

# Cross-border clearing: Implications for developing markets

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## Alicia Greenwood

Director, Post Trade Services, JSE and CEO, JSE Clear, South Africa

*Alicia Greenwood joined the JSE in February 2016 as Director of the Post Trade Services division, and is responsible for risk management, clearing and guaranteeing the settlement of central order book equity and bond transactions. Alicia is also the CEO of JSE Clear, the central counterparty clearing house (CCP) for listed derivatives in the equities, interest rate, foreign exchange and commodities markets. Alicia's business career spans more than 20 years working in management consulting, investment banking and capital markets. Her experience has been acquired at some of South Africa's leading companies in these fields, including Accenture, Discovery, Standard Bank and the JSE. Alicia has worked extensively in strategy development, risk management, capital management and clearing and settlement, both in South Africa and across numerous African countries. She has experience in portfolio optimisation and regulatory transformation, and has overseen large-scale business and IT projects and joint ventures. Alicia holds a PhD in chemistry from the University of Cape Town, having majored in chemistry and mathematics, and is published in various scientific journals.*

### ABSTRACT

*The widespread introduction of central clearing in many jurisdictions has introduced the benefits of more robust and transparent risk management for markets, with the ultimate objective of improving investor protection. All jurisdictions wish to optimise an 'open for business' model that attracts international flows and supports deep, liquid and high-quality markets. The inconsistent adoption of central clearing by different jurisdictions may, however, introduce market fragmentation effects*

*and negatively affect liquidity. Liquidity pools may move away from jurisdictions where central clearing requirements are more onerous than in other jurisdictions, or where central clearing has not yet been adopted at all. Jurisdictions must ensure a considered approach when reconciling their local regulatory and market expectations with cross-border and global clearing expectations, and the impact this may introduce to trading behaviour.*

**Keywords:** *central clearing, regulatory equivalence, market fragmentation*

### INTRODUCTION

Central counterparty clearing houses (CCPs) and central clearing have increasingly become a standard for capital markets over the past two decades and are widely considered to be a key foundation of positive financial system reforms.<sup>1</sup> Since 2009, central clearing has evolved substantially,<sup>2</sup> the share of centrally cleared transactions has increased significantly,<sup>3</sup> and CCP offerings have expanded both in terms of products available for clearing and geographic footprint (see Figure 1).<sup>4</sup>

International bodies, such as the Financial Stability Board (FSB), International Organization of Securities Commissions (IOSCO), Committee of Payments and Market Infrastructure (CPMI) and Basel Committee on Banking Supervision (BCBS), have set out industry standards<sup>5</sup> in response to commitments made at the 2009 and 2011 Group of 20 (G20) summits<sup>6</sup> to increase transparency and promote stability of financial markets. These standards

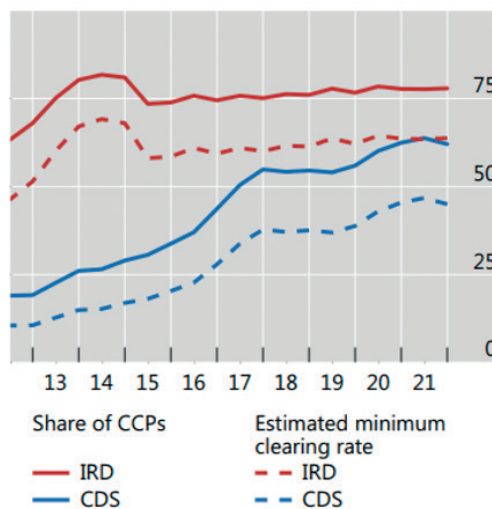


Alicia Greenwood

JSE,  
One Exchange Square,  
Gwen Lane,  
Sandown 2196,  
South Africa  
E-mail: [aliciag@jse.co.za](mailto:aliciag@jse.co.za)

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CLEARING RATES BY PRODUCT TYPE



SHARE OF CCPs BY PRODUCT TYPE AND MATURITY

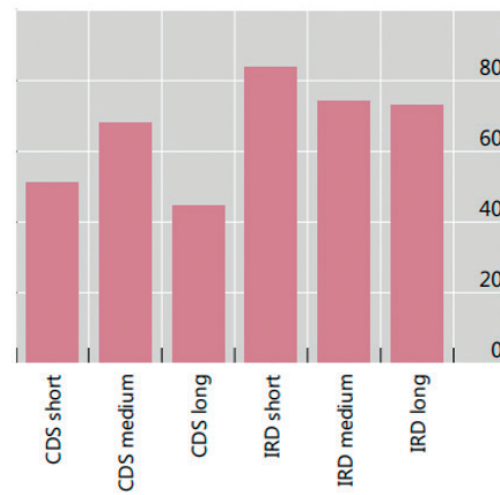


Figure 1 Central clearing of interest rate and credit derivatives (shares in %)

have been adopted by many regional and national regulators, with the introduction of a series of policies, regulations, standards and frameworks aimed at promoting the use of central clearing and enhancing the resilience of CCPs. As at 2022, 18 of 24 of the FSB member jurisdictions have in force comprehensive standards, criteria or requirements for determining specific over-the-counter (OTC) products to centrally clear.<sup>7</sup> Global regulation continues to advocate strongly for CCP infrastructure to improve the stability and resilience of capital markets.

Nevertheless, disparate adoption of central clearing regimes in different jurisdictions has created complications for regulators and market participants alike. Despite the overall growth in central clearing there is a high degree of variation in the use of central clearing across G20 jurisdictions and asset classes. Not all jurisdictions have implemented margin requirements for non-centrally cleared derivatives yet (eg South Africa, Mexico and Turkey),<sup>8</sup> and some (eg Indonesia and South Africa)<sup>9</sup> are still in the process of implementing regulations

determining for which asset classes central clearing should be required.

The varying regulatory approaches to implementing central clearing mandates across jurisdictions creates concerns about market fragmentation effects.<sup>10</sup> This is attributable to differences in timing of implementation of reform measures; inconsistent approaches to implementation of reforms; insufficient regulatory deference to differences in implementation of the relevant standards; and the need by regulators to exercise broad oversight of their markets. This misalignment creates complications to markets and participants in reconciling their local regulatory and market expectations with cross-border and global expectations (see Case study 1).<sup>11</sup>

Market fragmentation occurs with the migration of liquidity pools from markets with low central clearing expectations to those with high regulatory standards promoting CCPs, driven by large participants subjected to onerous regulatory regimes.<sup>12,13</sup> As such, countries where central clearing is not mandated are still materially affected by clearing reforms through their extraterritorial effects, on account of cross-border

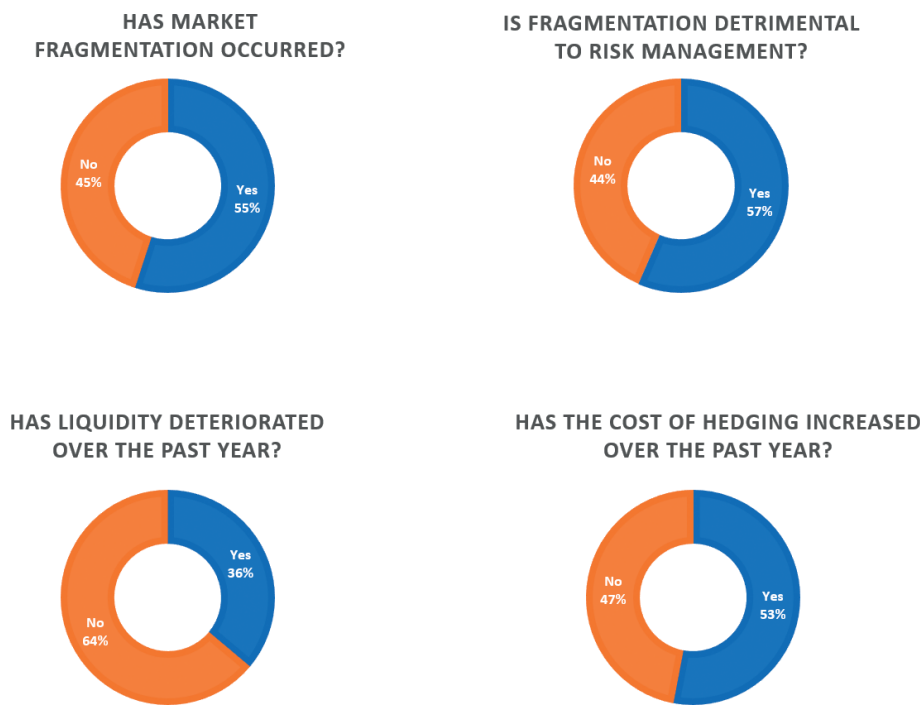
trading and trading strategies implemented by international counterparties in search for regulatory, cost and operational efficiencies.<sup>14</sup> International counterparties whose home regulators have mandated central clearing will generally bear punitive regulatory capital charges when transacting through non-centrally cleared, or equivalent, markets. These counterparties react by choosing trading partners and venues that provide the most efficient and cost-effective outcomes. This makes jurisdictions

without a local CCP offering unattractive to these international counterparties.<sup>15</sup> It is also important that the CCP is recognised as 'equivalent' in the international markets, in order to offer trading counterparties the maximum possible level of capital relief. These jurisdictions are at a distinct disadvantage and will struggle to retain domestic market liquidity, let alone grow the very important international activity on which they depend for market development and depth.

**Case study 1: Swap market fragmentation<sup>16,17</sup>**

A survey of 357 derivatives end users conducted in 2015 by the International Swaps and Derivatives Association, Inc. (ISDA) concluded that inconsistent application of derivatives regulations across borders was having an impact on the ability of end users to hedge their risk. Most respondents believed that markets were fragmenting and costs rising (see Figure 2). Constraints on bank balance sheets were also being felt, with roughly a third of respondents pointing to fewer dealers and a reduction in liquidity. Respondents said that this was influencing their ability to hedge their risk effectively.

According to ISDA, the market for Euro interest-rate swaps (IRS) effectively split after the introduction on the new US SEF regime in 2013 resulted in European dealers significantly moving away from trading with US counterparties. European dealers began to trade Euro IRS instruments almost exclusively with other European counterparties, rather than US counterparties. Volumes between European and US dealers declined 55 per cent, and the average cross-border volume of Euro IRS transacted between European and US dealers dropped from 25 per cent to 10 per cent in the period October 2013 to June 2015.<sup>18</sup>



- Key findings**
- Fragmentation is occurring as a result of inconsistent timing in the roll-out of new regulations across jurisdictions, and differences in the rules participants are required to meet.
  - Operationally challenging to trade across borders.
  - Ongoing regulatory and capital reforms have put constraints on bank capital, liquidity and resources.

Figure 2 Market fragmentation

## CENTRAL CLEARING AND MARKET DEVELOPMENT

Markets, and especially developing markets, stand to realise several benefits by having a domestically located, and internationally equivalent, CCP in place. These benefits extend far beyond the foundational benefits of improved counterparty credit risk, transparency and robustness that a CCP positively contributes to, and includes benefits relating to market attractiveness, growth and regulatory credibility (see Case study 2).

- Operating an equivalent CCP enables the provision of recognised, best-in-class clearing services to foreign institutions and facilitates the direct access of foreigners to the domestic market. Retaining and growing international investment and participation in a developing market is a very high priority to support the stimulation of sustainable economic growth. Developing markets must avoid, or minimise to the extent possible, market fragmentation that will arise from the migration of liquidity pools away from the domestic market, and typically towards the large global markets. Further, offering CCP clearing across a range of asset classes enhances the ability of market participants to enjoy the benefits of position netting and leveraging of collateral pools, thereby lowering their cost of clearing and driving enablers for increased liquidity in the domestic market;
- An equivalent CCP allows financial counterparties in local market activities with exposures to domestic FMIs to mitigate capital allocation for the purposes of Basel III requirements, providing a mechanism for banks to avoid punitive capital treatment for counterparty credit risk. Any exposure of a third country branch of a developed market financial counterparty to non-qualifying CCPs, when accounted for in a consolidated basis, will be heavily capital consuming, putting the operations of this institution in that country at

risk. Trade exposures to non-equivalent CCPs and default fund contributions to non-qualifying CCPs entail a higher risk weight and therefore a higher capital charge, and these CCPs will be avoided by trading counterparties if possible;

- Having domestic CCPs in place extends the monitoring capacity of the local supervisor over local transactions and participating institutions. It allows the regulator to retain supervisory control over the clearing mandate, and to have direct insight into the activities of domestic entities.<sup>19</sup> It offers the regulator the flexibility to respond directly to market events, to understand and address risks related to the CCP that are specific to the local market and to take a full range of actions available under their own legal framework. Authorities are empowered to place the highest priority on the protection of domestic entities and would not have to rely on foreign authorities for taking actions that benefit national financial stability. Moreover, a domestic CCP would have its own, locally prescribed and maintained default fund, limiting the exposure of domestic banks to foreign shocks that may be otherwise transmittable through participation in default funds of foreign CCPs. The local authorities would also be able to appropriately prioritise the recovery and resolution of the CCP if required. In certain cases, having a domestic CCP may enable local authorities to restrict the trading and clearing of certain derivatives contracts to a local venue, or to restrict data 'leakage' to outside jurisdictions;
- A domestically operated, internationally equivalent CCP reinforces the credibility of the regulatory, legal and governance frameworks on which the domestic market is based, and therefore has a positive impact on the reputation and credibility of the country as a whole — key foundations of market development.

### Case study 2: Japan Securities Clearing Corporation (JSCC)<sup>20</sup>

The JSCC launched clearing for Japanese Yen (JPY) IRS in 2012, as Japan began implementing the post-financial crisis G20 mandate to push more OTC trades through clearing houses. Since then, clearing volumes for IRS have more than doubled and credit default swap (CDS) volumes grew 23 times (see Figure 3).

Since the launch of the OTC CCP, JSCC has seen significant growth in the number of foreign clearing participants (see Figure 4), with non-Japanese affiliates increasing from six to 17 and non-Japanese clients from zero to 30.

Tetsuo Otashiro, head of the clearing planning department at JSCC, says that the interest of global asset managers and investors in client clearing at JSCC stems in part from the phased introduction of margin rules for non-cleared derivatives. As more buy-siders came in-scope, requiring them to post and receive initial margin on non-cleared trades, swaps became cheaper to trade via a clearing house such as JSCC than to trade bilaterally.

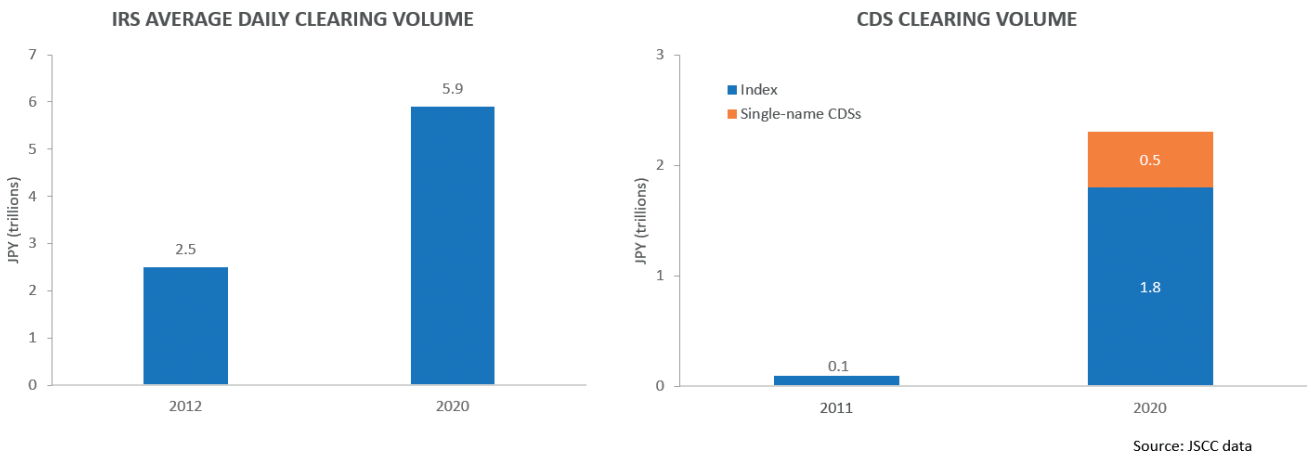


Figure 3 IRS and CDS clearing volumes

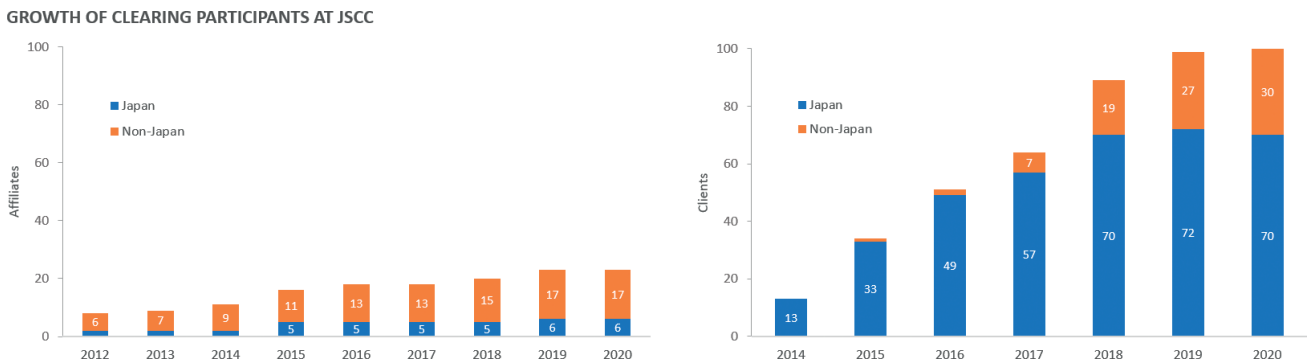


Figure 4 Growth of clearing participants at JSCC

### ACHIEVING EQUIVALENCE WITH INTERNATIONAL STANDARDS

In the cases where a domestic CCP exists, it is imperative that it is recognised by international regulators under a regulatory

equivalence regime. The equivalence regime implies that CCPs are affected by legal and regulatory frameworks of countries other than their own domestic jurisdiction with the advantage of being

recognised as operating a CCP that meets the standards of the host country. Most often, equivalence is sought with the US, European Union (EU) and UK (see Case study 3). To become an equivalent CCP for Basel III purposes, a CCP must be licensed as such, supervised and regulated in line with the Principles for Financial Market Infrastructures (PFMIs),<sup>21</sup> and meet certain information-sharing standards regarding risk charge calculations. For CCPs offering cross-border services, foreign supervisors will routinely determine the above conditions by reference to their own PFMI interpretation and implementation.

Certain transactions may become subject to mandatory clearing obligations in other jurisdictions which have implemented their own mandatory clearing rules. As a transaction can only be cleared at one CCP, then unless clearing on that CCP is acceptable under both jurisdictions' regulatory rules, any cross-border transaction would mean that the parties to the transaction subject to both regulatory regimes would be in breach of the other regulatory clearing regime applicable to it.

### **Case study 3: Impact of EU clearing house recognition<sup>22</sup>**

The EU conducted a recognition programme to grant equivalence to clearing houses in several third countries by 2022. If equivalence was not granted, market participants would be required to hold materially higher capital on exposures to any CCP not yet recognised. Bank exposures to non-recognised CCPs would attract a 100 per cent risk weight for counterparty exposures, and a 1,250 per cent risk weight for default fund contributions, compared to a 2 per cent risk weight against recognised and equivalent CCPs. Some clearing houses estimated that they could lose up to 25 per cent of their membership if they were not recognised, and the resultant punitive capital charges were introduced.

The PFMIs were broadly adopted in 2012, and established minimum requirements for the regulation, supervision and resolution of globally active CCPs, with the ultimate aim of facilitating regulatory deference between national regulators and the development of a global market for central clearing. Regulators have, however, adopted different approaches to the regulation and supervision of CCPs active in cross-border clearing of transactions.

- The total deference regulatory model requires the host country to rely entirely on the home authorities for the proper regulation and supervision of CCPs operating in their territory, and the host authority will have little jurisdictional control over cross-border clearing activities and potential financial risks;
- A second model is for foreign CCPs to comply with both home and host regulations, with the host regulators retaining a certain degree of regulatory and supervisory control over offshore CCPs operating in their jurisdiction. This model can introduce complexity in having to navigate two sets of requirements, and oversight by two different regulatory bodies;
- In the third model, regulators do not allow foreign-based CCPs to provide clearing services in their territory unless they establish a local subsidiary. This model eliminates netting opportunities across subsidiary CCPs located in different jurisdictions (ie different legal entities), but maximises the jurisdictional control of financial regulators over CCPs operating in their territory, given that local subsidiaries are fully subject to host regulatory, supervisory and resolution frameworks.

The implications of the selected equivalence and regulatory oversight models must be borne in mind. For example, having to simultaneously manage differences in home and host regulatory requirements is

complicated. The need to avoid this complexity may drive the adoption of the most conservative set of regulations (generally the host regulations), which may be overly punitive and highly detrimental when applied to local markets. It may even result in companies withdrawing from certain market segments and closing entire lines of business, reducing dramatically the presence of foreign institutions in a domestic market.

Another hurdle to overcome is sub-optimal harmonisation of regulatory requirements among the critical bodies from whom domestic CCPs seek equivalence. It is essential to have appropriate harmonisation arrangements in place between key global jurisdictions to avoid conflicting requirements and responsibilities for the applicant CCP, and potentially eliminate — or at least reduce — the regulatory supervision by host regulators. This has been a heavily debated topic for some years. Lack of harmonisation may lead to duplication and conflicting requirements between home and host authorities, especially exacerbated during a crisis, where regulators may disagree on how best to recover or resolve a failing CCP, and the priority for treatment of a home-based counterparty by the home regulator may be higher than for international counterparties. It may also result in over-reliance on the regulators of a third country to oversee market activity involving a counterparty domiciled in the home country and creates the potential for overlapping and uncoordinated regulation by a second regulator, resulting in disruption, unnecessary costs and possible negative impact on trading activity.

A practical hurdle to obtaining equivalence is the priority placed by the approving bodies on the application, and the long lead times that may be required to review equivalence application documentation and to finalise the application process. Smaller, developing markets may not attract the highest priorities, especially not over the larger trade jurisdictions, and may therefore

not attain recognition within the desired timeframes.

Standard-setting bodies and regulators should be conscious of the need to balance the objectives of achieving consistent adherence to global standards with appropriate deference to national and product-specific requirements, and to consider whether equivalence achieves a sustainable balance between the conflicting objectives of global integration and domestic stability.

### **ESTABLISHING CCPs IN DEVELOPING MARKETS**

Notwithstanding the progress globally in extending the central clearing mandate, the proliferation of CCP services and products and the enabling international regulatory regimes, some regulators have not yet fully implemented incentives to stimulate CCP development in their domestic markets. In this situation, it is incumbent on the market participants themselves to drive the development and implementation of a local CCP offering and infrastructure.

When a regulatory mandate is in place, it generally incentivises central clearing by setting out a punitive capital charge for non-centrally cleared transactions. If this capital charge is sufficiently high, it may readily compensate for the cost of implementation of the CCP and its interdependent infrastructure network, and the cost of CCP margin and default fund resources. This then offers a sufficiently attractive value proposition to the market to adopt central clearing. In the absence of a regulatory mandate, the business case and value proposition to support CCP implementation will largely be based on qualitative assumptions that increased — or at least maintained — market liquidity will be obtained by the attraction of international counterparties, and the benefits associated with position netting and margin efficiency. The absence of the benefit of favourable regulatory capital requirements

for centrally cleared transactions over bilaterally cleared transactions may weaken the CCP business case somewhat.

The proposal for local clearing must be attractive to the banks who are expected to join the CCP as clearing members. Banks will consider the potential for profit value to be derived from client clearing, and for cost savings in interbank trading activity. It is these same banks, however, who will suffer the negative effects of bifurcation of their exposures and collateral pools across the existing CCPs they clear through globally and the new proposed domestic CCP. A material portion of the interbank portfolios — more specifically their activity against global banks — is likely to already be cleared through global CCPs. These banks must then consider the options of pushing all their trade activity through the global CCP to maximise the efficiency of the collateral pool already held there, versus the option of supporting a domestic CCP with a separate collateral pool. Operational complexities also arise for the clearing banks to technically integrate into multiple CCPs and to manage their exposures and collateral effectively across multiple venues.

There must be a sufficient number of banks willing to join the central clearing network as clearing banks. In small developing markets this number is likely to include all the systemically important local banks. There must also be enough trading counterparties participating in the market. This is essential to adequately address concentration effects and the possibility of high contagion impacts in the case of a default of either a trading counterparty or a clearing bank and is particularly relevant in developing markets where the number of market participants is much lower than in developed markets. If trading is highly concentrated among a few trading counterparties, the sudden loss of one or more of them could negatively affect both clearing and trading. Similarly, if clearing activity is concentrated to only a

very small number of clearing members, then contagion risk may be especially elevated if a clearing bank came under significant stress and the CCP's ability to manage a default process will be compromised.

The CCP operator and infrastructure provider must consider that there must be a sufficient volume of trades processed through the CCP to adequately cover its costs and ensure its long-term sustainability. Trading volumes should be high enough to make it economically viable. It is unlikely that the existing local–international interbank activity, which would already be cleared through the international counterparties' preferred CCP, will be migrated back to the local markets, and therefore the trade volume supporting the viability of the local CCP will likely be limited to the local interbank market and client trading activity.

## CONCLUSION

The introduction of a CCP has the potential to unlock access to international trading activity and provide developing capital markets a chance to establish modern market infrastructures and increase liquidity and access to capital. It provides a mechanism to support the 'open for business' principle that any developing market aims to adopt to attract international flows to fuel the financing of future growth.

The lack of a regulatory mandate for central clearing presents a dilemma in that establishing a local CCP and obtaining clear buy-in and sponsorship from dependent stakeholders is considerably more difficult with the absence of punitive regulatory capital implications. Not establishing a local CCP may, however, result in a material and damaging level of fragmentation away from the domestic market, resulting in illiquidity and diminished market quality and compromised control by the regulator of local market participants' activity.



Implementing a CCP is a complex initiative and requires widespread support and sponsorship from a range of market participants, including the market infrastructure providers, banks, trading participants, regulators and policymakers. It is critical to achieve a shared vision of market development strategies; to understand the balance between the needs of international clearing participants and local participants; and to design a CCP which is internationally relevant but is accommodating of domestic drivers and nuances.

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