

TO: Clearing Member Firms; Back Office Managers, PC SPAN Software Users, CME CORE Users, Deployable Margin Software Users

FROM: CME Clearing

ADVISORY #: 22-312

DATE: August 17, 2022

SUBJECT: SPAN 2™ Margin Framework Planned Rollout Schedule and Overview

CME Clearing (“CME”) is announcing the multi-year rollout schedule of its SPAN 2 framework for calculating performance bond requirements for CME-cleared futures and options on futures. The planned dates are subject to change and pending all relevant CFTC regulatory review periods. This advisory provides an overview of CME’s SPAN 2 framework, its planned multi-year rollout schedule, an overview of its margin calculation and reporting services, and references to help understand the framework.

### **Overview**

CME’s existing SPAN® margin framework has been an industry standard for decades. The SPAN 2 framework will preserve CME’s ability to effectively manage risks and some forecasting capabilities of SPAN, while incorporating enhanced modelling, self-adjusting, reporting, and margin replication capabilities.

Key features of the SPAN 2 framework include:

- Allowing for margin calculations to be tailored to the specific risk factors of each product or portfolio, including seasonality, options term structure, and liquidity/concentration costs;
- Dynamically adjusting margins while continuing to support robust coverage levels and anti-procyclical margining practices;
- Allowing for a unified margining framework across futures and options and cleared swaps that is extendable to other financial instruments;
- Providing risk reports that attribute portfolio-level risks to granular margin component or risk factors, including explicitly reporting portfolio-level liquidity/concentration margins;
- Supporting product growth as the SPAN 2 framework relies upon an enhanced infrastructure capable of adapting to new hardware and software innovations; and
- Extensive toolkits, educational materials and calculation support provided by CME Clearing to promote transparency.

Please refer to this link for an overview of the SPAN 2 methodology:

<https://www.cmegroup.com/clearing/risk-management/span-overview/span-2-methodology.html>

## Operational Readiness Timeline

Below is the planned multi-year rollout schedule for completing CME's migration across all asset classes (dates subject to change and pending all relevant CFTC regulatory review periods):

- 2023 Q3 – Energy Products
- 2024 1H – Equity Products
- 2024 2H – Interest Rate and FX Products
- 2025 2H – Agriculture & Remaining Commodity Products

CME will support firms, service providers and clients in completing their technical and operational testing by year-end 2022, including firm readiness to use the margin computational tools (CME CORE, CME's Deployable Software or Margin API (Application Programming Interface)). This timeline is designed to provide ample time for parallel run of the daily margin cycles, reports and other operational processes impacted by SPAN 2 margin calculation. This timeline is also intended to allow CME and Clearing Members to jointly perform client impact analysis and discuss model details, and to maximize participants' familiarity with the new set of margin services for calculating margin using the SPAN 2 framework.

In parallel with achieving technical readiness in 2022, CME will continue its engagement with end-clients regarding SPAN 2 education and impact analysis.

In response to client feedback and to minimize impacts from the transition between the SPAN and SPAN 2 frameworks, CME intends to offer FCMs a multi-week migration period from the commencement to completion to support the adoption of Energy Products into the SPAN 2 framework by end of Q3 2023. The dates for the migration period will be communicated approximately 60 days prior to their commencement.

## Services Overview

CME makes the following margin services tools available to market participants who integrate directly with CME for calculating margin requirements.

- **CME CORE User Interface** is our web-based interactive margin calculator that enables users to calculate and evaluate margin requirements.

Potential Users	Operations/Risk/Business users or users of the PC-SPAN interface for CME markets.
Features	<ul style="list-style-type: none"><li>• Several legacy SPAN position file formats, new CME CORE .csv formats and manual entry via UI are available.</li><li>• SPAN and SPAN 2 methodologies are supported T-1 for CME markets.</li><li>• SPAN and SPAN 2 margin breakdown and comparison reporting is available.</li><li>• Supports multiple daily points in time.</li><li>• Historical Margin (T-1 year) – starting with December 20, 2021 for SPAN methodology (rolled out on August 8).</li></ul>
Onboarding Steps	<p>Core is a self-service tool and requires no additional entitlements other than logging in to the CME login system.</p> <ul style="list-style-type: none"><li>• Log in to login.cmegroup.com (create self-service user ID).</li><li>• Go to Portfolio &amp; Risk – CORE Margin Calculator.</li></ul>

- **CME CORE API** is the back-end to CORE’s front-end, allowing users to interact programmatically with CME’s margin methodologies. This margin tool allows users to pass through portfolios of all CME-cleared products in a variety of formats for margin and incremental margin calculation.

Potential Users	Users who want to connect their trading/risk systems with margin calculator hosted on CME infrastructure.
Features	<ul style="list-style-type: none"> <li>• REST-based API offered over internet – CME maintains infrastructure.</li> <li>• Risk data pre-loaded on CME systems T-1.</li> <li>• Powered by CME Deployable Software engine; additional performance impact for internet latency.</li> <li>• Low or no maintenance required since hosted on CMEs infrastructure.</li> <li>• Supports multiple daily points in time.</li> </ul>
Upcoming Enhancements	<ul style="list-style-type: none"> <li>• Historical Margin (T-1 year) – Q4 2022, TBC</li> <li>• Additional input formats</li> </ul>
Onboarding Steps	<ul style="list-style-type: none"> <li>• Execute API License with CME.</li> <li>• Create a new API ID (self-service) and request access to test environment.</li> <li>• Test use case in New Release (“NR”) environment.</li> <li>• Complete testing, work with CME to receive production environment access.</li> </ul>

- **CME Margin Reports** for SPAN 2 margin analysis are available to Clearing Members. There are currently three reports: MARGIN001, MARGIN002, MARGIN003.

Potential Users	Clearing Members interested in the SPAN 2 framework impacts to production accounts and users interacting with existing margin reports.
Features	<ul style="list-style-type: none"> <li>• MARGIN001 illustrates the existing SPAN margin requirements (SPAN version) or expected SPAN 2 requirements (SPAN 2 version). <ul style="list-style-type: none"> <li>◦ Production version of report: MARGIN001_SPAN.yyyymmdd.xxx.csv</li> </ul> </li> <li>• MARGIN002 maps CME-cleared products with expected margin framework.</li> <li>• MARGIN003 represents the change in total risk requirement for all production accounts in percent and U.S. dollar terms.</li> </ul>
Onboarding Steps	<ul style="list-style-type: none"> <li>• Work with CME support team to gain access to EREP or secure FTP.</li> <li>• Download files.</li> <li>• Reach out for demos from CME team as needed.</li> </ul>

- **Deployable Software** is the margin solution for users and firms who want to implement CME’s SPAN and SPAN 2 margin frameworks directly into their own infrastructure.

Potential Users	Users who want to connect their trading/risk systems with margin calculator on their own infrastructure.
Features	<ul style="list-style-type: none"> <li>• Performance is flexible based on desired scaling.</li> </ul>

	<ul style="list-style-type: none"> <li>Testing available with daily SPAN 2 risk parameter complete, settle end-of-day (“EOD”), early EOD, and intraday (“ITD”) files as well as all SPAN risk parameter files.</li> </ul>
Upcoming Enhancements	<ul style="list-style-type: none"> <li>The SPAN 2 framework additional daily intraday RPF files (.ai, .be,.a)</li> </ul>
Onboarding Steps	<ul style="list-style-type: none"> <li>Execute production Deployable Margin Software License.</li> <li>Gain access to secure risk parameter files via SFTP.</li> <li>Download/install deployable software locally.</li> <li>Review documentation.</li> <li>Download RPFs and begin testing.</li> </ul>

- Pre-Trade Service** is a new service to support SPAN 2 Pre-Trade margin approximation. CME is creating a new SPAN 2 approximation risk parameter file in the existing SPAN file format to enable margin approximation of the SPAN 2 margin requirements using legacy SPAN margining processes.

Potential Users	Users who want to connect their trading/risk systems with margin for pre-trade processes that currently compute the SPAN methodology. Also, users, part of a technology team, that are familiar with their systems that have implemented the SPAN methodology for pre-trade margin calculation.
Features	<ul style="list-style-type: none"> <li>Existing SPAN file format calibrated to support SPAN 2 margin levels.</li> <li>Enables portfolio margin calculation of SPAN and SPAN 2 products in a single legacy SPAN file format.</li> </ul>
Upcoming Enhancements	<ul style="list-style-type: none"> <li>Initial XML files available for testing – <i>August 2022</i></li> <li>Files available for all Margin Cycles in both PA2 and XML format – <i>September 2022</i></li> <li>Customer integration and testing – <i>September 2022 through launch of the SPAN 2 methodology</i></li> </ul>
Onboarding Steps	<ul style="list-style-type: none"> <li>Review whitepaper and have onboarding discussions with CME to clarify any questions.</li> <li>Gain access to new approximation files via SFTP.</li> <li>Test existing pre-trade margin process using new file.</li> <li>Consider other points of integration with CME margin services for SPAN 2 margin replication.</li> </ul>

## References

Below are SPAN 2-specific references:

- [Launching SPAN 2 Website](#)
- [CORE Demos](#)
- [Production Parallel Margin Reports](#)
- [SPAN 2 Risk Analysis Framework](#)

Below are CME margin tool references:

- [CME CORE UI](#)
- [CME CORE API documentation](#), including these relevant pages for SPAN 2 workflows:
  - [Transaction Add in Risk API format](#)
  - [Risk API format](#)
  - [Margin Calculate](#)
  - [Margin Get](#)
  - [All-in-One Request](#)
- [Deployable Margin Software](#)

## Engagement

To support the Q3 2023 application of the SPAN 2 framework to Energy products, firms are encouraged to:

- Continue to identify all internal systems that use SPAN calculations;
- Work with their back office and any middle office service providers to implement a margin calculation service by the end of Q4 2022, either through direct integration with CME or a service provider solution;
- Become familiar with the CME CORE application, which replaces the PC SPAN application for CME Group Margin Calculations for SPAN 2 Margin Analysis;
- Review Prod Parallel Reports to become familiar with SPAN 2 margin requirements; and
- Reach out to CME's Post-Trade Services Team with any questions related to the SPAN 2 framework (contact information provided below).

For more information, please contact CME Clearing at [PostTradeServices@cmegroup.com](mailto:PostTradeServices@cmegroup.com) or via phone at Chicago (312) 207 2525 | London (44) 203 379 3198 | Singapore (65) 6593 5591