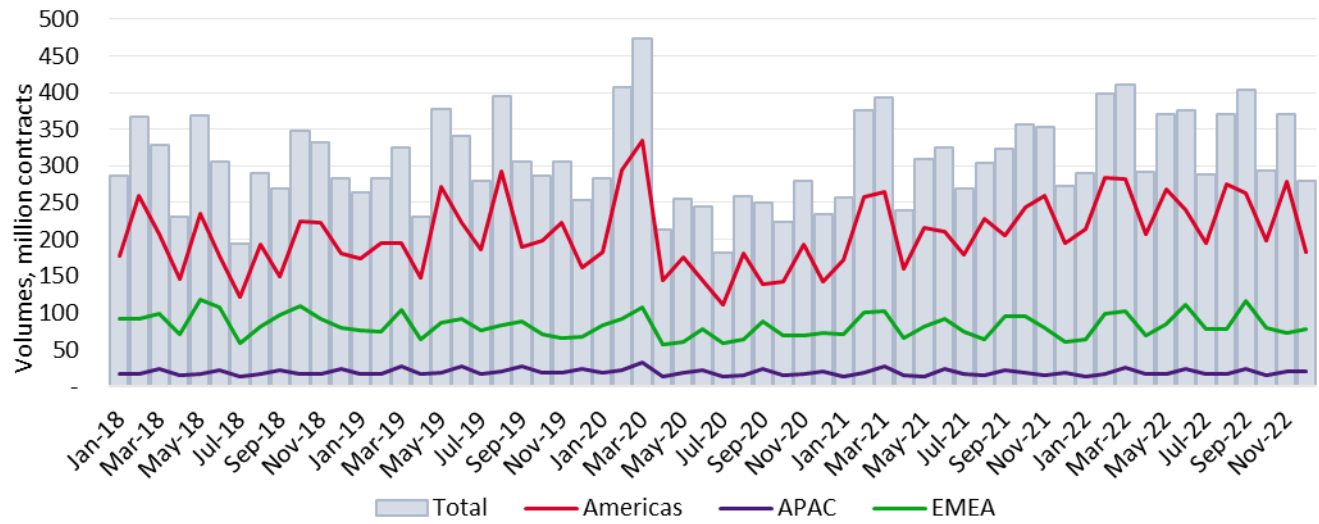
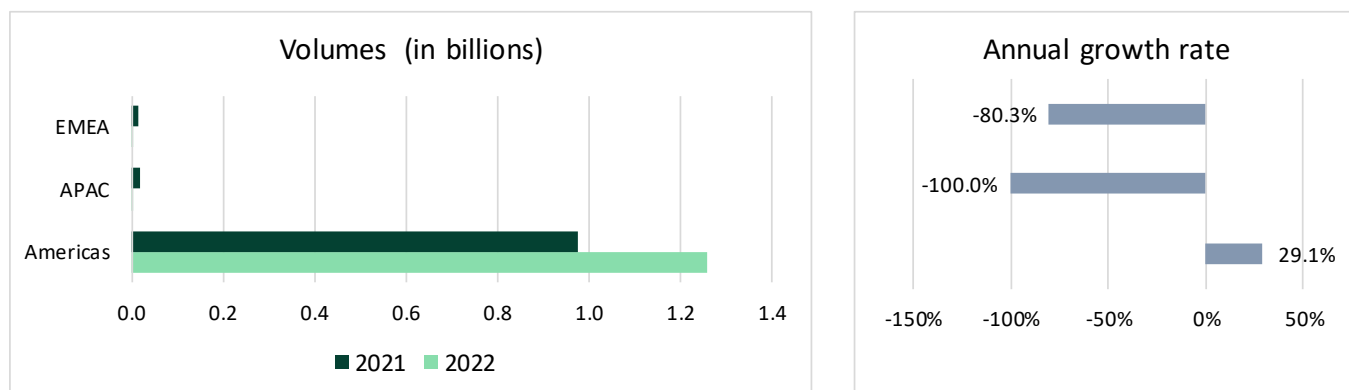
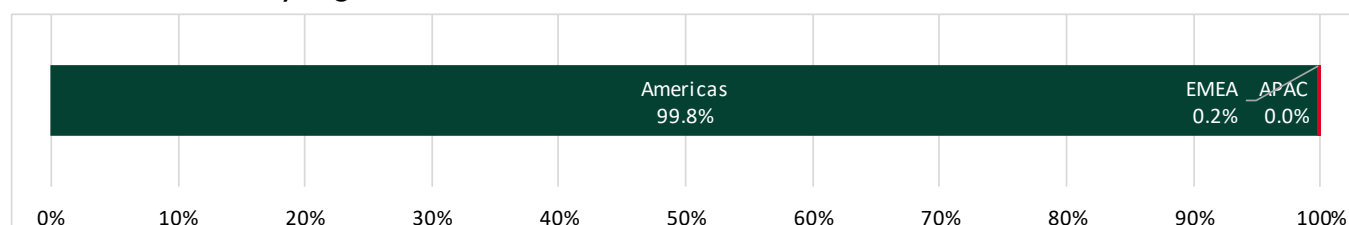


Chart 35: Short term interest rate derivatives

A. Volumes and yearly change



B. Share of volume by region



C. Share of volume by exchange

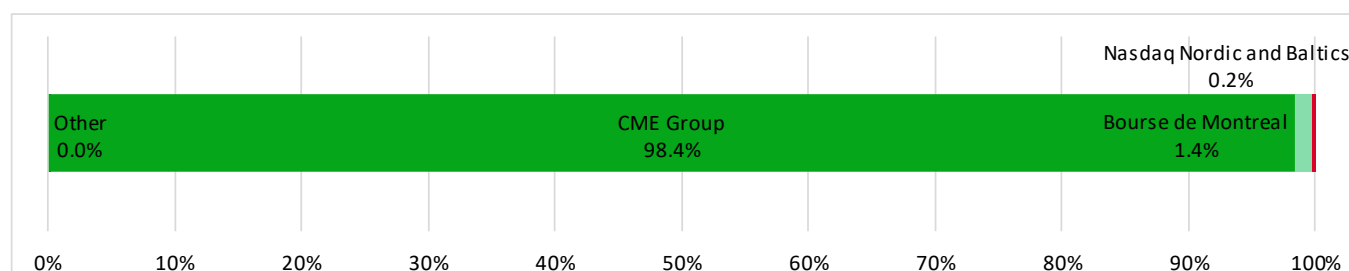
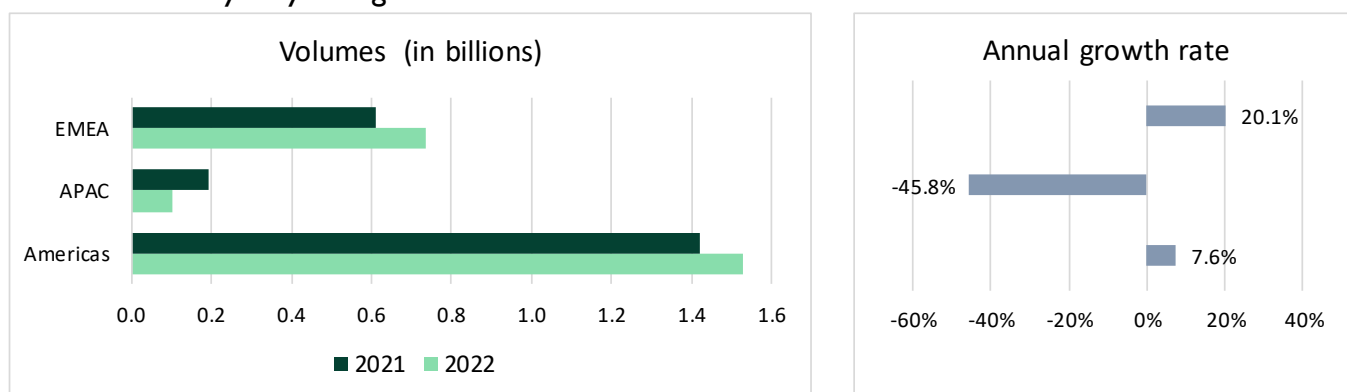


Table 6: Top 10 short-term interest rate derivatives contracts traded in 2022

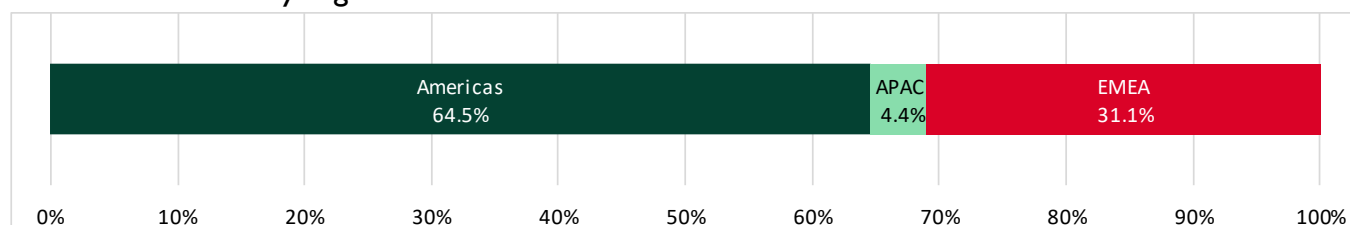
Contract Name	Contract size	Exchange name	Volume 2022	Notional value 2022	Open interest 2022
INTERBANK DEPOSITS futures	NA	B3 - Brasil Bolsa Balcão	661,665,919	10,413,095	52,449,359
3-Month SOFR futures	US\$ 1,000,000	CME Group	418,867,700	418,867,700	8,120,182
Eurodollar futures	US\$ 1,000,000	CME Group	394,020,496	394,020,496	6,005,248
Eurodollar options	US\$ 1,000,000	CME Group	209,138,354	209,138,354	11,006,415
3-Month SOFR options	US\$ 1,000,000	CME Group	110,381,998	110,381,998	20,478,201
IDI options	NA	B3 - Brasil Bolsa Balcão	91,353,137	1,935	214,972,432
30 DAY FED FUND futures	US\$ 5,000,000	CME Group	83,995,524	419,977,620	1,563,528
1-Month SOFR futures	US\$ 5,000,000	CME Group	23,129,417	115,647,085	756,689
3-Month Canadian Bankers' Acceptance futures (BAX)	CA\$ 2,500	Bourse de Montreal	17,192,134	NA	626,983
ID X IPCA SPREAD futures	NA	B3 - Brasil Bolsa Balcão	8,587,079	215,669	15,660,121

Chart 36: Long term interest rate derivatives

A. Volumes and yearly change



B. Share of volume by region



C. Share of volume by exchange

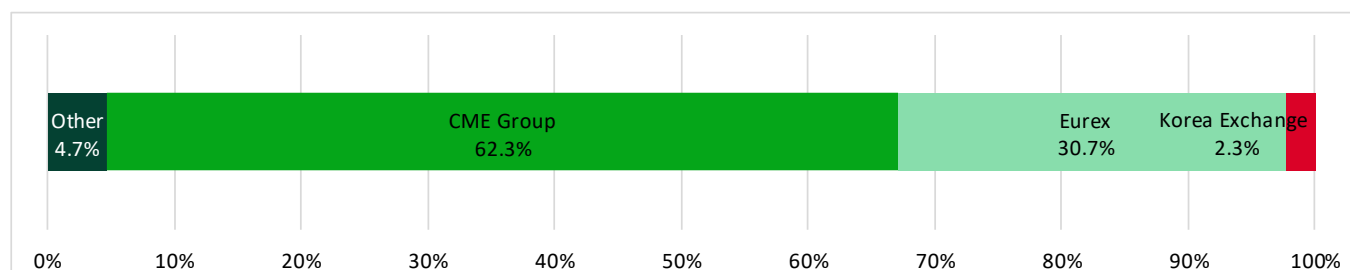


Table 7: Top 10 long-term interest rate derivatives contracts traded in 2022

Contract Name	Contract size	Exchange name	Volume 2022	Notional value 2022	Open interest 2022
10-YR Note futures	US\$ 100,000	CME Group	462,127,121	46,212,712	3,834,230
5-YR Note futures	US\$ 100,000	CME Group	326,800,007	32,680,001	4,220,610
FUT 8 1/2-10 1/2 Y.GOV.BOND 6%	EUR 100,000	Eurex	216,253,462	35,155,651	1,222,384
2-YR Note futures	US\$ 200,000	CME Group	169,827,700	33,965,540	2,232,089
10-YR Note options	US\$ 100,000	CME Group	164,562,163	16,456,216	2,634,157
FUT 4 1/2-5 1/2Y.GOV.BONDS 6%	EUR 100,000	Eurex	158,390,078	21,277,584	1,544,325
FUT 1 3/4-2 1/4 Y.GOV.BONDS 6%	EUR 100,000	Eurex	142,374,584	16,641,398	1,697,853
30-YR BOND futures	US\$ 100,000	CME Group	97,352,259	9,735,226	1,195,400
Ultra 10-Year Note futures	US\$ 100,000	CME Group	95,651,184	9,565,118	1,413,836
5-YR Note options	US\$ 100,000	CME Group	60,492,310	6,049,231	881,685

Chart 37: ETF derivatives

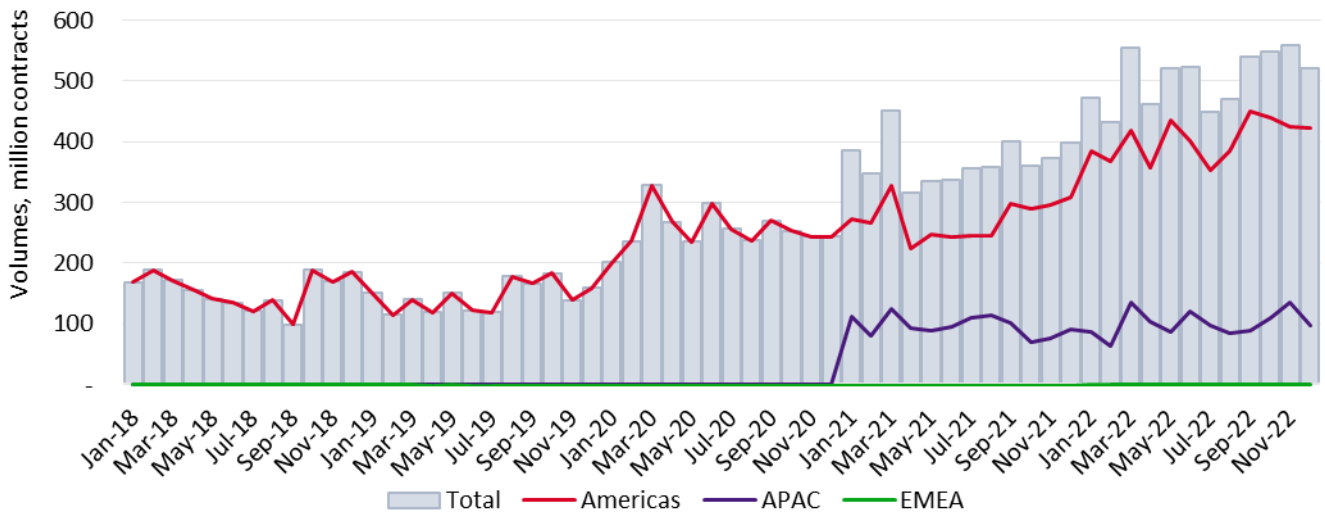


Chart 38: ETF derivatives

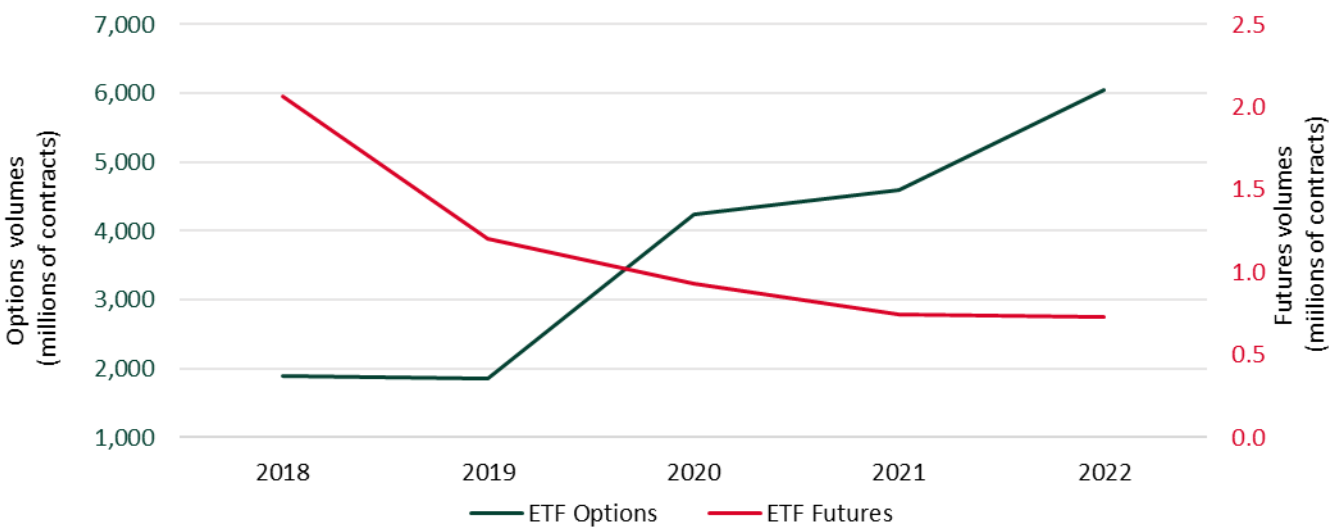


Chart 39: Commodity derivatives

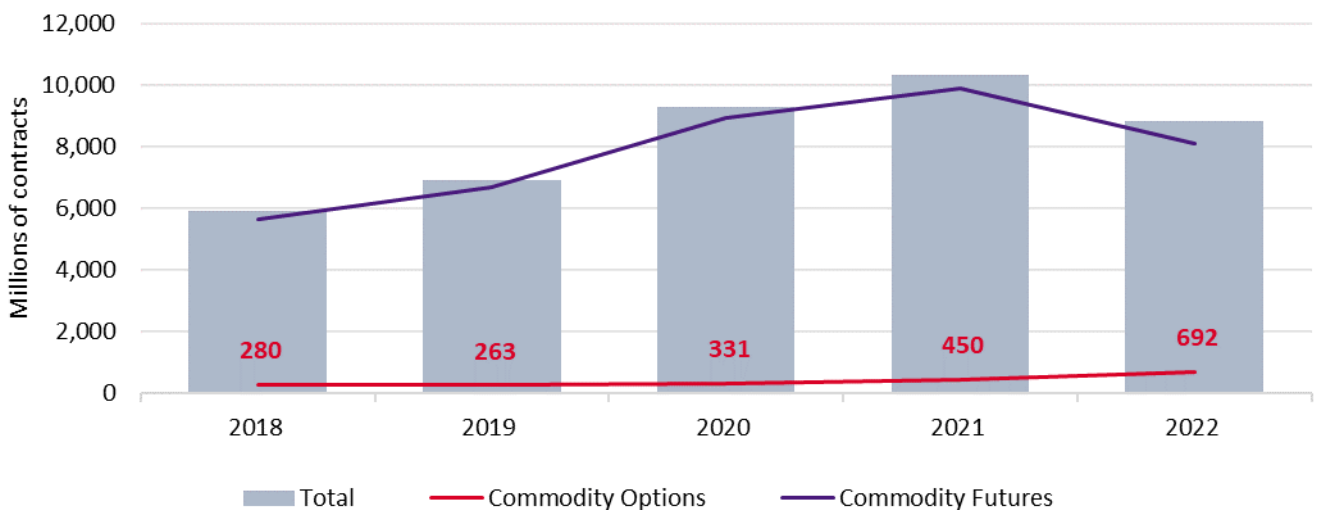


Chart 40: Commodity options

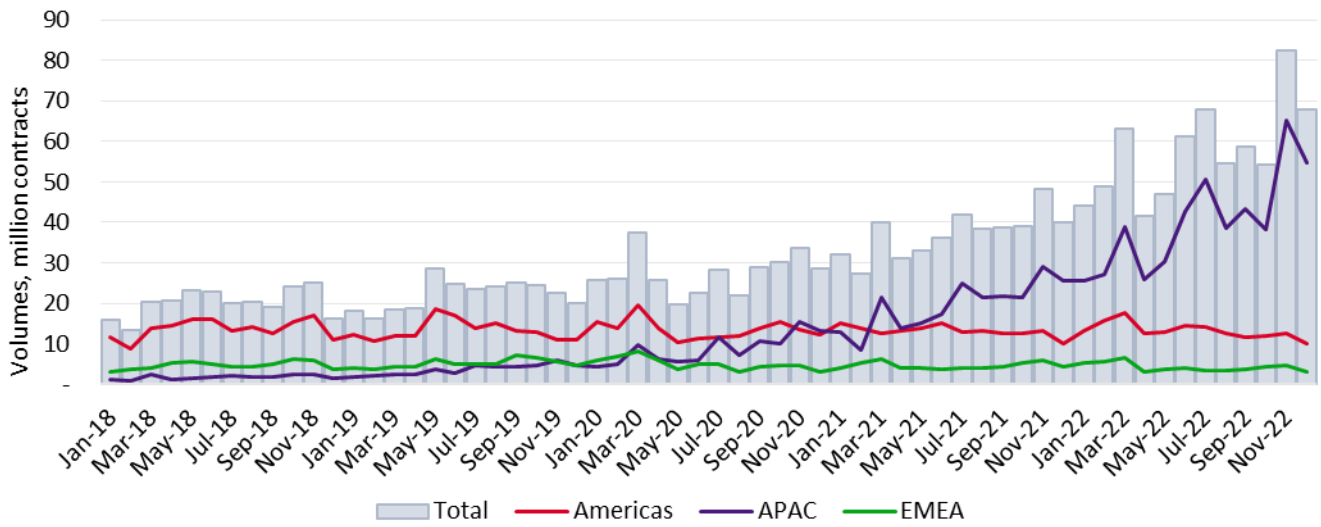


Chart 41: Commodity futures

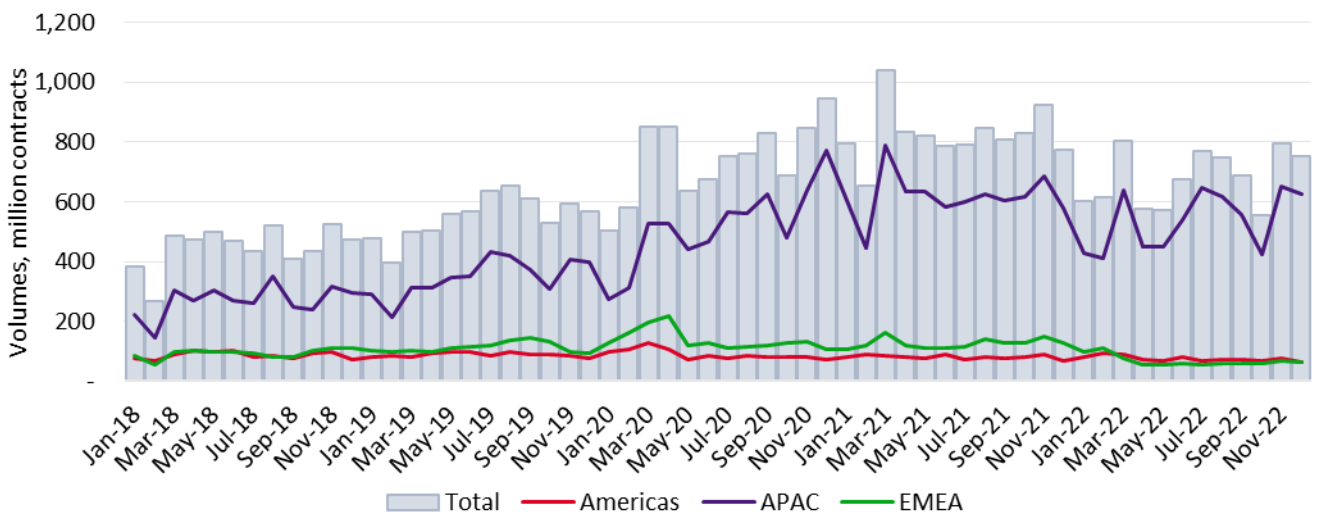
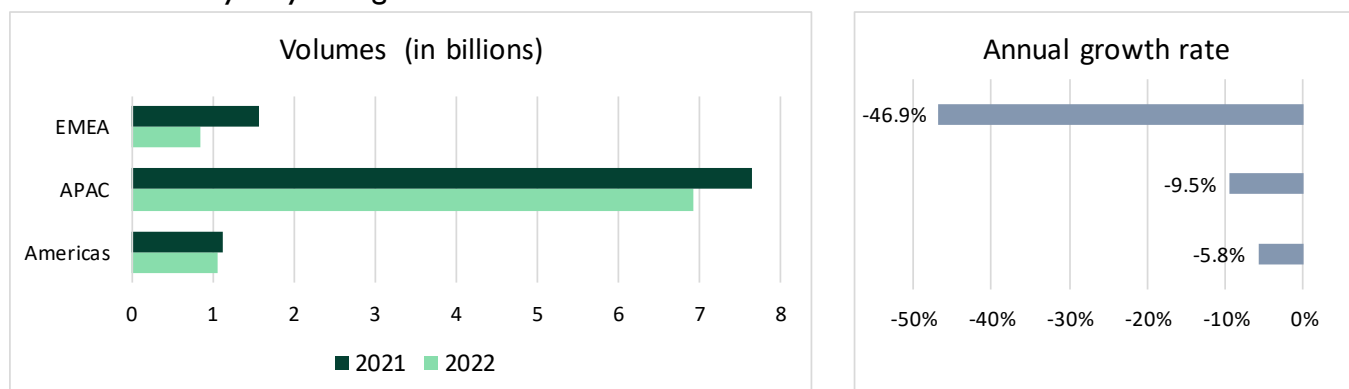
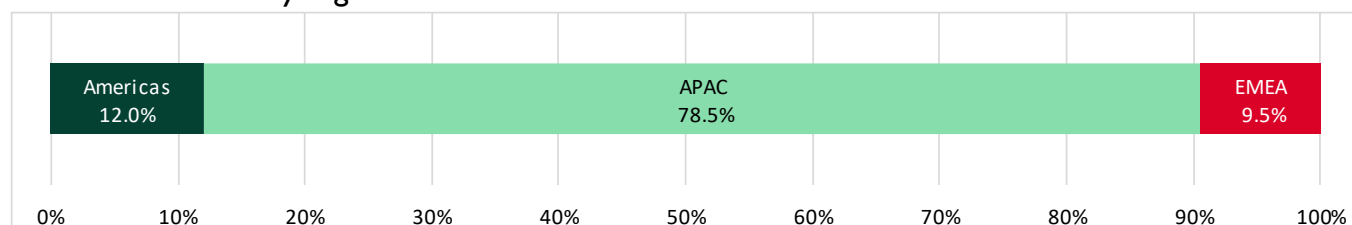


Chart 42: Commodity derivatives

A. Volumes and yearly change



B. Share of volume by region



C. Share of volume by exchange

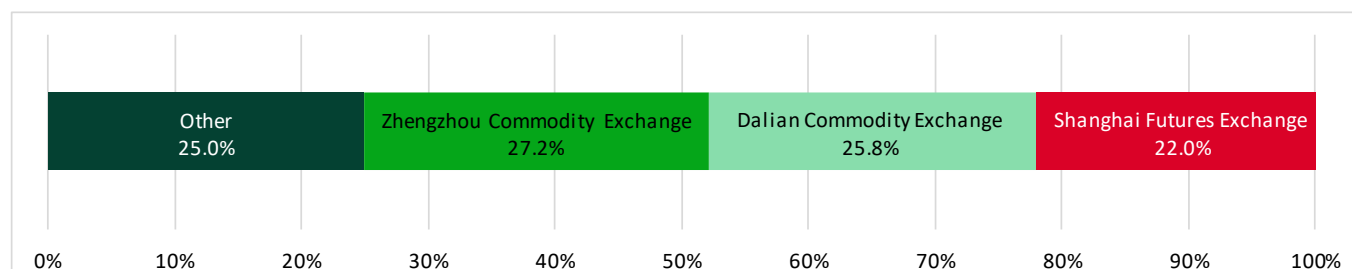


Table 8: Top 10 commodity derivatives contracts traded in 2022

Contract Name	Contract size	Exchange name	Volume 2022	Notional value 2022	Open interest 2022
PTA futures	5 metric tons/lot	Zhengzhou Commodity Exchange	535,800,834	2,522,458	3,115,973
Methanol futures	10 metric tons/lot	Zhengzhou Commodity Exchange	395,544,977	2,252,090	1,905,678
Soda Ash futures	20 metric tons/lot	Zhengzhou Commodity Exchange	330,705,582	1,596,094	1,151,193
Soybean Meal futures	10 metric tons/lot	Dalian Commodity Exchange	325,094,536	1,853,930	2,017,632
Polyvinyl Chloride futures	5 metric tons/lot	Dalian Commodity Exchange	283,661,324	1,485,181	1,351,418
RBD Palm Olein futures	10 metric tons/lot	Dalian Commodity Exchange	241,582,846	3,264,814	687,780
Flat Glass futures	20 metric tons/lot	Zhengzhou Commodity Exchange	224,503,565	1,531,637	1,098,546
Iron Ore futures	100 metric tons/lot	Dalian Commodity Exchange	221,120,805	2,423,000	1,313,299
Crude Oil Light Sweet futures	1,000 barrels	CME Group	205,997,830	18,722,399	1,440,725
Soybean Oil futures	10 metric tons/lot	Dalian Commodity Exchange	183,506,353	2,618,295	635,525

Chart 43: Commodity derivatives by type of underlying

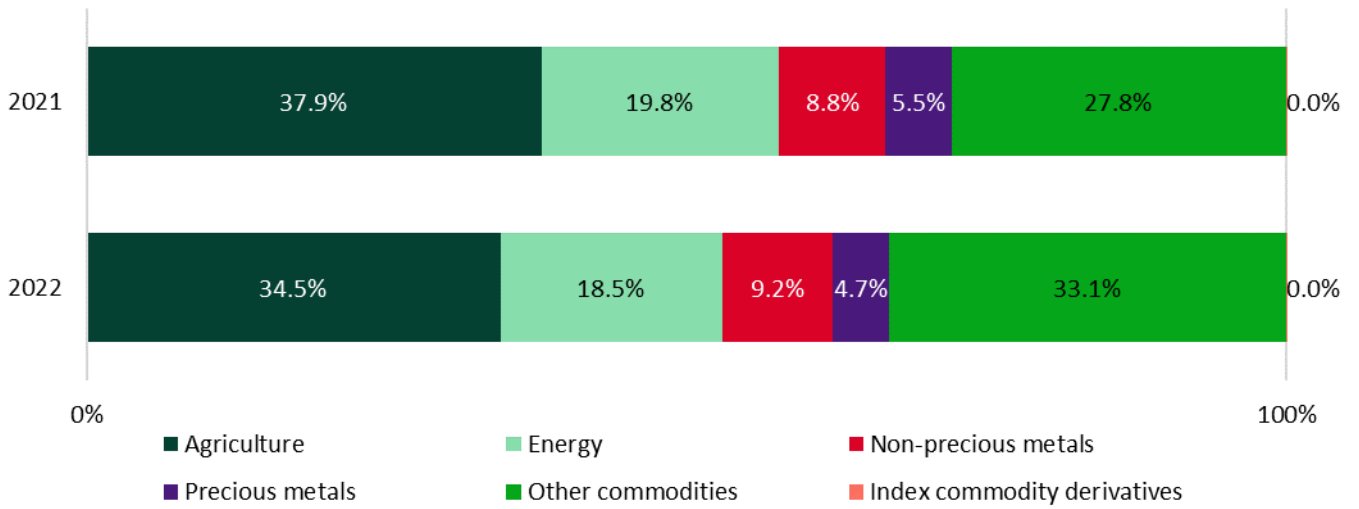
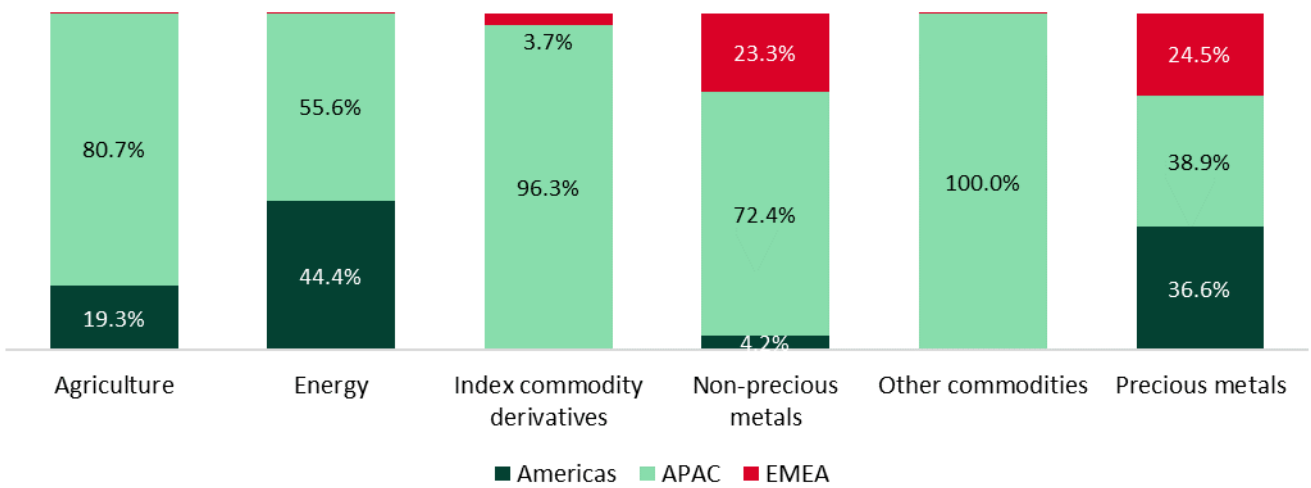


Chart 44: Commodity derivatives by type of underlying: regional breakdown



Tables

Cash equity - Quarterly data

	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2022	% change 2022/2021
Domestic Market Capitalisation	117,324,426	101,688,023	92,291,959	98,949,332	98,949,332	-20.29%
<i>(million USD)</i>						
Americas	54,715,307	44,897,370	42,545,562	43,440,135	43,440,135	-24.17%
APAC	36,499,180	33,722,077	29,033,814	31,892,550	31,892,550	-18.99%
EMEA	26,109,939	23,068,576	20,712,582	23,616,647	23,616,647	-14.09%
Value of Share Trading	44,755,412	37,895,689	32,066,079	30,954,836	145,672,015	-9.68%
<i>(million USD)</i>						
Americas	25,911,240	21,671,304	16,877,540	16,858,566	81,318,650	-1.55%
APAC	14,697,416	13,049,655	12,565,193	11,249,438	51,561,701	-21.03%
EMEA	4,146,756	3,174,730	2,623,346	2,846,831	12,791,664	-4.57%
Number of trades EOB	12,921,553	12,576,507	11,782,062	11,040,535	48,320,658	5.36%
<i>(thousands of trades)</i>						
Americas	3,743,021	3,602,466	3,008,476	3,089,965	13,443,927	12.98%
APAC	8,172,788	8,121,412	7,832,980	7,005,368	31,132,548	1.65%
EMEA	1,005,745	852,630	940,606	945,203	3,744,184	12.25%
Number of listed companies	51,751	51,790	51,343	50,896	50,896	-1.12%
<i>(full number)</i>						
Americas	11,327	11,336	11,355	11,256	11,256	-1.01%
APAC	24,552	24,650	24,464	24,696	24,696	1.33%
EMEA	15,872	15,804	15,524	14,944	14,944	-5.00%
	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2022	% change 2022/2021
Number of newly listed companies	964	907	988	1,183	4,042	-28.69%
<i>(full number)</i>						
IPOs	368	323	330	354	1,375	-49.36%
Other	596	584	658	829	2,667	-9.69%
Investment flows, IPOs	59,032	45,923	40,491	28,220	173,666	-65.18%
<i>(million USD)</i>						
Americas	5,855	2,337	785	1,249	10,225	-95.32%
APAC	45,898	27,375	35,324	23,221	131,819	-31.41%
EMEA	7,280	16,210	4,382	3,751	31,622	-64.20%
Investment flows, other companies	207,421	268,521	119,541	210,960	806,443	-40.10%
<i>(million USD)</i>						
Americas	14,248	14,043	10,553	10,585	49,430	-76.52%
APAC	55,431	37,970	76,517	61,100	231,019	-36.39%
EMEA	137,742	216,507	32,470	139,275	525,994	-31.91%

Derivatives markets - Quarterly data

	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2022	% change 2022/2021	% share within asset class	% share within total
Single Stock Options	2,587,060,032	2,112,119,366	2,054,281,550	2,273,748,711	9,027,209,659	-11.54%	15.53%	10.65%
Americas	2,236,301,706	1,781,810,085	1,704,854,452	1,931,131,406	7,654,097,649	-15.15%	47.69%	28.51%
APAC	250,390,499	253,614,190	280,086,644	265,411,158	1,049,502,491	26.31%	2.80%	2.09%
EMEA	100,367,827	76,695,091	69,340,454	77,206,147	323,609,519	-8.29%	7.03%	4.26%
Single Stock Futures	1,416,082,915	1,381,747,134	1,534,138,762	1,313,304,723	5,645,273,534	15.85%	9.71%	6.66%
Americas	400,266,520	344,019,741	359,321,015	267,104,945	1,370,712,221	42.42%	8.54%	5.11%
APAC	354,007,640	340,912,911	325,697,269	331,602,153	1,352,219,973	-20.16%	3.61%	2.69%
EMEA	661,808,755	696,814,482	849,120,478	714,597,625	2,922,341,340	31.82%	63.47%	38.46%
Stock Index Options	6,884,021,610	8,156,045,464	9,579,805,576	10,832,171,657	35,452,044,307	117.42%	61.01%	41.83%
Americas	238,800,037	257,156,498	275,743,291	306,559,380	1,078,259,206	41.15%	6.72%	4.02%
APAC	6,500,264,564	7,782,783,627	9,189,144,234	10,405,737,639	33,877,930,064	124.30%	90.44%	67.33%
EMEA	144,957,009	116,105,339	114,918,051	119,874,638	495,855,037	13.29%	10.77%	6.53%
Stock Index Futures	2,135,333,991	1,976,508,782	1,958,830,979	1,917,088,596	7,987,762,347	2.70%	13.75%	9.42%
Americas	1,572,937,784	1,468,273,264	1,467,433,090	1,438,611,520	5,947,255,657	-0.17%	37.05%	22.16%
APAC	301,317,978	303,760,537	285,793,854	287,421,786	1,178,294,155	16.51%	3.15%	2.34%
EMEA	261,078,229	204,474,981	205,604,035	191,055,290	862,212,535	6.50%	18.73%	11.35%
Interest Rate Options	231,185,146	179,086,415	192,938,400	199,521,596	802,731,557	3.06%	16.23%	0.95%
Americas	185,731,420	140,638,436	152,412,845	171,464,690	650,247,391	1.75%	18.37%	2.42%
APAC	30,952	27,147	16,435	21,006	95,540	-60.56%	0.04%	0.00%
EMEA	45,422,774	38,420,832	40,509,120	28,035,900	152,388,626	9.17%	12.89%	2.01%
Interest Rates Futures	1,098,239,250	1,038,235,126	1,061,824,194	943,799,403	4,142,097,973	9.62%	83.77%	4.89%
Americas	780,519,822	715,839,212	733,655,154	659,370,107	2,889,384,295	11.60%	81.63%	10.76%
APAC	54,087,017	57,405,094	56,650,567	54,524,740	222,667,418	5.22%	99.96%	0.44%
EMEA	263,632,411	264,990,820	271,518,473	229,904,556	1,030,046,260	5.32%	87.11%	13.56%
Commodity Options	155,949,539	149,722,818	181,326,263	204,819,654	691,818,274	55.03%	7.82%	0.82%
Americas	46,641,576	40,130,832	38,354,976	34,468,507	159,595,891	0.96%	15.07%	0.59%
APAC	91,698,063	98,915,284	132,601,686	158,149,551	481,364,584	106.44%	6.96%	0.96%
EMEA	17,609,900	10,676,702	10,369,601	12,201,596	50,857,799	-7.51%	5.87%	0.67%
Commodity Futures	2,023,081,511	1,826,049,295	2,203,923,186	2,099,976,451	8,153,030,443	-17.60%	92.18%	9.62%
Americas	262,110,366	215,705,059	212,311,736	209,521,482	899,648,643	-6.92%	84.93%	3.35%
APAC	1,477,457,229	1,442,267,125	1,818,442,995	1,699,435,579	6,437,602,928	-13.07%	93.04%	12.79%
EMEA	283,513,916	168,077,111	173,168,455	191,019,390	815,778,872	-46.43%	94.13%	10.74%

Currency Options	706,492,753	598,409,715	837,822,120	1,000,120,167	3,142,844,755	104.95%	46.18%	3.71%
Americas	3,660,582	4,051,272	3,928,402	4,021,120	15,661,376	7.62%	1.16%	0.06%
APAC	692,034,605	584,391,515	823,349,724	981,926,608	3,081,702,452	111.02%	68.35%	6.12%
EMEA	10,797,566	9,966,928	10,543,994	14,172,439	45,480,927	-22.34%	4.82%	0.60%
Currency Futures	862,568,359	872,579,226	979,964,169	946,960,783	3,662,072,537	19.75%	53.82%	4.32%
Americas	292,486,662	345,046,153	374,232,246	324,439,624	1,336,204,685	22.04%	98.84%	4.98%
APAC	338,018,672	323,224,030	360,067,451	405,601,422	1,426,911,575	51.71%	31.65%	2.84%
EMEA	232,063,025	204,309,043	245,664,472	216,919,737	898,956,277	-12.09%	95.18%	11.83%
ETF Options	1,459,058,121	1,503,741,939	1,458,627,235	1,629,236,093	6,050,663,388	4.22%	99.99%	7.14%
Americas	1,171,814,035	1,194,249,429	1,188,024,498	1,287,448,456	4,841,536,418	4.62%	100.00%	18.04%
APAC	287,073,861	309,450,405	270,548,755	341,754,251	1,208,827,272	2.65%	99.94%	2.40%
EMEA	170,225	42,105	53,982	33,386	299,698	-58.85%	99.24%	0.00%
ETF Futures	170,813	180,700	162,623	214,084	728,220	7.17%	0.01%	0.00%
Americas	0	0	0	0	0	NA	0.00%	0.00%
APAC	170,813	179,111	162,232	213,773	725,929	7.45%	0.06%	0.00%
EMEA	0	1,589	391	311	2,291	-55.82%	0.76%	0.00%

Derivatives product lines - Quarterly data

	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2022	% change 2022/2021	% share within total
Equity Derivatives	13,022,498,547	13,626,420,746	15,127,056,867	16,336,313,687	58,112,289,847	48.39%	68.56%
Americas	4,448,306,046	3,851,259,588	3,807,351,848	3,943,407,251	16,050,324,733	-3.92%	59.79%
APAC	7,405,980,681	8,681,071,265	10,080,722,001	11,290,172,736	37,457,946,683	100.96%	74.44%
EMEA	1,168,211,820	1,094,089,893	1,238,983,018	1,102,733,700	4,604,018,431	20.62%	60.60%
Interest Rate Derivatives	1,329,424,396	1,217,321,541	1,254,762,594	1,143,320,999	4,944,829,530	8.50%	5.83%
Americas	966,251,242	856,477,648	886,067,999	830,834,797	3,539,631,686	9.65%	13.19%
APAC	54,117,969	57,432,241	56,667,002	54,545,746	222,762,958	5.14%	0.44%
EMEA	309,055,185	303,411,652	312,027,593	257,940,456	1,182,434,886	5.80%	15.56%
Commodity Derivatives	2,179,031,050	1,975,772,113	2,385,249,449	2,304,796,105	8,844,848,717	-14.47%	10.44%
Americas	308,751,942	255,835,891	250,666,712	243,989,989	1,059,244,534	-5.81%	3.95%
APAC	1,569,155,292	1,541,182,409	1,951,044,681	1,857,585,130	6,918,967,512	-9.42%	13.75%
EMEA	301,123,816	178,753,813	183,538,056	203,220,986	866,636,671	-45.07%	11.41%
Currency Derivatives	1,569,061,112	1,470,988,941	1,817,786,289	1,947,080,950	6,804,917,292	48.20%	8.03%
Americas	296,147,244	349,097,425	378,160,648	328,460,744	1,351,866,061	21.85%	5.04%
APAC	1,030,053,277	907,615,545	1,183,417,175	1,387,528,030	4,508,614,027	87.79%	8.96%
EMEA	242,860,591	214,275,971	256,208,466	231,092,176	944,437,204	-12.65%	12.43%
ETF Derivatives	1,459,228,934	1,503,922,639	1,458,789,858	1,629,450,177	6,051,391,608	36.92%	7.14%
Americas	1,171,814,035	1,194,249,429	1,188,024,498	1,287,448,456	4,841,536,418	48.50%	18.04%
APAC	287,244,674	309,629,516	270,710,987	341,968,024	1,209,553,201	4.33%	2.40%
EMEA	170,225	43,694	54,373	33,697	301,989	NA	0.00%
Total	19,559,244,039	19,794,425,979	22,043,645,057	23,360,961,918	84,758,276,993	34.39%	
Americas	7,191,270,509	6,506,919,980	6,510,271,705	6,634,141,237	26,842,603,431	5.57%	
APAC	10,346,551,893	11,496,930,976	13,542,561,846	14,931,799,666	50,317,844,381	67.44%	
EMEA	2,021,421,637	1,790,575,023	1,990,811,506	1,795,021,015	7,597,829,181	0.06%	

Commodity derivatives by type of underlying	2022 volume	2021 volume	YoY change
Agriculture	2,146,093,166	2,464,355,404	-12.91%
Energy	1,147,058,572	1,288,758,618	-11.00%
Index commodity derivatives	524,705	1,192,558	-56.00%
Non-precious metals	574,788,344	574,868,991	-0.01%
Other commodities	2,056,588,957	1,810,205,211	13.61%
Precious metals	291,943,185	360,478,108	-19.01%
Grand Total	6,216,996,929	6,499,858,890	-4.35%

Top five exchanges by volumes traded in 2022 and % change on 2021				
	Volume	%/2021	Notional Value	%/2021
Agriculture				
Dalian Commodity Exchange	1,135,488,724	-11%	9,459,810	-9%
Zhengzhou Commodity Exchange	594,579,172	-21.89%	5,386,547	-25.54%
CME Group	323,501,127	-6%	15,445,736	11%
ICE Futures US	86,406,881	5.15%	2,436,721	-8.23%
MIAX Exchange Group	2,508,551	-20%	NA	NA
Energy				
CME Group	508,528,263	-8%	130,678,296	292%
Zhengzhou Commodity Exchange	436,380,970	-12.64%	1,539,083	-44.51%
Multi Commodity Exchange of India	123,086,944	62%	1,072,364	147%
Dalian Commodity Exchange	74,308,782	-52.10%	1,411,147	-66.16%
Japan Exchange Group	2,494,492	-38%	67,376	-15%
Non-precious metals				
Dalian Commodity Exchange	262,832,806	37%	2,431,446	4%
London Metal Exchange	134,154,077	-7.45%	18,460,709	-12.49%
Zhengzhou Commodity Exchange	113,026,088	-36%	684,934	-43%
Singapore Exchange	32,734,059	34.89%	NA	NA
CME Group	24,239,524	-7%	2,294,825	-15%
Precious metals				
CME Group	106,438,772	-5%	14,826,809	-7%
Multi Commodity Exchange of India	87,283,166	-2.05%	377,015	-11.91%
Borsa Istanbul	71,239,948	-47%	18,777	-25%
Japan Exchange Group	13,685,572	18.05%	483,687	23.05%
Thailand Futures Exchange	12,160,183	2%	NA	NA
Index commodity derivatives				
Multi Commodity Exchange of India	501,591	-56%	4,701	-60%
Eurex	19,651	-40.69%	1,228	-40.34%
Japan Exchange Group	3,463	-66%	60	-63%
Other commodities				
Zhengzhou Commodity Exchange	1,253,520,765	18%	6,431,279	12%
Dalian Commodity Exchange	802,570,467	7.46%	4,637,483	-10.72%
Singapore Exchange	428,235	548%	NA	NA
Nasdaq Nordic and Baltics	69,490	-15.12%	1,070	37.55%

Other products - Quarterly data

	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2022	%change 2022/2021
ETFs						
<i>(Full number of listed securities)</i>	8,003	8,038	7,940	8,049	8,049	4.98%
Americas	2,836	2,832	2,863	2,910	2,910	7.22%
APAC	2,300	2,370	2,510	2,615	2,615	18.86%
EMEA	2,867	2,836	2,567	2,524	2,524	-8.32%
ETFs						
<i>(Value traded, million USD)</i>	10,994,215	9,704,267	7,777,924	8,320,370	36,796,775	32.23%
Americas	9,446,035	8,255,131	6,344,211	6,711,223	30,756,601	29.80%
APAC	1,179,622	1,197,014	1,234,306	1,401,237	5,012,178	61.42%
EMEA	368,558	252,121	199,408	207,910	1,027,997	0.05%
Securitized derivatives						
<i>(Full number of listed securities)</i>	3,267,569	3,303,336	3,358,711	3,275,622	3,275,622	2.56%
Americas	592	456	64	60	60	-93.67%
APAC	53,110	51,748	48,120	43,034	43,034	-12.17%
EMEA	3,213,867	3,251,132	3,310,527	3,232,528	3,232,528	2.82%
Securitized derivatives						
<i>(Value traded, million USD)</i>	234,728	175,320	159,996	156,904	726,948	-21.61%
Americas	26	48	24	28	126	-51.50%
APAC	189,029	145,201	132,648	128,478	595,356	-22.52%
EMEA	45,673	30,072	27,324	28,398	131,466	-17.19%
Investment funds						
<i>(Full number of listed securities)</i>	21,051	20,250	19,564	19,412	19,412	-6.10%
Americas	3,738	3,813	3,388	3,991	3,991	17.69%
APAC	1,925	1,381	1,376	1,391	1,391	-26.71%
EMEA	15,388	15,056	14,800	14,030	14,030	-8.80%
Investment funds						
<i>(Value traded, million USD)</i>	722,232	753,411	762,349	858,947	3,096,939	12.54%
Americas	32,755	30,250	23,800	27,725	114,530	2.82%
APAC	674,946	708,710	725,112	818,067	2,926,835	14.30%
EMEA	14,531	14,451	13,437	13,155	55,574	-30.36%

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 of 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 [WFE website](#).

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