NANYANG TECHNOLOGICAL UNIVERSITY

FINAL QUIZ AY2021/22

BC3402: Financial Service Processes and Analytics

April 2022 Time Allowed: 1.5 hours

INSTRUCTIONS

1 Answer all **TWO (2)** questions.

2 This is an **open-book** online quiz.

3 The number of marks allocated is shown at the end of each question.

4 Type your answers in MS Word

5 Answers will be graded for content and appropriate presentation.

6 You MUST submit the answer by **20 April 2022, 3:30pm (Singapore Time)**

7 Submit your quiz via NTUlearn Turnitin under the main course site using the following path:

BC3402-FIN SERVICE PRO & ANALYTICS (SEM) 2020/2021 Semester 2 Main → Assignments → Final Quiz Submission (20 April 2022)

Q1: A Glimpse at Failed Central Counterparties

Regulators around the world seem set to install central counterparties (CCPs) as part of their efforts at post-financial crisis reform. But not without criticism — some commentators have likened their efforts to creating a series of AIG-type companies, or Too Big to Fail institutions, acting as insurers.

Paul Tucker, Deputy Governor Financial Stability, had this to say in a speech on Wednesday:

Three clearing houses have failed in recent decades. In 1974, the Caisse de Liquidation failed in Paris, due to default on margin calls when sugar-futures prices fell sharply. In 1983, it was the turn of the Kuala Lumpur Commodities Clearing House, when half a dozen large brokers defaulted following a crash in palm-oil futures. And, most dramatically, the Hong Kong Futures Exchange clearing house failed in the wake of the global stock market crash in 1987. The effects were devastating. The Futures Exchange had to close. Traders had hedged margin-financed cash equity positions in the futures market. They faced margin calls on their cash positions but, with the futures market closed and the clearing house bust, they could not get margin moneys returned on their profitable futures positions. For that and other reasons, the stock market closed too. The upshot was that Hong Kong's main capital market shut down. Reopening the market was no small feat. World markets had fallen further in the meantime, so there was a risk that a modestly 'recapitalised' Clearing House would go broke again if positions had to be marked down immediately. In the event, the Hong Kong Government and the clearing banks underpinned the Clearing House. This episode warrants more study than it has received. Had it been London, Chicago or New York, it would have entered the folklore of policy memory.

So far European regulators plan to deal with CCP-failure risk by, err, requiring them to hold a certain degree of capital and upping their margin requirements. But if a CCP were to fail, things become a bit more uncertain. Tucker reckons a clearing house that does run into trouble could be recapitalised by its members of be orderly wound down. But, crucially, he says there should be no public bailouts.

Or, as he puts it:

Maybe I've got this wrong but, in summary, it seems to me that questions about orderly resolution of a failed CCP have to involve clarity around the extent to which surviving clearing members pick up the pieces.

Doesn't this seem like the sort of thing regulators should have worked out before?

Source: Financial Times

Answer all the questions below:

a. What do you think is a cause for failure of a central counterparty?

(25 marks)

b. How can central counterparties better manage their risks and mitigate risks of failure? What are some of the challenges in implementing the suggestions you have provided here?

(25 marks)

Q2: The $300bn Question Facing Central Banks

Ousmène Mandeng is a visiting fellow at the London School of Economics. In this post, he talks about a potential side effect from the decision to cut Russia's central bank off from a sizeable chunk of its foreign-exchange reserves. The sanctions imposed by Western authorities on the Central Bank of Russia were worth it. Yet they may also make other central banks rethink how and where their foreign exchange reserves are held. Central bank reserves are the ultimate rainy day fund, kept as insurance to fight market turmoil. They are also large. The world's monetary authorities have together accumulated around $13tn, or 14 per cent of world GDP, of foreign exchange reserves. The largest amounts are estimated to be held by China, Japan, Switzerland, India, Taiwan, Hong Kong, Russia, South Korea, Saudi Arabia and Singapore. This group is thought to have about $9tn on tap to defend their currencies including to meet foreign obligations. Reserves are held predominantly in the form of high-grade securities, typically government debt, denominated in the currencies used the most in international financial transactions. According to the IMF's latest data, 59 per cent of reserves are held on average in securities denominated in dollars, 20 per cent in euros, 6 per cent in yen, 5 per cent in sterling and the rest in other currencies. US Treasury securities are considered the most held foreign exchange reserve asset. At the end of 2021, based on US Treasury data, foreigners held about $7.7tn of US Treasury debt or one-third of the total held by the public. The biggest holders are Japan and China. As big customers, central banks' attitudes towards holding dollar denominated government bonds matter. Indeed they matter to the extent that, in 2009, then US secretary of state Hillary Clinton felt obliged to remind the Chinese that US debt continued to be safe to buy. The sanctions levelled against the Bank of Russia could now prompt a rethink. At the moment, the securities central banks hold are usually kept in central securities depositaries (CSDs) often in the country of the issuer or with a large international CSD. Government bonds are normally traded over the counter but are cleared through central counterparties (CCP). Access to the securities depends on the provisions governing the CSD, and often the CCPs, and will normally rest on local conditions. US securities are kept and transferred in the national book entry system (NBES) operated by the Federal Reserve that acts as both the CSD and the fiscal agent for the US Treasury. Most Treasury trades are settled on a delivery-versus-payment basis whereby the securities are electronically deposited in the receiving institution's account at the NBES and the corresponding payment is deposited in the sending institution's account at the Federal Reserve. There has been a recent push through the Depository Trust and Clearing Corporation and its subsidiary, the Fixed Income Clearing Corporation, to advance centralised clearing to reduce counterparty and credit risks by netting across CCP members. The small number of institutions governing the market for the assets underlying foreign exchange reserves implies considerable dependencies. On one hand, it brings important advantages in providing an effective market infrastructure for trading. But the high concentration of market actors implies that just a few entities control essential transactions that determine access and transfer of securities. While Russia is believed to hold only a few US Treasury bonds, it still has an estimated $300bn of foreign exchange reserves held in other securities. Sanctions imposed by the US and EU now prevent it from using most of it. If access can be denied to them, central banks the world over may reconsider the utility of foreign exchange reserves and the conditions under which they're held. The angst among central banks of not being able to access needed resources abroad is not new. From 2013 to 2017, the Bundesbank, not an obvious target of sanctions, repatriated about 300 tonnes of gold from New York and 374 tons of gold from Paris to Frankfurt with the objective to keep more than half of its gold in its own facility to "building trust and confidence at home". If others do indeed follow the Bundesbank in repatriating reserves, it could trigger a move away from the centralised financial market infrastructure in place today. That brings a risk of market fragmentation and may undermine effective collateral management. Yet it would also give comfort that securities can be accessed at all times. If $300bn can suddenly vanish, some central banks and possibly other large investors may see that as a fair trade-off.

Source: Financial Times

Answer all the questions below:

a. From the perspective of international funds transfer, why do central banks need to maintain currencies (and other assets) in various foreign countries? How does this facilitate international payments and transfers?

(25 marks)

b. From the perspective of securities custodial services, how do you think the Russian and Ukraine war has impacted financial markets down the road and what do you think are some opportunities for financial institutions?

(25 marks)