EUROPEAN MERGER REPORT

04 October 2018

Deal Terms

1 NXG LN = 500p in cash **+ 0.0444 CME**

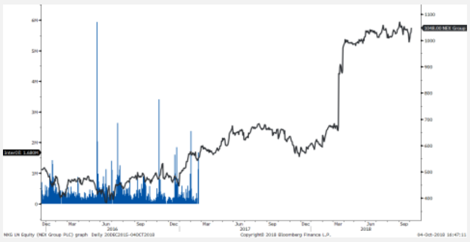
Target: NEX Group Plc.

Country	Britain
Bloomberg	NXG LN
Sector	Financial technology
Share price (GBp)	1,034
Market cap (£m)	3,979
Free float (%)	~97

Acquirer: CME Group Inc.

Country	U.S.
Bloomberg	CME
Sector	Exchange
Share price ($)	180.75
Market cap ($m)	61,572
Free float (%)	~98

NXG LN share price



Status

CMA Phase 1: November 8, 2018

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NEX Group Plc. (NXG LN) / CME Group Inc. (CME)

SCHEME OF ARRANGEMENT - UPDATE

We provide a more detailed analysis of potential non-horizontal issues of the proposed transaction.

i) The transaction would concentrate trading for U.S. Treasuries:

- The deal combines CME's derivatives position and NEX's cash position; from antirust perspective, companies might argue that such combination might enable efficiencies that might be passed on to clients.
  - In addition to combining the existing business areas, it is argued that further efficiencies might be achieved if the combined co. also cleared cash Treasuries. Ultimately, this might enable for significant cross-margin efficiencies for the combined co.'s clients. However, CME has stated quite explicitly (during the M&A call) that it does not intend to change its relationship with their (and NEX's) current partners and clients.
- As per our understanding, cash Treasuries are currently cleared by FICC, which is owned by DTCC. DTCC is owned by shareholders, including large banks, which derive significant revenues from clearing business.
  - A potential new entry into clearing of cash Treasuries might concern DTCC. Following that, we understand that large banks might be complaining about the proposed deal.
- However, from purely antitrust perspective, we do not see any strong arguments by the banks that the proposed transaction is anticompetitive.
  - As per our market definition, there is no horizontal overlap. In order to bring a case against the proposed deal, banks might argue that "cash" and "derivatives" should be considered as part of the same product market. Given precedent deals, we believe that such market definition is very unlikely.
    - Also, we do not see any strong arguments by the banks that the deal might result in negative non-horizontal effects.
- Ultimately, we believe that there are alternative solutions to accommodate potential DTCC concerns: we understand that DTCC and CME have been considering options to amend the current two-pot cross-margin arrangement; and parties might utilize the antitrust review process as a tool to leverage their position in future negotiations.
  - i) Parties might agree to change the current agreement to allow for higher reduction in initial margin (to clients); or ii) parties might agree to have a single-pot agreement.
    - As we discuss in our report, this would be a win-win situation for both.
      - Here, we also note that CME's entry to a clearing business of cash Treasuries is conditional on SEC approval.
- In terms of potential remedies, it is difficult to see a structural remedy.
  - Some industry participants argue that CME might need to commit not to enter a clearing business of cash Treasures for a certain number of years.
    - From a purely antitrust perspective, we believe that it might be difficult to bring a model that will justify enforcing such behavioral remedy.
      - From DTCC's perspective, it might ultimately get the same outcome if it agreed on more favorable margin agreement with CME.
        - We do not see CME being adverse to such an amendment.

ii) We believe that regulators might be concerned that CME might introduce a "closed" model:

- We understand that the main concern is that the combined entity might restrict access to some of NEX's services/solutions (e.g. TriOptima) favoring CME's service in the areas that CME directly competes with others players (e.g. LCH) that currently utilize such NEX's solutions.
  - This mainly concerns USD interest rate swaps and (potentially) FX swaps.
    - In terms of USD interest rate swaps, we note that CME Clearing competes with SwapClear (which is a service of LCH.Clearnet, owned by LSE).
- As per our understanding, industry participants are mainly concerned that the combined co. might restrict other players' access to TriOptima (especially, its compression service).
  - TriOptima's compression service reduces the number of trades by offsetting positions.
- We understand that TriOptima is a primary compression service that LCH utilizes; however, we understand that it has recently approved new compression service providers.
  - LSE might complain; but we ultimately do not see CME restricting LCH's access to TriOptima platform - we note that LCH currently represents a significant share of its business.
    - LSE (and other players) might push for some behavioural remedies. In a base case scenario, we believe that such commitments will not be needed.

Considering these aspects, we attach: i) >85% prob. that the deal will be cleared without remedies, ii) ~10% prob. that behavioural remedies will be needed, iii) <5% prob. for structural remedies.

Deal update

In our initiation report (dated April 9, 2018) we discussed horizontal overlap of the two companies, and we outlined potential non-horizontal issues of the deal that antitrust regulators might scrutinize. In this report, we provide a more detailed analysis of potential non-horizontal issues of the proposed transaction.

- As we discuss in more detail in our report, we see two non-horizontal issues that regulators might scrutinize:

U.S. TREASURIES

Introduction

The proposed transaction combines NEX's Brokertec position in cash market and CME's position in derivatives.

- As per available data, Brokertec currently controls approximately 80% of the UST dealer-to-dealer market, followed by Nasdaq (eSpeed) and others.
  - As per our understanding, Brokertec is open to a number of banks, while it has recently allowed access to some hedge funds, but institutional investors generally have no access to Brokertec.
    - In terms of a dealer-to-client market, it is divided between electronic venues (e.g. Bloomberg, Tradeweb, etc.) and phone.
      - Large banks have used in past their leverage to keep a two-tier structure; some institutional investors have voiced in past that they face higher costs as compared to interdealer rates.
- CME has a near-monopoly position in trading of US Treasury futures; while it also has exposure to interest rate swaps market.

CBR view

Combing CME's current **derivatives position and NEX's cash position might enable for some efficiencies (e.g. capital), which companies might argue might be passed on also to its clients.**

- In addition to combining the existing business areas, it is argued that further efficiencies might be achieved if the combined company also cleared cash Treasuries.
  - CME might see it compelling and might intend to clear cash Treasuries (and Treasury-backed repurchase agreements) in-house post-NEX deal. **Ultimately, this might enable for significant cross-margin efficiencies for the clients.**
    - In past, there has been an attempt for three-way cross-margining by NYPC, but ultimately it has not been very successful.
      - We note that CME recently applied for approval from the SEC to clear repos.
  - Although, CME has stated quite explicitly (also during its M&A call) that it does not intend to change a relationship with their (and NEX's) current partners and clients.
    - As per our understanding, **cash Treasuries** (and Treasury-based repurchase agreements) **are currently cleared at FICC.**
      - As per our understanding, FICC and CME currently maintain a so-called two-pot cross-margin agreement; this arrangement allows offsets between cash Treasuries and Treasury futures to only (very) small extent - as per our reading, it enables for 0.25% reduction in initial margin.
        - However, FICC had in past an arrangement with NYPC (in 2011) that effectively created a one-pot margining system enabling for offsets between cash Treasuries and Treasury futures across CCPs -as per our reading, it is estimated that it allowed for ~20% reduction in initial margin.
- FICC is a subsidiary of DTCC which is owned by shareholders including large banks; these shareholders (including large banks) derive significant revenues from clearing transactions.
  - Following that, FICC might not want a new entrant to the market, and **we understand that large banks might be complaining about the proposed transaction.**
    - However, **we do not see the banks having a strong case arguing that CME's acquisition of NEX group is anticompetitive.**
      - As we discussed, merging parties are likely to argue that the proposed transaction will enable for efficiencies that might be passed on to clients. While, CME has been so far denying their intention to clear cash Treasuries.
    - Ultimately, we believe that there are also alternative solutions to accommodate potential FICC concerns – we understand that DTCC and CME have been considering options to amend the current two-pot cross-margin arrangement.
      - There are two potential solutions that come into our mind – first, companies might agree to change the agreement to allow for higher reduction in initial margin (to clients); or secondly, parties might agree to have a single-pot agreement. In both cases, clients (incl. large banks) will benefit.
        - Ultimately, this could be a win-win situation for both parties – FICC could keep its exclusive clearing business, while CME could gain a stronger position in futures and swaps market as banks might prefer to clear with CME as opposed to its competitors (given significant cross-margin savings).
          - Here, we note that CME's entry to a clearing business of cash Treasures is conditional on a SEC approval (which has not even been filed).
      - Ultimately, both parties might utilize the antitrust review process of the proposed deal as a tool to leverage their position in future negotiations.
    - However; from purely antitrust perspective, we do not see any strong arguments by the banks that the proposed transaction is anticompetitive.

        - As per our market definition, there is no horizontal overlap (as "cash" and "derivatives" have been in past deemed separate product markets).
            - In order to bring a case against the proposed transaction, banks might argue that "cash" and "derivatives" should be considered as part of the same product market. Given precedent deals, we ultimately believe that such market definition is very unlikely.
                - Also, we do not see any strong arguments by the banks that the proposed deal might result in negative non-horizontal effects.
- Also, we believe that some of CME's direct competitors (e.g. LCH) might be complaining – in case i) CME cleared cash Treasuries or ii) it entered into a more favorable margin agreements with FICC (*as we discussed above*), we believe that CME might have an edge in certain markets (e.g. interest rate swaps) that LCH is current a direct competitor.
    - In our next section, we also discuss potential vertical effect of the transaction.
- **In terms of potential remedies, it is difficult to see a structural remedy.**
    - **Some industry participants argue that CME might need to commit not to enter a clearing business of cash Treasures for a certain number of years**.
        - **From a purely antitrust perspective, we do not see arguments that might justify a requirement of such behavioral commitments.**
            - From DTCC's perspective, it might ultimately get the same outcome if it agreed on more favorable margin agreement with CME. As we stated before, this could be a win-win situation for both parties; and we do not see CME being adverse to such an amendment.

VERTICAL ASPECT OF THE TRANSACTION

As we discussed in our introduction, we find that i) NEX Group currently supplies (provides services) to some of CME's close competitors (and CME itself); and also, we find that ii) some of CME's close competitors currently supply (provide service) NEX Group. This might potentially raise regulatory concerns:

- i) in terms of the vertical aspect of the transaction, **we understand that the main concern is that the combined entity might restrict access to some of NEX's services/solutions (e.g. TriOptima) favoring CME's service in the areas that CME directly competes with others players (e.g. LCH) that currently utilize such NEX's solutions.**
    - **From antitrust perspective, it might be argued that restricting other players' access to NEX's solutions might have negative effect on end-users.**
- So, we are mainly talking about USD interest rate swaps and (potentially) FX swaps.
    - **USD interest rate swaps (IRS):**
        - In general, interest rate swaps represent a significant portion of the global OTC derivatives market.
            - Here, we note that CME directly competes with SwapClear (which is a service of LCH.Clearnet).
                - As per available data, SwapClear clears about USD 3 trillion in interest rate derivatives on a daily basis, while USD 2 trillion in USD-denominated contracts, and EUR 475 billion in EUR-denominated contracts.
                    - In terms of available market share data, we find that LCH SwapClear had 87% of cleared US dollar interest rate swaps and CME had 13% of cleared US dollar interest rate swaps as at Q2 2018.
                        - We note that LCH has had a dominant position for years, while its market share has been continuously growing in past years.
                    - In terms of non-USD-denominated interest rate swaps, market is also dominated by LCH.
        - From a client's perspective, we note that clearinghouses might have different pricing structure.
            - Also, we note that each clearinghouse will ask for a collateral, or "margin", while these requirements might be reduced by offsetting (hedged) trading positions.
                - Here, the NEX Group's solutions come into picture: NEX Optimization operates a number of distinct services that provide pre- and post-trade solutions.
                    - **As per our understanding, industry participants are mainly concerned that the combined entity might restrict LCH's** (and other players') **access to TriOptima (and especially, its compression service).**
            - TriOptima's compression service reduces the number of trades by offsetting positions that can be compressed.
                - Compression was introduced to the IRS market in 2003 by TriOptima; and it is estimated that without compression, the size of the IRS market would be approximately 30% larger.
                    - We understand that TriOptima is a primary compression service that LCH utilizes; however, we understand that it has recently approved new compression service providers (in addition to TriOptima) Quantile Technologies and Capitalab.
                        - We ultimately do not see the combined entity restricting its access to its TriOptima platform – we note that LCH currently represents a huge percentage of TriOptima's business.
                            - Also, it seems that LCH has other solutions that can provide a compression service.
                - In terms of potential remedies, we consider it very unlikely that CME/Nex Group would be require to divest TriOptima (or part of its ops). Although, one might argue that TriOptima (or part of its ops) might be separated from the entire NEX's portfolio and sold to a third party.

        - In terms of potential behavioral remedies, one might argue that regulators might require companies to commit not to restrict LCH's (and other players') access to NEX's solutions (especially, if LSE and others players comment). In a base case scenario, we believe that such commitment will not be needed.
- ii) CME operates CME clearing, which is one of the world's leading CCP providers.
    - NEX Group operates trading platforms, while we understand that transactions executed at the NEX's platforms are currently cleared by third-party providers.
        - **From antitrust perspective, we believe that regulators might be concerned that the combined entity might want to replace third-party providers and have transactions executed at the NEX's platforms cleared in-house.** Ultimately, it might be argued that the combination might have a negative effect on end-users.
            - **However, we believe that the combined company is likely to face competitive constraints:**
                - In previous paragraphs, we discussed competition landscape at the level of clearinghouses; also, we believe that there is competition at the level of exchange platforms, which is also a competitive constraint to the combined entity.
                    - E.g. EBS platform - NEX's EBS platform had a daily volume of $84 billion (as at H1 16/17), while its competitors include Thomson Reuters (having a ~$110 billion daily spot trading volume as at Jan 2016), Hotspot/CBOE (having a ~$26 billion daily spot trading volume as at Jan 2016), FastMatch/Euronext (having a ~$9 billion daily spot trading volume as at Jan 2016).
            - Also, CME Clearing is currently not present for certain asset classes (e.g. EU government bonds and repo purchases):
                - In terms of EU government bonds and repo purchases, the principal CCPs clearing repos in Europe are LCH-Clearnet Ltd. in the UK, LCH-Clearnet SA in France, Eurex Clearing in Germany CC&G in Italy and BME Clearing in Spain.
                    - CME has recently closed its CME Europe and CME Clearing Europe; and we ultimately do not see them entering this market.

SUMMARY

The deal has been formally notified with the CMA; Phase 1 deadline is November 8, 2018. We do not have public information regarding a filing/approval in the U.S.

- Considering the horizontal aspects that we discussed above, we attach: i) >85% prob. that the deal will be cleared without remedies, ii) ~10% prob. that behavioural remedies will be needed, iii) <5% prob. for structural remedies.

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