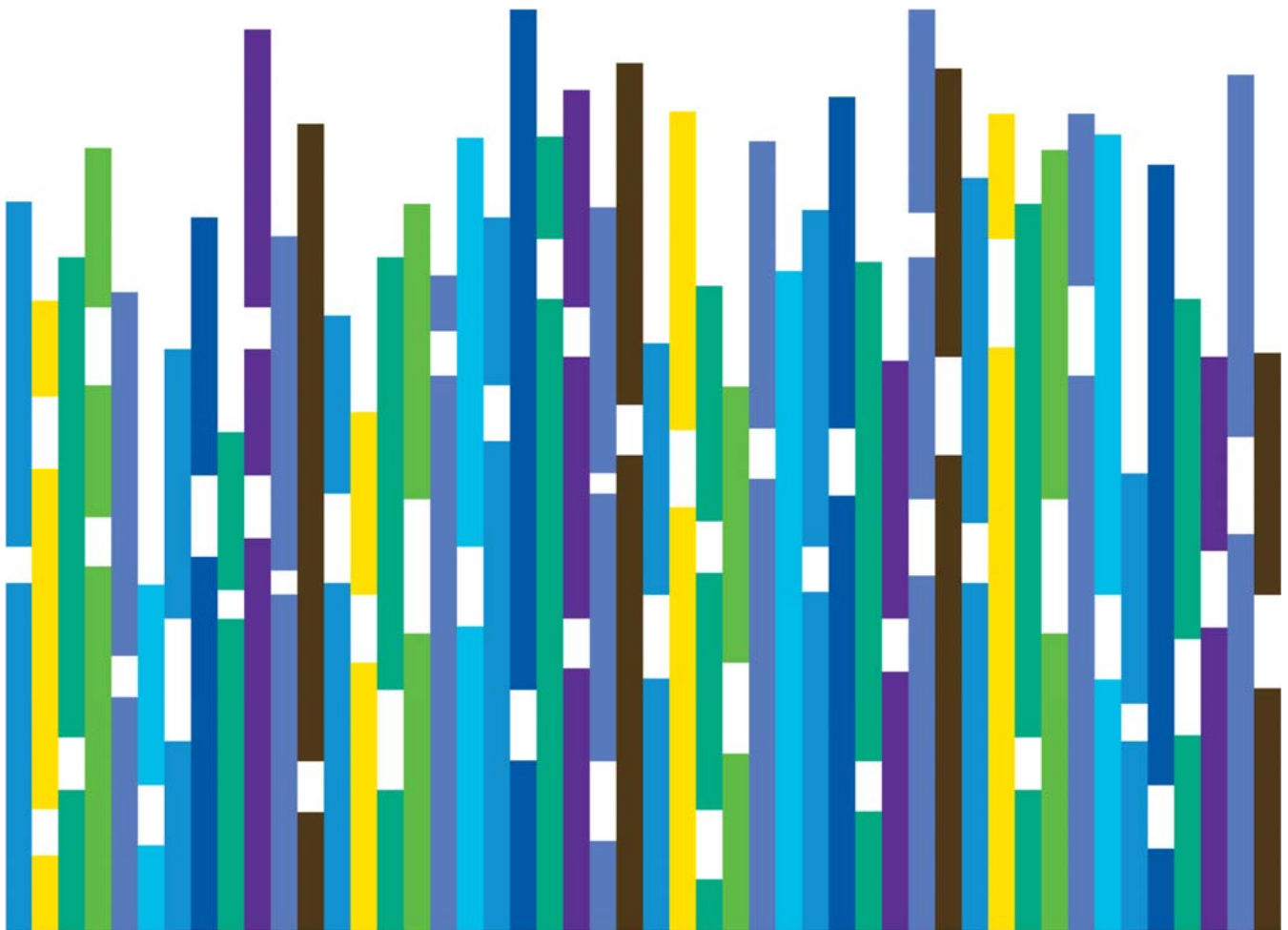


SECONDARY CORPORATE BOND MARKET LIQUIDITY SURVEY REPORT

September 2016



About the Survey

The issue of market liquidity in secondary bond markets is highly topical and controversial. There is a perception among market participants and stakeholders that market liquidity has deteriorated in recent years, although opinions vary on the extent of the change in liquidity and its causes. In this context, the International Organization of Securities Commissions (IOSCO) released a report on bond market liquidity in August 2016 and invited comments through a public consultation.

To inform policy developments related to bond market liquidity, CFA Institute conducted a survey of a pool of its members that have expressed interest and expertise in this topic. In total, 3,881 survey invitations were sent out and 513 responses were received from members, for a response rate of 13.2%.

The majority (53%) of respondents (272 people) were from the Americas region (AMER), which includes but is not limited to the United States; 29% (150 people) were from the Europe, Middle East, and Africa region (EMEA), of which 64% (95 people) of EMEA respondents were from the European Union (EU) and the United Kingdom; and 18% (91 people) were from the Asia-Pacific region (APAC), of which half were from Japan. The majority (51%) of respondents were from the buy side, 13% from the sell side, 9% straddled both the buy and sell sides, and 27% selected “neither.”

The most striking results can be summarized as follows.

Respondents from AMER and EMEA report that over the last five years they have observed

- a decrease in the liquidity of high-yielding and investment-grade corporate bonds and no change in the liquidity of government bonds.
- a decrease in the number of active dealers making markets.
- an increase in the time taken to execute trades and a lower proportion of bonds being actively traded.
- a higher proportion of unfilled orders.

These respondents also noted that bank capital and liquidity regulations have had a significant impact on bond market liquidity and that the focus of policymakers should be on removing impediments to the smooth functioning of institutional wholesale markets.

Respondents from APAC report that over the last five years they have observed

- no change in the liquidity of high-yielding corporate bonds but an improvement in the liquidity of investment-grade corporate and government bonds.
- an increase in the number of active dealers making markets.
- no change in the time taken to execute trades and a higher proportion of bonds being actively traded.
- no change in the proportion of unfilled orders.

These respondents also indicated that there is no single factor that has had a very significant impact on bond market liquidity. They identified encouraging retail investor participation as a more important policy priority than improving institutional wholesale market functioning.

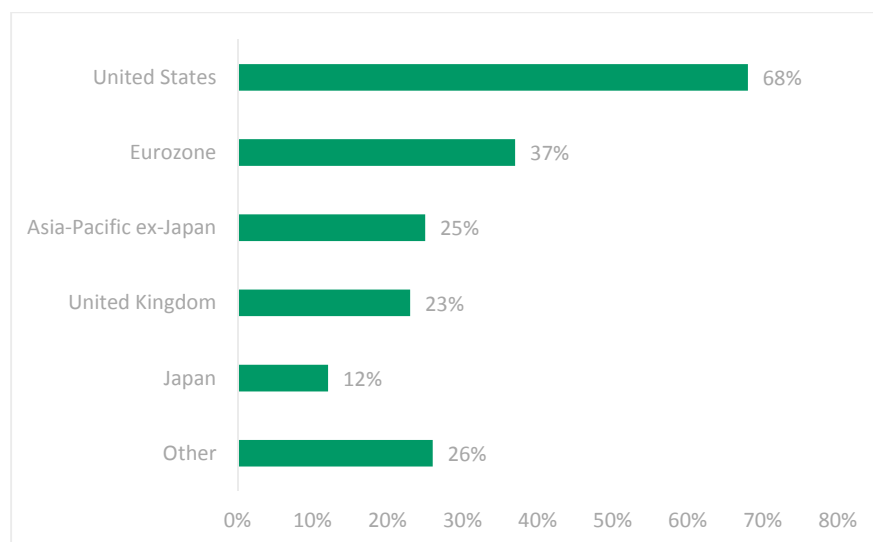
Where Do CFA Institute Members Invest?

The corporate bond markets in which the survey respondents participate are listed in **Figure 1**. Around 68% of the respondents invest in the United States, 37% in the eurozone, 23% in the United Kingdom, 12% in Japan, and 25% in Asia-Pacific countries other than Japan. More than one market could be selected by the respondents in the survey.

Of the respondents who selected “Asia-Pacific ex-Japan,” there was a relatively even split between the markets in Australia, India, and Singapore. Additional examples of APAC markets are Indonesia, Malaysia, the Philippines, New Zealand, Pakistan, South Korea, Sri Lanka, and Thailand. The majority of respondents who selected “Other” invest in Canada’s or Switzerland’s markets. Approximately 18% of respondents invest in more than one market.

Figure 1

Survey question 1: In which corporate bond market do you invest? Number of respondents = 511.



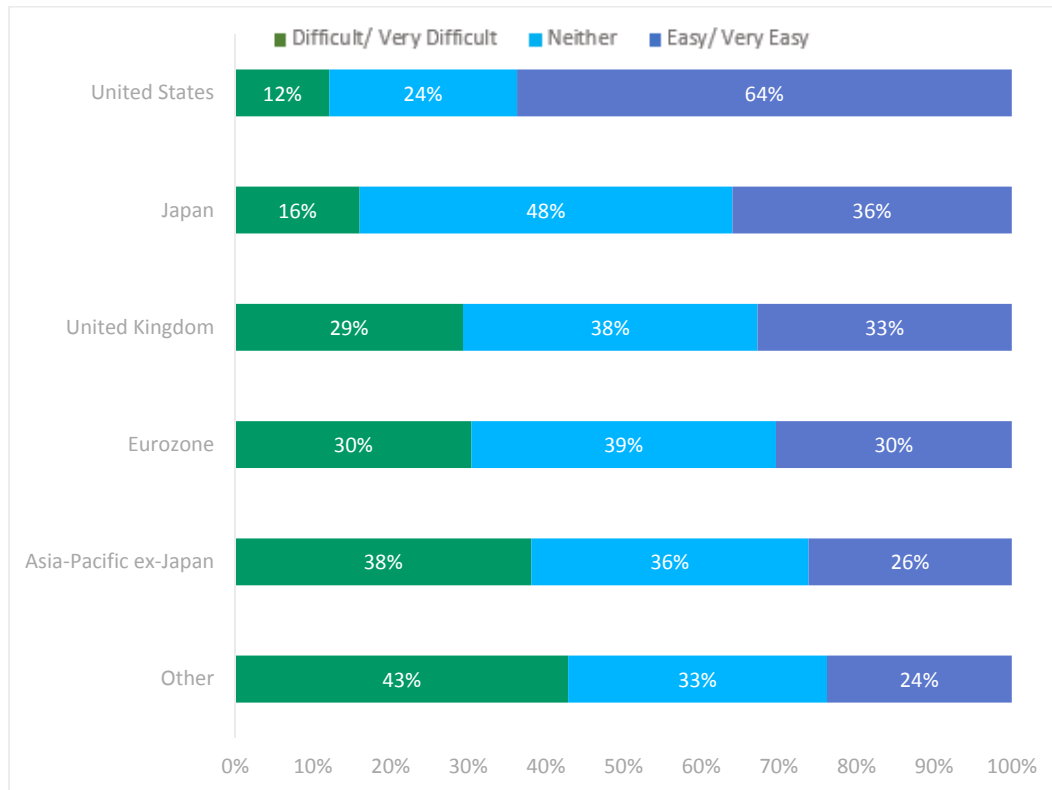
A significant home bias can be observed in the responses, with fewer than 30% of respondents (not shown) in any given region investing in any other region (e.g., 26% of respondents in AMER invest in eurozone bond markets). The exception is EMEA, where 45% of respondents also invest in the US bond markets. Interestingly, APAC respondents do not invest in the US market to the same extent (only 29% of respondents from APAC reported investing in the US market).

Is Sourcing Liquidity Difficult?

The plurality (i.e., the largest share of the vote but less than a majority of 51%) of respondents who invest across regions reported that sourcing liquidity and executing trades in their investable markets was neither very difficult nor very easy (see **Figure 2**). The exception was the United States, where respondents considered it relatively easy to source liquidity and execute trades, which reflects the general perception of US bond markets being relatively more liquid than their international counterparts.

Figure 2

Survey question 2: How easy or difficult is sourcing liquidity and executing trades in the markets in which you invest? Number of respondents = 91 (those that invest in more than one corporate bond market).



This result is consistent for a given market across regions as well (not shown). For example, respondents from AMER, EMEA, and APAC all agreed that sourcing liquidity and executing trades in the United States was easy or very easy.

Are There Fewer Market Makers?

One determinant of changes in bond market liquidity may be the number of market makers (dealers) and the scale and frequency of market-making activity. **Figure 3** and **Figure 4** show that in the last five years most respondents have observed a reduction in the number of dealers making markets in secondary corporate bond markets, particularly in AMER (67%) and, to a lesser extent, in EMEA (53%). However, the plurality of respondents in APAC (43%) observed a moderate or significant increase in the number of market makers in secondary corporate bond markets.

Figure 3

Survey question 3: Within the last five years, what change have you noticed, if any, in the number of dealers making markets in corporate bonds? Number of respondents = 312.

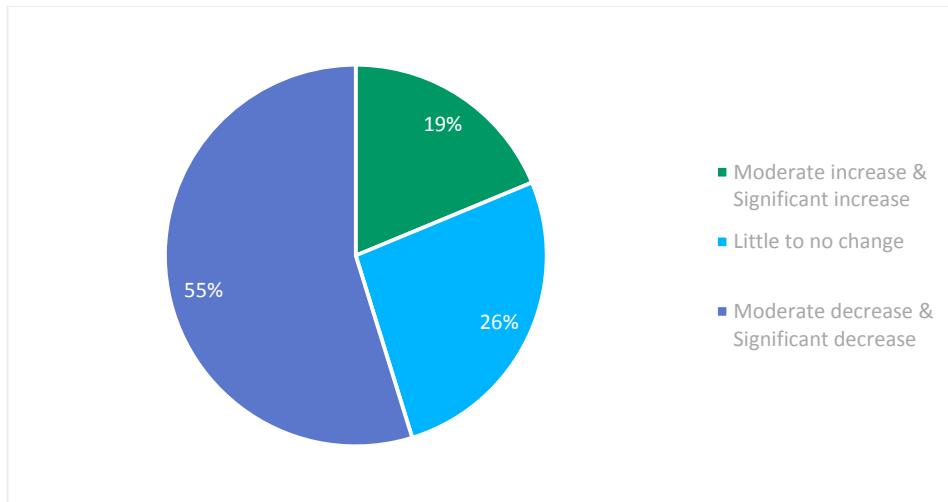
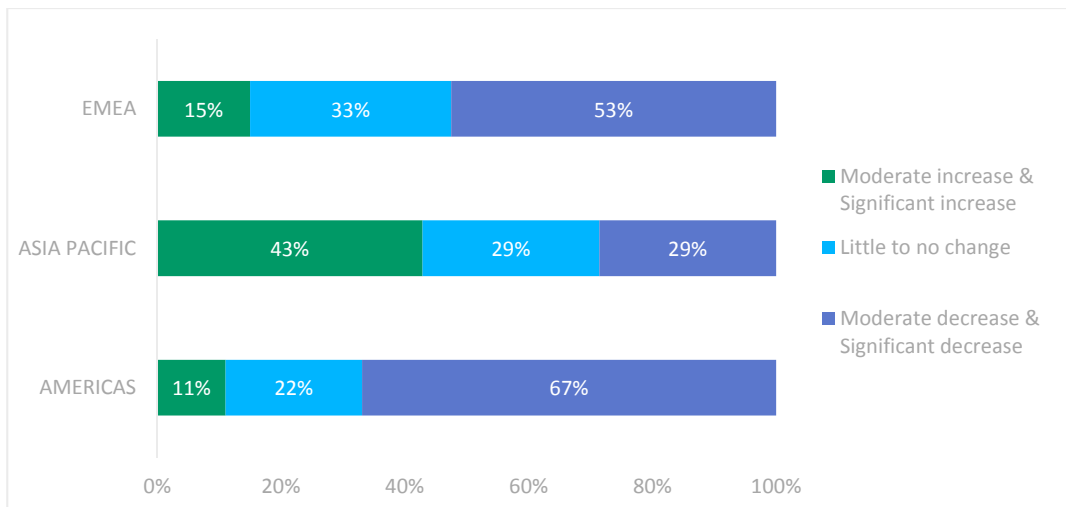


Figure 4

Survey question 3: Within the last five years, what change have you noticed, if any, in the number of dealers making markets in corporate bonds? Number of respondents = 312.



Are Different Types of Bonds Affected Differently?

The survey continued by focusing on the liquidity of different types of bonds as well as geographic segments. Excluding those respondents that replied “Not Sure,” the majority of respondents (see **Figure 5**) noted a decrease in market liquidity in high-yield corporate bonds (both financial and non-financial), whereas a plurality reported a decrease in market liquidity in investment-grade corporate

bonds (both financial and non-financial). The only exception to this finding was government bonds, for which a plurality (42%) of respondents did not observe a noticeable change in liquidity.

Figure 5

Survey question 4: Within the last five years, what change, if any, have you observed in liquidity for the following types of bonds? Number of respondents = 316.

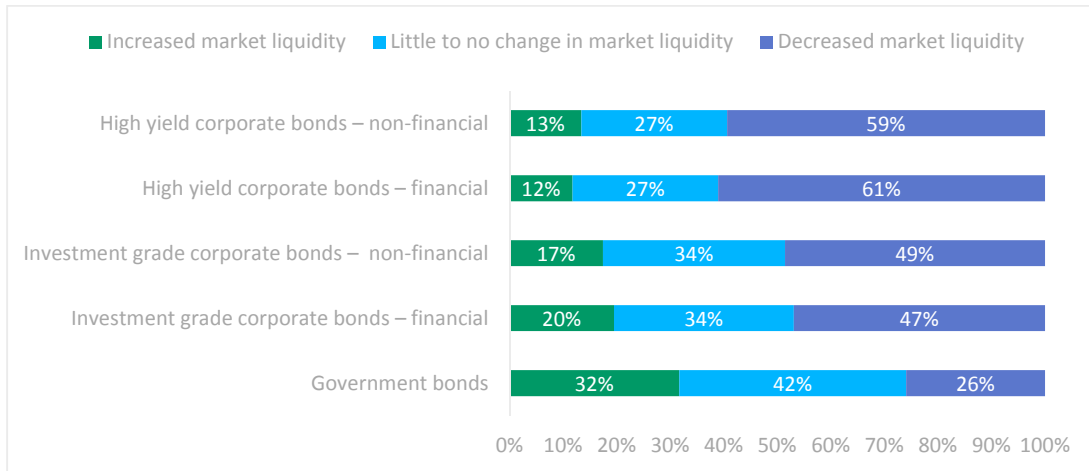
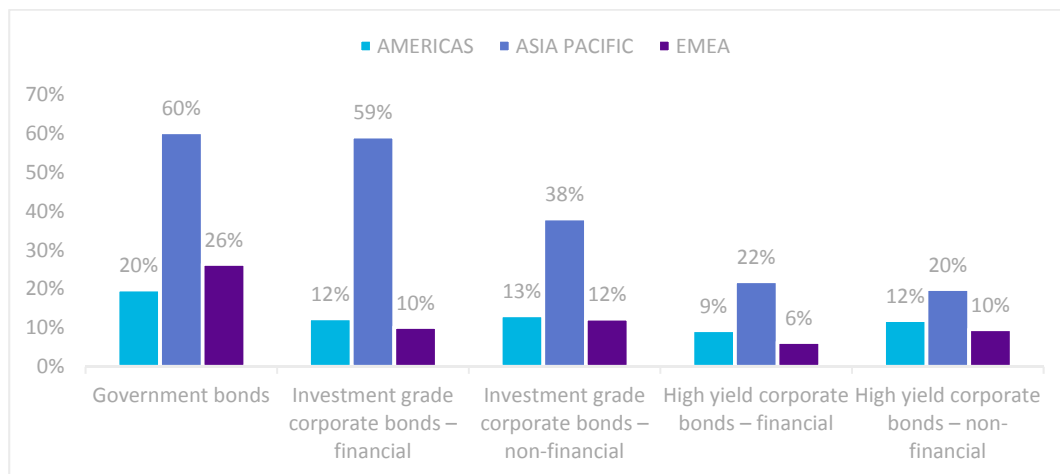


Figure 6 shows some variation by region, with respondents from AMER and EMEA being particularly sensitive to the decrease in market liquidity for high-yield corporate bonds (both financial and non-financial). The APAC respondents were noticeably more likely to report improvements in liquidity (specifically for government bonds and investment-grade financial corporate bonds).

Figure 6

This figure shows, for each type of bond in Question 4, the proportion of respondents in each region that selected “increased market liquidity.” Number of respondents = 316.

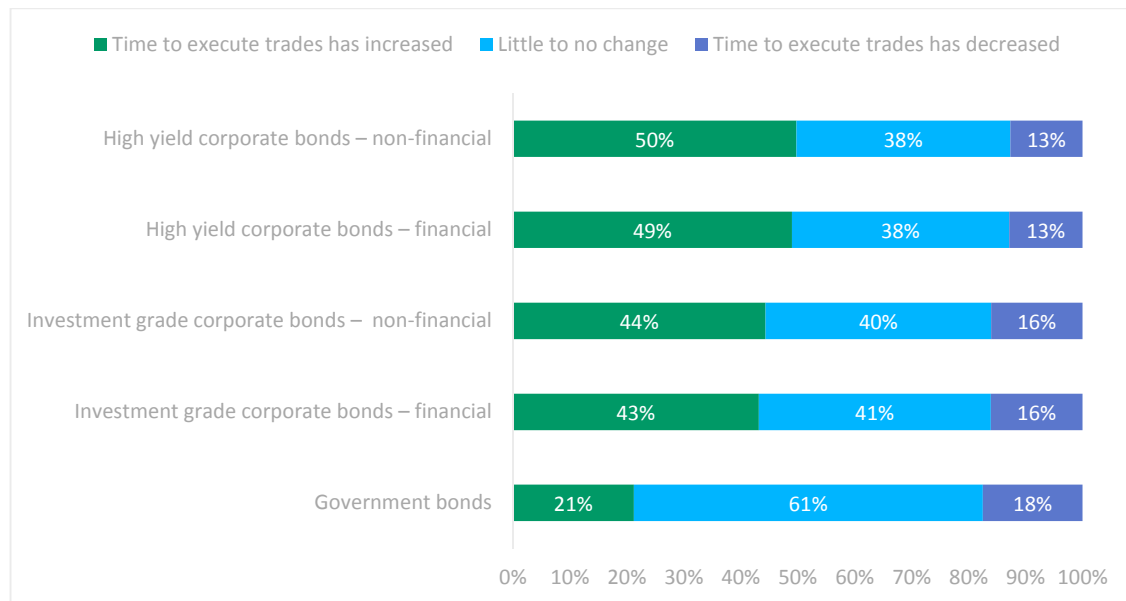


Execution Times in Secondary Bond Markets

Another way of approaching the question of bond market liquidity is to look at the time it takes to execute trades in secondary bond markets. Excluding “Not Sure” responses, the results in **Figure 7** show a plurality of respondents reporting a deterioration in market quality over the last five years as a result of increased time to execute trades. As with the previous question, government bonds were the noticeable exception to this, with 61% of respondents reporting no change in time to execute.

Figure 7

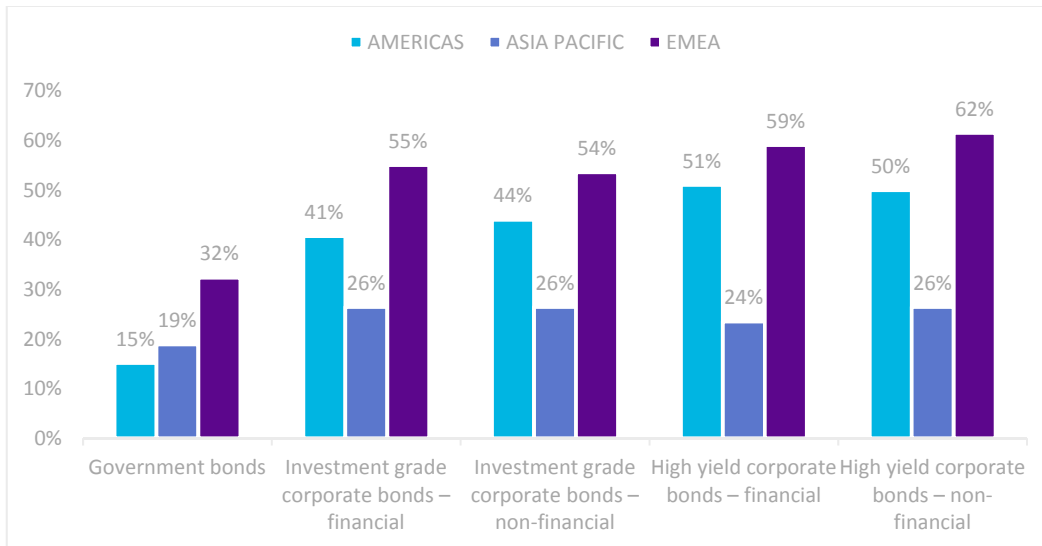
Survey question 5: Within the last five years, how, if at all, do you think the time taken to execute trades in bond markets has changed? Number of respondents = 270.



The regional breakdown of results in **Figure 8** shows AMER and EMEA respondents answering similarly, with around 50% reporting increased execution times across all bond types, and only 25% of APAC respondents reporting increased execution times across bond types.

Figure 8

This figure shows, for each type of bond in Question 5, the proportion of respondents in each region that selected “time to execute trades has increased.” Number of respondents = 270.

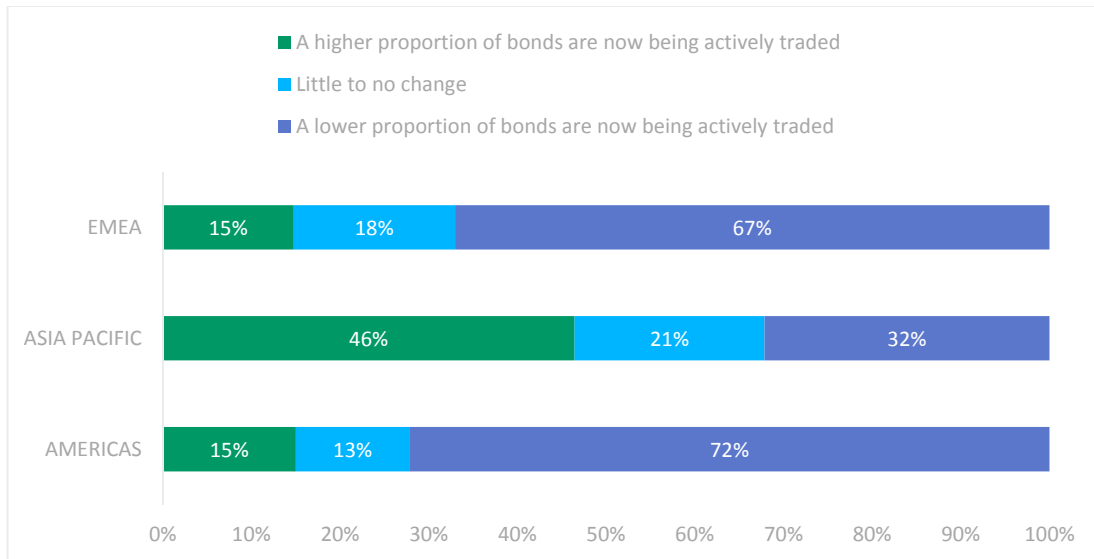


Are Bonds More or Less Actively Traded?

A consistent set of responses was observed regarding the proportion of corporate bonds that are actively traded, with 72% of AMER respondents (see **Figure 9**) and 67% of EMEA respondents reporting a lower proportion of bonds being actively traded, compared with five years ago. In contrast, a plurality (46%) of APAC respondents report a higher proportion of bonds being actively traded compared with five years ago.

Figure 9

Survey question 6: Within the last five years, how do you think the proportion of bonds that are actively traded has changed? Number of respondents = 313.

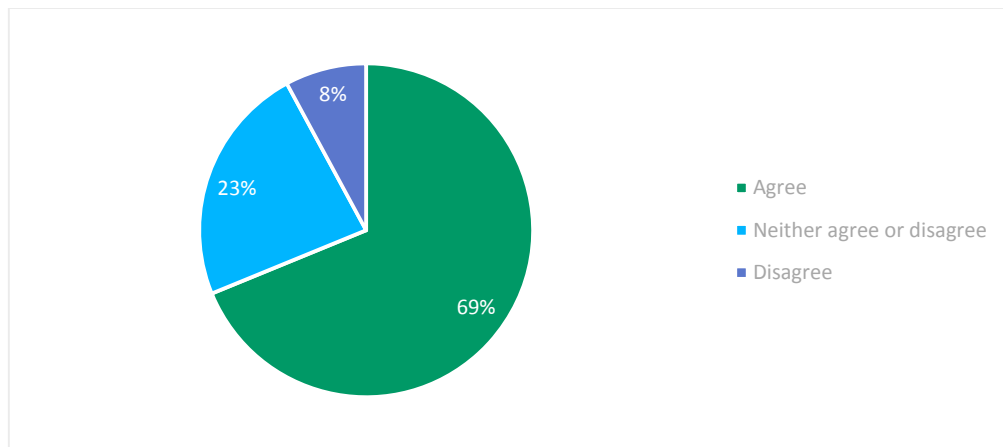


Are Dealers Focusing on Larger Clients?

Compounding the picture of generally deteriorating market conditions, all three regions agree with the statement that dealers are increasingly focusing on servicing larger clients at the expense of smaller clients, with an average of 69% of respondents (see **Figure 10**) choosing this option irrespective of their region.

Figure 10

Survey question 7: To what extent do you agree or disagree that dealers are increasingly focusing on servicing larger clients at the expense of smaller clients? Number of respondents = 270.

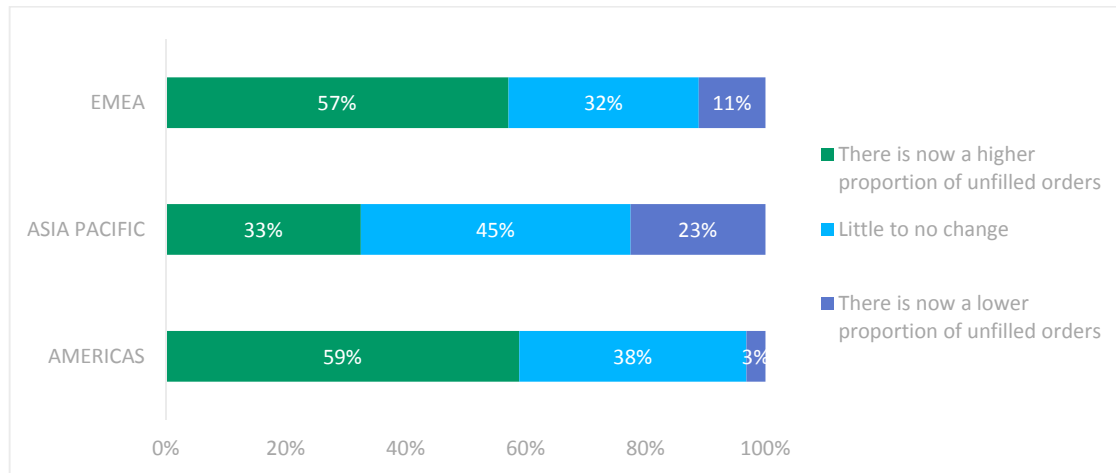


Are There More Unfilled Orders?

A majority of respondents in AMER and EMEA reported a higher proportion of unfilled orders over the last five years (58% on average, as shown in **Figure 11**), whereas 45% of APAC respondents reported no change in the proportion of unfilled orders.

Figure 11

Survey question 8: Within the last five years, how do you think the proportion of unfilled orders has changed? Number of respondents = 315.

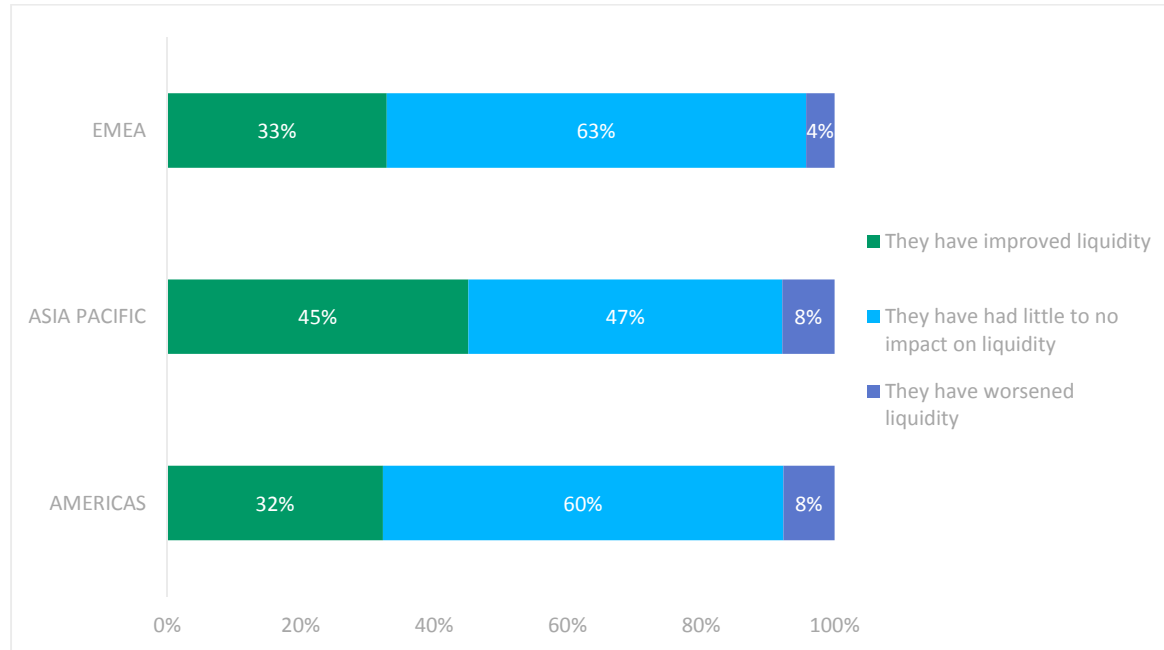


Has Technology Had an Impact on Liquidity?

Across all regions, a plurality or majority of respondents (see **Figure 12**) report technological changes in the secondary corporate bond market (such as the growth in electronic trading facilities) have had little to no impact on liquidity. However, a sizeable minority (on the order of 30% across all regions) reports improved liquidity as a result of technological changes. Very few (single-digit percentage) respondents think technology has had a negative impact.

Figure 12

Survey question 9: in your local jurisdiction, to what extent have technological changes (e.g., growth in electronic trading facilities) in the secondary corporate bond market affected liquidity? Number of respondents = 316.

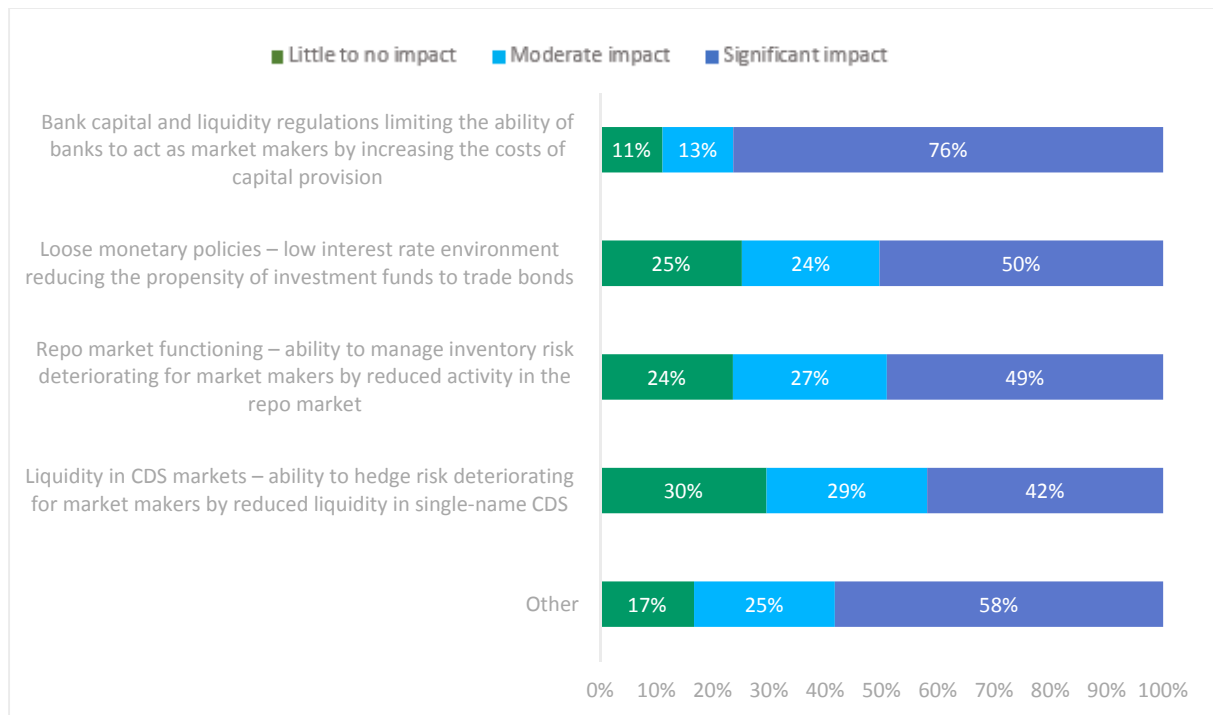


Macro Factors Affecting the Bond Markets

A very large majority (76%, as shown in **Figure 13**) of respondents report that bank capital and liquidity regulations, which may limit the ability of banks to carry inventory and so act as market makers (providing immediacy to investors), have had a significant or very significant impact on secondary corporate bond market liquidity. Half of respondents think loose monetary policies, whereby low interest rates reduce the propensity of investment funds to trade bonds because of increased reinvestment risk (i.e., attributable to a one-way market), have had a significant or very significant impact on bond liquidity. Concerns about the reduced ability of dealers to manage risk via repo markets (again affected by regulatory changes) or via credit default swap markets also attracted a large plurality (49% and 42%, respectively) of respondents.

Figure 13

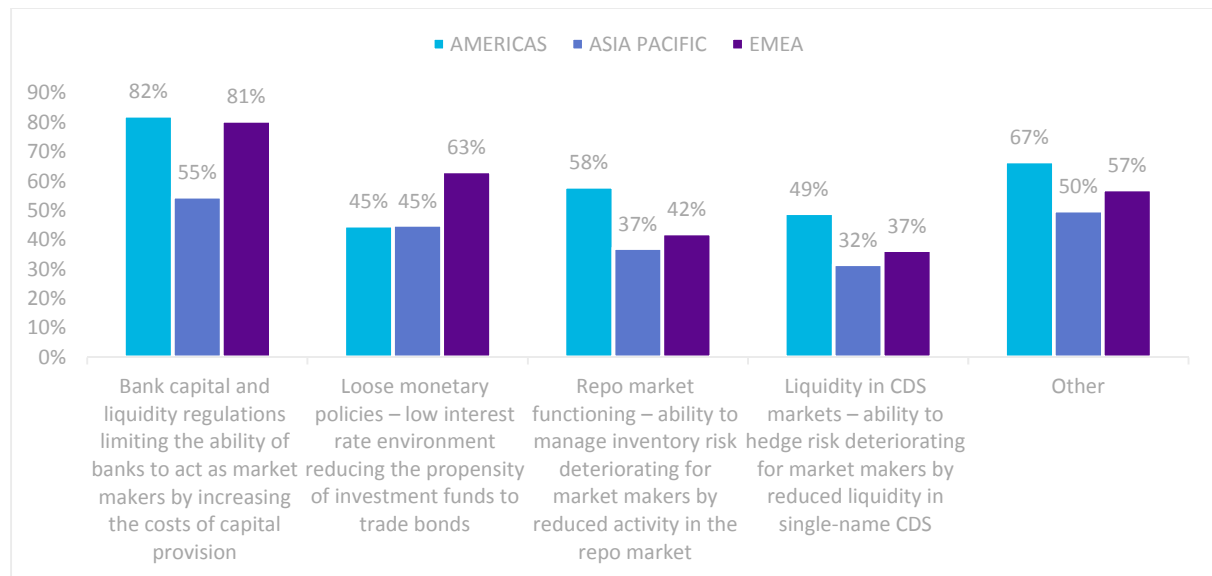
Survey question 10: To what extent do you think the following factors have impacted secondary corporate bond market liquidity in your local jurisdiction? Number of respondents = 309.



Interestingly, **Figure 14** shows that APAC respondents are somewhat less concerned with bank capital and liquidity regulations compared with their AMER and EMEA counterparts. Furthermore, although EMEA respondents placed loose monetary policies as their second biggest concern, AMER respondents chose poorly functioning repo markets in second place.

Figure 14

This figure shows, for each factor in Question 10, the proportion of respondents in each region that selected “significant impact.” Number of respondents = 309.



Other concerns listed by respondents included perceived herding by investors in the bond market reducing the scope for differing investment views to generate trading, the large operational impact of complying with securities regulations, and the primary bond market being more attractive for investment (i.e., a preference to invest at the IPO stage rather than in secondary markets).

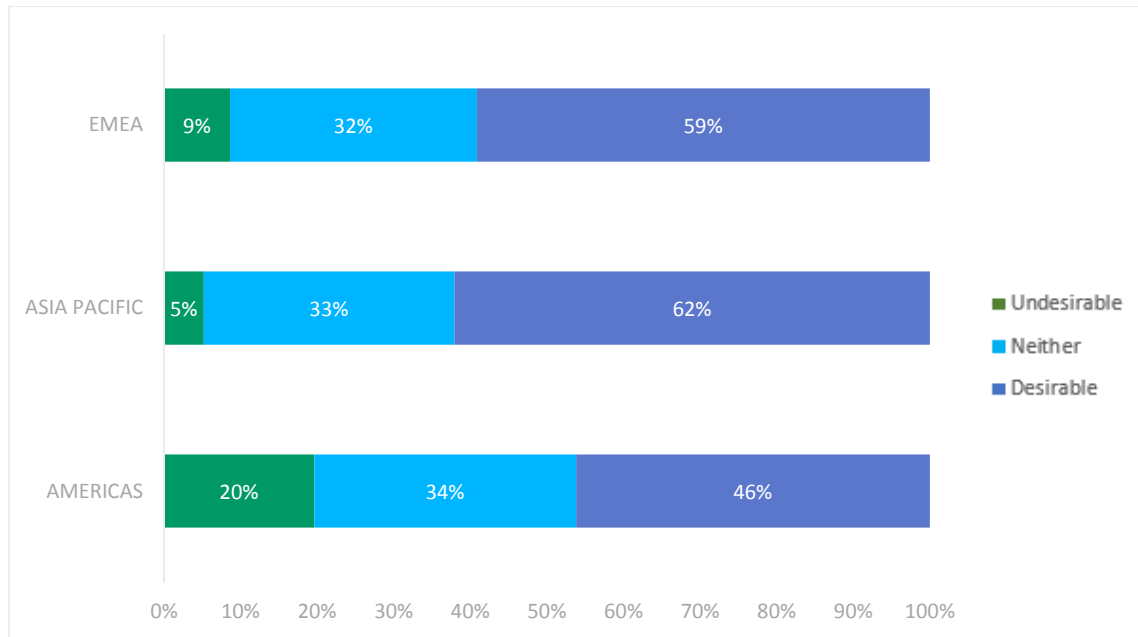
Standardization of Bond Markets—Desirable or Not?

Standardizing or “equitizing,” corporate bonds is sometimes promoted as a way to improve secondary market liquidity. In theory, doing so would make it easier for dealers to make markets because standardized bonds should be more easily tradable, enabling simpler and less costly risk management for dealers. It should also be more straightforward to move standardized bond trading onto electronic trading platforms that may cater to exchange-type trading of corporate bonds (either dealer-to-client, or all-to-all). In an all-to-all environment, there should be an increased probability of finding a counterparty to trade with, which may become more important if there are fewer dealers (or less-active dealers) making markets. Standardization may take a variety of forms but is considered helpful in facilitating exchange-type trading.

A majority of APAC and EMEA respondents agree (see **Figure 15**) that such standardization is a desirable goal. Support in AMER is somewhat less strong with only a plurality (46%) of respondents agreeing that equitization is desirable.

Figure 15

Survey question 11: How desirable, if at all, is the standardization of corporate bonds (also known as equitization) in regards to terms and conditions of new issues? Number of respondents = 309.



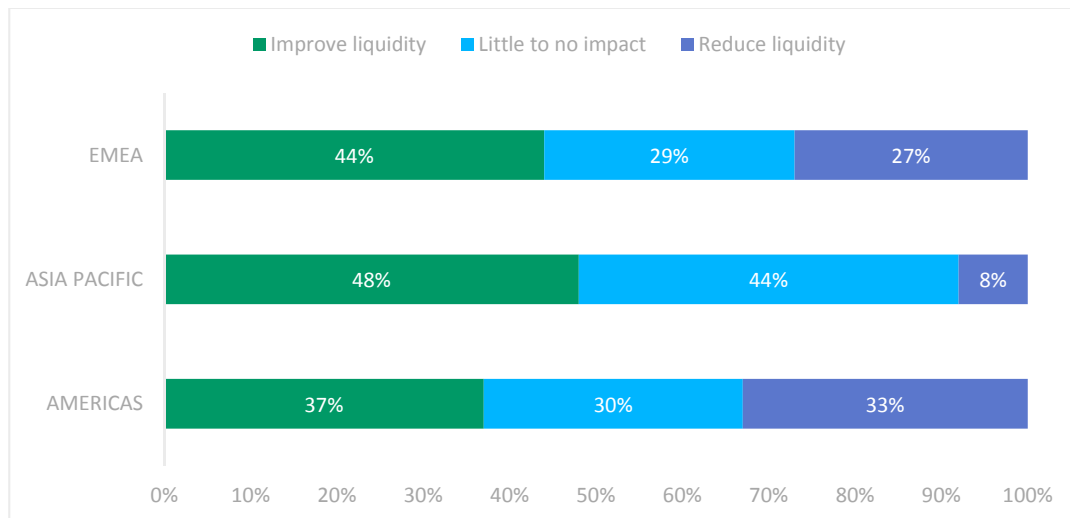
Exchange-Traded Funds

There is an argument that exchange-traded funds (ETFs) are an important source of liquidity for investors that do not, or cannot, trade the underlying securities. However, it is unclear whether deep liquidity in ETF markets is representative of liquidity in the underlying. Furthermore, it is also unclear to what extent a liquidity mismatch between the underlying bond market and the ETF market may be problematic.

Across the three regions, a small plurality (see **Figure 16**) of respondents agree that ETFs improve overall bond market liquidity. However, a significant minority (up to 44% in APAC) consider ETFs to have no impact on liquidity.

Figure 16

Survey question 12: What impact, if any, do bond exchange-traded funds (ETFs) have on overall corporate bond liquidity? Number of respondents = 232.



Are Liquidity and Systemic Risk Compatible?

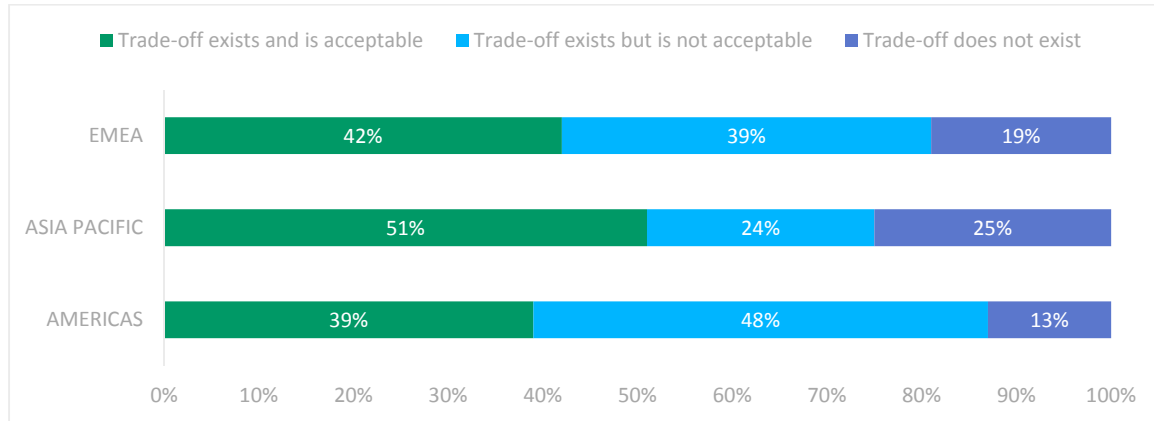
The survey asked whether there was a trade-off between financial system stability (e.g., through increased capital requirements) and reduced corporate bond market liquidity. The follow-up question was whether this trade-off was acceptable.

Across all regions, a large majority (see **Figure 17**) agrees that the trade-off exists. However, although a plurality of respondents (48%) in AMER think this trade-off is unacceptable, a majority of APAC respondents (51%) and a plurality of EMEA respondents (42%) think this trade-off is acceptable.

In fact, the results for AMER and EMEA may be better described as a tie considering the survey's margin for error (approximately $\pm 4\%$). Very sizeable minorities in AMER consider the trade-off acceptable (39% versus 48% unacceptable). In EMEA, 39% consider the trade-off unacceptable (versus 42% acceptable).

Figure 17

Survey question 13: Which best describes your view of the existence of a trade-off between financial system stability (e.g., increased capital requirements) and reduced corporate bond market liquidity? Is this trade-off acceptable? Number of respondents = 316.



Is Retail or Wholesale More Important?

Finally, the split between AMER, EMEA, and APAC respondents is also present in the question on regulatory priorities. This question asks whether encouraging retail investor participation or removing impediments to institutional wholesale markets is more important for regulators to focus on. A large majority of AMER and EMEA respondents (see **Figure 18**) consider that removing impediments to the smooth functioning of wholesale markets should be the main focus for regulators, whereas APAC respondents suggest encouraging greater retail investor participation is relatively more important.

Figure 18

Survey question 14: Which of the following two areas is the more important focus for regulators? Number of respondents = 316.

