

OFR'S FINANCIAL STRESS INDEX

Indicator Update



WHAT IS THE FINANCIAL STRESS INDEX (FSI)?

The OFR's [Financial Stress Index](#) (FSI) is a daily market-based snapshot of stress in global financial markets. It is constructed from 33 financial market variables, such as yield spreads, valuation measures, and interest rates.

The OFR's FSI incorporates five categories of indicators: credit, equity valuation, funding, safe assets, and volatility. The FSI shows stress contributions by three regions: the United States, other advanced economies, and emerging markets.



WHY DID THE OFR UPDATE THE FSI?

In response to cases of attempted manipulation of reference rates and declining liquidity in key interbank unsecured-funding markets, the United Kingdom's Financial Conduct Authority said in 2017 that it would no longer compel banks to continue making LIBOR (London Interbank Overnight Rate) submissions after December 31, 2021. This began what is now known as the IBOR transition.

In the United States, the Federal Reserve Board of Governors and the Federal Reserve Bank of New York convened a committee to identify a suitable

replacement for the U.S. Dollar (USD) LIBOR. Similar efforts took place in other currency jurisdictions around the world.



WHAT FSI INDICATORS DID OFR REPLACE?

The seven FSI indicators that OFR replaced were based on USD LIBOR, the Japanese Yen (JPY) LIBOR, or the Euro Overnight Index Average (EONIA). Table 1 lists the factors OFR replaced.

Table 1. Variables in the Funding Category and Their Benchmark Rate Dependencies

Variable	Reference Rate Dependencies
2-Year EUR/USD Cross-Currency Swap Spread	Euribor, USD LIBOR
2-Year USD/JPY Cross-Currency Swap Spread	USD LIBOR, JPY LIBOR
2-Year US Swap Spread	USD LIBOR
3-Month Euribor - EONIA OIS	Euribor, EONIA
3-Month Japanese LIBOR - OIS	JPY LIBOR
3-Month US LIBOR - OIS	USD LIBOR
3-Month TED Spread	USD LIBOR

Note: This table lists the variables included in the funding category of the original version of the OFR Financial Stress Index, and it lists the benchmark rates on which each variable depends. Given the eventual cessation of all LIBOR settings, as well as the cessation of EONIA, OFR has replaced all variables in this category.

Source: Author's creation



WHAT ARE THE SEVEN NEW INDICATORS THAT REPLACE THE OLD ONES?

The new indicators use rates based on the officially recommended reference rates in each currency jurisdiction. For example, in the United States, the indicators are based on the Secured Overnight Financing Rate (SOFR). In Japan, the indicators use the Tokyo Interbank Offered Rate (TIBOR) or the Tokyo Overnight Average Rate (TONAR). Table 2 lists the new indicators.

Table 2. Replacement Variables

Old Indicator	New Indicator
2-Year EUR/USD Swap Spread (Euribor v LIBOR)	2-Year EUR/USD Swap Spread (ESTR v SOFR)
2-Year USD/JPY Swap Spread (LIBOR)	2-Year USD/JPY Swap Spread (SOFR v TONAR)
2-Year USD LIBOR Swap Spread	2-Year SOFR Swap Spread
3-Month Euribor - EONIA OIS	3-Month Euribor - ESTR OIS
3-Month JPY LIBOR - OIS	3-Month TIBOR - TONAR OIS
3-Month USD LIBOR - OIS	3-Month Commercial Paper - SOFR OIS
TED Spread	3-Month Commercial Paper - 3-Month Treasury

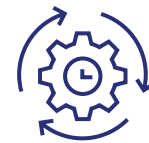
Note: As of January 1, 2022, the old variables are no longer included in the OFR Financial Stress Index and the new variables are included. The 3-month commercial paper rates are the US 3-month AA Financial Commercial Paper Interest Rates published by the Board of Governors of the Federal Reserve System.

Source: Author's creation



HAS THE FSI'S METHODOLOGY CHANGED?

No. The underlying methodology of the FSI has stayed the same. Rather, OFR has updated the set of variables used to construct the FSI. The FSI was originally created to allow for periodic replacement of the variables it includes. This substitution of variables is the first such update to FSI since its creation.



HAS THE OFR REVISED OLDER FSI VALUES?

Yes. The OFR has revised FSI values published between January 1, 2022, and June 27, 2023 (the publication date of the updated FSI) to reflect the new set of variables included in the FSI. The variables removed from the FSI no longer affect the calculation of the FSI as of January 1, 2022. The new variables replaced them as of January 1, 2022. Values of the FSI occurring before that date are unchanged. While such a revision was technically unnecessary, it will allow for a cleaner interpretation of the FSI in the future.