

CHAPTER 11.2

DERIVATIVES: MARKET INFRASTRUCTURE

CONTENTS

I.	INTRODUCTION	1271
II.	MITIGATING CREDIT RISK: MARGIN AND CLEARING	1272
A.	Initial and Variation Margin.....	1273
1.	Initial Margin	1273
2.	Variation Margin	1274
B.	Use of Margin for Swaps Before the Dodd-Frank Act.....	1274
C.	The Dodd-Frank Act’s Margin Requirements for Uncleared Swaps...	1275
D.	Central Clearing.....	1276
1.	What Does It Mean to Clear a Derivative?.....	1276
2.	How Do Clearinghouses Mitigate Systemic Risk?	1278
a.	Initial and Variation Margin for Cleared Swaps	1278
b.	Clearinghouse Guaranty Fund and Assessments.....	1279
c.	Regulation and Governance of Derivatives Clearinghouses ..	1280
d.	Multilateral Netting	1282
e.	Portability	1283
3.	Mandatory Clearing of Swaps.....	1284
a.	The History of Clearing.....	1284
b.	The Dodd-Frank Act’s Mandatory Clearing Requirement	1284
c.	Exceptions and Exemptions to Mandatory Clearing	1285
d.	Criticisms of the Mandatory Clearing Requirement	1285
E.	International Implementation	1286
III.	DEVELOPING A TRANSPARENT MARKETPLACE	1289
A.	Goals of Transparency	1289
B.	Pre-Trade Transparency: Mandatory Exchange Trading.....	1290
1.	Designated Contract Markets	1291
2.	Swap Execution Facilities	1291
3.	Made Available to Trade	1292
C.	Post-Trade Transparency: Trade Reporting	1293
1.	Providing the Regulators with Swap Data	1294
2.	Providing the Market with Swap Data.....	1294
3.	Block Trades	1295
4.	International Implementation	1295

I. INTRODUCTION

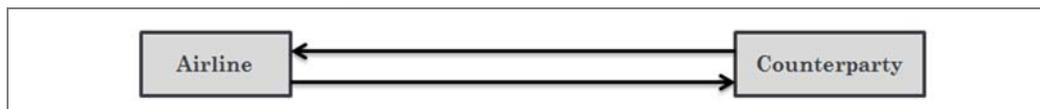
In Chapter 11.1, we introduced you to various types of derivatives, the parties that trade them, and the reasons they do so. We also introduced you to the role

derivatives played in the Financial Crisis and provided a brief overview of the changes brought about by the Dodd-Frank Act in the United States, as well as the coordinated global response. Recall that increasing transparency in the derivatives markets and reducing systemic risk through the use of clearinghouses and capital and margin rules were two of the primary objectives of these reform efforts. See DEPT' OF THE TREASURY, *A NEW FOUNDATION: REBUILDING FINANCIAL SUPERVISION AND REGULATION* 43–44 (2009). In this Chapter, we delve into greater detail on these aspects of the Dodd-Frank Act's derivatives reforms. We first explore the Dodd-Frank Act's changes to reduce systemic risk through margin and clearing requirements, and then turn to market transparency. We focus on the Commodity Futures Trading Commission's (CFTC's) implementation of the Dodd-Frank Act's derivatives reforms, with occasional references to the Securities and Exchange Commission (SEC's) approach where important differences or similarities explain a broader theme. Ten years into implementation of the Dodd-Frank Act, the derivatives framework has not been subject to substantial political opposition, and the basic framework has been stable. Key debates have revolved around the financial resources of clearinghouses and whether they could become sources of systemic risk, whether margin rules for banks trading with their affiliates are appropriate or excessive, and how best to align domestic and international rules for derivatives trading.

II. MITIGATING CREDIT RISK: MARGIN AND CLEARING

A bilateral over-the-counter (OTC) transaction is an off-exchange transaction between two parties. The two parties negotiate price, quantity, and other relevant terms. In a traditional bilateral swap transaction, depicted in Figure 11.2-1, each counterparty faces two risks. First, market risk is the risk associated with changes in the value of the swap based on changes in the value of the underlying asset. Second, credit risk is the risk that, if the market moves in one party's favor and its counterparty owes amounts under the swap, the counterparty will be unable or unwilling to pay.

Figure 11.2-1 Bilateral Swap Transaction.



Source: Davis Polk & Wardwell LLP.

In the jet fuel swap in Chapter 11.1, Airline pays its counterparty if the price of jet fuel goes down and the counterparty pays Airline if the price of jet fuel goes up. In this swap, Airline faces the market risk that the price of jet fuel decreases, and the counterparty faces the market risk that the price of jet fuel increases. If the price of jet fuel goes down, and Airline owes money to its counterparty, it is possible that Airline defaults on its obligation, which is its counterparty's credit risk to Airline. Conversely, if the price of jet fuel goes up, and the counterparty owes money to Airline, the counterparty may nevertheless default. That is Airline's credit risk to the counterparty.

As we discussed in Chapter 11.1, counterparties generally enter into derivatives, including swaps, to gain exposure to, or to hedge, the risk of an

underlying asset, which means that they enter into derivatives seeking exposure to market risk, not credit risk. Counterparty credit risk is a harmful byproduct for individual counterparties to a trade. It is also potentially dangerous for the market as a whole. Credit risk increases systemic risk because a default by a significant institution could lead to a domino effect among interrelated market participants, as occurred when Lehman Brothers failed.

Swap market participants may screen their counterparty's credit rating or other indicia of creditworthiness in an effort to minimize counterparty credit risk. In addition, the swap market has developed two primary methods to mitigate counterparty credit risk: the exchange of margin and the central clearing of swaps. Congress made these two methodologies central pillars of the Dodd-Frank Act's swap regulatory system. Margin mitigates credit risk by serving as a buffer to cover potential losses in the case of default (initial margin) and regularly reducing the outstanding exposure under the swap (variation margin). Clearing places a third-party—a central counterparty (CCP) or clearinghouse—between the parties to serve as a well-regulated guarantor of the payments due to each party to the swap, which reduces the likelihood that a default by one institution would affect the market as a whole.

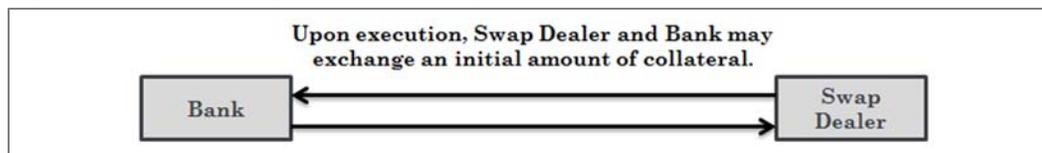
A. INITIAL AND VARIATION MARGIN

Collateral that is posted or collected to protect a counterparty from credit risk is referred to as margin. There are two types of margin: initial margin and variation margin.

1. Initial Margin

Initial margin is collateral posted from one swap counterparty to the other counterparty to reflect an estimate of the potential future exposure that the posting counterparty may have to the collecting counterparty. Initial margin is posted at the outset of a transaction as a performance bond to guarantee the posting party's ability to pay amounts owed under the swap. In general, initial margin is designed to serve as a buffer from which the non-defaulting party can be paid amounts that are owed during the swap's closeout period—the time between the counterparty's default and when its swaps can be unwound. To continue our interest rate swap example from Chapter 11.1 between Bank and Swap Dealer (entered into to hedge the interest rate risk from the loan Bank made to Airline), Bank and Swap Dealer may agree to exchange an initial amount of collateral to guarantee the respective counterparty's ability to pay future amounts owed should either Bank or Swap Dealer default, as depicted in Figure 11.2-2.

Figure 11.2-2 Exchange of Initial Margin

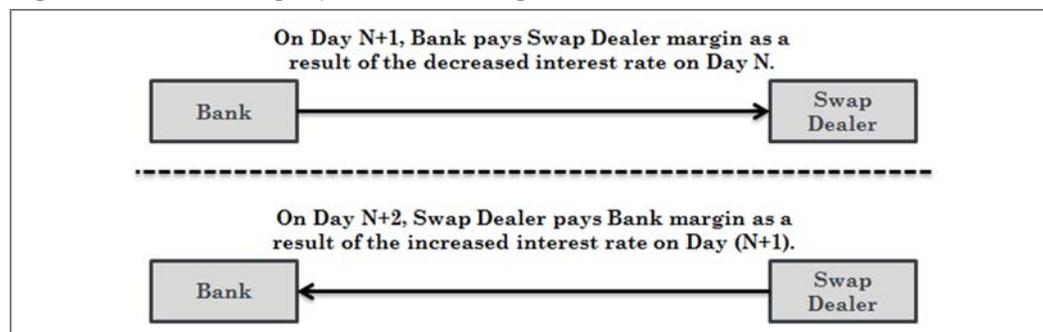


Source: Davis Polk & Wardwell LLP.

2. Variation Margin

Variation margin is collateral posted from one counterparty to the other to reflect the current exposure that the posting counterparty has to the collecting counterparty. Recall from Chapter 11.1 that a swap is a zero-sum contract. As the market value of the swap changes, its value increases to one counterparty and decreases to the other counterparty. Variation margin is meant to cover a change in the value of a swap over a particular period of time. To continue our interest rate swap example, if the interest rate goes down one day (N) such that the contract is worth \$1 more today to Swap Dealer than yesterday, Bank would pay \$1 to Swap Dealer to get the value of the swap back to zero. By getting the value of the swap back to zero, Swap Dealer reduces its exposure to Bank's credit risk. Unlike initial margin, which protects in the case that credit risk materializes (*i.e.*, when a counterparty defaults), variation margin decreases Swap Dealer's exposure to Bank's credit risk by bringing the swap's value back to zero during the life of the swap. As you can see in Figure 11.2-3, variation margin can flow both ways, depending on the direction and size of the changes in the swap's market value.

Figure 11.2-3 Exchange of Variation Margin



Source: Davis Polk & Wardwell LLP.

B. USE OF MARGIN FOR SWAPS BEFORE THE DODD-FRANK ACT

Before the Dodd-Frank Act, swap counterparties decided on their own, as a matter of contract, whether to exchange margin. Many market participants chose not to collect margin, viewing their counterparties as safe credits for which no protection was needed. For example, AIG had a high credit rating. As a result, parties facing one of AIG's subsidiaries, AIG Financial Products, required little to no collateral to be posted by AIG Financial Products for swaps, until it was too late. If more information had been available to the market, counterparties may have requested more collateral from AIG Financial Products, and it would have had to post more collateral to cover potential losses, or would not have entered into such positions in the first place. Of course, at the height of the Financial Crisis, AIG's counterparties did demand more collateral, but by then it had disastrous consequences, as AIG was already weakened and the further collateral calls drove it further into distress. See S. REP. NO. 111-176, at 30 (2010). Some parties did exchange collateral to cover potential losses voluntarily, but when they did, these exchanges were often based on credit ratings, which had serious defects. See Chapters 1.2 and 12.1.

C. THE DODD-FRANK ACT'S MARGIN REQUIREMENTS FOR UNCLEARED SWAPS

In order to mitigate counterparty credit risk and its systemic impact, the Dodd-Frank Act required that the CFTC, SEC, and the banking regulators adopt margin requirements for uncleared swaps. In general, the agencies' margin rules directly apply to swap dealers (SDs) and security-based swap dealers (SBSDs), as well as major swap participants (MSPs) and major security-based swap participants (MSBSPs), requiring those regulated market participants to collect and post margin for swaps and security-based swaps. SDs and SBSDs must report margin data for uncleared swaps. Counterparties of SDs and SBSDs are indirectly affected by these requirements. Given the outcome of the turf wars discussed in Chapter 11.1, the specific margin rules an entity is subject to depends on which regulator's purview the entity falls under. The U.S. margin rules focus on mitigating credit risk and apply different requirements depending on the estimated credit risk of the counterparty that the dealer is facing. The amount of initial margin to be posted or collected is calculated through use of either a model or a standardized table mandated by the regulators. If calculated by a model, the amount of initial margin is required to be sufficient to cover credit risk over a hypothetical ten-day closeout period, with a statistical confidence level of 99%.

To increase the probability that the swap counterparty receiving the collateral can easily liquidate it—turn it into cash—if needed, the margin rules restrict the types of collateral that may be used to satisfy the margin requirements. Eligible collateral is limited to high-quality liquid assets, such as cash and liquid securities, which generally allow for easy valuation and transfer in the event of a default or termination. For collateral that is not cash, a haircut, which is a percentage deduction from the market value of the collateral, may be applied. Haircuts are used to protect against the possibility that the value of non-cash collateral may decline following a counterparty's default. For example, a Treasury bill with a maturity between one and five years, valued at \$1,000, is subject to a 2% haircut, meaning that it would only satisfy a margin requirement of \$980. Equities included in the S&P 500 index are subject to a 15% haircut, which reflects the increased risk of these instruments as compared to the Treasury bill. The margin rules provide a schedule of haircuts to be applied to various types of eligible collateral.

To further protect the collateral, initial margin must be held by one or more custodians unaffiliated with the SD or SBSB and its counterparty. A custodian is an unaffiliated third party that holds the collateral for safekeeping in order to minimize the risk of the theft or loss of collateral. The largest custodian banks in the U.S. are Bank of New York Mellon, State Street Bank and Trust Company, J.P. Morgan Chase, and Citigroup. The custodian is prohibited from reinvesting or using this collateral as collateral for other transactions, known as rehypothecation. ISDA, STANDARD INITIAL MARGIN MODEL FOR NON-CLEARED DERIVATIVES (2013).

The margin rules also include a complicated framework for inter-affiliate transactions and for application to cross-border transactions. For inter-affiliate transactions, special margin rules apply that waive the initial margin requirements under certain circumstances. See CFTC Swap Dealers and Major Swap Participants Rule, 17 C.F.R. § 23.159. For cross-border transactions, some

exemptions are provided for foreign banks, but not their U.S. branches, although these exemptions are subject to many limitations.

In June 2020, the Federal Reserve, Farm Credit Administration, FDIC, Federal Housing Finance Agency, and OCC finalized changes to their swap margin rule. The final rule no longer requires initial margin for inter-affiliate swaps, unless a bank's exposure to all affiliates exceeds 15% of its tier 1 capital. Proponents of the rule change see it as a way of creating liquidity for market participants by freeing up billions of dollars in initial margin while simultaneously allowing banks to manage their risk more easily, including any difficulties arising from the LIBOR transition or the Pandemic. *See* Polo Rocha, *FDIC Approves Inter-affiliate Swap Rule to Largely Free Up \$44B in Collateral*, S&P GLOBAL MARKET INTELLIGENCE (June 25, 2020). Federal Reserve Governor Lael Brainard, however, argued that the 15% threshold effectively eliminates the inter-affiliate margin requirement in its entirety, as no U.S. bank comes close to meeting it. Press Release, Fed. Rsrv. Bd., Statement by Governor Brainard (June 25, 2020). She and other critics believe that removing the initial margin requirement for inter-affiliate swaps exposes banks to losses from the buildup of large, uncleared swaps and thus risks the stability of the financial system as a whole.

To increase global coordination for the implementation of margin requirements and to limit regulatory arbitrage, the G-20 leaders agreed that counterparties to uncleared swaps should be required to post collateral to their counterparties in the form of initial margin and variation margin. Pursuant to that G-20 commitment, the Basel Committee and the International Organization of Securities Commissions (IOSCO) issued a joint framework that established common principles and guidance for the implementation of the G-20 commitments for margin requirements for uncleared derivatives. *See* BASEL COMM. ON BANKING SUPERVISION & IOSCO, MARGIN REQUIREMENTS FOR NON-CENTRALLY CLEARED DERIVATIVES (2013). U.S. regulators were involved in the creation of this framework. The CFTC's and banking regulators' rules are largely consistent with the international framework and how European and other regulators are implementing that framework. The SEC's rules differ from the CFTC's and banking regulators' rules in some respects. We will discuss international implementation of margin rules later in this Chapter. For a critique of the approach, see Pauline Gandré et al., *Unintended Consequences of the Global Derivatives Market Reform*, SWISS FIN. INST., Rsch. Paper No. 20-02 (Dec. 2019).

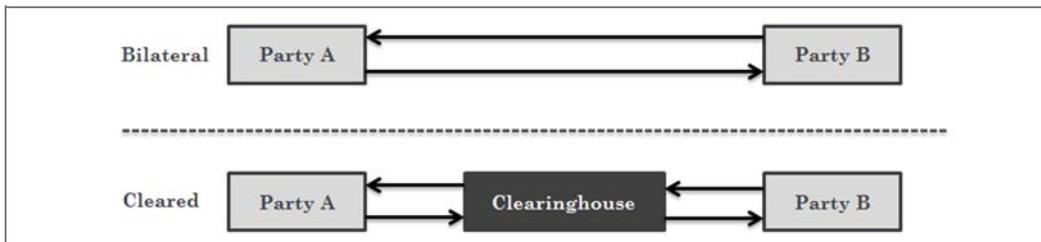
D. CENTRAL CLEARING

1. What Does It Mean to Clear a Derivative?

In addition to the exchange of margin, the Dodd-Frank Act mandated a second method to reduce systemic risk: the clearing of certain standardized swaps and security-based swaps. Central clearing addresses counterparty credit risk (not market risk) by placing a clearinghouse, or CCP, between the two original swap counterparties. When a swap is submitted for clearing, credit risk is diminished by replacing the trade between the counterparties with two subsequent trades, one between the first counterparty and the clearinghouse and another between the second counterparty and the clearinghouse. Rather than face the credit risk of its original counterparty, each party faces the credit risk of the clearinghouse, which,

for reasons described below, is generally better situated to absorb credit risk. Jean S. Chin & David T. McIndoe, *Mandatory Clearing, in OTC DERIVATIVES REGULATION UNDER DODD-FRANK: A GUIDE TO REGISTRATION, REPORTING, BUSINESS CONDUCT, AND CLEARING* 335, 337 (William C. Meehan & Gabriel D. Rosenberg eds., 2015). See Figure 11.2–4.

Figure 11.2-4 The Use of a Clearinghouse to Clear Swaps

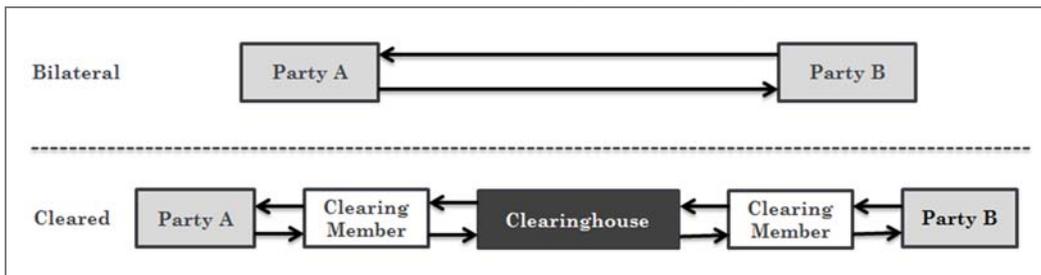


Source: Davis Polk & Wardwell LLP.

For example, if Airline and Swap Dealer enter into a jet fuel swap so that Airline can hedge against the change in jet fuel, and the counterparties clear the swap at Clearinghouse, Clearinghouse steps in between Airline and Swap Dealer. Once the swap is cleared by Clearinghouse, Airline and Swap Dealer no longer have a relationship with each other, regardless of the change in price of oil. If the price of jet fuel goes up, Airline no longer needs to worry about Swap Dealer defaulting, because the payments are due to Airline from Clearinghouse, not Swap Dealer. Airline may prefer that its credit risk is to Clearinghouse rather than Swap Dealer because Clearinghouse is highly regulated and uses a number of risk-mitigating tools, described later in this Chapter.

A clearinghouse only accepts swaps for clearing from its members, known as clearing members. To ensure that the clearinghouse can discharge its duties, clearing members must meet significant capital, risk management, and other requirements. As a result, clearing members are typically large financial institutions. A market participant that is not a clearing member of a particular clearinghouse can only access that clearinghouse through an arrangement with a clearing member. Clearing members, in effect, guarantee performance of the party for whom they are submitting the swap for clearing, while the clearinghouse, in effect, guarantees performance of the clearing members. See Figure 11.2-5.

Figure 11.2-5 A More Detailed Look at Clearing Relationships



Source: Davis Polk & Wardwell LLP.

2. How Do Clearinghouses Mitigate Systemic Risk?

The primary function of central clearing is to transfer each counterparty's credit risk exposure to a clearinghouse that stands between the parties and effectively guarantees the obligations of each party. Julia Lees Allen, *Derivatives Clearinghouses and Systemic Risk: A Bankruptcy and Dodd-Frank Analysis*, 64 STAN. L. REV. 1079, 1085 (2012). How does this transfer of credit risk decrease counterparty risk and systemic risk? Just as prudential regulators require minimum bank capital to help ensure safety and soundness, the CFTC requires a clearinghouse that clears swaps to hold enough financial resources that the clearinghouse can "meet its financial obligations to its clearing members notwithstanding a default by the clearing member creating the largest financial exposure for the [clearinghouse] in extreme but plausible market conditions." 17 C.F.R. § 39.11(a) (2020). In addition, the clearinghouse must have enough financial resources to cover its operating costs for at least one year, which is calculated on a rolling basis. *Id.* Clearinghouses can use a variety of financial resources to satisfy this requirement. *See id.* at § 39.11(b). These sources include initial and variation margin, a guaranty fund containing deposits collected from clearinghouse members, and other capital contributions from members or the clearinghouse itself (in each case turning to the defaulting member's contributions in the first instance, before the contributions of non-defaulting members). *See* DARRELL DUFFIE ET AL., FED. RES. BANK OF N.Y., STAFF REPORT NO. 424, POLICY PERSPECTIVES ON OTC DERIVATIVES MARKET INFRASTRUCTURE 21 (2010). We examine these types of buffers in turn, and we then discuss the additional systemic risk reduction achieved through multilateral netting and portability.

a. Initial and Variation Margin for Cleared Swaps

In order to accept a swap or security-based swap for clearing, the clearinghouse requires that the clearing members submitting the swap post collateral in the form of initial margin and variation margin. If the swap counterparty is not a clearing member, the counterparty will generally post the margin to the clearing member, and the clearing member will pass it on to the clearinghouse. Initial margin protects the clearinghouse in the event of counterparty default. Initial margin generally remains on deposit with the clearinghouse throughout the life of the cleared swap unless a counterparty defaults. In addition, clearinghouses require counterparties to post variation margin daily to cover movements in the value of the swap. Since a clearinghouse is always on both sides of a swap, every dollar in variation margin it collects daily from a counterparty to a cleared swap will be owed, and therefore passed on, to the other counterparty. By serving as the conduit for the exchange of variation margin, the clearinghouse helps to ensure that, if a counterparty to a swap does default, the amount owed at that moment represents the change in the value of the swap over a short period of time, rather than from inception of the swap.

If properly calculated and calibrated, margin is a powerful risk mitigant. For example, when Lehman Brothers collapsed in September 2008, many of its derivatives transactions had been cleared through LCH.Clearnet, Ltd., a European clearinghouse. When Lehman Brothers defaulted on its obligations to the clearinghouse, LCH.Clearnet was successfully able to wind down Lehman Brothers's positions using the funds that Lehman Brothers had posted as initial

margin to the clearinghouse. By some estimates, LCH.Clearnet only needed to use one-third of the initial margin that Lehman Brothers had posted in order to wind down these transactions. Natasha De Terán, *How LCH.Clearnet Got Clear of Lehman*, WALL ST. J. EUR. (Oct. 14, 2008).

b. Clearinghouse Guaranty Fund and Assessments

If the initial margin and variation margin posted by the defaulting counterparty is not sufficient to meet that counterparty's obligations to the clearinghouse, the clearinghouse may access a guaranty fund to cover the excess. All members are required to contribute to the guaranty fund. Essentially, the guaranty fund serves as a mechanism for the clearinghouse to spread, or mutualize, losses. If the guaranty fund is insufficient to absorb losses, the clearinghouse may be able to make limited assessments on its members. Assessments can help to protect the clearinghouse only if its members are strong enough to support it. As a result, clearing members are required to be well-capitalized before becoming members of a clearinghouse, and the Basel III capital rules we discussed in Chapter 2.7 impose special obligations on clearinghouse members. *See, e.g.*, BASEL COMM. ON BANKING SUPERVISION, CAPITAL REQUIREMENTS FOR BANK EXPOSURES TO CENTRAL COUNTERPARTIES, BANK FOR INT'L SETTLEMENTS (2014). The Dodd-Frank Act requires such members to have "sufficient financial resources and operational capacity to meet obligations arising from participation in the [clearinghouse]." Dodd-Frank Act § 725(c), 7 U.S.C. § 7a-1(c) (2012). If a clearing member does not have sufficient resources, then the clearinghouse may need to access the guaranty fund and require assessments from its clearing members more often, which hurts other clearing members of the clearinghouse. Moreover, requiring assessments of weakened financial institutions would increase systemic risk. A central question is therefore whether clearinghouse risk management and financial resource requirements are sufficiently strong to withstand losses in a financial crisis.

In a 2019 joint white paper, 19 major firms including Citi, J.P. Morgan Chase & Co, Goldman Sachs and BlackRock expressed concerns about the adequacy of clearinghouse capital requirements. They called for additional CCP capital contributions or "skin in the game" in order to align interests and disperse risk away from the banks. J.P. MORGAN CHASE & CO. ET AL., A PATH FORWARD FOR CCP RESILIENCE, RECOVERY, AND RESOLUTION (2019). The difficulty in determining the optimal level of capital required to be held by a clearinghouse stems from the fact that clearinghouses, when left with insufficient financial resources, only have their own members to turn to for additional contributions; however, in the event that a clearinghouse experiences a financial or economic downturn that causes such a deficiency in resources, its member banks will likely be facing that same downturn. As noted above, this risk has the potential to compound systemic risk. A balance must therefore be struck between requiring clearinghouses to hold sufficient capital to protect against the risk of itself becoming a source of systemic risk and the desire by clearinghouses to have banks shoulder the risk of determining which trades to centrally clear. Though clearing members should be the ones primarily responsible for losses in order to discourage them from centrally clearing trades with excessive risk, clearinghouses themselves must have enough capital to reduce the likelihood that they themselves become sources of systemic risk. In May 2020,

the FSB published guidance for authorities to assess whether a clearinghouse's financial resources are adequate in case of a resolution scenario.

c. Regulation and Governance of Derivatives Clearinghouses

In recognition of their significant role in the Dodd-Frank Act's swaps architecture, clearinghouses are highly regulated in ways that support their ability to absorb risk. A clearinghouse that clears swaps is required to register with the CFTC as a Derivatives Clearing Organization (DCO), and a clearinghouse that clears security-based swaps is required to register with the SEC as a clearing agency. These registered clearinghouses must, among other requirements, maintain sufficient financial resources in the guaranty fund, establish risk management capabilities to oversee the activities of counterparties, and provide the CFTC or SEC with reports on clearinghouse activities. David Gilberg & John Miller et al., *Derivatives Clearing Organization Registration and Regulation*, in *OTC DERIVATIVES REGULATION UNDER DODD-FRANK: A GUIDE TO REGISTRATION, REPORTING, BUSINESS CONDUCT, AND CLEARING* 631, 635 (William C. Meehan & Gabriel D. Rosenberg eds., 2015); see also CFTC, *Derivatives Clearing Organizations*. DCOs organized outside the U.S. are also permitted to register with the CFTC.

Similar to the Financial Stability Oversight Council's (FSOC's) powers to designate systemically important financial institutions (SIFIs), discussed in Chapter 6.3, Dodd-Frank Act § 804 requires the FSOC to designate financial market utilities (FMUs) that it determines are, or are likely to become, systemically important. This includes DCOs, which, when designated, are referred to as systemically important derivatives clearing organizations (SIDCOs). See *Derivatives Clearing Organizations and International Standards*, 78 Fed. Reg. 72,476 (Dec. 2, 2013). The parallel SEC rule refers to designated entities as covered clearing agencies. See *Standards for Covered Clearing Agencies*, 81 Fed. Reg. 70,786 (Oct. 13, 2016) (to be codified at 17 C.F.R. pt. 240). Of the eight FMUs that FSOC has designated as systemically important, six are SIDCOs or covered clearing agencies, while the remaining two are entities supervised by the Federal Reserve. Bd. of Governors of the Fed. Rsrv. Sys., *Designated Financial Market Utilities* (Jan. 29, 2015). SIDCOs and covered clearing agencies are subject to heightened risk management standards and more stringent financial resource requirements. Dodd-Frank Act § 805(a), 12 U.S.C. § 5464(a); see, e.g., 17 C.F.R. § 39.33 (2017). Unlike the process for designating SIFIs, which we discussed in Chapter 6.3, the designation of FMUs and SIDCOs has not seen significant political opposition in the ten years since passage of the Dodd-Frank Act, and the basic framework has been stable.

In the event that the financial resources requirements prove insufficient or a SIDCO or covered clearing agency otherwise faces liquidity pressures in a financial crisis, Title VIII of the Dodd-Frank Act gives the Federal Reserve authority to provide discount window access to the clearinghouse under "unusual or exigent circumstances." Dodd-Frank Act § 806(b), 12 U.S.C. § 5465(b). This provision—distinct from the Federal Reserve's § 13(3) authority that we discussed in Chapter 9.1—was exceedingly controversial during the Dodd-Frank Act legislative process. Critics argued that it constituted a "back door bailout" of banks, while supporters, including the Treasury, argued that it was an essential safety valve in the event

of another financial crisis given that risk was being concentrated in clearinghouses under the Dodd-Frank Act. *See, e.g.*, Jeremy C. Kress, *Credit Default Swaps, Clearinghouses, and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidity*, 48 HARV. J. ON LEGIS. 49 (2011).

Derivatives clearinghouses face problems of incentives and potential conflicts of interest. Some have argued that a DCO's incentive to attract clearing business, for instance, could cause it to set margin requirements or guaranty fund assessments too low, thereby increasing systemic risk. *See, e.g., id.* at 74. DCOs owned by large dealers also have contrary incentives to keep clearing fees and clearinghouse minimum capital requirements high to exclude smaller market participants or market participants with riskier customers from membership and thereby preserve their market share. *See* Michael Greenberger, *Diversifying Clearinghouse Ownership in Order to Safeguard Free and Open Access to the Derivatives Clearing Market*, 18 FORDHAM J. CORP. & FIN. L. 245 (2013). Dealer-owners, however, also have a strong and legitimate interest in ensuring the safety of the DCO, through strong prudential rules, because its risk is mutualized and a key line of defense in financial distress would be for dealers to provide more funds or liquidity. The designation of certain DCOs as systemic under Title VIII with enhanced risk management standards, access to the Federal Reserve System's discount window, and the treatment of a dealer member in resolution all also raise systemic issues of concern to policy-makers and dealer members. The increased use of derivatives clearinghouses means there are likely to be tradeoffs between open competition and safety and soundness.

Congress recognized the potential for conflicts of interest related to derivatives clearinghouses. It required the CFTC to adopt rules "to mitigate conflicts of interests...with respect to...any [DCO]." Dodd-Frank Act § 726(a), 15 U.S.C. § 8323(a). The CFTC proposed two sets of rules in 2010 and 2011 regarding conflicts of interest and governance of DCOs. Requirements for Derivatives Clearing Organizations, Designated Contract Markets, and Swap Execution Facilities Regarding the Mitigation of Conflicts of Interest, 75 Fed. Reg. 63,732, 63,733 (Oct. 18, 2010); Governance Requirements for Derivatives Clearing Organizations, Designated Contract Markets, and Swap Execution Facilities; Additional Requirements Regarding the Mitigation of Conflicts of Interest, 76 Fed. Reg. 722 (Jan. 6, 2011). Balancing the tradeoffs discussed above was controversial, but in January 2020, the CFTC finalized the rules. Derivatives Clearing Organization General Provisions and Core Principles, 85 Fed. Reg. 4800 (Jan. 27, 2020). The rules include limitations on exposure to potential default losses and requirements to have risk management frameworks, as well as independent board members, transparent governance arrangements, and fitness standards for directors. *Id.* In addition, the CFTC has adopted rules that prohibit a DCO from establishing a potentially restrictive membership requirement if a less restrictive alternative "would not materially increase risk to the DCO or its clearing members." 17 C.F.R. § 39.12(a)(1)(i) (2017). The CFTC's rules also require a DCO to accept an entity as a member if it meets the DCO's participation requirements. *Id.* at § 39.12(a)(1)(ii).

DCOs often own or have business relationships with trading and data aggregation platforms, which leads to concerns that DCOs could force market participants to use these affiliated functions. Therefore, a DCO has an incentive

to try to force firms to use its affiliated trading services if the firms want to use its clearing services. To overcome that incentive and increase competition among trading platforms, the Dodd-Frank Act amended the Commodity Exchange Act of 1936 (CEA) to require DCOs to provide “open access” for swaps executed on unaffiliated trading exchanges or swap execution facilities. *See* Dodd-Frank Act § 723(a)(3), 7 U.S.C. § 2(h)(1)(B).

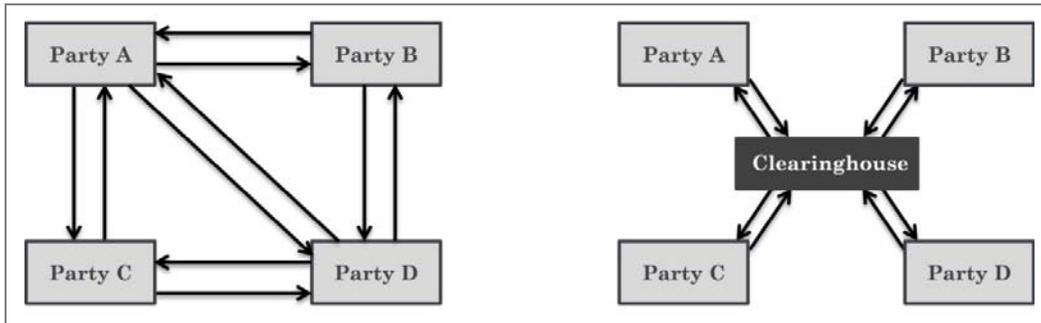
1. *Independent Directors and Systemic Risk.* The CFTC’s rules under the Dodd-Frank Act impose corporate governance standards on DCOs. The Sarbanes-Oxley Act imposed some independence requirements on the board of public companies; however, commentators criticized these independence requirements, arguing that they would not “reduce the probability of financial statement wrongdoing.” Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521, 1533 (2004). Do you think requiring DCOs’ boards to have independent directors will “reduce the probability” that a DCO will fail or otherwise pose systemic risks, or reduce the potential conflicts of interests that it faces? Should DCOs be nonprofit utilities rather than shareholder-owned companies?

2. *Resolution.* How should clearinghouses be resolved if they become insolvent? For a discussion of possible resolution procedures for failed clearinghouses, see Darrell Duffie, *Resolution of Failing Central Counterparties*, in MAKING FAILURE FEASIBLE: HOW BANKRUPTCY REFORM CAN END “TOO BIG TO FAIL” 87–110 (Kenneth E. Scott et al. eds., 2015). Should a DCO be permitted to terminate the membership of a financial institution in resolution? Consider the context of a single point of entry resolution, as discussed in Chapter 9.3.

d. Multilateral Netting

In a bilateral swap world, Parties A, B, C, and D may each face one another on a swap, as illustrated on the left side of Figure 11.2-6. In this scenario, each party is exposed to the credit risk of its two counterparties. When swaps are centrally cleared, by contrast, the clearinghouse cancels out, or nets, offsetting exposures. Multilateral netting reduces interconnections among market participants, lowers the total amount of collateral in the system, and allows counterparties to make one net payment instead of multiple payments. MICHAEL H. MOSKOW, PUBLIC POLICY AND CENTRAL COUNTERPARTY CLEARING (2006).

Figure 11.2-6 Bilateral Versus Multilateral Netting



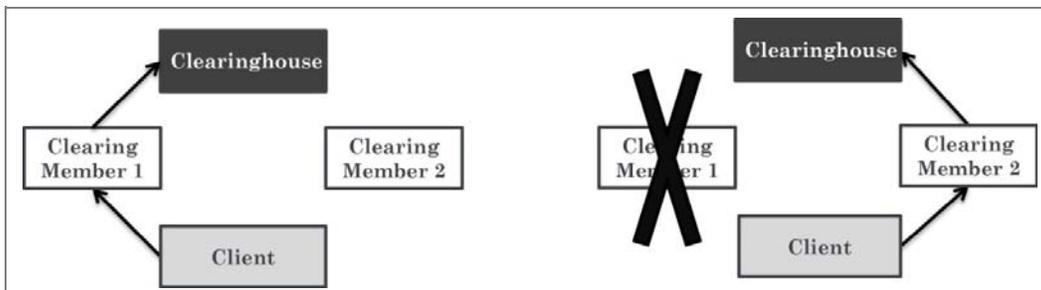
Source: Davis Polk & Wardwell LLP.

e. Portability

The fact that the clearinghouse is the ultimate counterparty to any cleared swap allows for another benefit known as portability. In a bilateral swap, if a counterparty defaults, the non-defaulting counterparty no longer has a swap in place to protect against future movements in the price of the underlying asset. The non-defaulting counterparty may still need the protection of a swap. For example, if our hypothetical Swap Dealer defaults, Airline still needs to hedge its fuel costs. Airline will need to replace its fuel swap, which could be expensive, particularly if general market distress led to the default of its counterparty.

In the cleared context, however, if a market participant’s clearing member defaults, the clearinghouse may be able to transfer the positions and assets from a defaulting clearing member’s account to a solvent clearing member, which avoids the need to close out positions. *See, e.g.,* General Provisions Applicable to Derivatives Clearing Organizations, 12 C.F.R. § 39.37(c)-(d) (2015). For example, if Airline, as an end user, has a cleared swap held through a clearing member and the clearing member fails, Airline can move its positions to another clearing member, assuming that Airline has all the required documents in place with the new clearing member. *See* COMM. ON PAYMENT & SETTLEMENT SYS. & TECH. COMM., IOSCO, PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES (2012); *see also* Figure 11.2-7.

Figure 11.2-7 Diagram of Cleared Transaction Portability



Source: Davis Polk & Wardwell LLP.

3. Mandatory Clearing of Swaps

a. The History of Clearing

As you learned in Chapter 11.1, clearing is not a new concept. It has been used in the futures markets since the 1890s, and the Grain Futures Act of 1922 required some futures contracts to be cleared. Gary Gensler, Chair, CFTC, Statement Before the Financial Crisis Inquiry Commission (July 1, 2010); *see* CFTC, Public Roundtable on Futurization of Swaps (Jan. 31, 2013); *see also* CFTC, *History of the CFTC* (Mar. 23, 2018). Before the Dodd-Frank Act, counterparties to swap transactions were not required to clear their transactions, though some recognized the utility in clearing and decided to do so without regulatory mandate. After the Financial Crisis, market participants, under pressure from the Federal Reserve Bank of New York, were beginning to move toward clearing a higher percentage of swaps. In fact, many of the largest financial institutions signed a commitment letter to the Federal Reserve Bank of New York in June 2009, stating that they had “agreed upon a framework for OTC derivative risk management and market structure and [were] working expeditiously to deliver [their] commitments set forth [in the letter, including a commitment to] clearing for OTC standardized derivative products...” Letter from Senior Management of Alliance Bernstein et al. to the Honorable William C. Dudley, President, Fed. Rsv. Bank of N.Y. (June 2, 2009). The Dodd-Frank Act then made clearing a regulatory requirement for certain types of swaps and security-based swaps.

b. The Dodd-Frank Act’s Mandatory Clearing Requirement

To promote the central clearing of swaps, the Dodd-Frank Act amended the CEA and the Securities Exchange Act of 1934 (1934 Act) to mandate the clearing of swaps and security-based swaps, respectively. *See generally* Steven L. Schwarcz, *Central Clearing of Financial Contracts: Theory and Regulatory Implications*, 167 U. PA. L. REV. 1327 (2019). Not all swaps, however, are subject to this clearing requirement. Market participants must only clear swaps and security-based swaps that the CFTC or SEC, respectively, determines are subject to mandatory clearing. The CFTC, when deciding which swaps should require clearing, has focused on those swaps that constitute a large portion of the market and present unique risks. *See* Clearing Requirement and Related Rules, 12 C.F.R. § 50.

Only swaps that are standardized and have a sufficient level of liquidity are required to be cleared. If swaps are not standardized, clearinghouses may not know how to measure their risk and will not know how much margin to collect. In the futures world, this standardization was inherent in the creation of futures contracts, as compared to forwards, as we discussed in Chapter 11.1. In the swap world, however, there had been less standardization, since swaps were entered into as customized contracts between parties. Despite historical arrangements, swap clearing has increased dramatically since passage of the Dodd-Frank Act. According to CFTC Chair Timothy Massad, approximately 75% of swap transactions were being cleared in 2015 as compared to only 15% in 2007. *See* Timothy Massad, Chair, CFTC, Keynote Remarks Before the Risk USA Conference (Oct. 22, 2015). As of August 2020, four classes of interest rate swaps (which were expanded in October 2016 to include certain interest rate swaps that were offered for clearing at registered DCOs but which were not previously subject to

mandatory clearing) and two types of credit default index swaps are subject to mandatory clearing. 17 C.F.R. § 50.4(a). The SEC has not, as of the same date, made any clearing determinations for security-based swaps.

c. Exceptions and Exemptions to Mandatory Clearing

The clearing mandate of the Dodd-Frank Act focused on reducing systemic risk. In drafting the clearing mandate, Congress focused primarily on the risks presented by financial entities. Although Congress wanted to regulate the swap market, it sought to place the burdens of that regulation primarily on SDs and the other largest market participants, and secondarily on financial institutions more generally, rather than on nonfinancial entities entering into swaps to hedge or mitigate their own commercial risks. For these and other reasons, Congress and the CFTC carved out certain exceptions and exemptions.

First, the Dodd-Frank Act includes an exception from the mandatory clearing requirement for commercial end users that enter into swaps to hedge or mitigate commercial risk and that satisfy other statutory and rule-based requirements. In general, a commercial end user is a nonfinancial entity that uses swaps to hedge its commercial risk, for example, Airline hedging its exposure to changes in fuel prices or a construction company hedging its exposure to changes in interest rates on an adjustable rate project-finance loan. The commercial end-user exception can be used even if only one counterparty to the swap is a commercial end user. Swaps between a commercial end user and a financial entity, such as an SD, may, therefore, be executed bilaterally and need not be submitted for clearing, provided the conditions of this exception are satisfied. Rules further permit a corporate group's centralized hedging affiliate (its treasury) that collects the risks of the various affiliates of the group and then hedges the net risk to the market, to rely on the commercial end-user exception, subject to conditions, even though treasury affiliates are typically financial entities under the CEA and not commercial end users.

The CFTC carved out an exemption to permit firms to engage in transactions with their affiliates. A large conglomerate will often be composed of multiple legal entities that enter into swaps in order to offset risk exposures within the group. These inter-affiliate swaps reduce the risk that the conglomerate would need to offset through a swap with an outside counterparty. For example, if a subsidiary of a financial institution enters into an interest rate swap, it may enter into an equal and offsetting swap with an affiliate to reduce its interest rate risk. Although there is no statutory exclusion from the clearing requirement for inter-affiliate swaps, the CFTC has provided a rule-based exemption for swaps between qualifying affiliated entities. The inter-affiliate exemption also allows one entity in a corporate group to specialize in aggregating risks within the group and hedging outside the group, on behalf of the company. In providing the exemption, the CFTC imposed a number of conditions on affiliates to prevent evasion.

d. Criticisms of the Mandatory Clearing Requirement

Although mandatory clearing was one of the central reforms under the Dodd-Frank Act and one of the key goals of the post-Financial Crisis G-20 commitments, scholars and market participants have raised concerns about this requirement. That is because requiring clearing reduces the credit risk to which each party to a

swap is exposed but increases the clearinghouse's exposure to the credit risk of each counterparty to a swap that is submitted to the clearinghouse. If a large market participant defaults and the clearinghouse does not have enough capital to address this default and does not receive enough additional capital through assessments on clearing members, the clearinghouse itself may default, which would have a significant effect on the market. Mark J. Roe, *Clearinghouse Overconfidence*, 101 CAL. L. REV. 1641, 1697 (2013). Critics argue, in effect, that mandatory clearing does not reduce systemic risk but transfers it. If the proponents of clearing are wrong that clearinghouses can better manage such risk, the transfer of risk could increase systemic risk.

Moreover, multilateral netting, a key benefit of using a clearinghouse, cannot be fully realized in practice because there are many clearinghouses. Since there are many clearinghouses and each clearinghouse may only net positions that it clears, this results in less multilateral netting than would be available with only one clearinghouse. Additionally, because clearinghouses will tend to focus on particular asset classes, they could feel the effects of asset bubbles more severely. See Sean J. Griffith, *Clearinghouse Hope or Hype?: Why Mandatory Clearing May Fail to Contain Systemic Risk*, 3 HARV. BUS. L. REV. ONLINE 160, 163 (2013). Of course, having only one clearinghouse would generate its own problems, concentrating systemic risk in one place.

Market participants also argue that clearing is expensive. As part of the clearing process, parties must provide the DCO with margin, as well as enter into relationships with clearing members, incurring legal costs to do so. Of course, these costs must be weighed against the cost of the previous system, including the all-in credit costs of counterparties and the cost to the financial system and the economy when the financial sector nearly collapsed.

1. **Costs of Not Clearing.** There are significant differences in the amount of initial margin required to be posted for cleared swaps as compared to uncleared swaps. Some estimates have stated that initial margin for cleared swaps may be up to 50% less than for a similar uncleared swap. This may lead to more cleared swaps over time, as contemplated by the Dodd-Frank Act.

E. INTERNATIONAL IMPLEMENTATION

The implementation of margin requirements for uncleared swaps and mandatory clearing of standardized derivatives were two of the goals of the G-20 commitment, and many G-20 members have proposed or finalized mandatory clearing and uncleared swap margin requirements. For example, the EU and Japan have each finalized their mandatory clearing and uncleared derivatives margin requirements. Though not part of the G-20, Hong Kong also implemented mandatory clearing at certain clearinghouses. H.K. Monetary Auth., *Over-the-Counter Derivatives Trade Repository* (Aug. 26, 2019). The Financial Stability Board (FSB) has issued progress reports assessing member jurisdictions' actions to implement reforms in the OTC derivatives market. In October 2019, for

example, the FSB reported that 16 jurisdictions had implemented margin requirements for non-cleared derivatives, while eight jurisdictions had still not implemented such reforms. FIN. STABILITY BD., OTC DERIVATIVES MARKET REFORMS: 2019 PROGRESS REPORT ON IMPLEMENTATION (2019).

Although similarities exist between swaps oversight in the United States and the EU, and both the United States and the European Commission were committed in principle to a process of mutual recognition based on comparability or equivalence, a clearing battle emerged between the CFTC and the European Commission regarding the recognition of foreign clearinghouses in the United States and the EU. See Yesha Yadav & Dermot Turing, *The Extra-Territorial Regulation of Clearinghouses*, 2 J. FIN. REG. 1, 29–32 (2016). The CFTC recognizes comparably regulated non-U.S. clearinghouses as exempt from CFTC registration requirements; the CFTC, however, initially took the position not to permit exempt DCOs to clear for U.S. customers. Under European Market Infrastructure Regulation, the recognition of non-EU clearinghouses by the European Securities and Markets Authority (ESMA) depends on, among other things, whether the European Commission considers the non-EU jurisdiction to provide an “effective equivalent” system for the recognition of foreign clearinghouses. Because the CFTC did not permit exempt DCOs to clear for U.S. customers, EU officials asserted that the CFTC did not provide an “effective equivalent” system of recognition for non-U.S. clearinghouses, in effect blocking recognition of U.S. clearinghouses in the EU.

An accord was eventually reached in early 2016, clearing the way for equivalency and comparability determinations, and thus, mutual recognition:

Following this agreement the European Commission intends to adopt shortly an equivalence decision with respect to CFTC requirements for US CCPs which will allow ESMA to recognise US CCPs as soon as is practicable. Once recognised by ESMA, US CCPs may continue to provide services in the EU whilst complying with CFTC requirements. The CFTC staff will propose a determination of comparability with respect to EU requirements, which will permit EU CCPs to provide services to US clearing members and clients whilst complying with certain corresponding EU requirements. The CFTC staff will also propose to streamline the registration process for EU CCPs wishing to register with them.

Press Release, Commodity Futures Trading Comm., The U.S. Commodity Futures Trading Commission and the European Commission: Common Approach for Transatlantic CCPs (Feb. 10, 2016). The European Commission issued its equivalence determination regarding the CFTC’s regulation of CCPs on March 15, 2016, and shortly thereafter the CFTC issued a comparability determination for EU-based CCPs registered with the CFTC and authorized to operate in the EU. Commission Implementing Decision (EU) 2016/377 2016 O.J. (L 70/32); CFTC, Comparability Determination for the European Union: Dually-Registered Derivatives Clearing Organizations and Central Counterparties, 81 Fed. Reg. 15,260 (Mar. 22, 2016). For a consideration of substituted compliance by the SEC pre-Dodd-Frank Act, and potential criteria for assessment, see Howell E. Jackson, *Substituted Compliance: The Emergence, Challenges, and Evolution of a New Regulatory Paradigm*, 1 J. FIN. REG. 169 (2015); see also John C. Coffee, Jr.,

Extraterritorial Financial Regulation: Why E.T. Can't Come Home, 99 CORNELL L. REV. 1259, 1279 (2014); see also Alexey Artamanov, *Cross-Border Application of OTC Derivatives Rules: Revisiting the Substituted Compliance Approach*, 1 J. FIN. REG. 206 (2015).

Notwithstanding the equivalence determination, the European Commission has strengthened its supervision of CCPs to meet emerging challenges, in particular given the continued growth of CCP activity. Although some third-country CCPs are able to continue operating under the EU's equivalence framework, the regulation includes enhanced supervision of systemically important CCPs and a requirement that such institutions establish themselves in the EU if the CCP is sufficiently important (rather than pursuing an equivalence approach). Press Release, European Comm'n, Capital Markets Union: Agreement on More Robust Supervision of Central Counterparties (Mar. 13, 2019). The EU's regulations are clearly relevant to the separation of London's clearing sector from European oversight after Brexit (agreement executed on January 31, 2020). This is a critical part of London's financial services sector, with a volume of business that can exceed \$900 billion notional value in one day, and an area in which the London market is currently dominant. Jim Brunnsden & Philip Stafford, *What is London's Euro Clearing Market and Why Is Brussels Worried?*, FIN. TIMES (June 13, 2017).

Brexit and the EU's corresponding regulations also have significant implications for other jurisdictions, including the United States. For instance, in 2019, the EU proposed new legislation that would give ESMA primary supervision over non-EU CCPs deemed to be systemically important to the EU and require such organizations to obey EU laws and regulations. Many, including Terry Duffy, Chair and CEO of CME Group Inc., expressed concern that imposing foreign laws and regulations not designed for U.S. DCOs would undermine the U.S.'s regulatory sovereignty and fragment and weaken global financial systems. *Brexit and Other International Developments Affecting U.S. Derivatives Markets: Hearing Before the Subcomm. on Commodity Exchs., Energy, and Credit of the H. Comm. on Agric.*, 116th Cong. 11 (2019). The European Commission later announced in June 2020 that it would not subject U.S. DCOs to ESMA supervision and would instead defer to U.S. authorities. See Anne Sherry, *EU Won't Regulate U.S. CCPs Under New Dual-Tier System*, WOLTERS KLUWER (June 11, 2020); see also Sebastian Steuer, *Too Big to Fail, Too Big to Defer?* (June 26, 2020) (unpublished article) (on file with author).

Although potential conflicts between the U.S. and European regimes remain a live issue as it relates to CCP regulation, substantial progress has been made on other requirements. For example, the CFTC in October 2017 issued a comparability determination, finding the margin requirements under EU law comparable to those under the CEA and CFTC regulations. *Comparability Determination for the European Union: Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants*, 82 Fed. Reg. 48,394 (Oct. 18, 2017). Under the comparability determination, a swap dealer that is subject to both the CFTC and EU margin rules with respect to an uncleared swap may rely on substituted compliance and comply with the EU margin rules in lieu of complying with the CFTC's margin requirements. The European Commission issued a similar equivalence determination for the CFTC and banking regulators'

margin requirements. EUROPEAN COMM'N IMPLEMENTING DECISION (EU) 2017/1857 (Oct. 13, 2017); EUROPEAN COMM'N IMPLEMENTING DECISION (EU) 2019/536 (Mar. 29, 2019). The European Commission and CFTC have also issued equivalence and comparability determinations, respectively, for the exchange trading requirements. *See* EUROPEAN COMMISSION IMPLEMENTING DECISION (EU) 2017/2238 of 5 December 2017; CFTC, IN THE MATTER OF EXEMPTION OF MULTILATERAL TRADING FACILITIES AND ORGANISED TRADING FACILITIES AUTHORIZED WITHIN THE EUROPEAN UNION FROM THE REQUIREMENT TO REGISTER WITH THE COMMODITIES FUTURES TRADING COMMISSION AS SWAP EXECUTION FACILITIES (Dec. 8, 2017). In Chapter 11.3, Section IV.C, we further discuss the CFTC's approach to cross-border rules and substituted compliance.

III. DEVELOPING A TRANSPARENT MARKETPLACE

A. GOALS OF TRANSPARENCY

Historically, the swap market was not open or transparent. As described in Chapter 11.1, swap contracts were highly customized agreements designed to meet the needs of specific customers, and they carried significant credit risk. Swaps were generally not standardized or fungible but were entered into on a custom basis between a market participant that needed the protection of a swap or wanted to speculate through it and a dealer willing to provide that protection. The swap market was not historically characterized by pre-trade transparency—the availability of information regarding the prices and sizes at which market participants are willing to enter into swaps—or post-trade transparency—the availability of information regarding the price or size at which a swap trade was executed in the marketplace. The lack of timely and full information about swaps extended not just to market participants but also to regulators.

In the Financial Crisis, the opacity of the OTC market increased costs for end users, exacerbated losses, increased interconnectedness, and fostered uncertainty, contributing to the panic. In the wake of the crisis, the Dodd-Frank Act put in place a new system requiring pre- and post-trade transparency. This section introduces the approaches taken for both types of transparency. While transparency in the swap market is an important reform, it is not as easy as it seems, and it also has downside costs.

An exchange is a marketplace where buyers and sellers trade financial instruments. The concept of trading financial instruments on an exchange is not new; it has existed in futures and securities markets for centuries. Before the Dodd-Frank Act, market participants could trade swaps on multilateral platforms, but they were not required to do so, and regulators did not closely regulate the activities of these platforms. As part of the Dodd-Frank Act's reforms, and consistent with the G-20 commitments, Congress provided for comprehensive regulation of swap trading.

Before exchange trading requirements, regulators, other market participants, end users, and the public lacked information on the market and the swaps traded on the market because parties were not required to report trade information. Exchange trading is meant both to remove these informational asymmetries and to reduce uncertainty in the swap market by providing pre-trade transparency.

See Gary Gensler, Chair, CFTC, Statement to Open Commission Meeting for Consideration of Rules Implementing the Dodd-Frank Act (May 16, 2013). For example, before the Dodd-Frank Act, dealers had access to transaction and pricing data across their books, but end users generally entered into transactions with minimal market information or comparative terms. *Id.* The lack of transparency of prices allowed the largest U.S. financial institutions to dominate the swap market and keep spreads high for end users, while keeping smaller institutions from competing with larger dealers on price. S. REP. NO. 111-176, at 29, 34 (2010). As a result of the domination in the market by the largest institutions, there was a concentration of, and increase in, systemic risk in the event that one or more of those large institutions failed. *Id.* at 29. The exchange trading requirement allows buyers to compare multiple offers, which creates competition within the marketplace, reduces spreads to dealers and disperses risk among a wider number of market participants. It also allows regulators greater insight into the financial health of financial institutions and the financial sector as a whole. See ROBERT E. LITAN, *WHAT SHOULD BANKS DO?* 5 (1987).

Unlike the exchange-traded securities and futures markets, however, where contracts are generally fungible and most exchange-traded products have significant liquidity, swaps historically were marketed as bespoke products. Market participants have expressed concern that, if contracts with insufficient liquidity are required to be traded on exchanges, market participants may stay away from the contracts in order to avoid providing the market with information about their view of the proper price of the instruments, which would further reduce liquidity. Transparency could also lead other participants to front-run the swap, reducing its usefulness as a hedging tool by making it more costly. Peter Malyshev et al., *SEF Registration and Regulation*, in *OTC DERIVATIVES REGULATION UNDER DODD-FRANK: A GUIDE TO REGISTRATION, REPORTING, BUSINESS CONDUCT, AND CLEARING* 675–76 (William C. Meehan & Gabriel D. Rosenberg eds., 2015). Additionally, opponents have argued that exchange trading would reduce customization in swaps. Exchange trading may inhibit parties from getting the customized terms they desire, forcing them to purchase less efficient instruments. Reed T. Schuster, *Sacrificing Functionality for Transparency? The Regulation of Swap Agreements in the Wake of the Financial Crisis*, 62 *SYRACUSE L. REV.* 385, 399 (2012).

B. PRE-TRADE TRANSPARENCY: MANDATORY EXCHANGE TRADING

The CEA, as amended by Dodd-Frank, requires that all swaps that are subject to mandatory clearing be traded on a Designated Contract Market (DCM) or Swap Execution Facility (SEF) unless no such platform “makes the swap available to trade.” Therefore, if a swap is required to be traded on a DCM or SEF, it is a violation of the CEA and CFTC rules to trade that swap bilaterally.

As with mandated clearing, exchange trading is only required for certain standardized and liquid swaps. As of August 2020, of those swaps that were required to be cleared, only a subset, consisting of those swaps that are the most standardized and liquid, are required to be executed on a DCM or SEF. Even if a swap is not required to be exchange traded, a counterparty may, however, wish to enter into the swap on a DCM or SEF because the counterparty may wish to achieve the benefits of transacting on an exchange, including the ability to access

liquidity and compare prices. For example, many market participants trade foreign exchange (FX) swaps voluntarily on SEFs or similar platforms, even though FX swaps are not required to be exchange traded, because FX swaps are relatively standardized and the exchanges have the necessary liquidity.

Both DCMs and SEFs are subject to statutory provisions and CFTC regulations, known as “core principles.” The core principles for DCMs and SEFs include trading and product requirements, compliance and surveillance obligations, operational capabilities, emergency authority, and financial information and resource requirements.

1. Designated Contract Markets

A DCM is a traditional futures exchange that is required to be registered with, and is regulated by, the CFTC. DCMs pre-date the formation of the CFTC itself, having existed in the United States since the 19th Century. *See CFTC, History of the CFTC* (Sept. 23, 2020). CFTC regulations require DCMs to have minimum trading functionality for the execution of swaps. Swaps that are made available to trade on a DCM must be executed through an order book. An order book is an electronic list of buy and sell positions for a particular financial product that matches bids and offers, generally through the use of an algorithm. Order books must provide for a delay between a dealer entering an order and crossing that order with its own or another client’s order, thus allowing all market participants to observe the quotes and trades in the marketplace. Proponents of the use of order books state that they provide for pre-trade transparency by bringing dealers together for buyers to compare multiple offers at once, which creates competition and disperses risk among a wider number of market participants. *See DIEGO VALIANTE, SETTING THE INSTITUTIONAL AND REGULATORY FRAMEWORK FOR TRADING PLATFORMS* (2012). Gensler noted that the old approach of calling a range of dealers to get a view of the market is not that helpful when a few large banks dominate all the trading. *See Gary Gensler, Chair, CFTC, Remarks Before the International Futures Industry Conference: Implementing the Dodd-Frank Act* (Mar. 16, 2011).

2. Swap Execution Facilities

Unlike DCMs, SEFs are a creation of the Dodd-Frank Act. SEFs are distinguished from DCMs in their ability to provide more flexible trading methodologies than DCMs, which is sometimes useful for less-liquid swap markets. Similar to DCMs, SEFs are required to register with the CFTC. If a trading system or platform provides more than one market participant with the ability to execute or trade swaps with more than one other market participant, known as a multiple-to-multiple platform, it must register as an SEF unless it already is registered as a DCM. The SEF registration requirement is also not tied to the trade execution requirement, so any electronic platform that facilitates or has the ability to facilitate the execution of swaps on a multiple-to-multiple basis must register as a SEF, not only those platforms that provide trading of swaps that are required to be executed on an exchange. As of August 2020, there were 19 temporarily registered or registered SEFs.

In contrast to the automated trade matching of an order book, SEFs may also provide a request-for-quote facility, which allows a market participant seeking to

enter into a swap to request a direct quote from SDs. To meet the mandatory trading obligation, however, SEFs must provide such a request-for-quote to at least three unaffiliated market participants. *Methods of Execution for Required and Permitted Transactions*, 17 C.F.R. § 37.9 (2015). In a request-for-quote system, the requestor receives offers from liquidity providers that quote in response to the request, and the system also provides the requester with all resting bids and offers in the same product from the SEF's order book. The quote requester's identity may be known or anonymous.

To illustrate how a market participant might transact on an SEF, imagine that Airline submits a request for quote to the SEF to buy an interest rate swap that must be cleared through a clearinghouse and is subject to the trade execution requirement. Airline, through the SEF, requests quotes from no fewer than three SDs, including potential Party B. The SEF then receives responses from these SDs, and provides those offers, as well as the resting offers on the SEF's order book, to Airline. Airline then accepts one of the offers—for example, Party B's offer—and the SEF communicates to Party B that the swap is executed.

3. Made Available to Trade

A swap is only required to be traded on a DCM or SEF if the swap is “made available to trade.” To make a swap available for trade, DCMs and SEFs must consider various factors relating to liquidity with respect to each swap. The made available-to-trade determination is initiated by a DCM or SEF. A DCM or SEF must submit its determinations to the CFTC, either for approval or self-certification, which allows the DCM or SEF to certify that the determination complies with the CEA and relevant CFTC requirements. When a DCM or SEF uses the self-certification process, the CFTC may only reject the determination by a finding that the determination violates the CEA or CFTC regulations.

1. ***Made Available to Trade.*** On a plain reading, what do you think “makes the swap available to trade” means? What might the CFTC have been trying to accomplish by developing a complex “made available to trade” process? How does this provision relate to other provisions in the Dodd-Frank Act, and the Act's history, structure, and purpose?

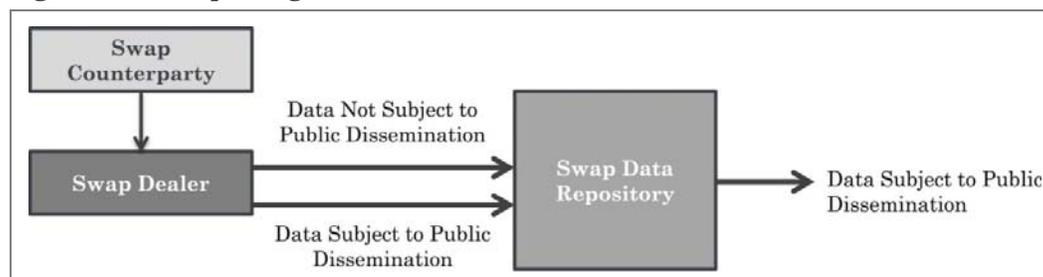
2. ***Do SEFs and DCMs Engage in Policymaking?*** Former CFTC Commissioner Mark Wetjen has argued that the “made available to trade” approval process is flawed and that the policy allows DCMs and SEFs to engage in policymaking. See Mark Wetjen, Comm'r, CFTC, Remarks Before the Cumberland Lodge Financial Services Policy Summit: The Next Opportunity for Trans-Atlantic Collaboration: Shaping a New Era for Swap Execution (Nov. 14, 2014). Since DCMs and SEFs may unilaterally determine if a swap is “made available to trade,” Wetjen noted, the process allows “commercial entities that stand to benefit most” to engage in policymaking since the respective trading platform has the authority to determine if a swap is “made available to trade.” *Id.* What are some potential issues and conflicts that you see with the SEF or DCM making the “made available to trade” determination, as opposed to the CFTC?

3. *Dealers' Conflicting Incentives.* Exchange trading of derivatives raises questions about market participants' incentives and possible conflicts of interest. Dealers, for instance, absent the Dodd-Frank Act's mandatory exchange trading requirement, would face potentially conflicting incentives as to whether to exchange trade derivatives. Exchange trading, when fully functional, may increase liquidity. Dealers, however, have an incentive not to exchange trade because they earn higher spreads in the bilateral, non-exchange-traded market. Dealers may therefore have incentive to encourage commercial end users—which are exempt from the Dodd-Frank Act's mandatory clearing, and therefore mandatory exchange trading, requirements—to make bilateral bespoke trades where their profits would be higher, rather than to use exchange trading. That is one reason why the Dodd-Frank Act mandates exchange trading for many cleared swaps and requires higher margin requirements for non-cleared trades than for cleared trades. See Dodd-Frank Act §§ 723(a), 731; 7 U.S.C. §§ 2, 6s; see also Sean J. Griffith, *Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses*, 61 EMORY L. J. 1153, 1207–08 (2012).

C. POST-TRADE TRANSPARENCY: TRADE REPORTING

Before the Dodd-Frank Act, regulators and market participants had little insight into the terms of swaps that were executed, known as post-trade transparency. Such trade reporting is designed in part to assist regulators in understanding risk exposures for particular firms and across the financial system. In addition to allowing regulators to monitor the swap markets, post-trade transparency allows market participants to look to past swap activity as an indicator of appropriate pricing for future swap activity. In that way, reporting is designed to work alongside exchange trading to improve price discovery, which should reduce dealer spreads and increase efficiency. Such information is also designed to be used by market participants to assess market, counterparty, and systemic risks that they and other participants might face.

The Dodd-Frank Act requires reporting of swaps and security-based swaps. Under the CFTC's and SEC's reporting rules, one of the counterparties to the transaction—the SD or SBSB when one is a party to the trade—is tasked with reporting the necessary data to a Swap Data Repository (SDR) or security-based SDR. The SDR collects the reported data and provides the CFTC and SEC, upon request, with access to this information. The SDR is also responsible for publicly disseminating a subset of that data to the public in an anonymized way. This public dissemination helps to enable market participants to make better-informed decisions on whether to enter into a particular trade at a particular price. Our hypothetical Airline planning to enter into an interest rate swap, for example, can review the publicly available data to determine whether the price it was quoted from Bank A is consistent with the market price for similar types of interest rate swaps.

Figure 11.2-8 Reporting Under Title VII

Source: Davis Polk & Wardwell LLP.

SDRs and security-based SDRs are required to register with the CFTC or SEC. As of September 2020, there were three SDRs provisionally registered with the CFTC. See CFTC, *CFTC Swap Data Repository Organizations* (Sept. 23, 2020). As of September 2020, two security-based SDRs have applied for registration with the SEC. See SEC, *Security-Based Swap Data Repositories* (Sept. 23, 2020).

1. Providing the Regulators with Swap Data

Under the new reporting rules for swaps, data for each swap, whether cleared or uncleared, must be reported upon execution and throughout the life of the swap to an SDR. Although FX swaps and FX forwards are excluded from the definition of swap for purposes of Title VII's clearing and trading requirement (as discussed in Chapter 11.1), data relating to these transactions must nonetheless be reported to an SDR. CFTC rules prescribe the standards for regulatory reporting, including the specific data elements that must be reported to, and maintained by, SDRs. These standards vary depending on the particular asset class of a swap transaction, and therefore, market participants must develop different reporting systems for the various asset classes in which they transact. Swaps reported to SDRs must be labeled using unique identifiers that identify the parties to the swap, the product type of the swap and the individual swap. These identifiers can be used by the regulators to aggregate swap data to conduct market and risk surveillance, analyze market data, take enforcement actions, monitor systemic risk, and improve market transparency. See *Swap Data Recordkeeping and Reporting Requirements*, 17 C.F.R. § 45.

2. Providing the Market with Swap Data

Once swap data is reported to an SDR, the SDR must publicly disseminate, in real time, anonymized swap transaction data, including the type, price, and volume of the transaction. Although the counterparties are required to report swap data for FX swaps and forwards to an SDR, this information is not publicly disseminated. Trades between affiliates also are not publicly disseminated because these transactions may not reflect market prices. SDRs must also provide reporting counterparties with access to the data they submitted about open swaps to verify and, if necessary, correct.

Publicly disseminated data is anonymized to protect the identities of counterparties and maintain the confidentiality of transactions and market positions of the counterparties.

3. Block Trades

Although the CFTC rules require that swap information and pricing data be publicly reported in real time, there are certain types of swaps for which the trade data is subject to a time delay before it is publicly disseminated. Reportable large swap trades above certain size thresholds that are traded on a DCM or SEF, or pursuant to its rules, are known as block trades. CFTC rules allow block trades to be publicly reported with a time delay that ranges from 15 minutes to a few hours. In addition, if the notional amount of a swap exceeds certain thresholds, the notional amount that is publicly disseminated may be capped and would be reported as exceeding that amount. The CFTC, in 2020, amended its real-time public reporting requirements by raising the thresholds for block trades and cap sizes. Press Release, Commodity Futures Trading Comm., CFTC Finalizes Rules to Improve Swap Data Reporting, Approves Other Measures at September 17 Open Meeting (Sept. 17, 2020). The higher thresholds are intended to increase market transparency by allowing greater public access to swap data.

The reason for block trading, and delays in public dissemination of block trades, can best be seen by example. Airline wishes to enter into a jet fuel swap to manage the risks associated with changing jet fuel prices. Given the huge quantity of jet fuel that Airline will purchase in a year, Airline will look to purchase a large amount of protection using swaps, likely larger than any one market participant is currently offering for sale. Airline could go to the market and buy small amounts of protection, such as 100 units from Bank A, 50 units from Bank B, and so on, until it obtains the total amount it needs. As Airline aggregates these smaller swaps, however, the market will see increased demand, and the swaps will get more and more expensive. As a result, it may become incredibly expensive, if not impossible, for Airline to hedge its risks this way.

Instead, Airline could ask a single bank, Bank A, to provide Airline with one large fuel swap. Bank A will likely charge Airline a premium over the current market price for this transaction, but this premium may well be cheaper to Airline than buying protection in pieces. The size of the premium that Bank A will charge depends in part on the price at which it can pass on the risk of the swap through hedging its risk in the market. If price and volume data for this jet fuel swap were publicly disseminated in real time, Bank B will know that someone just entered into a large jet fuel swap and this someone will soon need to hedge its position. Bank B will not know that Bank A is the bank that needs to hedge positions, but it does not matter—Bank B will raise its prices for the offsetting trade. Knowing this, Bank A would preemptively raise the premium it charges Airline to compensate for this increased hedging charge. If the public dissemination of information about the block trade between Airline and Bank A is delayed, however, Bank A may have sufficient time to hedge its position before Bank B knows enough to hike the price of its hedge positions.

4. International Implementation

In a global market such as the swap market, laws in one jurisdiction may clash with laws in another jurisdiction. Pursuant to G-20 commitments, many non-U.S. jurisdictions—including Europe, Japan, Australia, Canada, and Hong Kong—have adopted reporting regimes. For the G-20 members, even though the reporting requirements originate from the same international framework, there have been

differences in implementation. For instance, some rules do not require public dissemination of swap data, while others only require that a few data fields be reported to a data repository. The European reporting system requires both counterparties to a transaction to report data to a data repository, as contrasted with the U.S. system, which only requires one party to report data.

One of the key goals of the Dodd-Frank Act's reporting requirement was to provide the regulators with access to data about the derivatives market. There are many data repositories located overseas and many non-U.S. SDs have reporting systems in place to report to such data repositories. SEC rules exempt non-U.S. security-based SDRs from registration if the relevant foreign regulator enters into a memorandum of understanding with the SEC, addressing confidentiality and access to the data by the SEC. SBSDs must still separately report transactions to a registered SDR in order to satisfy SEC reporting obligations, even if the transactions have already been reported to a non-U.S. security-based SDR exempt from registration. CFTC rules require that the agency be given access to the data reported to a data repository. Until the CFTC, however, has access to the data held in non-U.S. data repositories, non-U.S. SDs are not permitted to satisfy their CFTC reporting obligations by reporting swap data to these non-U.S. repositories. While the CFTC and EU are still negotiating the appropriate data access standards to data repositories to allow sharing of this information, the CFTC staff has issued no-action relief to non-U.S. SDs when transacting with non-U.S. counterparties.

The Dodd-Frank Act required SDRs to provide domestic and foreign regulators with the data the SDRs have collected, upon request. It also required that, before the SDRs share the information, the regulator requesting the information agrees to abide by the confidentiality requirements set out in the CEA and to "indemnify the [SDR] and the [CFTC] for any expenses arising from litigation relating to the information" provided by the SDR. Dodd-Frank Act § 728. These provisions created a barrier to sharing swap data across borders because most foreign regulators do not have the legal authority to enter into such indemnification agreements. *Swap Data Repository and Clearinghouse Indemnification Correction Act of 2012: Testimony Concerning Indemnification of Security-Based Swap Data Repositories Before the H. Subcomm. on Capital Mkts. & Gov't Sponsored Enter. of the H. Comm. on Fin. Services, 112th Cong. (2012)* (testimony of Ethiopis Tafara, Director, SEC). In 2015, Congress enacted an unrelated transportation bill that included a provision removing the indemnification provision and replacing it with a requirement that the foreign jurisdiction provide a written agreement to comply with statutory confidentiality requirements.

Another inadvertent conflict arose between U.S. swap reporting rules and the privacy laws of some non-U.S. jurisdictions. The CFTC's reporting rules require a counterparty to report the identities of both parties to a swap to an SDR. Certain non-U.S. jurisdictions, however, require that a counterparty consent to the disclosure of its identity, while others require that the non-U.S. regulator approve such disclosure, and others still prohibit the disclosure of financial- or banking-related information entirely. For example, if a U.S. SD is transacting with a counterparty in Switzerland, it may not be able to report all the information it is required to report to an SDR without violating local privacy laws in that

jurisdiction. CFTC staff has issued a no-action letter to address trades with counterparties located in various non-U.S. jurisdictions with privacy laws that would conflict with the CFTC's reporting requirements.

1. *Costs and Benefits.* Given the regulatory requirements discussed in this Chapter, what are the costs and benefits for Airline, Bank, and Swap Dealer to continue entering into swaps in the market? Do you think these requirements would become a barrier to entry for smaller entities?

2. *Clearing and Transparency.* Do you think some of the measures in the Dodd-Frank Act shifted or even increased risk? Are there further reforms that would reduce risk and increase transparency?

3. *Securities Versus Swaps.* As you review this Chapter and Chapter 11.3, you might compare the regulation of swaps and securities in such areas as:

- **Dealers.** In the securities markets, brokers and dealers act as intermediaries to connect buyers and sellers and provide liquidity, as discussed in Chapters 4.1 and 4.2. Broker-dealers are subject to registration, capital, and business conduct requirements. In the swap market, registration and regulation of SDs and SBSDs serve much the same function, as discussed in Chapter 11.3.
- **End Users.** As outlined in Part IV, the securities markets have various types of end users, including individuals, retirement funds, and corporations. These end users are subject to a different regulatory regime than registered intermediaries. As you have learned, end users in the swap market are exempt from a number of requirements.
- **Trading Platforms and Clearinghouses.** In the securities market, exchanges (such as the New York Stock Exchange and NASDAQ) match buyers and sellers of securities in a relatively transparent marketplace, and clearing agencies help to ensure that counterparties honor their obligations to each other, as discussed in Chapter 4.4. As you have learned, the securities markets have been rapidly changing and there are many exchanges and alternative venues for trading off-exchange. In the swap market, SEFs serve functions similar to securities exchanges, and clearinghouses serve a vital risk protection function.
- **Trade Reporting.** As discussed in Chapters 4.3 and 4.4, the securities markets require transactions to be reported and for price and volume information to be publicly available to market participants. As this Chapter discusses, reporting is required of swap transactions as well.

There are, however, major differences between the implementation of the securities regulatory system and the swap regulatory system. Some of these reflect different policy choices made by Congress or the regulatory agencies at different historical times, while others reflect different market circumstances.

The Dodd-Frank Act required reform of the swap market in less than five years, as compared to the decades-long gradual evolution of federal securities regulations from their origins in 1933 and 1934 through legislation, regulation, guidance, no-action letters, and enforcement, to their continued evolution today. Despite the speed of implementation and the complexity of regulating swaps markets, the Dodd-Frank Act framework remains relatively stable after ten years.
