

LCH

SwapClear

Compression
quick guide



LSEG POST
TRADE

Compression drives unmatched capital and operational efficiencies

With the introduction of compression, LCH has empowered participants to drastically reduce notional outstanding, significantly increasing operational efficiency for participants. Indeed, in the past 12 months*, as a result of the compression of more than \$946 trillion of swaps, notional outstanding only grew by \$31 trillion, evidence of the systemically important role that central clearing in general, and compression in particular, is playing in the market today.

Our enhancements to the range of compression options continues today, delivering unmatched freedom, flexibility and choice, as we enable our members and clients to meet the evolving demands of global regulation. Indeed, the introduction of Solo, Solo with Blended Rate, Duo and Multi Compression options has enabled the industry to terminate millions of portfolio line items and significantly simplify their operations.

By delivering these operational efficiencies, while freeing up capital for the world's largest financial institutions, LCH remains at the forefront of a rapidly evolving global marketplace for derivatives.

“SwapClear delivers unmatched efficiencies while protecting the integrity of the marketplace. Trade compression is one way we do this.”

Compress, terminate, net, tear up

There are a number of words used in association with trade compression. All mean essentially the same thing. Members and buy-side clients can “terminate,” “net” or “tear up” traders to reduce the overall notional and number of line items in a portfolio.



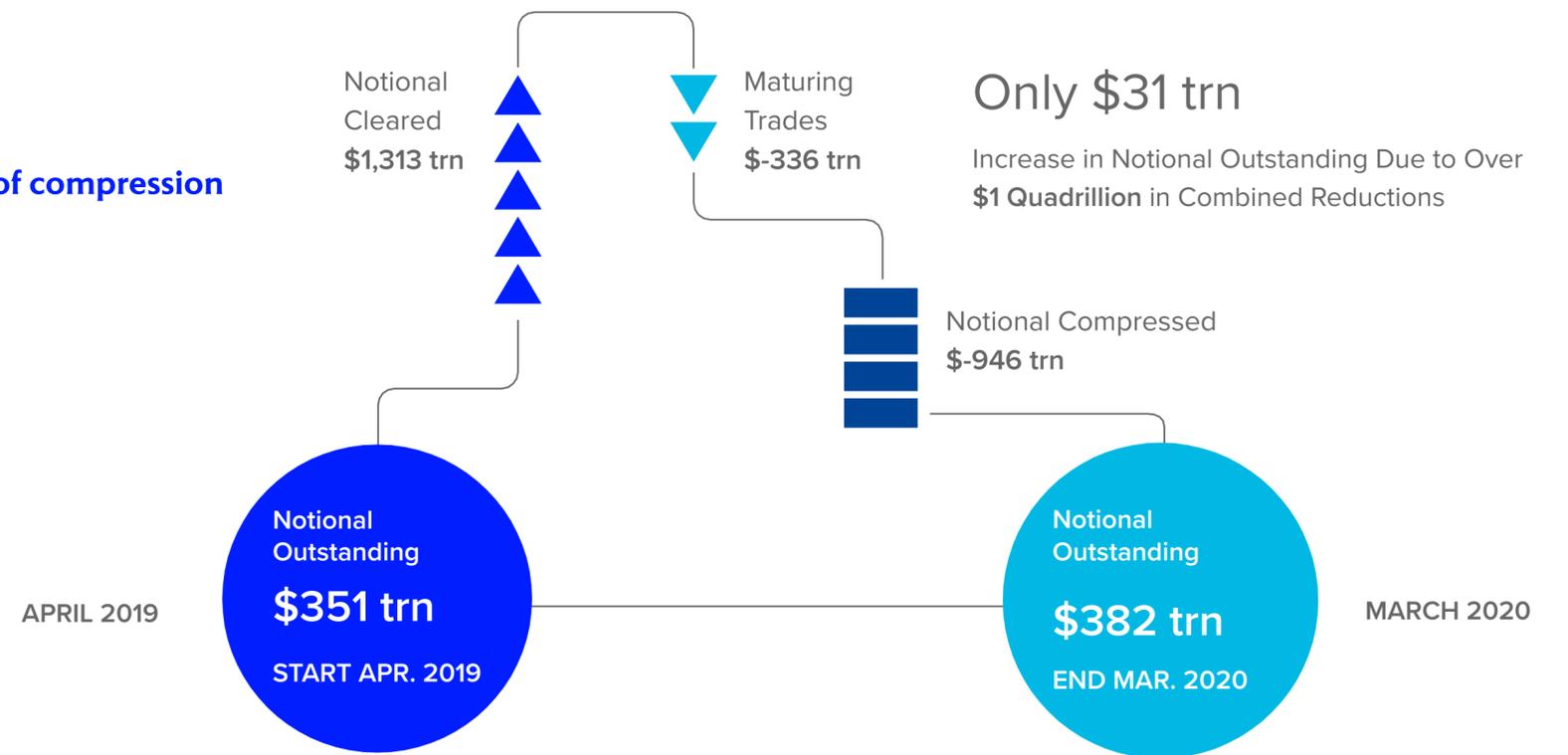
A new benchmark

The introduction of compression has broad significance, heralding a new industry benchmark to replace notional outstanding as an indicator of performance. As a driver of efficiency, it also brings significant benefits to the full range of market participants.

In 2015, thanks to Blended Rate Compression and a concerted effort by our members, LCH SwapClear achieved its first annual net reduction in notional outstanding in OTC interest rate derivatives. Since then, the service has experienced a sustained reduction in notional due to compression. The result: in the past year*, notional outstanding has been constrained to around \$400 trillion, thanks to notional compression of \$946 trillion. As demand for central clearing continues, compression is set to play a vital role in risk and operational management for years to come.

Holding notional down

The value of compression



*April 2019 – March 2020

What is Compression?

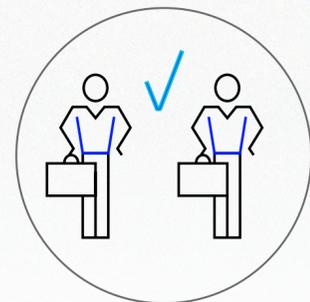
Compression is the process by which swap market participants can reduce the number of individual positions and overall notional value of a portfolio by combining or offsetting trades with compatible characteristics.

Why it is important

Regulations require members to hold capital against their interest rate swap positions. These capital requirements are usually calculated based on a number of factors, including the gross notional outstanding of the portfolio. So reducing the overall gross notional through compression may yield capital requirement relief. In addition, there are substantial operational benefits.

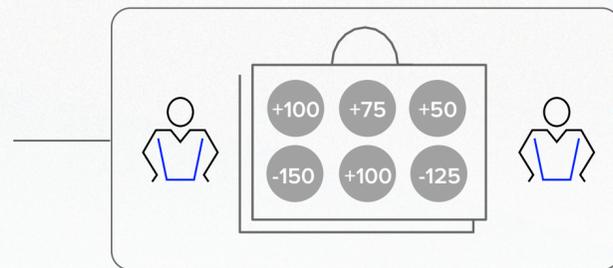
By participating in compression, firms can benefit from significant efficiencies, including:

01. Reduction of operational risks
02. Speed to auction in the event of a default
03. Fewer reconciliations
04. Simplified portfolio management
05. More efficient portfolio transfers
06. Capital savings in light of Basel III leverage ratios, as well as capital surcharges applied to G-SIBs



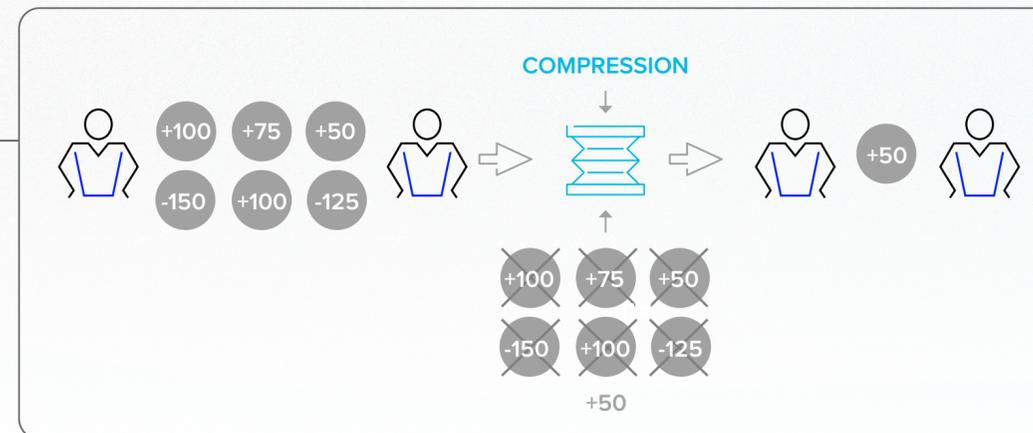
01.

A trade is agreed upon between two counterparties and then cleared by the clearinghouse.



02.

These positions then form a cleared swap portfolio.



03.

If a financial institution wants to reduce the number of line items in its portfolio, it can use SwapClear's compression offerings to tear up a trade by partially or wholly offsetting positions against other positions held by that financial institution or those of another financial institution.

LCH SwapClear's Compression choices

You're in control with LCH SwapClear's compression options. You choose what, when and how you compress your trades. In order to give you maximum freedom and flexibility, we offer different proprietary styles of compression, as well as access via an Approved Compression Service Provider (ACSP).

Solo compression

Enables a party to tear up its own eligible trades independent of their counterparty.

Solo with blended rate compression

Blending replaces a number of individual line items with different fixed rates into a single risk replacement trade with one blended rate. With our SMART simulator, you can estimate the netting benefits possible on a portfolio before you even begin.

Multi compression

Available through ACSPs, it enables two or more parties to compress trades together. Members and clients have the option of reducing their portfolio of trades with a smaller number of risk replacement trades. It also provides the benefit of allowing clearing members and clients to apply individual risk tolerances to achieve the most effective compression result.

All trades cleared using SwapClear are unlinked. Unlinked trades do not need the involvement of a counterparty to be compressed.

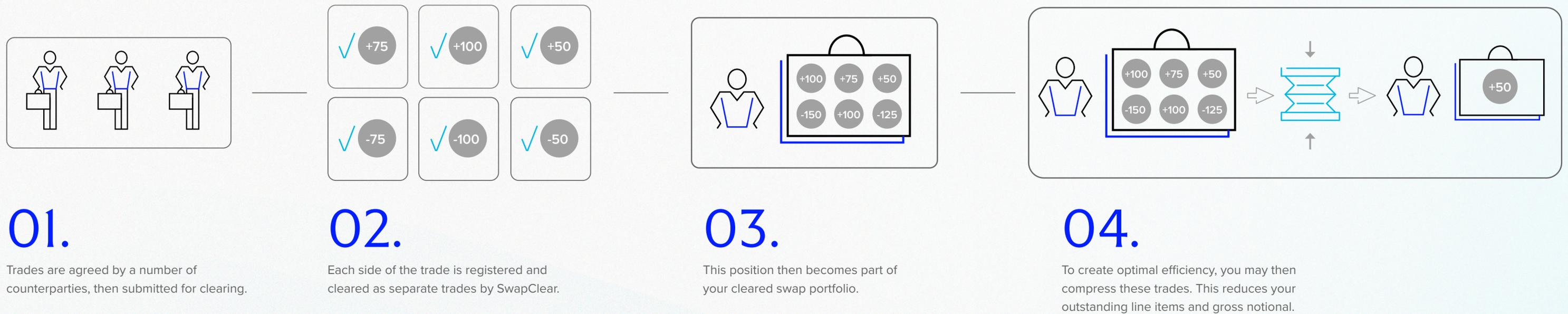
Delivering real efficiencies today

Thanks to the array of options available to members and clients, compression at SwapClear has already reduced notional outstanding for cleared derivatives by more than \$946 trillion in the last 12 months*. This reduction helped members save an estimated \$34 million in capital requirements under Basel III, as well as generated significant operational efficiencies for all participants.

Solo Compression

LCH SwapClear’s Solo Compression is an extremely flexible option because a member or client can terminate their offsetting trades, regardless of counterparties.

With the addition of Solo Compression with Blended Rate, participants can now compress much more than they were previously able to. The core Solo offering works for all trades but requires the economics of the trades to be identical. The addition of future cash-flow netting increases the efficiency of Solo by allowing trades with different start dates but the same future cash-flow characteristics to compress. Solo Compression is a fully automated process and does not need to be orchestrated as an event. LCH SwapClear has compressed more than \$2,257 trillion* through its Solo Compression offering.



Solo with Blended Rate Compression

While Solo provides significant operational and capital benefits to participants, the option of Blended Rate Compression enhances these benefits, enabling institutions to compress any trade with different interest rates but the same remaining cash-flow dates. This significantly expands the universe of eligible trades and the opportunity for portfolio efficiency. It also demonstrates how LCH SwapClear works harder to make sure that you don't have to.

The key attributes of Solo with Blended Rate Compression are:

01. Trades will be terminated and/or replaced at a weighted average replacement rate
02. Replacement trades can be calculated to 6 decimal places
03. Reducing the number of open trades and corresponding notional helps meet investor preferences
04. Daily compression runs

Smart for compression

LCH SwapClear has harnessed its award-winning margin simulation technology, **SMART**, to provide similar capabilities for compression. This enables firms to more accurately and quickly determine their compression options.

Compression key features

| FEATURE | SOLO | SOLO WITH BLENDED RATE COMPRESSION |
|---------------------------|--|---|
| Eligible Trades | <ul style="list-style-type: none"> – Any trade with the same fixed rate and identical remaining cash flows – Trades with outstanding front customisation | <ul style="list-style-type: none"> – Any trade with identical remaining cash-flow dates – Trades with outstanding front customisation |
| Eligible Products | Inflation, IRS, OIS, Basis, FRA & VNS | Inflation, IRS, OIS, Basis & FRA |
| Compression Run Frequency | Daily | Daily |
| Reporting | <ul style="list-style-type: none"> – Comprehensive reporting available – Supported by Clearlink and ATSS Synch messaging | <ul style="list-style-type: none"> – Comprehensive reporting available – Supported by Clearlink and ATSS Synch messaging |
| SMART for Compression | N.A. | Available to buy-and sell-side users |

Blended rate — how it works

Blended rate enables the compression of any number of positions with varying fixed rates but the same remaining cash-flow dates. This creates operational efficiency by reducing line items and can reduce capital requirements.

| Line Items | | | | |
|------------|-----------------|--------------|------------|----------------------|
| Trade | PAY/REC (Fixed) | Notional | Fixed Rate | Annualised Cash-Flow |
| 1 | REC | 100,000,000 | 2.340000% | 2,340,000.00 |
| 2 | REC | 75,000,000 | 2.360000% | 1,770,000.00 |
| 3 | REC | 50,000,000 | 2.380000% | 1,190,000.00 |
| 4 | PAY | -150,000,000 | 2.350000% | -3,525,000.00 |
| 5 | REC | 100,000,000 | 2.280000% | 2,280,000.00 |
| 6 | PAY | -125,000,000 | 2.300000% | -2,875,000.00 |
| TOTAL | | 50,000,000 | | 1,180,000.00 |

Blended rate compression reduces six line items to one in this example

| Blended Rate | |
|--------------------------------|-----------|
| Annual (Coupon / Net Notional) | 2.360000% |

Positions reduced to one blended rate

| Risk Replacement Trade | | | | |
|------------------------|-----------------|------------|------------|----------------------|
| Trade | PAY/REC (Fixed) | Notional | Fixed Rate | Annualised Cash-Flow |
| 7 | REC | 50,000,000 | 2.360000% | 1,180,000.00 |

SwapClear creates a single risk replacement trade to complete the process

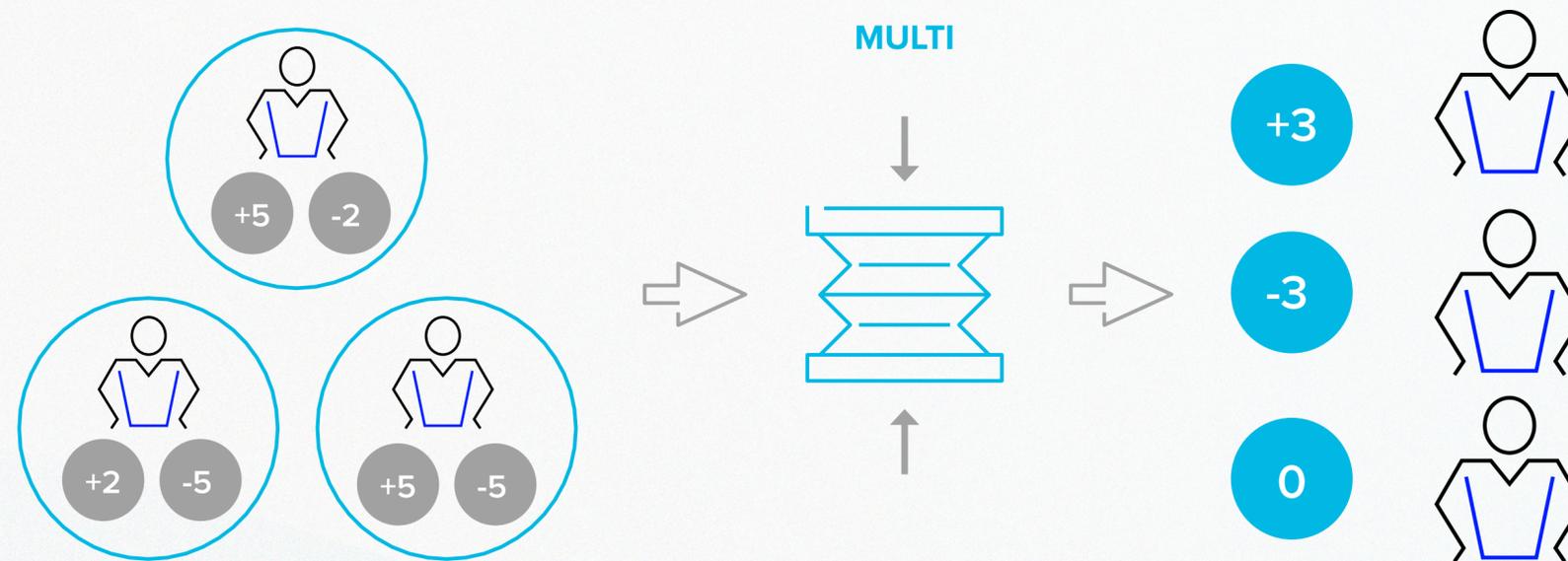
Multi Compression

When clearing with LCH SwapClear, members and clients may also choose third-party multilateral compression through ACSPs.

It is a highly efficient option because a larger number of parties can participate to create a bigger pool with more opportunity for compression.

In addition, members and clients have the option of replacing the compressed trades with a smaller number of risk replacement trades.

LCH SwapClear conducts multiple runs per week, with multiple currencies per cycle selected by the approved third-party provider.



LCH. The Markets' Partner.

LCH builds strong relationships with commodity, credit, equity, fixed income, foreign exchange (FX) and rates market participants to help drive superior performance and deliver best-in-class risk management.

As a member or client, partnering with us helps you increase capital and operational efficiency, while adhering to an expanding and complex set of cross-border regulations, thanks to our experience and expertise.

Working closely with our stakeholders, we have helped the market transition to central clearing and continue to introduce innovative enhancements. Choose from a variety of solutions such as compression, sponsored clearing, credit index options clearing, contracts for differences clearing and LCH SwapAgent for managing uncleared swaps. Our focus on innovation and our uncompromising commitment to service delivery make LCH, an LSEG business, the natural choice of the world's leading market participants globally.

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