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Central Counterparty Clearing and Settlement: Implications for Financial Statistics and the Balance of Payments

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CENTRAL COUNTERPARTY CLEARING AND SETTLEMENT:

Implications for Financial Statistics and the Balance of Payments

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This paper looks at the implications for statistical compilers arising from some innovative developments within the London Repo and OTC derivatives markets. It shows how changes to contract clearing and settlement practices can impact on the size of financial companies' balance sheets, by changing the scope for netting of positions, and how such arrangements may require changes to statistical inquiries or methods of compilation, to prevent loss of key information.

The paper incorporates and extends an earlier paper presented to the OECD Working Party for Financial Statistics in October 2003, and discussed by the IMF Balance of Payments Committee in December 2003.

Background

The macroeconomic statistical treatments for financial derivatives and repurchase agreements have both undergone major reviews in recent years. In both cases, the consensus among statisticians is that positions should be recorded gross on the balance sheet, such that aggregate counterparty exposure is identified. Netting of offsetting positions with the same counterparty may be permitted/encouraged where there is a clear legal right of set off but, in general, balance sheets should reflect the extent of business being undertaken. This guidance has potentially large implications for the size of balance sheets.

In the case of repo and similar reversible transactions, the cash taker will record both the receipt of cash and the obligation to return cash (loan liability) while continuing to report the repoed security on balance sheet. The effect is to inflate both sides of the book. For active market participants, the cash provider (reverse repoer) may undertake back-to-back repo and reverse repo transactions so that both turnover and balance sheet positions may be leveraged up.

A similar process of turnover and balance sheet expansion is observable for market makers in OTC derivatives. In this situation, a dealer may take an initial position with an end user, but then offset this in the market to neutralize, or at least modify, his market risk exposure. This is particularly prevalent in the OTC swaps market, where risk management amongst traders can give rise to chains of back-to-back inter-dealer trading.

The growth of repo business and OTC swaps trading have thus provided a major source of turnover and balance sheet growth for UK banks and securities firms in recent years. As a consequence, since London is a global centre for both markets, the ability of UK financial companies to classify their business by the sector/residency of counterparties, is important for the derivation of associated Balance of Payments flows.

The impact of Central Counterparty clearing

Statistical guidance on these activities, and the associated growth in balance sheet positions, rested upon trades taking place bilaterally between active counterparties. However, in August 1999, the London Clearing House (LCH) introduced a limited Central Counterparty (CCP) clearing and settlement service – "RepoClear" - for Euro denominated bonds. This was extended to cover the London Gilt Repo Market from August 2002. Also in 2002, LCH introduced a parallel CCP service – "SwapClear" – for the OTC swaps market.

CCP clearing is not in itself new. The LCH has long played this role in respect of on-exchange trading, for example financial futures and options traded through LIFFE. What is different in these new facilities is that they allow OTC deals with named counterparties to be settled through the CCP, thereby combining the flexibility of OTC trading with the benefits of the electronic exchanges.

Under CCP, bilateral trades may be "novated" to the clearing house for clearing and settlement. This involves the clearing house assuming any counterparty risks by entering into separate contractual arrangements with both counterparties – in effect becoming buyer to one and seller to the other.

While the details of this process could vary from market to market, the following sequence may be typical. A bilateral trade between two SwapClear members A and B on day t would be submitted for novation through Swift's Accord system on day t+1. The trade is recorded against the original counterparty until the London Clearing House confirm acceptance, at which point the contract is legally transferred to face the LCH – this might typically occur on day t+2. But, in addition to new trades, SwapClear is currently attracting significant numbers of novations from older contracts - more than half of all novations during April 2004 were associated with contracts originally booked prior to April – so that there is considerable flexibility over the timing of novations relative to the original contract date. Either way, novated contracts will normally be subject to initial and variation margin calls by the CCP to protect its own position.

The user benefits of CCPs may include the transfer of credit risk to a high quality counterparty and cost savings associated with straight through processing and the consolidation of margining and settlement functions. But it is the scope of CCP clearing to maximise netting through a single legal set off, which may deliver the greatest benefit by increasing the volume of business that can be supported by any given size of balance sheet/regulatory capital requirement.

The potential of CCP to consolidate complex bilateral trading positions into a set of net positions between the CCP and its clearing members, raises the prospect of slower balance sheet growth, or even the reversal of past growth, for active market participants. For the present, there is no indication that CCP processing will entirely replace bilateral OTC positions, yet use of the facility is growing strongly - one major swaps dealer has increased its use of novation from 4% of outstanding transactions in March 2003 to 7% in September and 12% in March of this year, with the corresponding figures for the share of contracts by value some 2pp higher.

What are the issues for financial statistics?

The arrangements described here may be thought of as no more than efficiency improvements in market infrastructure. Yet their full significance extends beyond the mechanics of trading, both because of the legal transfer of counterparty risk and the consequent right to offset a wider range of business for capital adequacy purposes. Both of these changes carry implications for the management information held and/or required by participating firms, and hence for the data sources available to statistical compilers. The principal data source issues requiring investigation are considered to include the following:

- Issues concerning the measurement of market turnover;
- Issues related to the increased scope for netting of positions;
- Issues concerned with counterparty sectorisation; and
- Issues raised by the existence of non-resident members of clearing houses and cross border mergers/integration of CCPs.

Market turnover: The novation of an originating transaction between A and B into two separate contracts with a CCP might appear to imply the inflation of market turnover from one to three transactions. In practice this may not be the case. Market participants have indicated that novations are not viewed as new contracts and that turnover data would be sourced most naturally using the originating deals and counterparties – the (typical) t+2 delay before novation becomes effective should minimise any scope for ambiguity. On this basis, data for the BIS Triennial, or similar, turnover survey should look through and ignore the settlement arrangements.

Netting of positions: The evident scope which the institutional framework for clearing and settlement has for altering the **reporting of balance sheet levels**, raises an obvious issue about what statisticians should be attempting to measure. Current guidance presumes in favour of gross recording, since this serves both to maximise information about total business and sectoral exposures. However, with a growing proportion of business migrating to a single legal counterparty, where it becomes eligible for netting under set off provisions, the relationship between balance sheet positions and business growth becomes unclear.

In the United Kingdom, the relationship between balance sheets and business volumes is further obscured because business cleared through SwapClear, and to a lesser extent through RepoClear, is continuing to be reported gross by some statistical reporters. Given a straight choice between gross or net reporting of positions with LCH we favour the former. However, unless this convention can be standardized for all reporters, the adoption of net reporting by all may become inevitable.

Sectorisation: In contrast to the recording of turnover, the novation of contracts through LCH will lead participants to recognise a change of counterparty in outstandings data. Management information will follow legal ownership/liability and so would switch at t+2 in the earlier example. Subsequently, information on the original counterparty will normally only be available through an audit trail and so is unlikely to be readily accessible for statistical purposes.

The **sectoral issues** arise from the progressive concentration of business with the CCP. In the United Kingdom, LCH are classified as an Other Financial Corporation (OFC). So, for example, if all repo and swap business were cleared through LCH, then inter-dealer business currently undertaken between banks (MFIs/Depository Corporations) would be counterpartied to the OFC sector. Such a switch carries implications for macroeconomic data sets that use a sectoral analysis, including the monetary statistics and the financial accounts. The full impact of CCP clearing on these aggregates results from both the netting of repo positions with the non-bank private sector, and from the migration of previously excluded interbank (but intra-MFI sector) positions.

The sectorisation of outstanding swap positions in the BIS Triennial and semi annual surveys raises a further concern. The primary motivation for these collections has been to gather information on the structure and size of the OTC derivatives market and on the type of counterparties that are active within it. It has been suggested that classifying outstandings by legal counterparty – to the sector of the CCP in the case of novated contracts - may serve to obscure this primary purpose even though it provides the appropriate classification for risk assessment purposes.

Residency: A further consequence of business migration may occur if the clearing house has **non-resident members.** This may be an issue because cross border business undertaken by resident market makers will increasingly be counterpartied to the resident CCP. In this situation, the CCP may become the principal/only statistical source of cross border positions and flows for national compilers. This is recognised, for example, in Annex VII of the Technical Group on Asymmetries' final report on the Harmonised Codification.[1] A possible corollary to this may be that a purely domestic transaction could be reported as cross border by both parties to the originating deal if they chose to settle through a non-resident CCP.

Such transactions are probably already occurring. Of the 20 SwapClear members currently listed, five are non resident – three based in the US, one in Ireland and one in Italy.

[1] http://forum.europa.eu.int/Members/irc/dsis/bop/home

The scope for more complex examples may be further increased by **cross border mergers/integration of CCPs.** Such developments are occurring. Of particular relevance for the UK is the integration of LCH with the European Clearnet. The operational significance of this link requires further investigation.

Conclusions

This paper has raised issues for compilers requiring further consideration. The market developments described here are already affecting the data we collect and the statistics we compile. These effects are set to increase over time.

Under most circumstances, the reported data appear to reflect reliably the changed legal and beneficial ownership rights and obligations brought about by the introduction of CCP clearing. But the resulting statistics may, in some cases, be less suited to their original purpose or may give rise to a gap in coverage requiring separate attention. Within the UK, these latter concerns will form the subject of a joint programme of work between the Bank of England and the UK Office for National Statistics (ONS) in 2004-5. This will review reporting guidance in the light of user needs, but will also investigate the need and scope for direct data collection from CCPs.

The Working Group is invited to consider the following issues:

- Should data changes associated with the introduction of CCP clearing and settlement be treated passively, as the statistical representation of real changes in behaviour by economic agents, or might some form of intervention be needed either to change data collections or to modify compilation methods?
- Specifically, should reporters' positions with a CCP be reported net, in line with normal market practice, or should efforts be made to identify underlying gross positions?
- To what extent does the presence of non resident CCP members or the use of non resident CCPs pose any collection issues for BoP compilers?

Bank of England
14 May 2004

ANNEX 1

PROJECT INITIATION DOCUMENT

REFERENCE: 31 (revised August 2004)

PRIORITY: Medium

TITLE: Market Netting and the impact of Central Counterparties on Financial Statistics

AIMS

- **To provide a descriptive account of the statistical implications of new institutional settlement and clearing facilities (e.g. RepoClear, SwapClear), where appropriate building on existing work;**
- **To assess the potential quantitative impact on financial statistics as a result of the growth of these new facilities;**
- To identify emerging gaps in existing statistics and any additional information required for either National Accounts/Balance of Payments or Monetary Analysis purposes, including gross vs net reporting and data requirements for the extended quadruple entry accounting treatment for repurchase agreements, proposed by IMF;
- To investigate the implications for statistics arising from the relationship between LCH (an OFC) and Clearnet (a non-resident MFI);
- To investigate data sources to meet these needs, in particular data held by the London Clearing House; and
- **In the light of these results, to make recommendations for further data collection –including consideration of who, ONS or MFSD, should collect statistics from relevant OFIs (eg the London Clearing House); consideration of the separate identification of LCH as a counterparty in the sectoral breakdowns in existing ONS and MFSD collections; and consideration of legal issues associated with these recommendations.**

EXPECTED BUSINESS BENEFITS

Improved understanding of these new institutional netting facilities will enable us to identify overlaps / underlaps in current data. It will also allow us to contribute more effectively to the development of international statistical discussions, for example on the quadruple entry accounting model for repurchase agreements.

DELIVERABLES/OUTCOMES

- Interim Report to be produced by January 2005;
- Final report with detailed proposals for additional data collection (April-May?).

MILESTONES

September 2004: Familiarisation with the issues identified to date:

- Steering Group meeting to activate the project;
- Overview of issues – papers by CBW Oct 2003 and May 2004;
- Impact on BoP statistics – CBW papers;
- Impact on monetary aggregates – draft article MSG Oct 2003;
- Alternative treatment of repurchase agreements – IMF BOPCOM Oct 2001 Dec 2003,
- Survey of data sources 2002, draft questionnaire August 2004.

October-November 2004: Investigation of the potential impact on statistics through use of illustrative sectoral balance sheets based on plausible growth in use of SwapClear and RepoClear facilities - sensitivity analysis:

- Demonstrate how data interpretation would be affected by the pace and extent of take-up of these facilities;
- Identify the minimum additional data requirements to meet ONS BoP needs;
- Identify any additional data requirements for Monetary Analysis;
- Identify the case for separate identification of LCH as a sectoral counterparty within BoE and ONS inquiries.

November-December: Prepare a letter of approach and background paper to the London Clearing House with the aim of an exploratory visit to discuss LCH data sources:

- Make use of Bank market contacts with LCH to facilitate this approach;
- Clear any draft with ONS and make the visit a joint one;
- Prepare to explore the operating relationship between LCH and Clearnet;
- Prepare an additional checklist to cover data requirements under the quadruple entry accounting treatment.

January 2005: Interim report to Bank/ONS Work Programme Steering Group.

April-May(?) 2005: Final Joint Report and recommendations covering:

- What additional data are needed;
- Who should collect it;
- Legal basis for collecting from LCH;
- Confidentiality issues if LCH were to be separately identified.