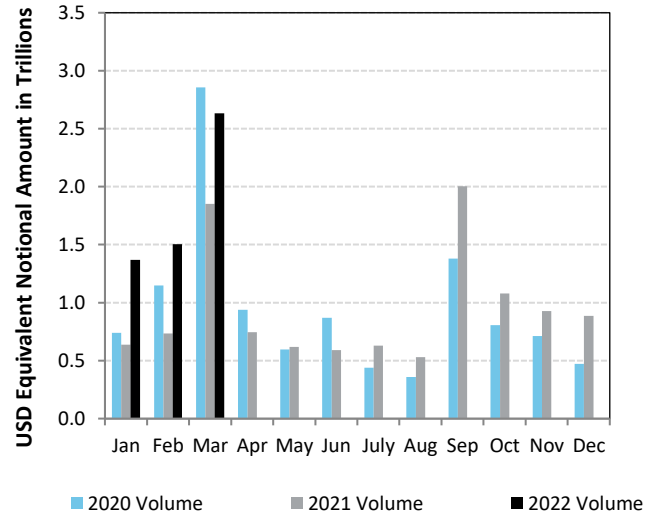


# ICE Credit Derivative Services 1Q 2022 Update

## Clearing Highlights

- **1Q 2022 was the strongest quarter ever for ICE Clear Credit’s combined client/dealer business, setting a record of \$13.6T for the notional amount cleared in one quarter across all instruments**
  - Record quarterly notional amounts for both CDX IG/HY and iTraxx Main/Crossover indices
  - Resurgence in sovereign Single Name (SN) volume
- **1Q 2022 was also a record quarter for ICE Clear Credit’s client business, with \$5.7T notional cleared across all instruments, see Figure 1**
  - Instrument-specific record volumes for CDX IG/HY, iTraxx Main/Crossover, Asia-Pacific iTraxx, iTraxx Sub Fins, and USD corporate and sovereign SNs
- **ICE Clear Credit continues to maintain a dominant volume share for USD denominated instruments**
  - Over 97% share for CDX IG/HY indices
  - Practically 100% share for corporate SNs
  - Over 95% share for sovereign SNs
  - Only clearinghouse offering Asia-Pacific iTraxx and CDX.EM indices
- **The observed open interest and volume trends indicate the market is self-selecting a transition from ICE Clear Europe to ICE Clear Credit for EUR denominated instruments, see Figure 2 through Figure 5**
  - Significant increase in ICE Clear Credit share of cleared volumes in EUR denominated instruments
  - Sustained decline of ICE Clear Europe open interest contemporaneously with increasing ICE Clear Credit open interest
  - Increasing product coverage at ICE Clear Credit relative to ICE Clear Europe
  - Increased ability for ICE Clear Credit to provide global clearing services<sup>i</sup> (authorized to provide clearing services in the European Union, UK, Canada (Ontario), Singapore and Switzerland)

(A) ICE Clear Credit Monthly Client CDS Index Volume



(B) ICE Clear Credit Monthly Client CDS Single Name Volume

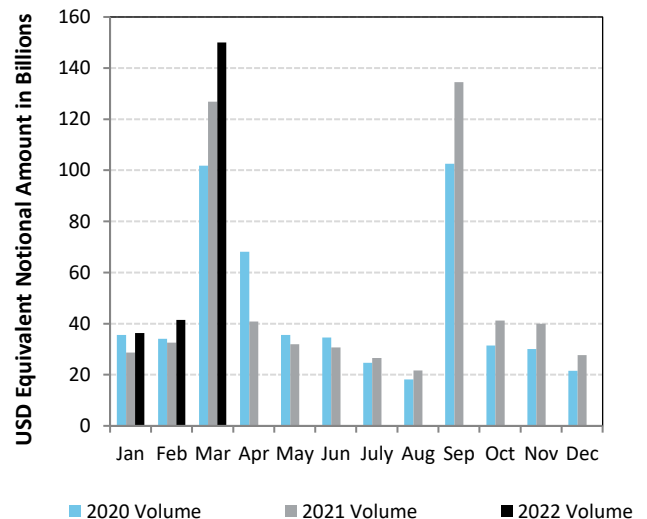
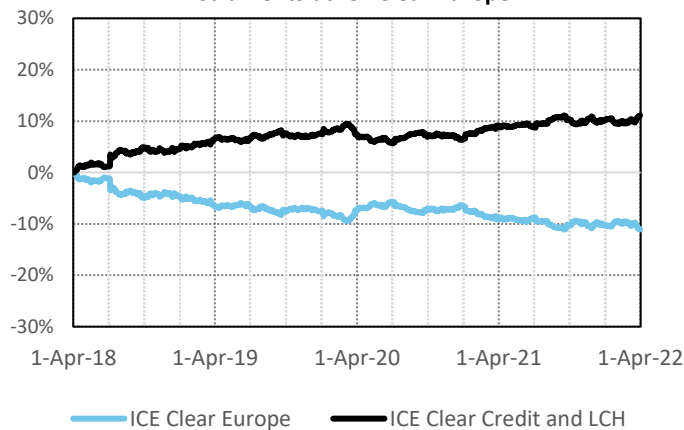


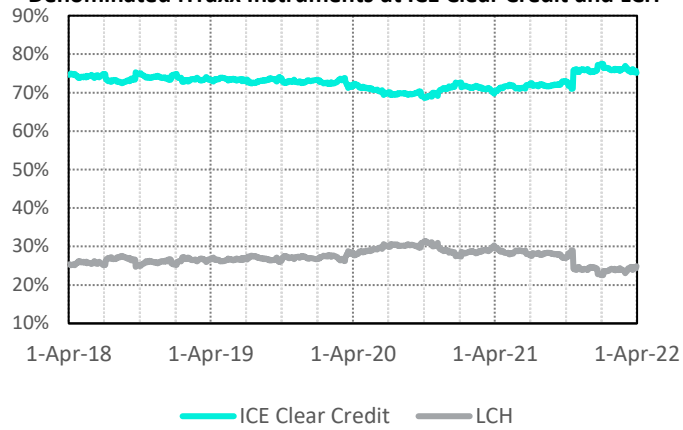
Figure 1: ICE Clear Credit monthly client clearing notional amounts from January 2020 through March 2022

- **ICE Clear Credit continues to be the buy-side clearinghouse of choice, as demonstrated by Full Year (FY) 2021 share of EUR denominated iTraxx and EUR corporate SN<sup>ii</sup> client notional amounts**
  - 88% ICE Clear Credit
  - 8% ICE Clear Europe
  - 4% LCH

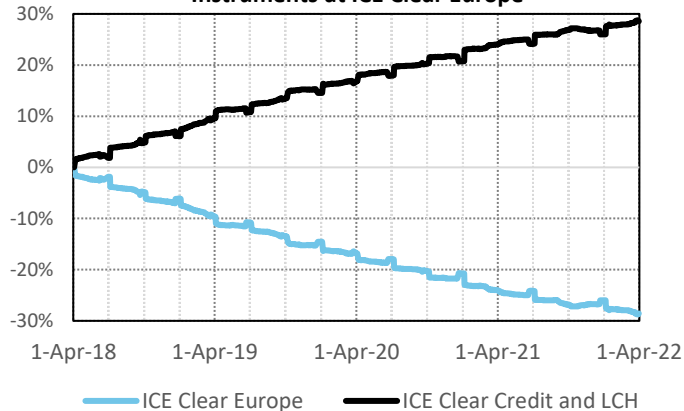
**(A) Decline of Cleared Open Interest in EUR Denominated iTraxx Instruments at ICE Clear Europe**



**(B) Portion of Non ICE Clear Europe Open Interest in EUR Denominated iTraxx Instruments at ICE Clear Credit and LCH**



**(C) Decline of Open Interest in EUR Denominated Single Name Instruments at ICE Clear Europe**



**(D) Portion of Non ICE Clear Europe Open Interest in EUR Denominated Single Name Instruments at ICE Clear Credit and LCH**

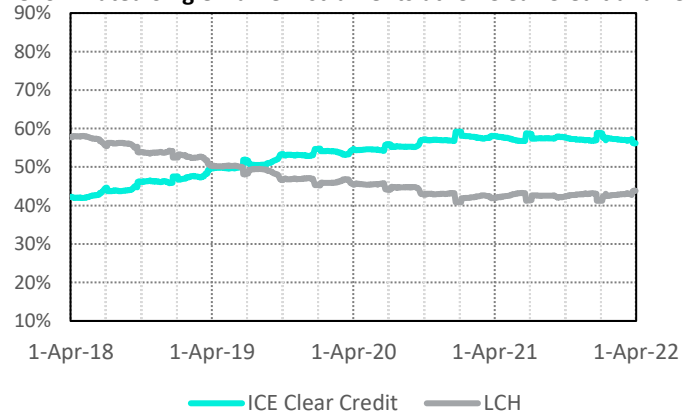


Figure 2: Open interest from April 2, 2018, through March 31, 2022, at ICE Clear Credit vs combined open interest at ICE Clear Credit and LCH for EUR denominated iTraxx instruments (A), and EUR denominated corporate SNs (C). Portion over the same period of non-ICE Clear Europe open interest residing at ICE Clear Credit vs. LCH for EUR denominated iTraxx instruments (B), and EUR denominated corporate SNs (D). At the beginning of the considered period, the share of iTraxx open interest was 45%, 40% and 15% for ICC, ICEU and LCH, respectively, and the share of EUR corporate SN open interest was 15%, 65% and 20%, respectively. At the end of the considered period, the share of iTraxx open interest was 53%, 29% and 18%, respectively, and the share of EUR corporate SN open interest was 36%, 36% and 28%, respectively.

■ **ICE Clear Credit supports the ISDA additional provisions excluding restricted debt Russian government bonds from Russia SN deliverable obligations (including constituents of CDX.EM)**

- Applies to existing positions and new trades beginning on the implementation date of April 25, 2022 (subject to regulatory approval)

■ **J.P. Morgan FCM started clearing client index option trades at ICE Clear Credit in April 2022**

- J.P. Morgan is the second FCM to provide clients access to the ICE Clear Credit index option clearing services (Citibank FCM went live in February 2021)

■ **ICE Clear Credit received regulatory approval for procedural changes enabling it to clear constituents of on-the-run indices independent of certain prior bilateral market activity requirements**

- Opportunity to clear the full “index-arb” SN set for hedging and mitigation of indirect risk exposure
- ICE Initial Margin requirements are established at the portfolio-level using Monte Carlo framework that naturally provides portfolio benefits without the need to identify packages of hedged trades

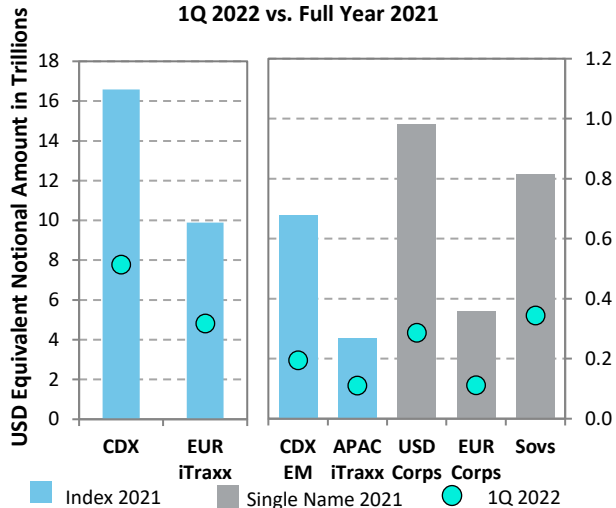
**(A) Market Share of Combined Client/Dealer Volume Cleared 1Q 2022, and Change in Market Share Relative to FY 2021**

Instrument Category	Notional Amount (USD)	ICC Share (%)	ICEU Share (%)	LCH Share (%)
All	16.4T	83.25 (+2.25)	11.00 (-1.25)	5.75 (-1.00)
CDX	8.0T	97.50 (+0.5)	2.25 (-0.5)	0.25 (0)
EUR iTraxx	7.2T	67.25 (+4.50)	21.50 (-1.75)	11.25 (-2.75)
APAC iTraxx	100B	100	-	-
CDX EM	200B	100	-	-
Sovereign SN	350B	95.5 (+3.5)	4.5 (-3.5)	-
USD Corp. SN	275B	100 (0)	-	0.00 (0)
EUR Corp. SN	300B	37.5 (-3.75)	28.5 (-2.00)	34.0 (+5.75)

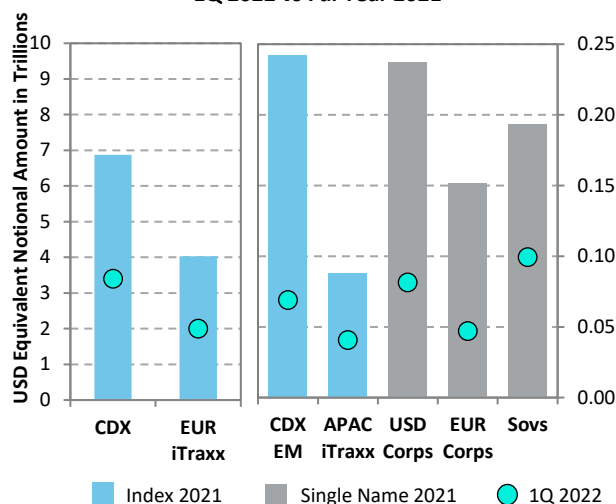
**(B) Share Between ICE Clear Credit and ICE Clear Europe of 1Q 2022 Client Volume, and Change in Share Relative to FY 2021**

Instrument Category	Notional Amount (USD)	ICC Share (%)	ICEU Share (%)
All	6.0T	95.75 (0)	4.25 (0)
CDX	3.4T	98.5 (+0.5)	1.5 (-0.5)
EUR iTraxx	2.2T	90.75 (-0.5)	9.25 (+0.5)
APAC iTraxx	50B	100	-
CDX EM	75B	100	-
Sovereign SN	100B	100 (+0.25)	0 (-0.25)
USD Corp. SN	75B	100	-
EUR Corp. SN	50B	94.25 (-3.0)	5.75 (+3.0)

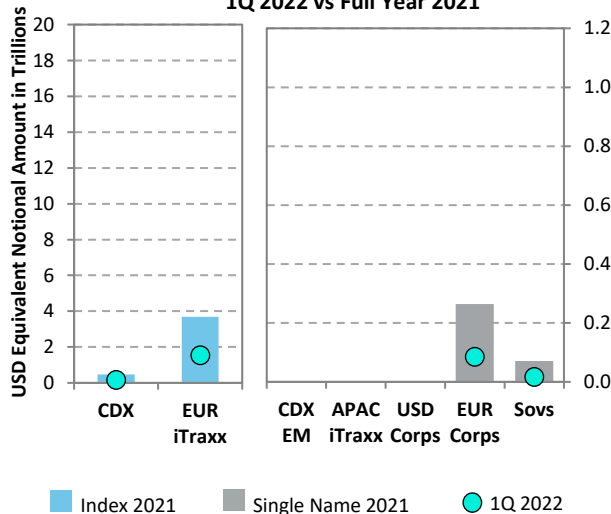
**(C) ICE Clear Credit Combined Client/Dealer CDS Volume: 1Q 2022 vs. Full Year 2021**



**(D) ICE Clear Credit Client CDS Volume: 1Q 2022 vs Full Year 2021**



**(E) ICE Clear Europe Combined Client/Dealer CDS Volume: 1Q 2022 vs Full Year 2021**



**(F) ICE Clear Europe Client CDS Volume: 1Q 2022 vs. Full Year 2021**

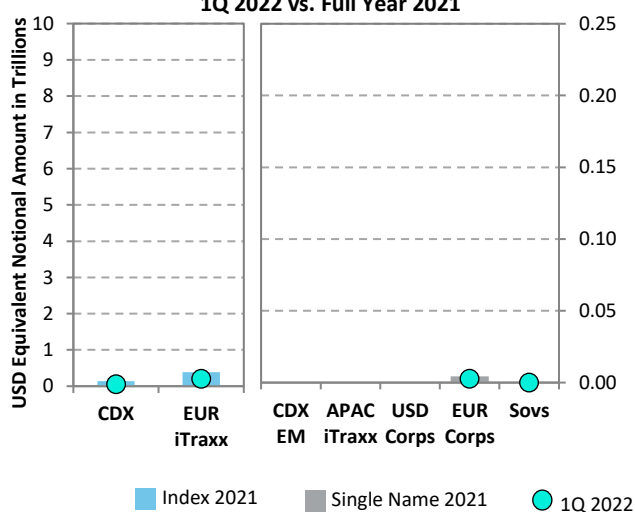


Figure 3: Cleared notional amounts, share of cleared notional amounts and change in cleared notional amounts for 1Q 2022 vs. full year 2021, by clearinghouse and instrument type. Abbreviations: CDX.IG and CDX.HY indices (**CDX**), EUR denominated iTraxx indices (**EUR iTraxx**), emerging markets CDX indices (**CDX EM**), Asia-Pacific iTraxx indices (**APAC iTraxx**), USD denominated corporate SNs (**USD Corps**), EUR denominated corporate SNs (**EUR Corps**), and sovereign SNs (**Sovs**).

# 1Q 2022 Cleared Volumes

## Combined Client/Dealer Volumes

- **\$16.4T combined client/dealer notional amount was cleared across all 3 CDS clearinghouses in 1Q 2022**
  - Up 9.7% YOY relative to 1Q 2021
- **94.25% ICE share of 1Q 2022 client/dealer notional amount across all product categories**
  - 83.25% ICE Clear Credit (+2.25 pts vs. FY 2021)
  - 11.00% ICE Clear Europe (-1.25 pts vs. FY 2021)
  - 5.75% LCH (-1.00 pts vs. FY 2021)
- **88.75% ICE share of 1Q 2022 client/dealer EUR iTraxx notional amount**
  - 67.25% ICE Clear Credit (+4.50 pts vs. FY 2021)
  - 21.50% ICE Clear Europe (-1.75 pts vs. FY 2021)
  - 11.25% LCH (-2.75 pts vs. FY 2021)
- **11.75 pts increase in ICE Clear Credit share of EUR iTraxx volume over the last 15 months**
  - +11.75 pts ICE Clear Credit
  - -7.5 pts ICE Clear Europe
  - -4.25 pts LCH
- **66% ICE share of 1Q 2022 client/dealer EUR corporate SN notional amount**
  - 37.5% ICE Clear Credit (-3.75 pts vs. FY 2021)
  - 28.5% ICE Clear Europe (-2.00 pts vs. FY 2021)
  - 34.0% LCH (+5.75 pts vs. FY 2021)
- **12.5 pts decrease in ICE Clear Europe share of EUR corporate SN notional amount over the last 15 months**
  - No Change ICE Clear Credit
  - -12.5 pts ICE Clear Europe
  - +12.5 pts LCH
- **ICE Clear Credit client/dealer volume increased 60% YOY from \$8.5T in 1Q 2021 to \$13.6T in 1Q 2022 (Figure 3 (C))**
  - €4.0T record iTraxx Main/Crossover quarterly notional in 1Q 2022, up 113% YOY from €1.9T in 1Q 2021
  - \$7.8T record CDX IG/HY quarterly notional in 1Q 2022, growing 53% YOY from \$5.1T in 1Q 2021
  - 47% growth YOY for sovereign SN from \$235B in 1Q 2021 to \$344B in 1Q 2022

- **ICE Clear Europe volume increased 30% YOY from \$1.4T in 1Q 2021 to \$1.8T in 1Q 2022 (Figure 3 (E))**
  - 48% YOY growth in iTraxx Main/Crossover from €831B in 1Q 2021 to €1.2T in 1Q 2022
  - €17.9 record iTraxx Sub Fins quarterly notional amount, growing 61% YOY from €10B in 1Q 2021 to €18B in 1Q 2022

## Client Volumes

- **90.75% ICE Clear Credit share of ICE 1Q 2022 client EUR iTraxx notional amount**
  - 90.75% ICE Clear Credit (-0.5 pts vs. FY 2021)
  - 9.25% ICE Clear Europe (+0.5 pts vs. FY 2021)
- **94.25% ICE Clear Credit share of ICE 1Q 2022 client EUR corporate SN notional amount**
  - 94.25% ICE Clear Credit (-3.0 pts vs. FY 2021)
  - 5.75% ICE Clear Europe (+3.0 pts vs. FY 2021)
- **\$5.7T client notional cleared at ICE Clear Credit in 1Q 2022, a record quarterly client volume, increasing 68% YOY from \$4.9T in 1Q 2022 (Figure 3 (D))**
  - €1.7T record iTraxx Main/Crossover quarterly notional in 1Q 2022, up 117% YOY from €0.8T in 1Q 2021
  - €20.2B record iTraxx Sub Fins quarterly notional in 1Q 2022, growing 98% YOY from €10.2B in 1Q 2021
  - \$3.4T record CDX IG/HY quarterly notional amount in 1Q 2022, growing 61% YOY from \$2.1T in 1Q 2021
  - \$40.7B record Asia-Pac iTraxx quarterly notional in 1Q 2022, growing 103% YOY from \$20.1B in 1Q 2021
  - \$99.3B record sovereign SN quarterly notional in 1Q 2022, growing 67% YOY from \$59.5B in 1Q 2021
  - \$81.5B record USD corporate SN quarterly notional in 1Q 2022, growing 9% YOY from \$74.7B in 1Q 2021
- **\$255B client notional amount cleared at ICE Clear Europe in 1Q 2022, down 23% YOY from \$334B in 1Q 2022 (Figure 3 (F))**
  - EUR corporate SN client notional grew 233% YOY from €0.8B in 1Q 2021 to €2.6B in 1Q 2022
  - iTraxx Main/Crossover client notional grew 35% YOY from €124B in 1Q 2021 to €168B in 1Q 2022
  - iTraxx Sub Fins client notional grew 176% YOY from €0.9B in 1Q 2021 to €2.5B in 1Q 2022

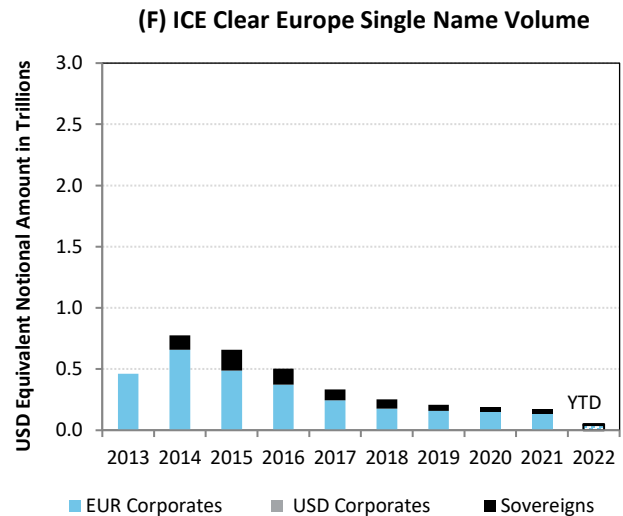
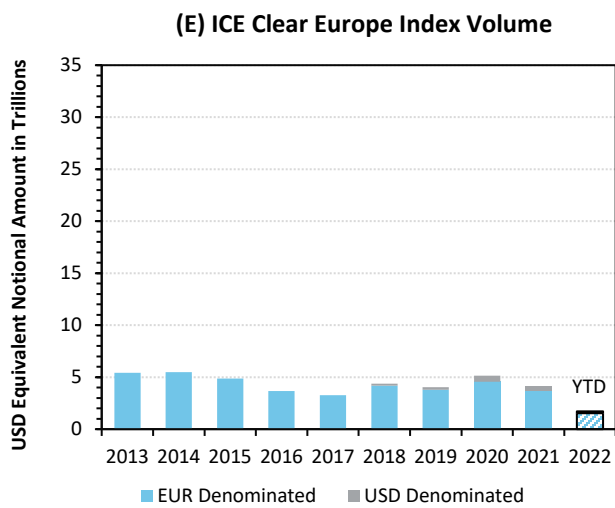
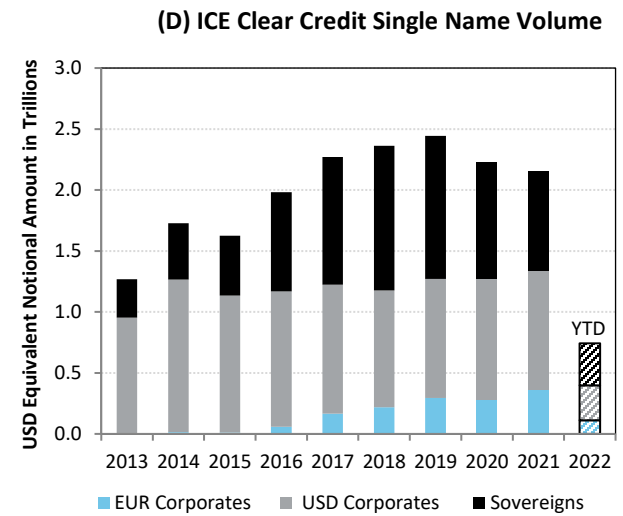
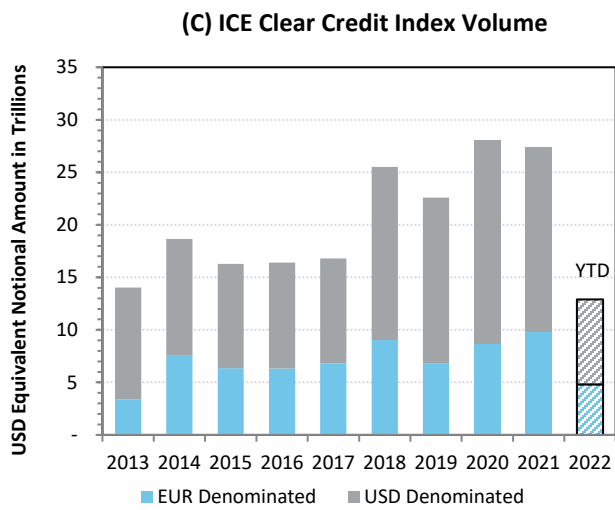
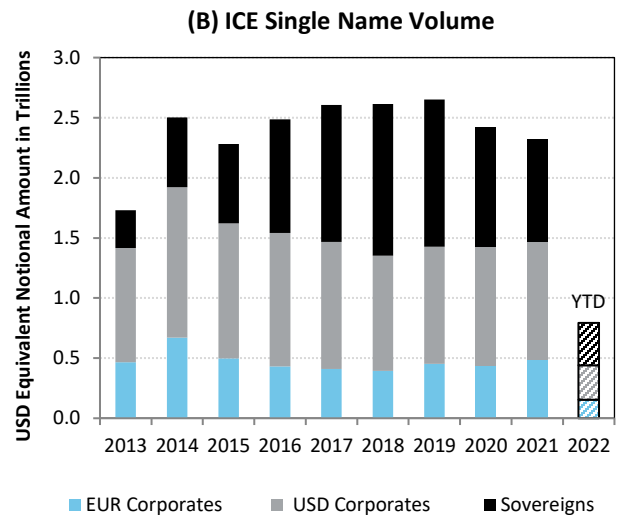
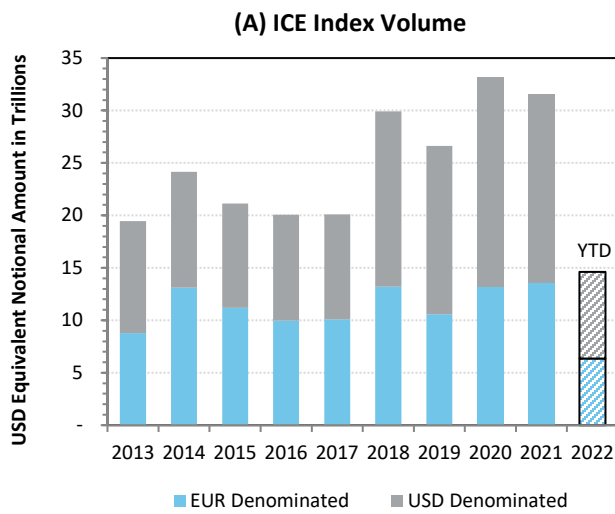


Figure 4: Combined client/dealer annual notional amounts for index and SN instruments at ICE Clear Credit, ICE Clear Europe and in total across both ICE CDS clearinghouses.

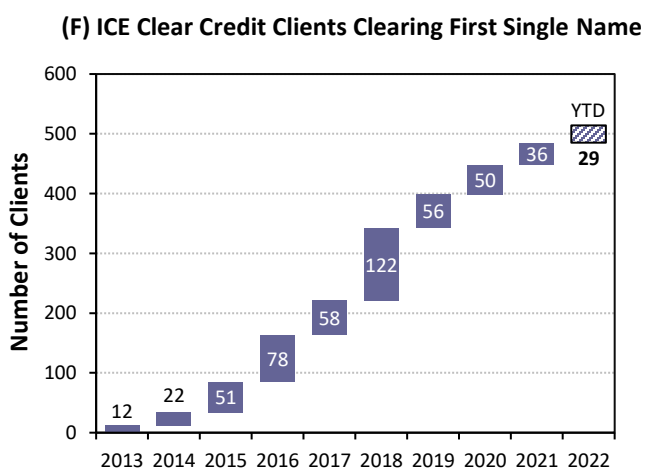
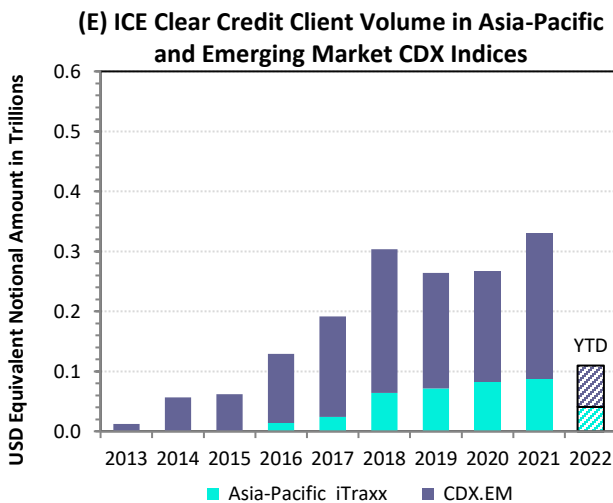
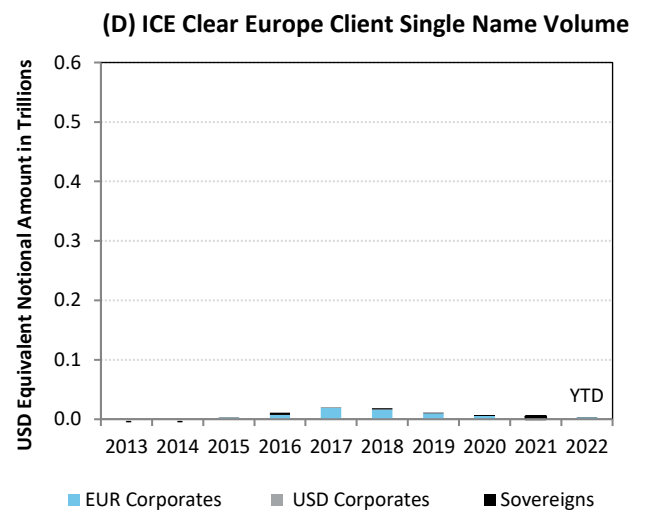
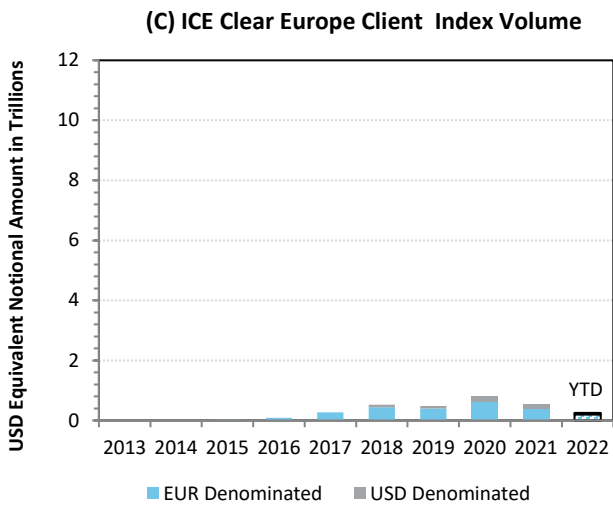
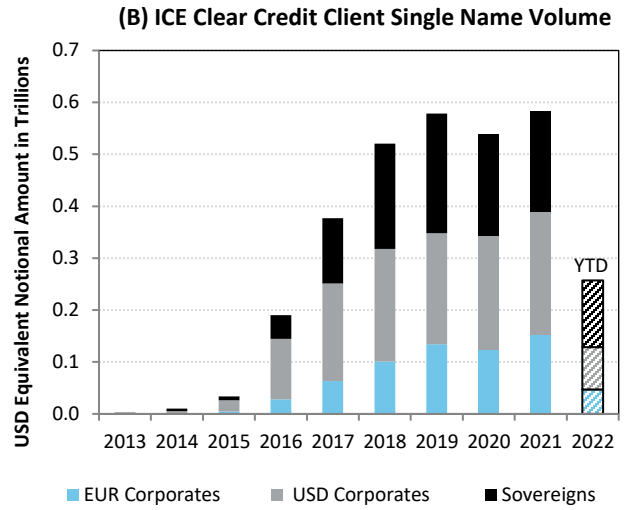
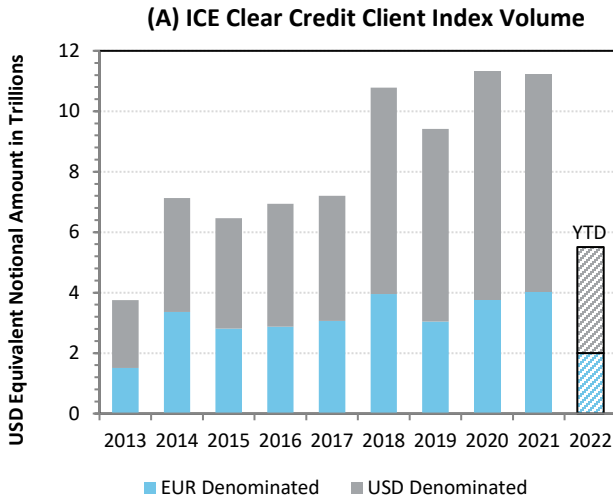


Figure 5: Index and SN annual client notional amounts cleared at ICE Clear Credit and ICE Clear Europe, and number of clients clearing their first SN at ICE Clear Credit. The notional amounts provided for USD denominated index instruments at ICE Clear Credit include the separately-shown notional amounts for Asia-Pacific iTraxx and CDX.EM indices.

## Historical Volumes

Figure 4 and Figure 5 provide annual cleared notional amounts at ICE from 2013 to 2021 for combined client/dealer business and client business, respectively. The visualized trends illustrate the following themes:

- Growth in combined client/dealer EUR corporate SN notional amount at ICE Clear Credit, see Figure 4(D)
- Growth in voluntary client clearing of EUR and USD corporate SNs at ICE Clear Credit, see Figure 5(B) and Figure 5(F)
- Precipitous decline in SN clearing activity at ICE Clear Europe, impacting both client and dealer volumes, see Figure 4(F) and Figure 5(D)
- Sustained growth in client clearing of Asia-Pacific iTraxx indices at ICE Clear Credit; see Figure 5(E)

## New Single Name Additions

On February 28, 2022, ICE Clear Credit expanded the reference entities on which it clears SN CDS instruments to include 9 new Asia-Pacific corporate reference entities, 5 new European corporate reference entities, and 12 new North American corporate reference entities. The new reference entities are shown in Table 1 with a date of “Available”.

ICE Clear Credit is planning to add on August 29, 2022, the 2 new European corporate reference entities, 3 new North American corporate reference entities, and 3 new Middle Eastern sovereign reference entities detailed in Table 1.

*Table 1: New SN reference entities added on February 28<sup>th</sup>, 2022 (Marked “Available”), and new SN reference entities planned to be added on 29 August, 2022.*

Reference Entity	Tier <sup>1</sup>	ISDA Def.	Date
<b>Asia-Pacific Single Names</b>			
ALIBABA GROUP HOLDING LIMITED	SNRFOR	CR14	Available
BAIDU, INC.	SNRFOR	CR14	Available
KT CORPORATION	SNRFOR	CR14	Available
TENCENT HOLDINGS LIMITED	SNRFOR	CR14	Available

EXPORT-IMPORT BANK OF INDIA	SNRFOR	CR14	Available
STATE BANK OF INDIA	SNRFOR	CR14	Available
WOORI BANK	SNRFOR	CR14	Available
TELSTRA CORPORATION LIMITED	SNRFOR	MR14	Available
SCENTRE MANAGEMENT LIMITED	SNRFOR	MR14	Available

<b>European Corporate Single Names</b>			
NOVAFIVES	SECDOM	MM14	Available
ELIS	SNRFOR	MM14	Available
HOCHTIEF AKTIENGESELLSCHAFT	SNRFOR	MM14	Available
EDP FINANCE B.V.	SNRFOR	MM14	Available
LOUIS DREYFUS COMPANY B.V.	SNRFOR	MM14	Available
CELLNEX TELECOM, S.A.	SNRFOR	MM14	Aug29 '22
SCHAEFFLER AG	SNRFOR	MM14	Aug29 '22

<b>North American Corporate Single Names</b>			
SABRE HOLDINGS CORPORATION	SNRFOR	XR14	Available
BALL CORPORATION	SNRFOR	XR14	Available
TARGA RESOURCES PARTNERS LP	SNRFOR	XR14	Available
DAVITA INC.	SNRFOR	XR14	Available
NETFLIX, INC.	SNRFOR	XR14	Available
SIRIUS XM RADIO INC.	SNRFOR	XR14	Available
ASHLAND LLC	SNRFOR	XR14	Available
FISERV, INC.	SNRFOR	XR14	Available
BORGWARNER INC.	SNRFOR	XR14	Available
TRANSCANADA PIPELINES LIMITED	SNRFOR	XR14	Available
FEDEX CORPORATION	SNRFOR	XR14	Available
ORACLE CORPORATION	SNRFOR	XR14	Available
DANAHER CORPORATION	SNRFOR	XR14	Aug29 '22
PIONEER NATURAL RESOURCES COMPANY	SNRFOR	XR14	Aug29 '22
VISTRA OPERATIONS COMPANY LLC	SNRFOR	XR14	Aug29 '22

<b>Middle Eastern Sovereign Single Names</b>			
ARAB REPUBLIC OF EGYPT	SNRFOR	CR14	Aug29 '22
KINGDOM OF BAHRAIN	SNRFOR	CR14	Aug29 '22
SULTANATE OF OMAN	SNRFOR	CR14	Aug29 '22

<sup>1</sup> Note that senior unsecured “SNRFOR” and senior secured “SECDOM” tiers are both senior debt. SN instruments that trade “SECDOM” will be referenced as “SNRFOR” for clearing

purposes since outright “SNRFOR” instruments will not be considered for clearing, in general.



# Technical Notes

## Volume Reporting

Combined client/dealer volumes are reported as double-sided, i.e., a transaction between two counterparties clearing a trade executed on a notional amount of \$10 million is reported as a volume of \$20 million.

Client volumes are reported based on the notional amount of each transaction leg associated with a buy-side

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counterparty. For example, a transaction between a dealer and client with a notional amount of \$10 million is reported as \$20 million combined client/dealer volume and \$10 million client volume. A transaction between two clients with a notional amount of \$10 million is reported as a combined client/dealer volume of \$20 million, and a client volume of \$20 million. Please note that the clearing volumes on the ICE website are single-sided combined client/dealer volumes, and therefore are half the respective combined client/dealer volumes reported here.

<sup>i</sup> On 10 March 2022, ICE Clear Credit became ESMA recognized under Article 25 of EMIR as a third-country central counterparty, to provide services in the European Union for both CFTC and SEC-supervised instruments.

<sup>ii</sup> Based on FY 2021 client notional amounts cleared at LCH of €16B for EUR corporate SN instruments and €131B for EUR denominated iTraxx instruments: *social media post 27 January 2022*.