BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

SENIOR CREDIT OFFICER OPINION SURVEY
On Dealer Financing Terms

Counterparty Types

Questions 1 through 40 ask about credit terms applicable to, and mark and collateral disputes with, different counterparty types, considering the entire range of securities financing and over-the-counter (OTC) derivatives transactions. Question 1 focuses on dealers and other financial intermediaries as counterparties; questions 2 and 3 on central counterparties and other financial utilities; questions 4 through 10 focus on hedge funds; questions 11 through 16 on trading real estate investment trusts (REITs); questions 17 through 22 on mutual funds, exchange-traded funds (ETFs), pension plans, and endowments; questions 23 through 28 on insurance companies; questions 29 through 34 on separately managed accounts established with investment advisers; and questions 35 through 38 on nonfinancial corporations. Questions 39 and 40 ask about mark and collateral disputes for each of the aforementioned counterparty types.

In some questions, the survey differentiates between the compensation demanded for bearing credit risk (price terms) and the contractual provisions used to mitigate exposures (nonprice terms). If your institution's terms have tightened or eased over the past three months, please so report them regardless of how they stand relative to longer-term norms. Please focus your response on dollar-denominated instruments; if material differences exist with respect to instruments denominated in other currencies, please explain in the appropriate comment space. Where material differences exist across different business areas, for example between traditional prime brokerage and OTC derivatives, please answer with regard to the business area generating the most exposure and explain in the appropriate comment space.

Dealers and Other Financial Intermediaries

1. Over the past three months, how has the amount of resources and attention your firm devotes to management of concentrated credit exposure to dealers and other financial intermediaries (such as large banking institutions) changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably

Central Counterparties and Other Financial Utilities

2. Over the past three months, how has the amount of resources and attention your firm devotes to management of concentrated credit exposure to central counterparties and other financial utilities changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably

3. To what extent have changes in the practices of central counterparties, including margin requirements and haircuts, influenced the credit terms your institution applies to clients on bilateral transactions which are not cleared?
    A. To a considerable extent
    B. To some extent
    C. To a minimal extent
    D. Not at all

Hedge Funds

4. Over the past three months, how have the price terms (for example, financing rates) offered to hedge funds as reflected across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of nonprice terms? (Please indicate tightening if terms have become more stringent—for example, if financing rates have risen.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably

5. Over the past three months, how has your use of nonprice terms (for example, haircuts, maximum maturity, covenants, cure periods, cross-default provisions or other documentation features) with respect to hedge funds across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of price terms? (Please indicate tightening if terms have become more stringent—for example, if haircuts have been increased.)
   A. Tightened considerably
   B. Tightened somewhat
   C. Remained basically unchanged
   D. Eased somewhat
   E. Eased considerably

6. To the extent that the price or nonprice terms applied to hedge funds have tightened or eased over the past three months (as reflected in your responses to questions 4 and 5), what are the most important reasons for the change? (Please respond to A (if you indicated a tightening in responding to either of the two preceding questions), B (if you indicated an easing in responding to either of the two preceding questions), or both, as appropriate. Please select no more than three reasons, indicating the most important with a "1," the next most important with a "2," and so on.)

   A. Possible reasons for tightening

      1) Deterioration in current or expected financial strength of counterparties
      2) Reduced willingness of your institution to take on risk
      3) Adoption of more-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
      4) Higher internal treasury charges for funding
      5) Diminished availability of balance sheet or capital at your institution
      6) Worsening in general market liquidity and functioning
      7) Less-aggressive competition from other institutions
      8) Other (please specify)

   B. Possible reasons for easing

      1) Improvement in current or expected financial strength of counterparties
      2) Increased willingness of your institution to take on risk
      3) Adoption of less-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
      4) Lower internal treasury charges for funding
      5) Increased availability of balance sheet or capital at your institution
      6) Improvement in general market liquidity and functioning
      7) More-aggressive competition from other institutions
      8) Other (please specify)

7. How has the intensity of efforts by hedge funds to negotiate more-favorable price and nonprice terms changed over the past three months?
   A. Increased considerably
   B. Increased somewhat
   C. Remained basically unchanged
   D. Decreased somewhat
   E. Decreased considerably

8. Considering the entire range of transactions facilitated by your institution for such clients, how has the use of financial leverage by hedge funds changed over the past three months?
   A. Increased considerably
   B. Increased somewhat
   C. Remained basically unchanged
   D. Decreased somewhat
   E. Decreased considerably

9. Considering the entire range of transactions facilitated by your institution for such clients, how has the availability of additional (and currently unutilized) financial leverage under agreements currently in place with hedge funds (for example, under prime broker, warehouse agreements, and other committed but undrawn or partly drawn facilities) changed over the past three months?
   A. Increased considerably
   B. Increased somewhat
   C. Remained basically unchanged
   D. Decreased somewhat
   E. Decreased considerably

10. How has the provision of differential terms by your institution to most-favored (as a function of breadth, duration, and extent of relationship) hedge funds changed over the past three months?
   A. Increased considerably
   B. Increased somewhat
   C. Remained basically unchanged
   D. Decreased somewhat
   E. Decreased considerably
   F. Not applicable as the client base is essentially homogeneous

Trading Real Estate Investment Trusts[1]

11. Over the past three months, how have the price terms (for example, financing rates) offered to trading REITs as reflected across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of nonprice terms? (Please indicate tightening if terms have become more stringent—for example, if financing rates have risen.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably
    F. Not applicable (that is, your institution has few or no trading REIT clients)

12. Over the past three months, how has your use of nonprice terms (for example, haircuts, maximum maturity, covenants, cure periods, cross-default provisions or other documentation features) with respect to trading REITs across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of price terms? (Please indicate tightening if terms have become more stringent—for example, if haircuts have been increased.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably
    F. Not applicable (that is, your institution has few or no trading REIT clients)

[1] Trading REITs invest in assets backed by real estate, rather than directly in real estate.

13. To the extent that the price or nonprice terms applied to trading REITs have tightened or eased over the past three months (as reflected in your responses to questions 11 and 12), what are the most important reasons for the change? (Please respond to A (if you indicated a tightening in responding to either of the two preceding questions), B (if you indicated a loosening in responding to either of the two preceding questions), or both, as appropriate. Please select no more than three reasons, indicating the most important with a "1," the next most important with a "2," and so on.)

    A. Possible reasons for tightening

        1) Deterioration in current or expected financial strength of counterparties
        2) Reduced willingness of your institution to take on risk
        3) Adoption of more-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
        4) Higher internal treasury charges for funding
        5) Diminished availability of balance sheet or capital at your institution
        6) Worsening in general market liquidity and functioning
        7) Less-aggressive competition from other institutions
        8) Other (please specify)

    B. Possible reasons for easing

        1) Improvement in current or expected financial strength of counterparties
        2) Increased willingness of your institution to take on risk
        3) Adoption of less-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
        4) Lower internal treasury charges for funding
        5) Increased availability of balance sheet or capital at your institution
        6) Improvement in general market liquidity and functioning
        7) More-aggressive competition from other institutions
        8) Other (please specify)

14. How has the intensity of efforts by trading REITs to negotiate more-favorable price and nonprice terms changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, your institution has few or no trading REIT clients)

15. Considering the entire range of transactions facilitated by your institution for such clients, how has the use of financial leverage by trading REITs changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, your institution has few or no trading REIT clients)

16. How has the provision of differential terms by your institution to most-favored (as a function of breadth, duration, and extent of relationship) trading REITs changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, the client base is essentially homogeneous or your institution has few or no trading REIT clients)

<u>Mutual Funds, Exchange-Traded Funds, Pension Plans, and Endowments</u>

17. Over the past three months, how have the price terms (for example, financing rates) offered to mutual funds, ETFs, pension plans, and endowments as reflected across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of nonprice terms? (Please indicate tightening if terms have become more stringent—for example, if financing rates have risen.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably

18. Over the past three months, how has your use of nonprice terms (for example, haircuts, maximum maturity, covenants, cure periods, cross-default provisions or other documentation features) with respect to mutual funds, ETFs, pension plans, and endowments across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of price terms? (Please indicate tightening if terms have become more stringent—for example, if haircuts have been increased.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably

19. To the extent that the price or nonprice terms applied to mutual funds, ETFs, pension plans, and endowments have tightened or eased over the past three months (as reflected in your responses to questions 17 and 18), what are the most important reasons for the change? (Please respond to A (if you indicated a tightening in responding to either of the two preceding questions), B (if you indicated an easing in responding to either of the two preceding questions), or both, as appropriate. Please select no more than three reasons, indicating the most important with a "1," the next most important with a "2," and so on.)

    A. Possible reasons for tightening

    1) Deterioration in current or expected financial strength of counterparties
    2) Reduced willingness of your institution to take on risk
    3) Adoption of more-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
    4) Higher internal treasury charges for funding
    5) Diminished availability of balance sheet or capital at your institution
    6) Worsening in general market liquidity and functioning
    7) Less-aggressive competition from other institutions
    8) Other (please specify)

    B. Possible reasons for easing

    1) Improvement in current or expected financial strength of counterparties
    2) Increased willingness of your institution to take on risk
    3) Adoption of less-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
    4) Lower internal treasury charges for funding
    5) Increased availability of balance sheet or capital at your institution
    6) Improvement in general market liquidity and functioning
    7) More-aggressive competition from other institutions
    8) Other (please specify)

20. How has the intensity of efforts by mutual funds, ETFs, pension plans, and endowments to negotiate more-favorable price and nonprice terms changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably

21. Considering the entire range of transactions facilitated by your institution, how has the use of financial leverage by each of the following types of clients changed over the past three months? (Please respond using the following scale: 1 = increased considerably, 2 = increased somewhat, 3 = remained basically unchanged, 4 = decreased somewhat, 5 = decreased considerably, or n/a = not applicable.)
    A. Mutual funds
    B. ETFs
    C. Pension plans
    D. Endowments

22. How has the provision of differential terms by your institution to most-favored (as a function of breadth, duration, and extent of relationship) mutual funds, ETFs, pension plans, and endowments changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable as the client base is essentially homogeneous

<u>Insurance Companies</u>

23. Over the past three months, how have the price terms (for example, financing rates) offered to insurance companies as reflected across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of nonprice terms? (Please indicate tightening if terms have become more stringent—for example, if financing rates have risen.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably
    F. Not applicable (that is, your institution has few or no insurance company clients)

24. Over the past three months, how has your use of nonprice terms (for example, haircuts, maximum maturity, covenants, cure periods, cross-default provisions or other documentation features) with respect to insurance companies across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of price terms? (Please indicate tightening if terms have become more stringent—for example, if haircuts have been increased.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably
    F. Not applicable (that is, your institution has few or no insurance company clients)

25. To the extent that the price or nonprice terms applied to insurance companies have tightened or eased over the past three months (as reflected in your responses to questions 23 and 24), what are the most important reasons for the change? (Please respond to A (if you indicated a tightening in responding to either of the two preceding questions), B (if you indicated an easing in responding to either of the two preceding questions), or both, as appropriate. Please select no more than three reasons, indicating the most important with a "1," the next most important with a "2," and so on.)

    A. Possible reasons for tightening

        1) Deterioration in current or expected financial strength of counterparties
        2) Reduced willingness of your institution to take on risk
        3) Adoption of more-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
        4) Higher internal treasury charges for funding
        5) Diminished availability of balance sheet or capital at your institution
        6) Worsening in general market liquidity and functioning
        7) Less-aggressive competition from other institutions
        8) Other (please specify)

B. Possible reasons for easing

1) Improvement in current or expected financial strength of counterparties
2) Increased willingness of your institution to take on risk
3) Adoption of less-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
4) Lower internal treasury charges for funding
5) Increased availability of balance sheet or capital at your institution
6) Improvement in general market liquidity and functioning
7) More-aggressive competition from other institutions
8) Other (please specify)

26. How has the intensity of efforts by insurance companies to negotiate more-favorable price and nonprice terms changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, your institution has few or no insurance company clients)

27. Considering the entire range of transactions facilitated by your institution for such clients, how has the use of financial leverage by insurance companies changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, your institution has few or no insurance company clients)

28. How has the provision of differential terms by your institution to most-favored (as a function of breadth, duration, and extent of relationship) insurance companies changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, the client base is essentially homogeneous or your institution has few or no insurance company clients)

Separately Managed Accounts Established with Investment Advisers

29. Over the past three months, how have the price terms (for example, financing rates) offered to separately managed accounts established with investment advisers as reflected across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of nonprice terms? (Please indicate tightening if terms have become more stringent—for example, if financing rates have risen.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably
    F. Not applicable (that is, your institution has few or no such clients)

30. Over the past three months, how has your use of nonprice terms (for example, haircuts, maximum maturity, covenants, cure periods, cross-default provisions or other documentation features) with respect to separately managed accounts established with investment advisers across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of price terms? (Please indicate tightening if terms have become more stringent—for example, if haircuts have been increased.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably
    F. Not applicable (that is, your institution has few or no such clients)

31. To the extent that the price or nonprice terms applied to separately managed accounts established with investment advisers have tightened or eased over the past three months (as reflected in your responses to questions 29 and 30), what are the most important reasons for the change? (Please respond to A (if you indicated a tightening in responding to either of the two preceding questions), B (if you indicated an easing in responding to either of the two preceding questions), or both, as appropriate. Please select no more than three reasons, indicating the most important with a "1," the next most important with a "2," and so on.)

    A. Possible reasons for tightening

        1) Deterioration in current or expected financial strength of counterparties
        2) Reduced willingness of your institution to take on risk
        3) Adoption of more-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
        4) Higher internal treasury charges for funding
        5) Diminished availability of balance sheet or capital at your institution
        6) Worsening in general market liquidity and functioning
        7) Less-aggressive competition from other institutions
        8) Other (please specify)

    B. Possible reasons for easing

        1) Improvement in current or expected financial strength of counterparties
        2) Increased willingness of your institution to take on risk
        3) Adoption of less-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
        4) Lower internal treasury charges for funding
        5) Increased availability of balance sheet or capital at your institution
        6) Improvement in general market liquidity and functioning
        7) More-aggressive competition from other institutions
        8) Other (please specify)

32. How has the intensity of efforts by investment advisers to negotiate more-favorable price and nonprice terms on behalf of separately managed accounts changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, your institution has few or no such clients)

33. Considering the entire range of transactions facilitated by your institution for such clients, how has the use of financial leverage by separately managed accounts established with investment advisers changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, your institution has few or no such clients)

34. How has the provision of differential terms by your institution to separately managed accounts established with most-favored (as a function of breadth, duration, and extent of relationship) investment advisers changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable (that is, the client base is essentially homogeneous or your institution has few or no such clients)

<u>Nonfinancial Corporations</u>

35. Over the past three months, how have the price terms (for example, financing rates) offered to nonfinancial corporations as reflected across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of nonprice terms? (Please indicate tightening if terms have become more stringent—for example, if financing rates have risen.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably

36. Over the past three months, how has your use of nonprice terms (for example, haircuts, maximum maturity, covenants, cure periods, cross-default provisions or other documentation features) with respect to nonfinancial corporations across the entire spectrum of securities financing and OTC derivatives transaction types changed, regardless of price terms? (Please indicate tightening if terms have become more stringent—for example, if haircuts have been increased.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably

37. To the extent that the price or nonprice terms applied to nonfinancial corporations have tightened or eased over the past three months (as reflected in your responses to questions 35 and 36), what are the most important reasons for the change? (Please respond to A (if you indicated a tightening in responding to either of the two preceding questions), B (if you indicated an easing in responding to either of the two preceding questions), or both, as appropriate. Please select no more than three reasons, indicating the most important with a “1,” the next most important with a “2,” and so on.)

    A. Possible reasons for tightening

    1) Deterioration in current or expected financial strength of counterparties
    2) Reduced willingness of your institution to take on risk
    3) Adoption of more-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
    4) Higher internal treasury charges for funding
    5) Diminished availability of balance sheet or capital at your institution
    6) Worsening in general market liquidity and functioning
    7) Less-aggressive competition from other institutions
    8) Other (please specify)

    B. Possible reasons for easing

    1) Improvement in current or expected financial strength of counterparties
    2) Increased willingness of your institution to take on risk
    3) Adoption of less-stringent market conventions (that is, collateral terms and agreements, ISDA protocols)
    4) Lower internal treasury charges for funding
    5) Increased availability of balance sheet or capital at your institution
    6) Improvement in general market liquidity and functioning
    7) More-aggressive competition from other institutions
    8) Other (please specify)

38. How has the intensity of efforts by nonfinancial corporations to negotiate more-favorable price and nonprice terms changed over the past three months?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably

Mark and Collateral Disputes

39. Over the past three months, how has the volume of mark and collateral disputes with clients of each of the following types changed? (Please respond using the following scale: 1 = increased considerably, 2 = increased somewhat, 3 = remained basically unchanged, 4 = decreased somewhat, 5 = decreased considerably, or n/a = not applicable.)
    A. Dealers and other financial intermediaries
    B. Hedge funds
    C. Trading REITs
    D. Mutual funds, ETFs, pension plans, and endowments
    E. Insurance companies
    F. Separately managed accounts established with investment advisers
    G. Nonfinancial corporations

40. Over the past three months, how has the duration and persistence of mark and collateral disputes with clients of each of the following types changed? (Please respond using the following scale: 1 = increased considerably, 2 = increased somewhat, 3 = remained basically unchanged, 4 = decreased somewhat, 5 = decreased considerably, or n/a = not applicable.)
    A. Dealers and other financial intermediaries
    B. Hedge funds
    C. Trading REITs
    D. Mutual funds, ETFs, pension plans, and endowments
    E. Insurance companies
    F. Separately managed accounts established with investment advisers
    G. Nonfinancial corporations

Over-the-Counter Derivatives

Questions 41 through 51 ask about OTC derivatives trades. Question 41 focuses on nonprice terms applicable to new and renegotiated master agreements. Questions 42 through 48 ask about the initial margin requirements for most-favored and average clients applicable to different types of contracts: Question 42 focuses on foreign exchange (FX); question 43 on interest rates; question 44 on equity; question 45 on contracts referencing corporate credits (single-name and indexes); question 46 on credit derivatives referencing structured products such as mortgage-backed securities (MBS) and asset-backed securities (ABS) (specific tranches and indexes); question 47 on commodities; and question 48 on total return swaps (TRS) referencing nonsecurities (such as bank loans, including, for example, commercial and industrial loans and mortgage whole loans). Question 49 asks about posting of nonstandard collateral pursuant to OTC derivative contracts. Questions 50 and 51 focus on mark and collateral disputes involving contracts of each of the aforementioned types.

If your institution's terms have tightened or eased over the past three months, please so report them regardless of how they stand relative to longer-term norms. Please focus your response on dollar-denominated instruments; if material differences exist with respect to instruments denominated in other currencies, please explain in the appropriate comment space.

<u>New and Renegotiated Master Agreements</u>

41. Over the past three months, how have nonprice terms incorporated in new or renegotiated OTC derivatives master agreements put in place with your institution's client changed? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably, or n/a = not applicable.)
    A. Requirements, timelines, and thresholds for posting additional margin
    B. Acceptable collateral
    C. Recognition of portfolio or diversification benefits (including from securities financing trades where appropriate agreements are in place)
    D. Triggers and covenants
    E. Other documentation features (including cure periods and cross-default provisions)
    F. Other (please specify)

Initial Margin

42. Over the past three months, how have initial margin requirements set by your institution with respect to OTC FX derivatives changed?

    A. Initial margin requirements for average clients
        1) Increased considerably
        2) Increased somewhat
        3) Remained basically unchanged
        4) Decreased somewhat
        5) Decreased considerably
        6) Not applicable

    B. Initial margin requirements for most-favored clients, as a consequence of breadth, duration, and/or extent of relationship
        1) Increased considerably
        2) Increased somewhat
        3) Remained basically unchanged
        4) Decreased somewhat
        5) Decreased considerably
        6) Not applicable

43. Over the past three months, how have initial margin requirements set by your institution with respect to OTC interest rate derivatives changed?

    A. Initial margin requirements for average clients
        1) Increased considerably
        2) Increased somewhat
        3) Remained basically unchanged
        4) Decreased somewhat
        5) Decreased considerably
        6) Not applicable

    B. Initial margin requirements for most-favored clients, as a consequence of breadth, duration, and/or extent of relationship
        1) Increased considerably
        2) Increased somewhat
        3) Remained basically unchanged
        4) Decreased somewhat
        5) Decreased considerably
        6) Not applicable

44. Over the past three months, how have initial margin requirements set by your institution with respect to OTC equity derivatives changed?

   A. Initial margin requirements for average clients
      1) Increased considerably
      2) Increased somewhat
      3) Remained basically unchanged
      4) Decreased somewhat
      5) Decreased considerably
      6) Not applicable

   B. Initial margin requirements for most-favored clients, as a consequence of breadth, duration, and/or extent of relationship
      1) Increased considerably
      2) Increased somewhat
      3) Remained basically unchanged
      4) Decreased somewhat
      5) Decreased considerably
      6) Not applicable

45. Over the past three months, how have initial margin requirements set by your institution with respect to OTC credit derivatives referencing corporates (single-name corporates or corporate indexes) changed?

   A. Initial margin requirements for average clients
      1) Increased considerably
      2) Increased somewhat
      3) Remained basically unchanged
      4) Decreased somewhat
      5) Decreased considerably
      6) Not applicable

   B. Initial margin requirements for most-favored clients, as a consequence of breadth, duration, and/or extent of relationship
      1) Increased considerably
      2) Increased somewhat
      3) Remained basically unchanged
      4) Decreased somewhat
      5) Decreased considerably
      6) Not applicable

46. Over the past three months, how have initial margin requirements set by your institution with respect to OTC credit derivatives referencing securitized products (such as specific ABS or MBS tranches and associated indexes) changed?

   A. Initial margin requirements for average clients
      1) Increased considerably
      2) Increased somewhat
      3) Remained basically unchanged
      4) Decreased somewhat
      5) Decreased considerably
      6) Not applicable

   B. Initial margin requirements for most-favored clients, as a consequence of breadth, duration, and/or extent of relationship
      1) Increased considerably
      2) Increased somewhat
      3) Remained basically unchanged
      4) Decreased somewhat
      5) Decreased considerably
      6) Not applicable

47. Over the past three months, how have initial margin requirements set by your institution with respect to OTC commodity derivatives changed?

   A. Initial margin requirements for average clients
      1) Increased considerably
      2) Increased somewhat
      3) Remained basically unchanged
      4) Decreased somewhat
      5) Decreased considerably
      6) Not applicable

   B. Initial margin requirements for most-favored clients, as a consequence of breadth, duration, and/or extent of relationship
      1) Increased considerably
      2) Increased somewhat
      3) Remained basically unchanged
      4) Decreased somewhat
      5) Decreased considerably
      6) Not applicable

48. Over the past three months, how have initial margin requirements set by your institution with respect to TRS referencing nonsecurities (such as bank loans, including, for example, commercial and industrial loans and mortgage whole loans) changed?

    A. Initial margin requirements for average clients
        1) Increased considerably
        2) Increased somewhat
        3) Remained basically unchanged
        4) Decreased somewhat
        5) Decreased considerably
        6) Not applicable

    B. Initial margin requirements for most-favored clients, as a consequence of breadth, duration, and/or extent of relationship
        1) Increased considerably
        2) Increased somewhat
        3) Remained basically unchanged
        4) Decreased somewhat
        5) Decreased considerably
        6) Not applicable

<u>Nonstandard Collateral</u>

49. Over the past three months, how has the posting of nonstandard collateral (that is, other than cash and U.S. Treasury securities) as permitted under relevant agreements changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably

Mark and Collateral Disputes

50. Over the past three months, how has the volume of mark and collateral disputes relating to contracts of each of the following types changed? (Please respond using the following scale: 1 = increased considerably, 2 = increased somewhat, 3 = remained basically unchanged, 4 = decreased somewhat, 5 = decreased considerably, or n/a = not applicable.)
    A. FX
    B. Interest rate
    C. Equity
    D. Credit referencing corporates
    E. Credit referencing securitized products including MBS and ABS
    F. Commodity
    G. TRS referencing nonsecurities (such as bank loans, including, for example, commercial and industrial loans and mortgage whole loans)

51. Over the past three months, how has the duration and persistence of mark and collateral disputes relating to contracts of each of the following types changed? (Please respond using the following scale: 1 = increased considerably, 2 = increased somewhat, 3 = remained basically unchanged, 4 = decreased somewhat, 5 = decreased considerably, or n/a = not applicable.)
    A. FX
    B. Interest rate
    C. Equity
    D. Credit referencing corporates
    E. Credit referencing securitized products including MBS and ABS
    F. Commodity
    G. TRS referencing nonsecurities (such as bank loans, including, for example, commercial and industrial loans and mortgage whole loans)

Securities Financing

Questions 52 through 79 ask about securities funding at your institution—that is, lending to clients collateralized by securities. Such activities may be conducted on a “repo” desk, on a trading desk engaged in facilitation for institutional clients and/or proprietary transactions, on a funding desk, or on a prime brokerage platform. Questions 52 through 55 focus on lending against high-grade corporate bonds; questions 56 through 59 on lending against high-yield corporate bonds; questions 60 and 61 on lending against equities (including through stock loan); questions 62 through 65 on lending against agency residential mortgage-backed securities (agency RMBS); questions 66 through 69 on lending against non-agency residential mortgage-backed securities (non-agency RMBS); questions 70 through 73 on lending against commercial mortgage-backed securities (CMBS); and questions 74 through 77 on consumer ABS (for example, backed by credit card receivables or auto loans). Questions 78 and 79 ask about mark and collateral disputes for lending backed by each of the aforementioned contract types.

If your institution’s terms have tightened or eased over the past three months, please so report them regardless of how they stand relative to longer-term norms. Please focus your response on dollar-denominated instruments; if material differences exist with respect to instruments denominated in other currencies, please explain in the appropriate comment space.

<u>High-Grade Corporate Bonds</u>

52. Over the past three months, how have the terms under which high-grade corporate bonds are funded changed? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably, or n/a = not applicable. Please indicate tightening if terms have become more stringent—for example, if haircuts have risen or collateral spreads have widened.)

    A. Terms for average clients
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

    B. Terms for most-favored clients, as a consequence of breadth, duration and/or extent of relationship
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

53. Over the past three months, how has demand for funding of high-grade corporate bonds by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

54. Over the past three months, how has demand for term funding with a maturity greater than 30 days of high-grade corporate bonds by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

55. Over the past three months, how have liquidity and functioning in the high-grade corporate bond market changed?[2]
    A. Improved considerably
    B. Improved somewhat
    C. Remained basically unchanged
    D. Deteriorated somewhat
    E. Deteriorated considerably
    F. Not applicable

[2] This question is intended to elicit an assessment of overall conditions in the high-grade corporate bond market, and not just the ease with which positions may be financed. While your views may be informed in part by what you observe in the funding market, please respond with regard to the broader liquidity and functioning of the market for these securities.

High-Yield Corporate Bonds

56. Over the past three months, how have the terms under which high-yield corporate bonds are funded changed? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably, or n/a = not applicable. Please indicate tightening if terms have become more stringent—for example, if haircuts have risen or collateral spreads have widened.)

    A. Terms for average clients
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

    B. Terms for most-favored clients, as a consequence of breadth, duration and/or extent of relationship
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

57. Over the past three months, how has demand for funding of high-yield corporate bonds by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

58. Over the past three months, how has demand for term funding with a maturity greater than 30 days of high-yield corporate bonds by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

59. Over the past three months, how have liquidity and functioning in the high-yield corporate bond market changed?[3]
    - A. Improved considerably
    - B. Improved somewhat
    - C. Remained basically unchanged
    - D. Deteriorated somewhat
    - E. Deteriorated considerably
    - F. Not applicable

<u>Equities (Including through Stock Loan)</u>

60. Over the past three months, how have the terms under which equities are funded (including through stock loan) changed? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably, or n/a = not applicable. Please indicate tightening if terms have become more stringent—for example, if haircuts have risen or collateral spreads have widened.)

    A. Terms for average clients
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

    B. Terms for most-favored clients, as a consequence of breadth, duration and/or extent of relationship
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

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[3] This question is intended to elicit an assessment of overall conditions in the high-yield corporate bond market, and not just the ease with which positions may be financed. While your views may be informed in part by what you observe in the funding market, please respond with regard to the broader liquidity and functioning of the market for these securities.

61. Over the past three months, how has demand for funding of equities (including through stock loan) by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

Agency Residential Mortgage-Backed Securities

62. Over the past three months, how have the terms under which agency RMBS are funded changed? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably, or n/a = not applicable. Please indicate tightening if terms have become more stringent—for example, if haircuts have risen or collateral spreads have widened.)

    A. Terms for average clients
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

    B. Terms for most-favored clients, as a consequence of breadth, duration and/or extent of relationship
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

63. Over the past three months, how has demand for funding of agency RMBS by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

64. Over the past three months, how has demand for term funding with a maturity greater than 30 days of agency RMBS by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

65. Over the past three months, how have liquidity and functioning in the agency RMBS market changed?[4]
    A. Improved considerably
    B. Improved somewhat
    C. Remained basically unchanged
    D. Deteriorated somewhat
    E. Deteriorated considerably
    F. Not applicable

[4] This question is intended to elicit an assessment of overall conditions in the agency RMBS market, and not just the ease with which positions may be financed. While your views may be informed in part by what you observe in the funding market, please respond with regard to the broader liquidity and functioning of the market for these securities.

Non-agency Residential Mortgage-Backed Securities

66. Over the past three months, how have the terms under which non-agency RMBS are funded changed? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably, or n/a = not applicable. Please indicate tightening if terms have become more stringent—for example, if haircuts have risen or collateral spreads have widened.)

    A. Terms for average clients
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

    B. Terms for most-favored clients, as a consequence of breadth, duration and/or extent of relationship
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

67. Over the past three months, how has demand for funding of non-agency RMBS by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

68. Over the past three months, how has demand for term funding with a maturity greater than 30 days of non-agency RMBS by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

69. Over the past three months, how have liquidity and functioning in the non-agency RMBS market changed?[5]
    - A. Improved considerably
    - B. Improved somewhat
    - C. Remained basically unchanged
    - D. Deteriorated somewhat
    - E. Deteriorated considerably
    - F. Not applicable

<u>Commercial Mortgage-Backed Securities</u>

70. Over the past three months, how have the terms under which CMBS are funded changed? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably, or n/a = not applicable. Please indicate tightening if terms have become more stringent—for example, if haircuts have risen or collateral spreads have widened.)

    A. Terms for average clients
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

    B. Terms for most-favored clients, as a consequence of breadth, duration and/or extent of relationship
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

71. Over the past three months, how has demand for funding of CMBS by your institution's clients changed?
    - A. Increased considerably
    - B. Increased somewhat
    - C. Remained basically unchanged
    - D. Decreased somewhat
    - E. Decreased considerably
    - F. Not applicable

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[5] This question is intended to elicit an assessment of overall conditions in the non-agency RMBS market, and not just the ease with which positions may be financed. While your views may be informed in part by what you observe in the funding market, please respond with regard to the broader liquidity and functioning of the market for these securities.

72. Over the past three months, how has demand for term funding with a maturity greater than 30 days of CMBS by your institution's clients changed?
    - A. Increased considerably
    - B. Increased somewhat
    - C. Remained basically unchanged
    - D. Decreased somewhat
    - E. Decreased considerably
    - F. Not applicable

73. Over the past three months, how have liquidity and functioning in the CMBS market changed?[6]
    - A. Improved considerably
    - B. Improved somewhat
    - C. Remained basically unchanged
    - D. Deteriorated somewhat
    - E. Deteriorated considerably
    - F. Not applicable

[6] This question is intended to elicit an assessment of overall conditions in the CMBS market, and not just the ease with which positions may be financed. While your views may be informed in part by what you observe in the funding market, please respond with regard to the broader liquidity and functioning of the market for these securities.

<u>Consumer Asset-Backed Securities</u>

74. Over the past three months, how have the terms under which consumer ABS (for example, backed by credit card receivables or auto loans) are funded changed? (Please assign each term a number between 1 and 5 using the following scale: 1 = tightened considerably, 2 = tightened somewhat, 3 = remained basically unchanged, 4 = eased somewhat, 5 = eased considerably, or n/a = not applicable. Please indicate tightening if terms have become more stringent—for example, if haircuts have risen or collateral spreads have widened.)

    A. Terms for average clients
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

    B. Terms for most-favored clients, as a consequence of breadth, duration and/or extent of relationship
        1) Maximum amount of funding
        2) Maximum maturity
        3) Haircuts
        4) Collateral spreads over relevant benchmark (effective financing rates)
        5) Other (please specify)

75. Over the past three months, how has demand for funding of consumer ABS by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

76. Over the past three months, how has demand for term funding with a maturity greater than 30 days of consumer ABS by your institution's clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably
    F. Not applicable

77. Over the past three months, how have liquidity and functioning in the consumer ABS market changed?[7]
    A. Improved considerably
    B. Improved somewhat
    C. Remained basically unchanged
    D. Deteriorated somewhat
    E. Deteriorated considerably
    F. Not applicable

Mark and Collateral Disputes

78. Over the past three months, how has the volume of mark and collateral disputes relating to lending against each of the following collateral types changed? (Please respond using the following scale: 1 = increased considerably, 2 = increased somewhat, 3 = remained basically unchanged, 4 = decreased somewhat, 5 = decreased considerably, or n/a = not applicable.)
    A. High-grade corporate bonds
    B. High-yield corporate bonds
    C. Equities
    D. Agency RMBS
    E. Non-agency RMBS
    F. CMBS
    G. Consumer ABS

79. Over the past three months, how has the duration and persistence of mark and collateral disputes relating to lending against each of the following collateral types changed? (Please respond using the following scale: 1 = increased considerably, 2 = increased somewhat, 3 = remained basically unchanged, 4 = decreased somewhat, 5 = decreased considerably, or n/a = not applicable.)
    A. High-grade corporate bonds
    B. High-yield corporate bonds
    C. Equities
    D. Agency RMBS
    E. Non-agency RMBS
    F. CMBS
    G. Consumer ABS

[7] This question is intended to elicit an assessment of overall conditions in the consumer ABS market, and not just the ease with which positions may be financed. While your views may be informed in part by what you observe in the funding market, please respond with regard to the broader liquidity and functioning of the market for these securities.

Optional Question

Question 80 requests feedback on any other issues you judge to be important relating to credit terms applicable to securities financing transactions and OTC derivatives contracts.

80. Are there any other recent developments involving conditions and practices in any of the markets addressed in this survey or applicable to the counterparty types listed in this survey that you regard as particularly significant and which were not fully addressed in the prior questions? Your response will help us stay abreast of emerging issues and in choosing questions for future surveys. There is no need to reply to this question if there is nothing you wish to add.

Special Questions

High-Frequency Trading Firms [8]

A number of market commentaries have pointed to the increased participation of high-frequency trading (HFT) firms in a number of financial markets. Questions 81 to 83 ask whether your firm extends credit to HFT clients in specific financial markets. Questions 84 to 90 ask about provision of credit, credit terms, and credit risk management with respect to HFT clients active in U.S. equity markets. Questions 91 to 95 ask the extent to which your firm's behavior in the dealer-to-customer cash market for U.S. Treasury securities has changed as a result of increased presence of HFTs in the interdealer market in recent years.[9]

Credit extended to HFT clients in a number of financial markets

This set of questions focuses on credit extended by your firm to HFT clients that transact in a number of financial markets. Please note that, if during the day, HFT clients are allowed to accumulate long or short positions that are larger than the amount of cash or collateral in their accounts, and if your firm is liable for settling the trades, this will be considered **intraday credit** for the purpose of this survey even if the clients tend to end the day with little or no position.

81. Do you have HFT clients? (If you do not, please indicate 'No," and then please skip questions 82 and 83. You can provide comments at the end of this subsection and go directly to question number 84.)
    A. Yes

[8] For the purposes of these special questions, we will use the term "high-frequency trading (HFT) firms" to refer to trading firms that deploy strategies predicated on low latency.
[9] "Dealer-to-customer cash Treasury market" refers to the over-the-counter cash Treasury market, where clients are generally not dealers nor HFTs. "Interdealer cash Treasury market" refers to interdealer platforms such as BrokerTec or eSpeed.

B. No

82. In which markets does your firm extend **intraday** credit to HFT clients? Please select all that apply.
    A. U.S. cash equity markets
    B. U.S. cash Treasury markets
    C. Spot foreign exchange markets
    D. U.S. equity futures markets
    E. U.S. Treasury futures markets
    F. Foreign exchange futures markets
    G. Other (please specify)

83. In which markets does your firm extend **overnigh**t credit to HFT clients? Please select all that apply.
    A. U.S. equity markets
    B. U.S. cash Treasury markets
    C. Spot foreign exchange markets
    D. U.S. equity futures markets
    E. U.S. Treasury futures markets
    F. Foreign exchange futures markets
    G. Other (please specify)

Intraday credit extended to HFT clients in the U.S. cash equity markets

This set of questions focuses on **intraday** credit extended by your firm to HFT clients that transact in the U.S. cash equity markets. Please note that, if during the day, HFT clients are allowed to accumulate long or short positions that are larger than the amount of cash or collateral in their accounts, and if your firm is liable for settling the trades, this will be considered **intraday** credit for the purpose of this survey even if the clients tend to end the day with little or no position.

84. Do you have any HFT firms as clients in the U.S. cash equity markets? (If you do not, please indicate 'No," and then please skip questions 85 to 90. You can provide comments at the end of this subsection and go directly to question number 91.)
    A. Yes
    B. No

85. How has the use of intraday credit by HFT clients changed over the past three years?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged

D. Decreased somewhat
E. Decreased considerably

86. How have price terms (for example, financing rates) on intraday credit extended to your firm's HFT clients changed over the past three years, regardless of nonprice terms? (Please indicate tightening if price terms have become more stringent.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably
    F. Not applicable (that is, there are no price terms)

87. How have nonprice terms (for example, margin or exposure limits) on intraday credit extended to your firm's HFT clients changed over the past three years, regardless of price terms? (Please indicate tightening if terms have become more stringent.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably

88. To the extent that the price or nonprice terms applied to your firm's HFT clients have tightened or eased over the past three years (as reflected in your responses to question 86 and 87), what are the most important reasons for the change? (Please respond to A (if you indicated a tightening in responding to either of the two preceding questions), B (if you indicated an easing in responding to either of the two preceding questions), or both, as appropriate. Please select no more than two reasons, indicating the most important with a "1," and the next most important with a "2.")

    A. Possible reasons for tightening

        1) Re-evaluation of HFT clients' operational risks[10]
        2) Relatively lower return compared with other business lines at your firm
        3) Decreased willingness on the part of your institution to take on credit risk against this type of counterparty

[10] Operational risks include those that stem from infrastructure disruptions, technical issues in the algorithm, and failure in internal controls.

4) Other (please specify)

B. Possible reasons for easing

1) Re-evaluation of HFT clients' operational risks
2) Relatively higher return compared with other business lines at your firm
3) Increased willingness on the part of your institution to take on credit risk against this type of counterparty
4) Other (please specify)

89. Over the past three years, how has the amount of resources and attention your firm devotes to monitoring intraday exposure to your HFT clients changed?
    A. Increased considerably
    B. Increased somewhat
    C. Remained basically unchanged
    D. Decreased somewhat
    E. Decreased considerably

90. How does your firm typically monitor and manage your intraday exposure to HFT clients? Please select all that apply, and/or provide additional answers in text as appropriate.
    A. No formal framework
    B. Calculate firm's exposure to the client throughout the day
    C. Collect intraday margin
    D. Impose a maximum exposure limit or other types of limit for each client
    E. Other (please specify)

Changing landscape in the U.S. cash Treasury market

Please answer the following set of questions if your firm participates in the dealer-to-customer market for cash U.S. Treasury securities, regardless of whether your firm has HFT clients in the interdealer cash market.

91. Does your firm participate in the dealer-to-customer market for cash U.S. Treasury securities? (If you do not, please indicate 'No," and then please skip questions 92 to 95. You can still provide comments at the end of this subsection.)
    A. Yes
    B. No

92. Over the past five years, to what extent has your firm’s ability to manage positions that arise from trades established in the dealer-to-customer market changed as a result of the increased presence of HFT firms in the interdealer U.S. cash Treasury market?
    A. Improved considerably
    B. Improved somewhat
    C. Remained basically unchanged
    D. Deteriorated somewhat
    E. Deteriorated considerably

93. To the extent that the increased presence of HFT firms in the interdealer U.S. cash Treasury market has changed your firm’s ability to manage positions that arise from trades established in the dealer-to-customer cash market (as reflected in your response to question 92), what are the most important reasons for the change? (Please select no more than two reasons, indicating the most important with a “1,” and the next most important with a “2.”)

    A. Reasons for improvement
        1) Lower transaction costs in the interdealer market
        2) Increased limit order book depth in the interdealer market
        3) Lower operational risk in the interdealer market
        4) Lower average levels of volatility in the interdealer market
        5) Reduced frequency of sudden increases in volatility in the interdealer cash market
        6) Other (please specify)

    B. Reasons for deterioration
        1) Higher transaction costs in the interdealer market
        2) Decreased limit order book depth in the interdealer market
        3) Higher operational risk in the interdealer market
        4) Higher average levels of volatility in the interdealer market
        5) Increased frequency of sudden increases in volatility in the interdealer cash market
        6) Other (please specify)

94. Over the past five years, how has the increased presence of HFTs in the interdealer U.S. cash Treasury market affected price terms (such as bid-ask spreads) that your firm quotes to clients in the dealer-to-customer market? (Please indicate tightening if terms have become more stringent—for example, if bid-ask spreads have widened.)
    A. Tightened considerably
    B. Tightened somewhat

C. Remained basically unchanged
D. Eased somewhat
E. Eased considerably

95. Over the past five years, how has the increased presence of HFTs in the interdealer U.S. cash Treasury market affected nonprice terms (such as quote size) that your firm quotes to clients in the dealer-to-customer market? (Please indicate tightening if terms have become more stringent—for example, if quote size has decreased.)
    A. Tightened considerably
    B. Tightened somewhat
    C. Remained basically unchanged
    D. Eased somewhat
    E. Eased considerably