COVID-19:
Impact on Closed-End Alternative Investing

April 29, 2020

The Current Situation

- COVID-19 has spread rapidly in the Northern Hemisphere this winter, beginning in Hubei province in China in December, and subsequently radiating throughout Asia, Europe and North America

- There is evidence that the coronavirus has faded at its starting point in Wuhan and may be peaking in many locations in Europe and North America, though there are also fears that a second wave of infections may be coming

- This presentation is a snapshot of what is happening in this rapidly evolving crisis and its impact on the closed-end fund alternative investment market – specifically for funds and co-investments targeting private equity, performing debt, distressed debt, real estate, infrastructure and real assets/natural resources

- At the heart of this analysis is a targeted Internet survey of institutional investors active in these sectors that was taken between April 15th and April 22nd, supplemented by information from ongoing conversations with investors by Probitas' professionals

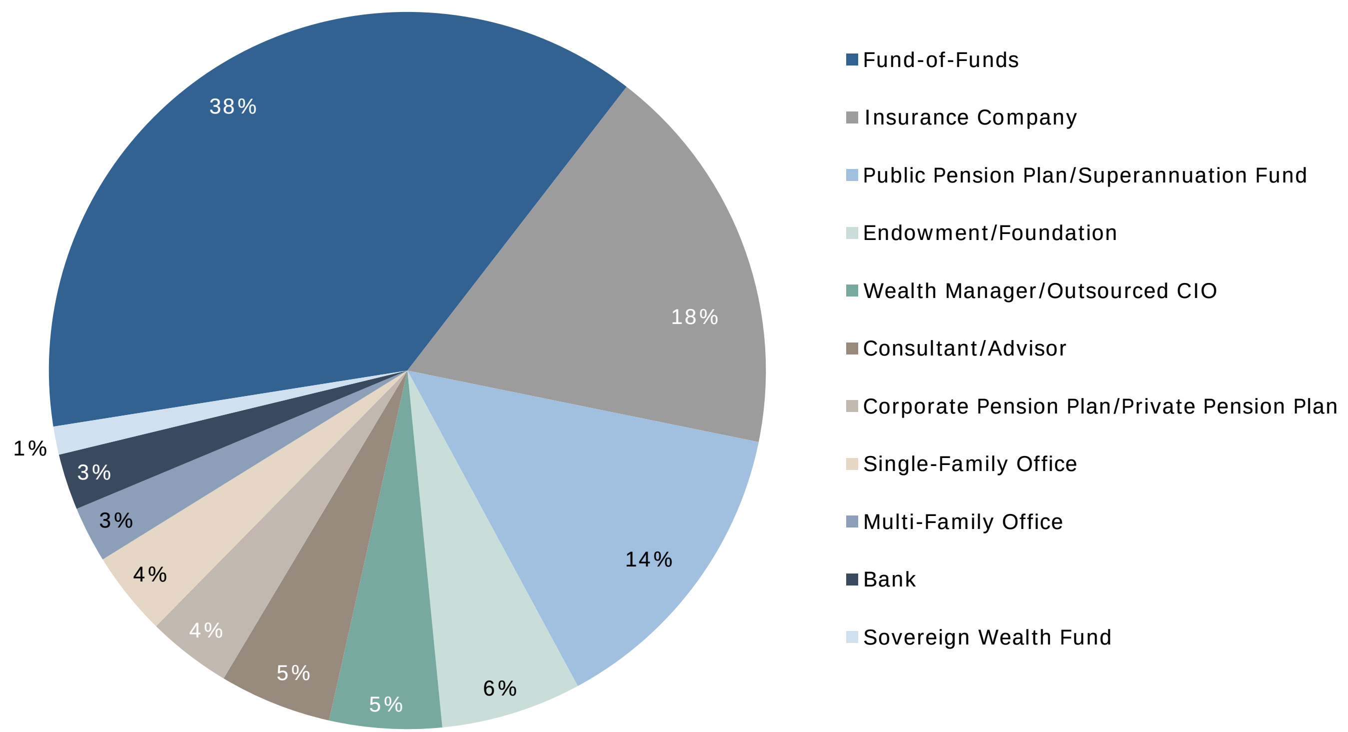
Overview: Differences from Previous Crises

- In dealing with the COVID-19 crisis' impact on investing, many investors are looking to lessons learned in previous market disruptions
- The problems with the Internet bubble and the Great Financial Crisis ("GFC") were rooted in the financial sector, while COVID-19 has spread rapidly from a healthcare issue to an all-encompassing economic issue as quarantines and "shelter-in-place" orders dramatically impact the ability of many companies to do business
- The consequences of the bursting Internet bubble were heavily focused on the technology and telecommunications industries with some knock-on effects on other sectors
  - The effect was sharp and long lasting, but not widespread
- The GFC impacted financial institutions globally and the resulting liquidity crisis created wide economic impacts
  - However, the impact was relatively short and sharp – though that was not obvious amid the crisis – as central banks globally flooded the market with cash
- The timing of this crisis is very uncertain at this point, as medical researchers are still analyzing the pandemic and the tactics necessary to mitigate it; estimates for getting the situation under control range from weeks to years and no one can accurately handicap whether it will be a "V-shaped," "U-shaped" or "L-shaped" recovery
- However, the COVID-19 crisis is raising the specter of a liquidity crisis as happened in the GFC

Survey Respondents by Type of Institution

- For this snapshot survey, we received 79 responses from a varied group of investors including fund-of-funds, insurance companies and pension plans
- The survey was only held open for a week to help ensure that respondents were reacting to the same set of global crisis circumstances

Chart I Respondents by Institution
I represent a:

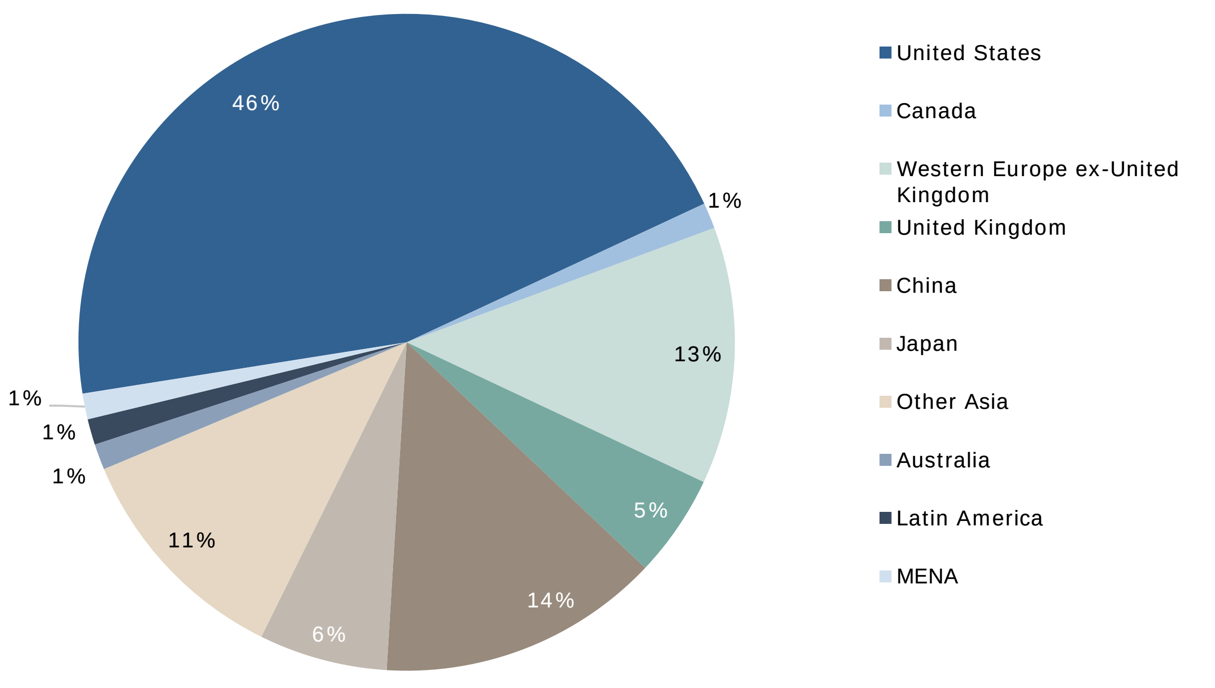


Source: Probitas Partners' Impact of COVID-19 Survey
Note: Numbers in the chart do not sum to 100% due to rounding

Survey Respondents by Geography

- Nearly half of the respondents were from North America, the most established closed-end fund alternatives market, but there were also a significant number of responses from Asia and Europe
- 14% of responses came from investors based in China, who have experienced the consequences of the pandemic for the longest period

Chart II Respondents by Firm Headquarters
My office is located in:

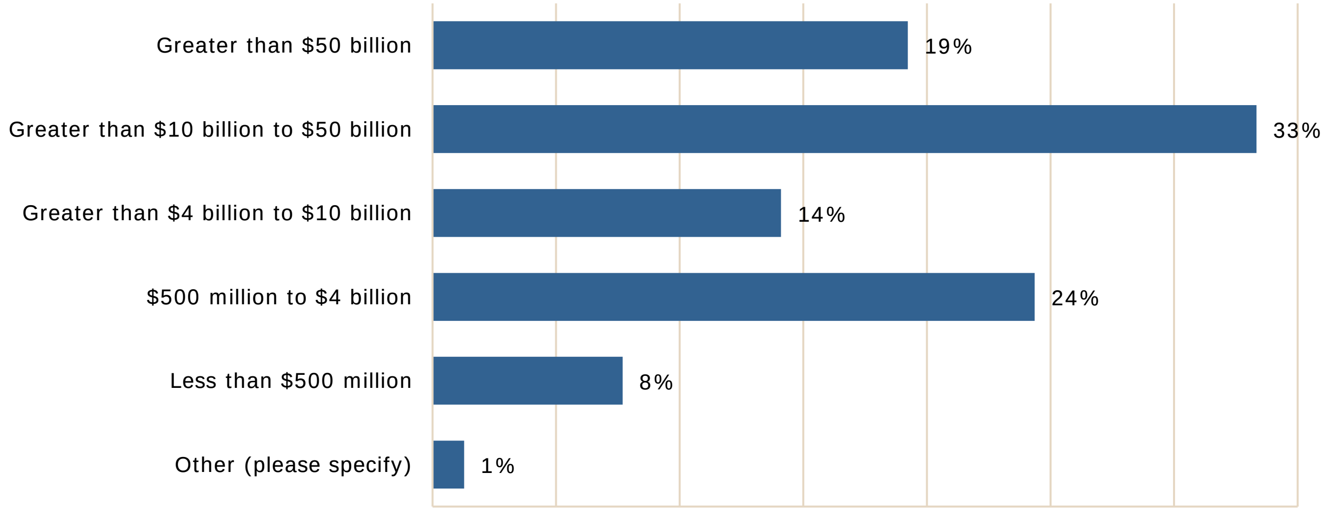


Source: Probitas Partners' Impact of COVID-19 Survey
Note: Numbers in the chart do not sum to 100% due to rounding

Survey Respondents by Assets Under Management

- The respondents to the survey varied tremendously by the size of their investment programs measured by assets under management or assets under advisement for consultants or advisors
- Larger investors are more likely to be active across a wide range of types of alternatives

Chart III Alternative Assets Under Management or Advisement:

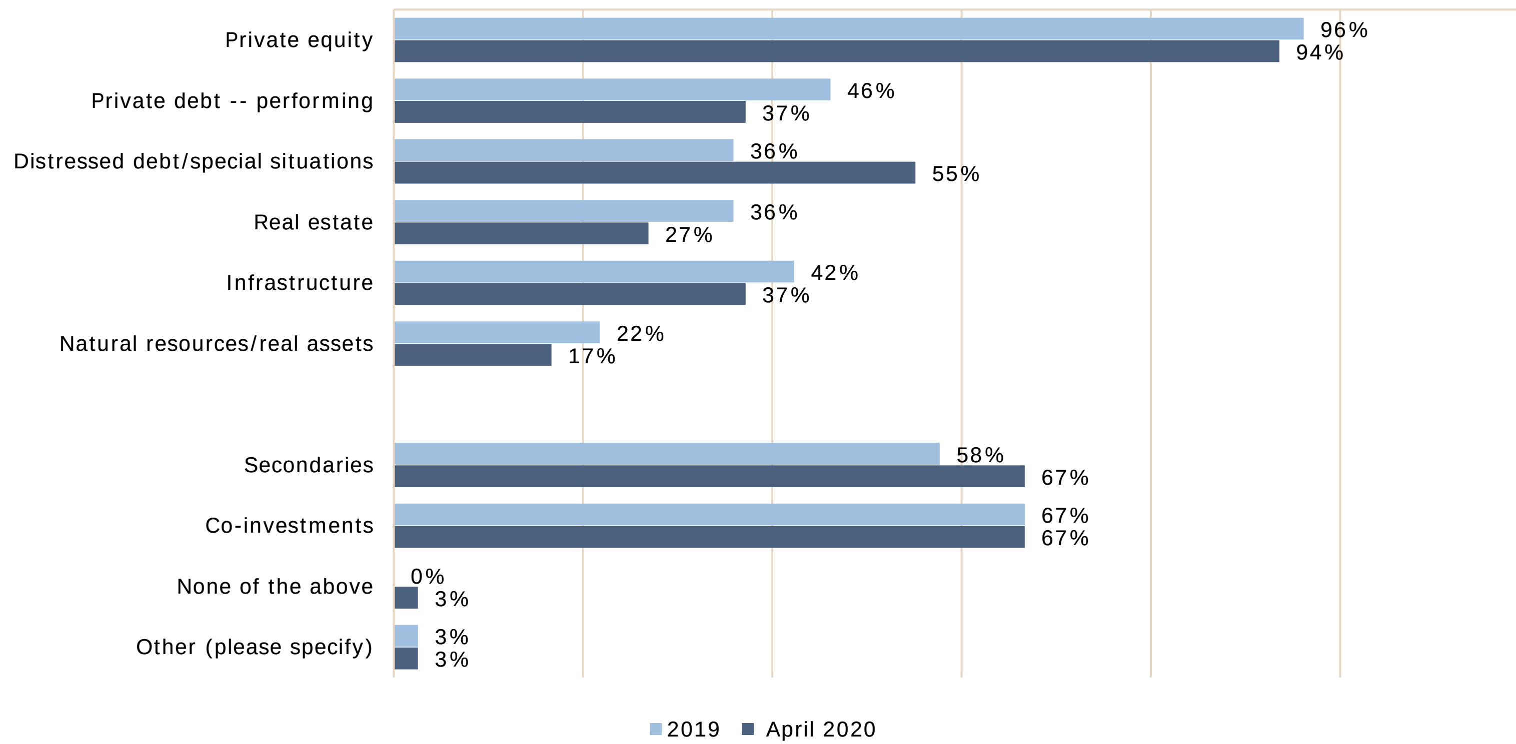


Source: Probitas Partners' COVID-19 Impact Survey
Note: Numbers in the chart do not add to 100% due to rounding

Changes in Alternative Sectors of Interest

- Chart IV compares investors' sectors of interest in 2019 compared to April 2020
- Interest in most sectors declined slightly – though private equity remained nearly even and distressed debt/special situations and secondary interest increased noticeably

Chart IV Alternative Closed-end Fund Sectors of Interest by Percent of Respondents:

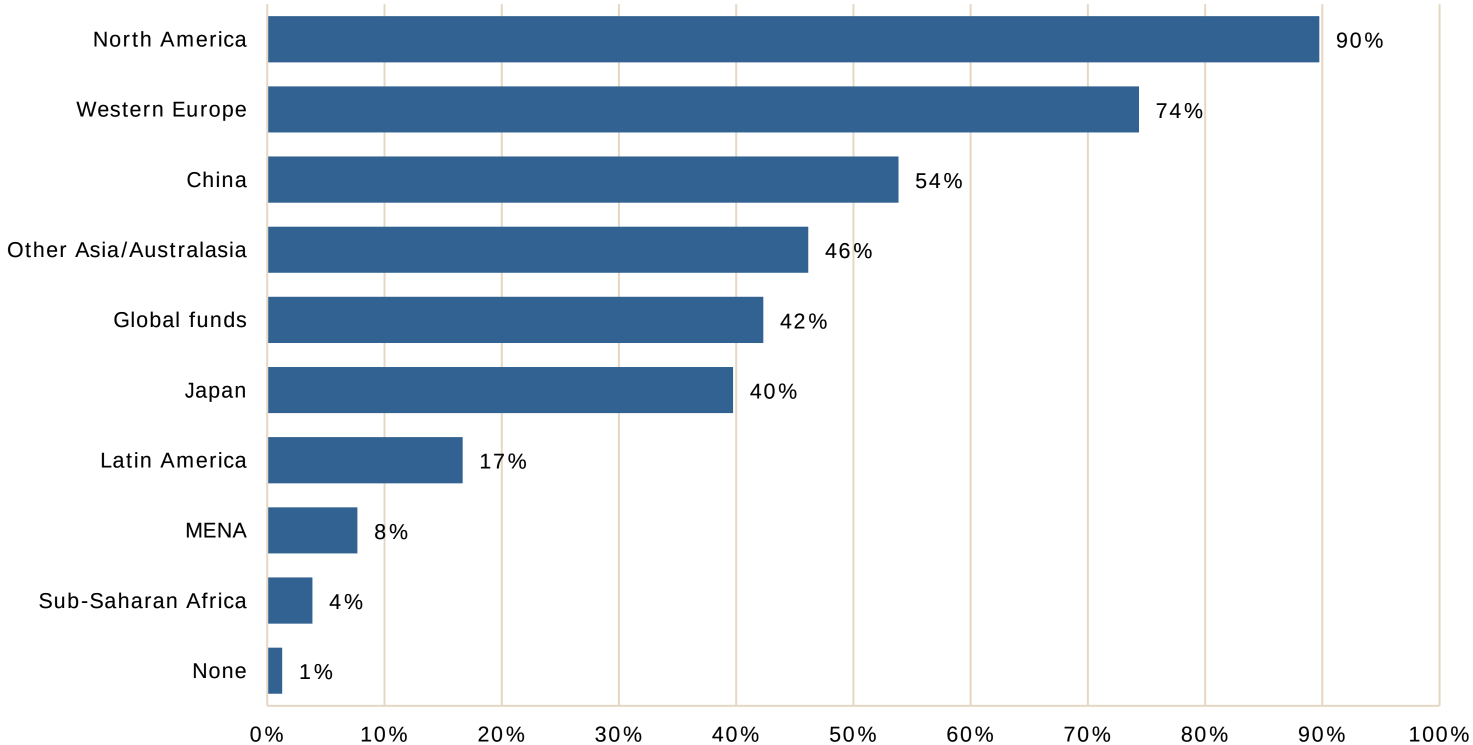


Source: Probitas Partners' Impact of COVID-19 Survey

Geographies of Interest

- Overall, funds focused on North America and Europe were of the most interest to investors, though Asian respondents were much more focused on Asia
- There was substantial interest in China, not only from Asian investors but from respondents across the world; China is perceived to be emerging from the pandemic
- Interest in emerging markets was limited as it was before the pandemic

Chart V Geographies of interest to my firm currently:

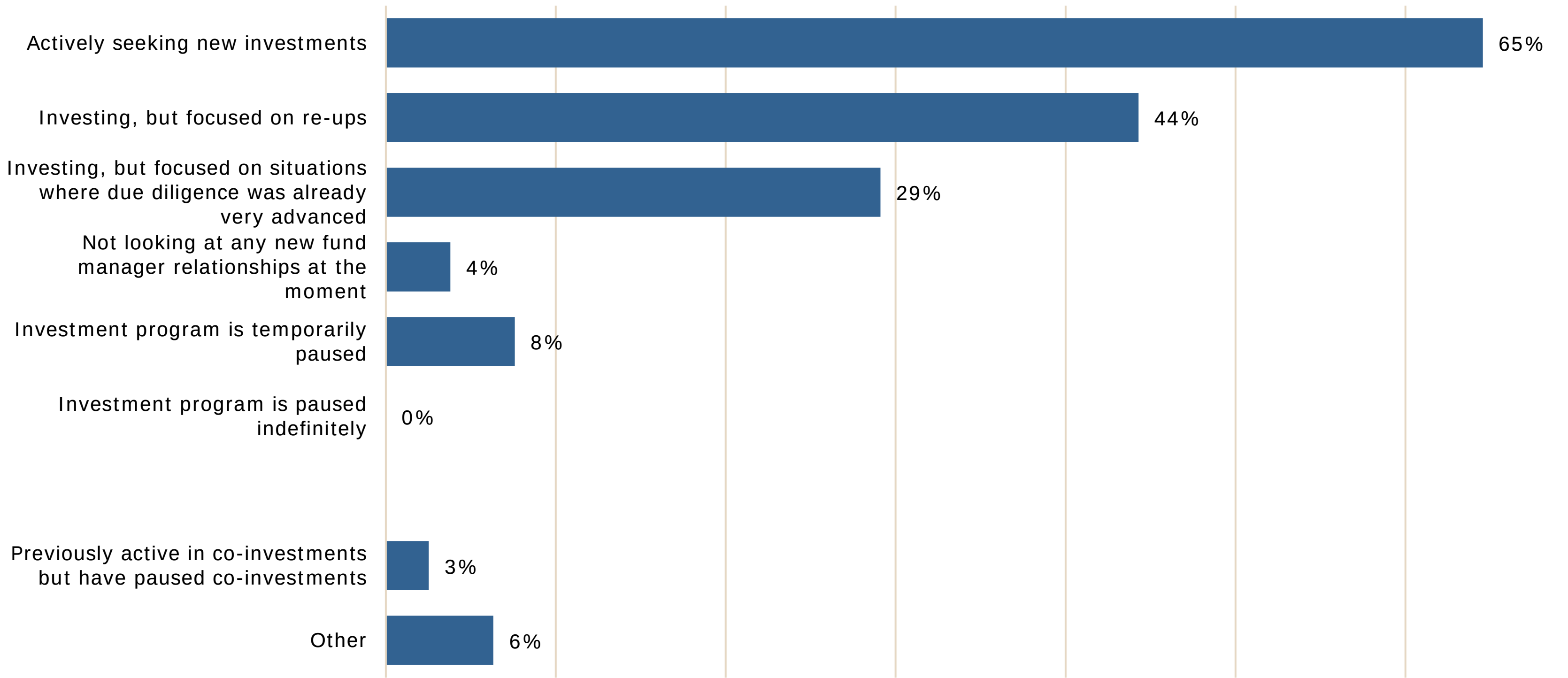


Source: Probitas Partners' COVID-19 Impact Survey

Current Investing Status

- Though a few respondents have paused fund and co-investment programs, most of them are still investing
- However, many of them are focused on re-upping with current fund manager relationships or completing due diligence that was advanced before the crisis began

Chart VI My firm's current investment status for closed-end fund alternative investing:



Source: Probitas Partners' COVID-19 Impact Survey

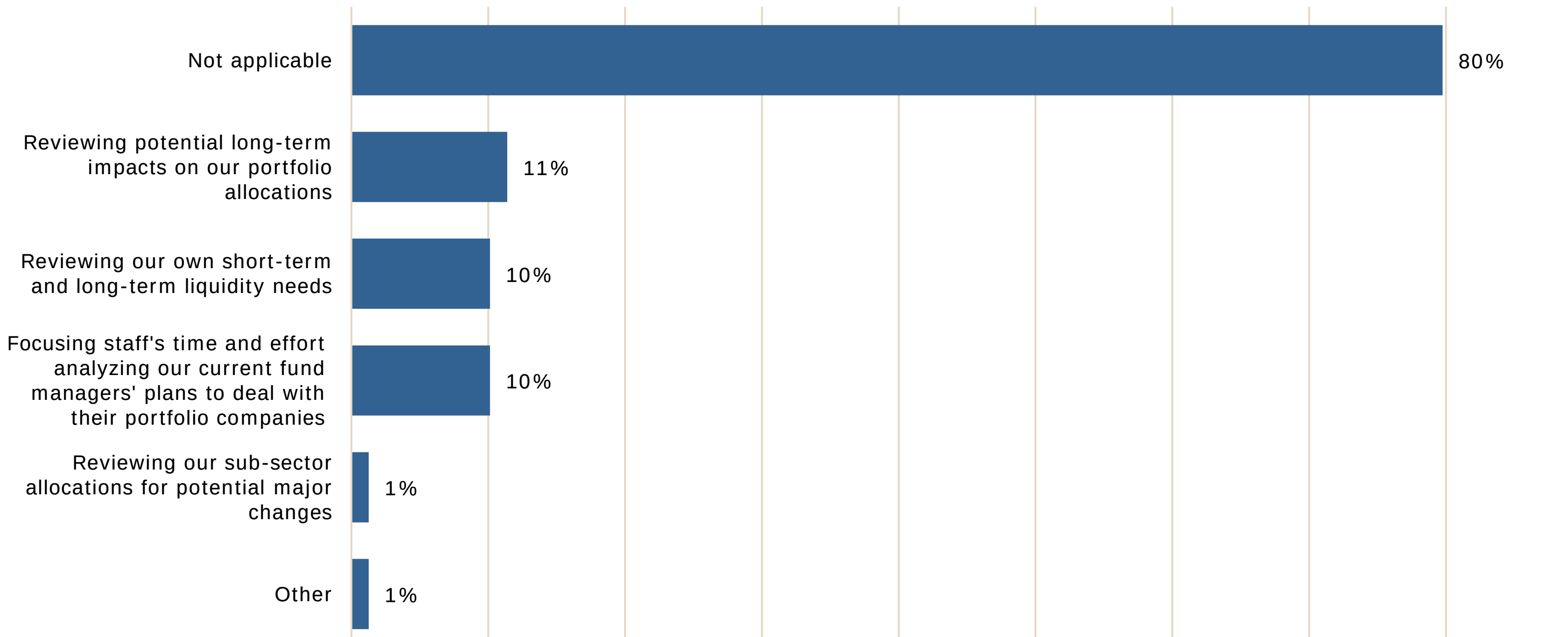
Current Investing Status: Respondent Comments

- Several investor comments answering this question were illuminating:
  - *We are looking at new products from existing managers who are pursuing product extensions (e.g. special situations funds with sector focus)*
  - *Actively seeking new investments but pacing and urgency has declined*
  - *We have less capital available for fully funded opportunities such as co-investments*
  - *We have a mature portfolio and are mostly focused on re-ups, but will selectively add new managers that are great additions that we have been trying to gain access to*
  - *We are ramping up our co-investment program given the opportunity set*

Reasons For Pausing Investing

- For those respondents who have paused or slowed investing, there is not a dominant reason for the pause
- Notably, neither the denominator effect on portfolio allocations nor internal liquidity issues seem to be major problems at this point

Chart VII For firms that have paused their programs --
My firm's greatest concerns or needs that led to the pause are (choose no more than two):

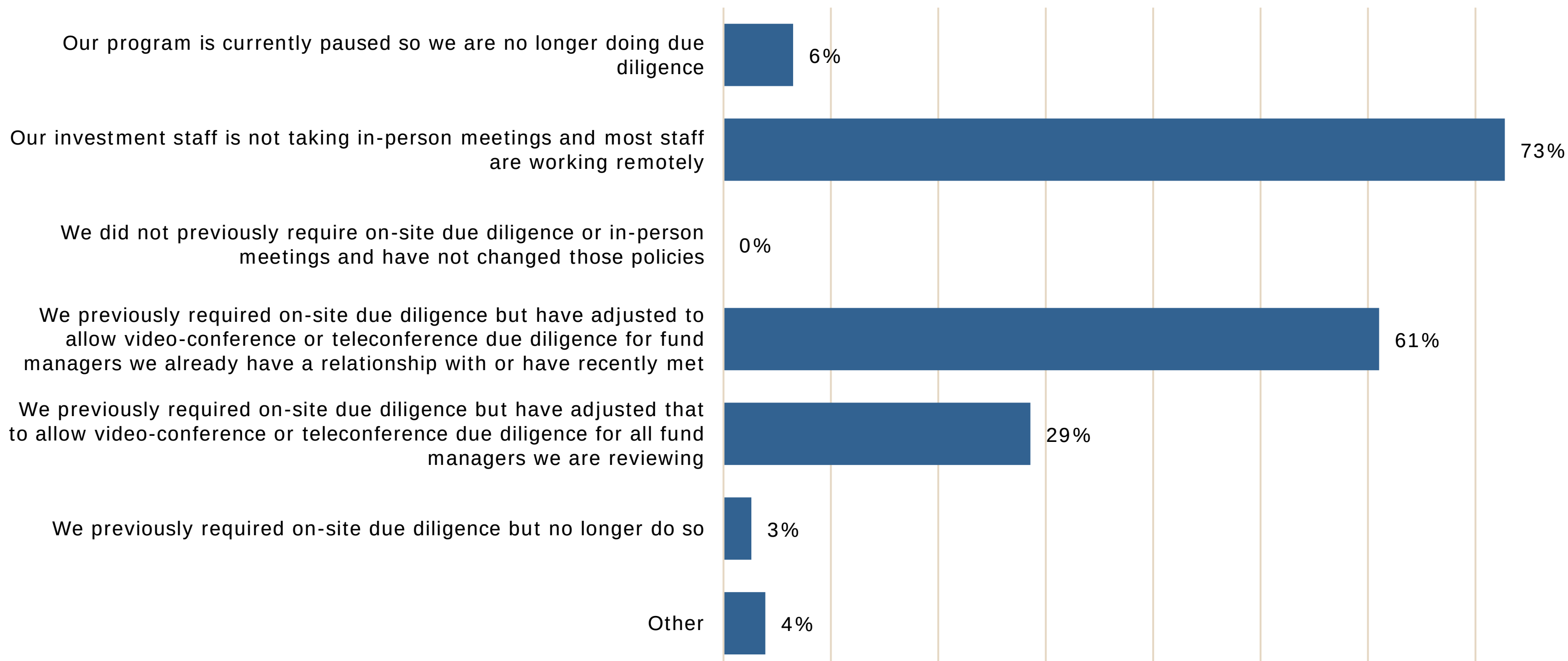


Source: Probitas Partners' COVID-19 Impact Survey

Due Diligence Policies and Practices

- Most investors are no longer taking in-person meetings and most staff are working remotely; we know that certain investors have skeleton staffs working from their offices in rotation with the rest working remotely
- Many respondents have shifted their policies that required on-site due diligence to doing so remotely – more so for fund managers that they already know well

Chart VIII My firm's current due diligence policies and practices:



Source: Probitas Partners' COVID-19 Impact Survey

Due Diligence Policies and Practices: Comments

- From our discussions with investors we know that many investors do not like remote due diligence, feeling that it is much less effective in developing a relationship with a fund manager and in understanding their capabilities

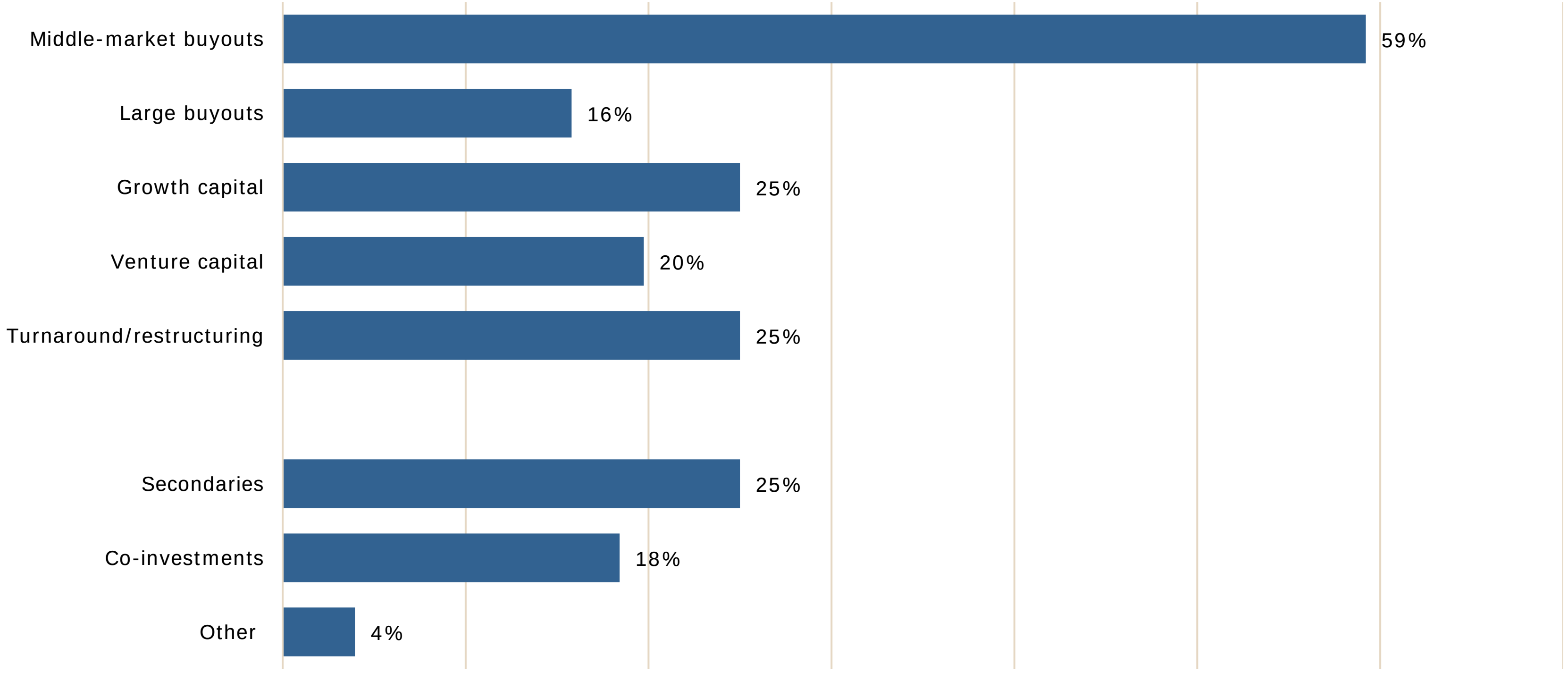
- However, certain investors have been pleasantly surprised with how effective remote due diligence can be, eliminating the time required to travel

- Comments collected in the survey provide more insight:
  - *We have not yet done a new commitment only via video conference; our focus is on people that we already know*
  - *We usually target new manager relationships over a number of years before making a commitment; as a result, we have already completed extensive onsite DD and we are comfortable doing further DD remotely; we are 100% virtual at the moment and expect that to extend for a while even when the economy starts to open up*
  - *Most staff are working remotely; we have not paused our due diligence, but are in no rush to conclude due diligence on any of the funds under consideration until we can better evaluate the impact of the emerging economic situation on the GPs' current portfolio as well as the GPs' skill in dealing with the current economy*
  - *Our process requires an in-person meeting or on-site; we will soon reach a point in our investment pipeline where we will not be able to check that box, so either our process will change or we will not be able to invest*

Current Interest Within Private Equity

- Middle-market buyouts are, by far, the sub-sector most targeted by respondents, just as it was in our annual private equity survey that was released last December
- There is more interest in turnaround/restructuring funds than there was in our previous private equity survey, but there are few of these funds in the market

Chart IX For investors currently targeting private equity --
Within private equity, my firm is focused on:

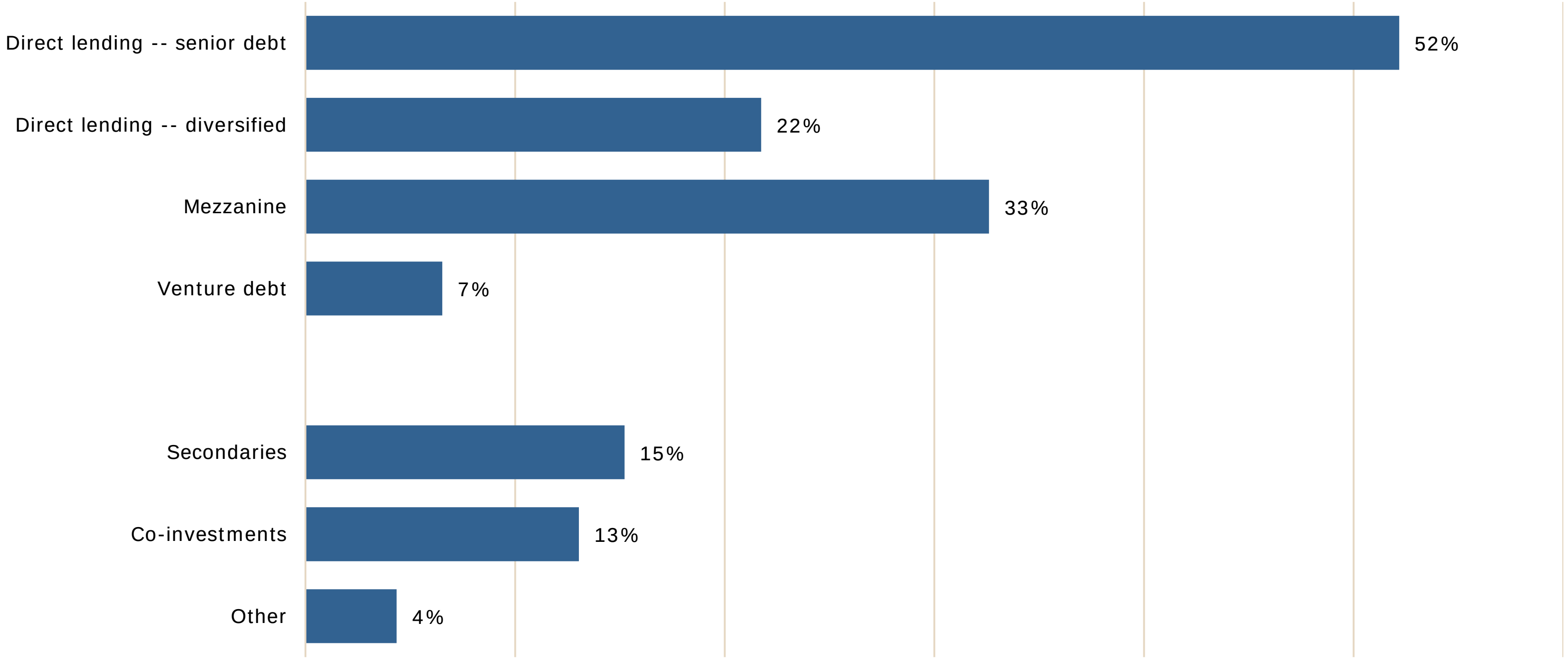


Source: Probitas Partners' COVID-19 Impact Survey

Current Interest Within Performing Private Debt

- Fewer investors are targeting performing private debt compared to private equity, as detailed in slide 6
- For those targeting the sector, direct lending funds focusing on senior debt are by far of the most interest

Chart X For investors currently targeting performing private debt --
Within performing private debt, my firm is focused on:

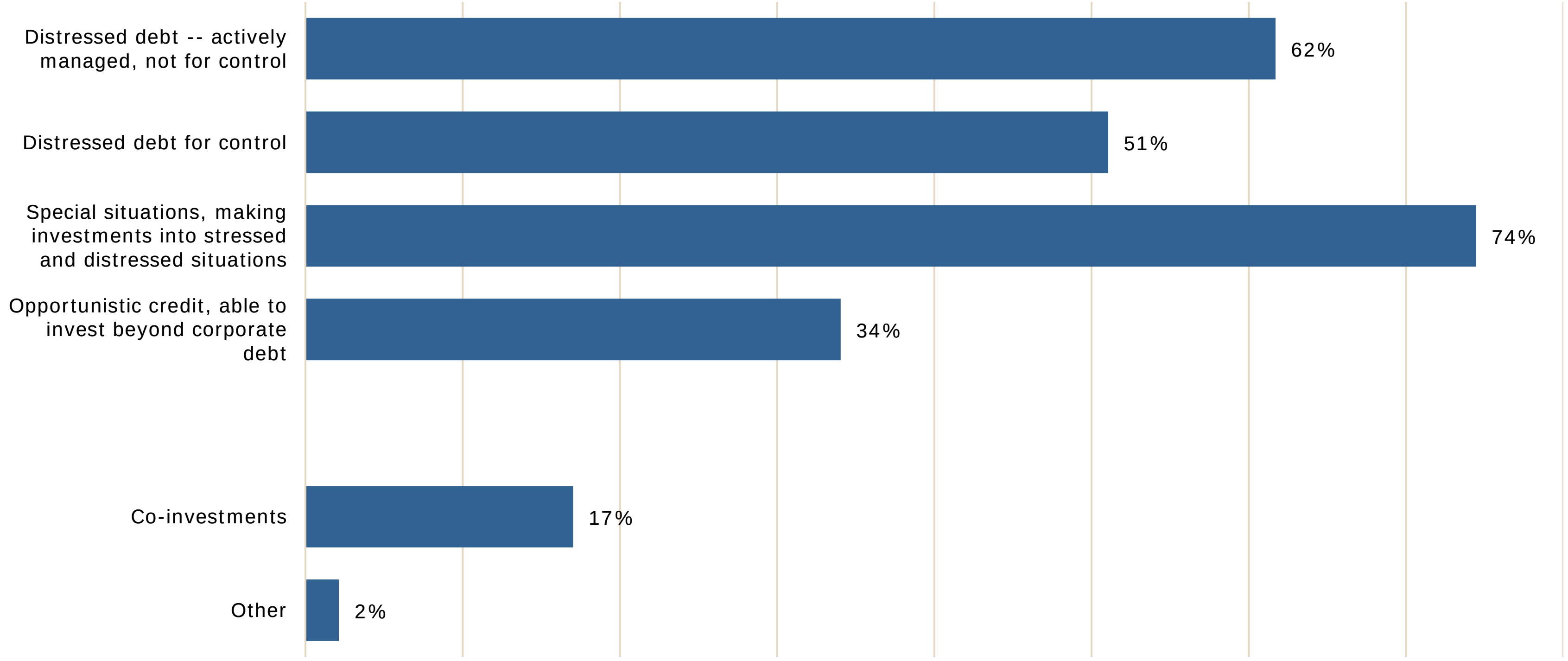


Source: Probitas Partners' COVID-19 Impact Survey

Current Interest Within Distressed Debt/ Special Situations

- This sector has attracted the most new interest among respondents compared to last year, with the focus on special situations being the strongest
- In the past there has been little interest in secondaries in this sector; we did not include it as a preselected option, and no one mentioned it in an “Other” response

Chart XI For investors currently focused on distressed debt/special situations --
Within distressed debt/special situations, my firm is focused on:

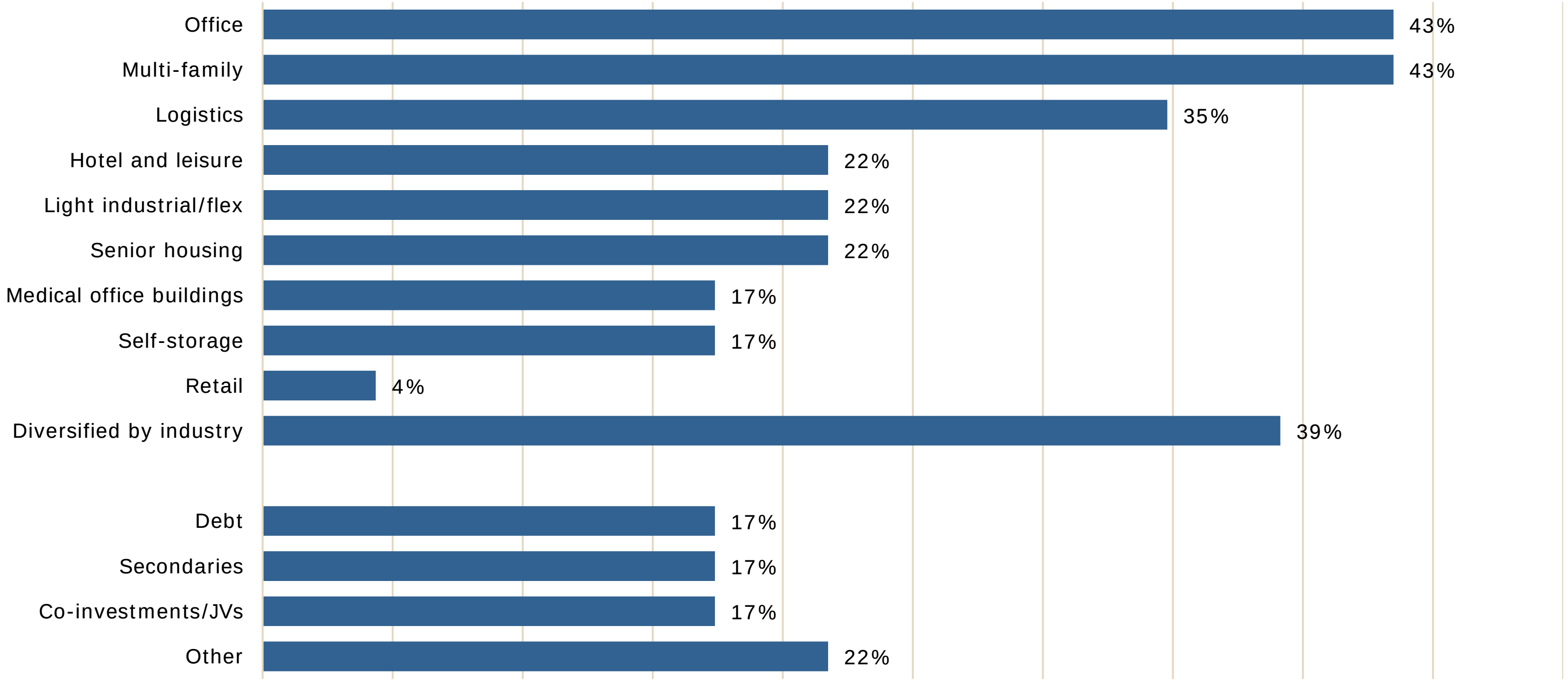


Source: Probitas Partners' COVID-19 Impact Survey

Current Interest Within Real Estate

- As noted in slide 6, interest in closed-end real estate funds is low, but this sector attracts more direct investment than other alternative sectors
- Interest in industries within real estate is scattered, though office and multi-family lead
- “Other” responses are varied over a number of niche sectors

Chart XII For investors currently interested in private real estate:
Within private real estate, my firm is focused on:

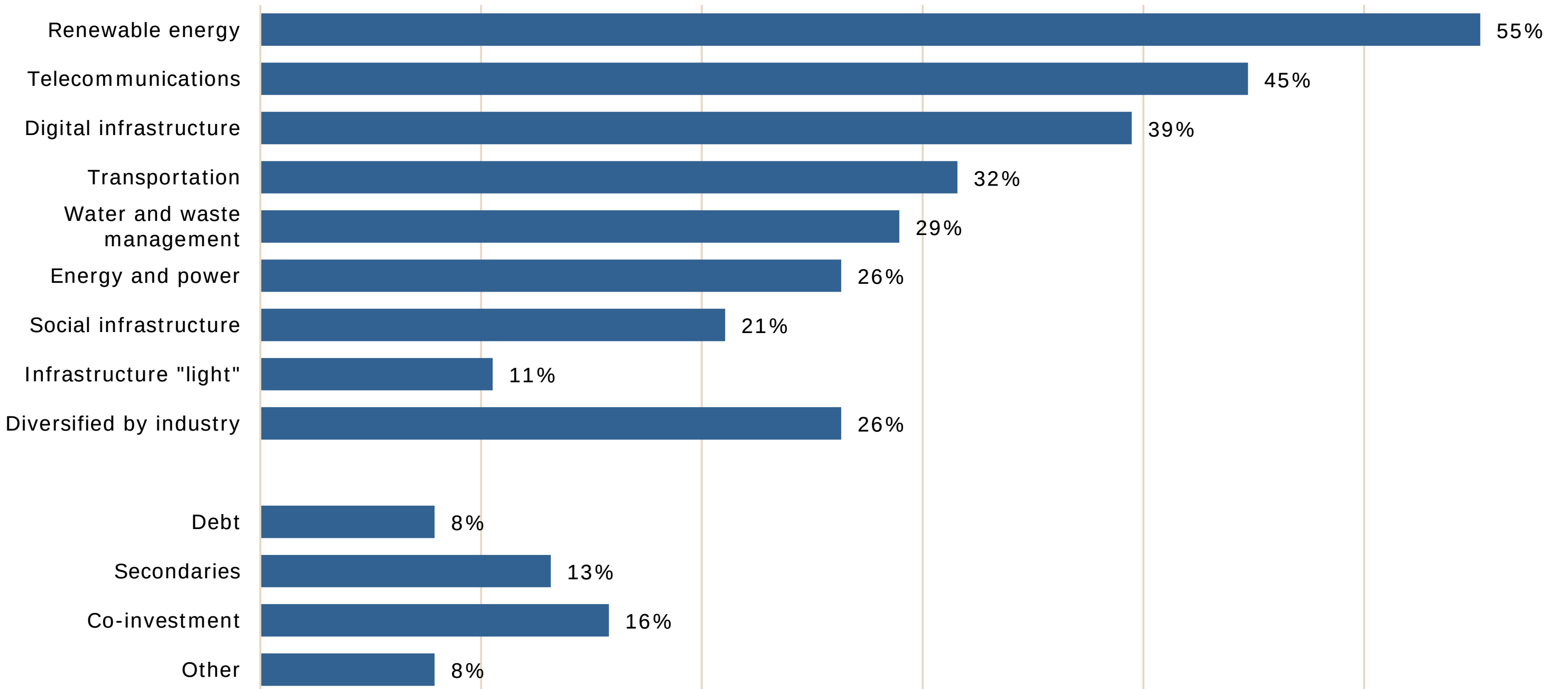


Source: Probitas Partners' COVID-19 Impact Survey

Current Interest Within Infrastructure

- In our last annual infrastructure survey completed last summer, the leading industry of interest was transportation, one of the mainstays of infrastructure; this sector has been badly hit by this crisis, especially in aviation and toll roads
- This is the first of our surveys to include digital infrastructure as a pre-selected option and it scored well

Chart XIII For investors currently interested in infrastructure --
Within infrastructure, my firm is focused on:

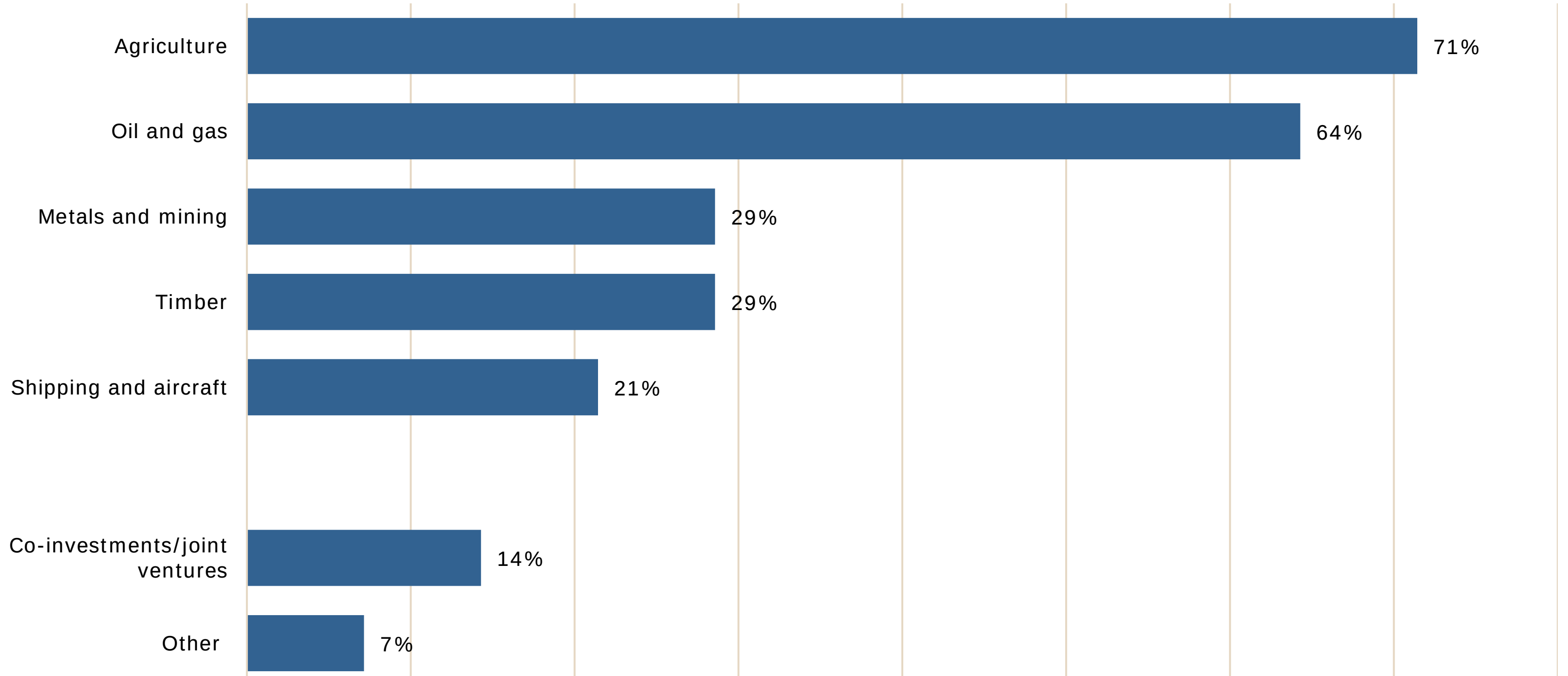


Source: Probitas Partners' COVID-19 Impact Survey

Current Interest Within Real Assets/ Natural Resources

- As detailed in slide 6, this is the area of least focus in alternative closed-end fund format, especially when infrastructure is considered a separate asset class
- Oil and gas historically has been the greatest area of interest, but it has been badly hit by the crisis

Chart XIV For investors currently interested in real assets / natural resources --
Within real assets/natural resources, my firm is focused on:

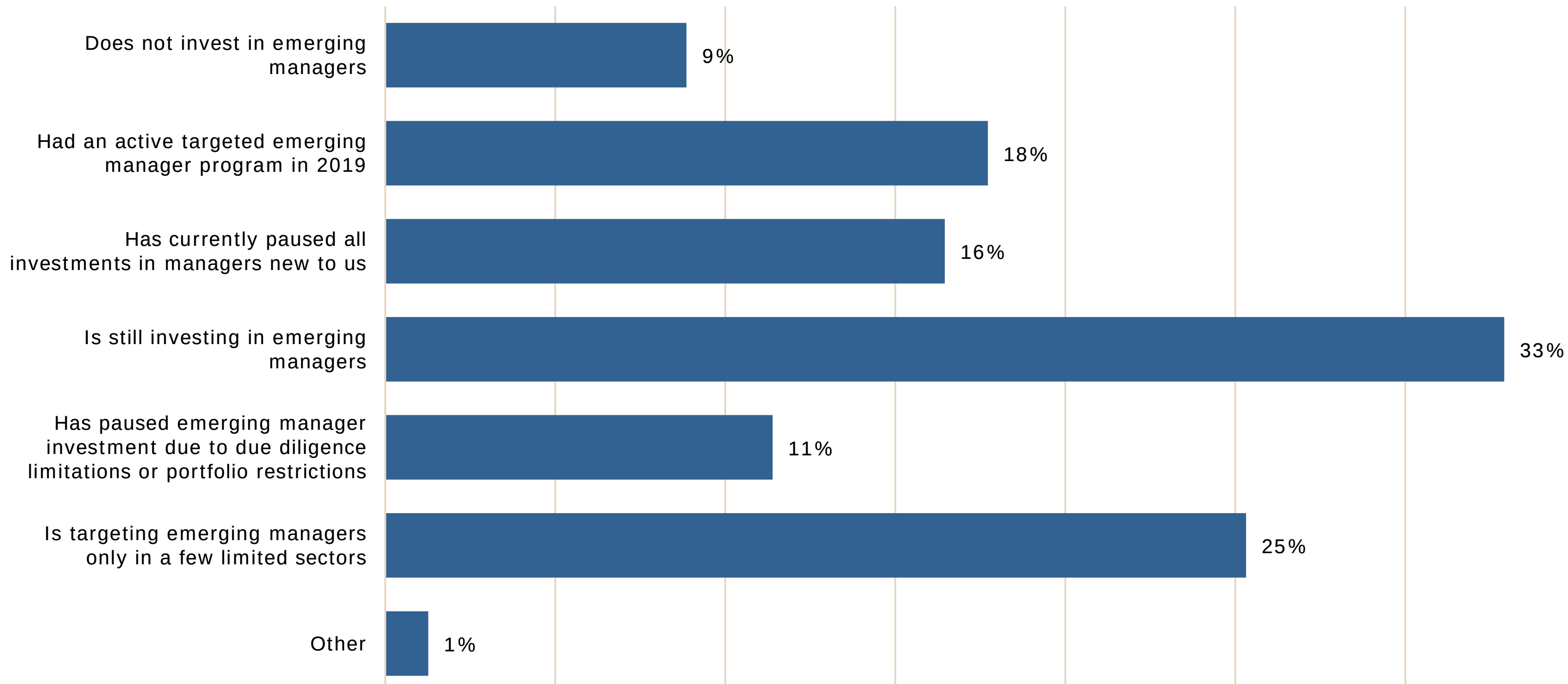


Source: Probitas Partners' COVID-19 Impact Survey

Interest In Emerging Managers

- Certain investors have either paused investing or put up higher barriers to committing to emerging managers
- Emerging managers in certain sectors such as distressed debt, special situations and digital infrastructure may benefit from increased investor interest in their strategies

Chart XV As far as emerging managers/first-time funds, my firm:

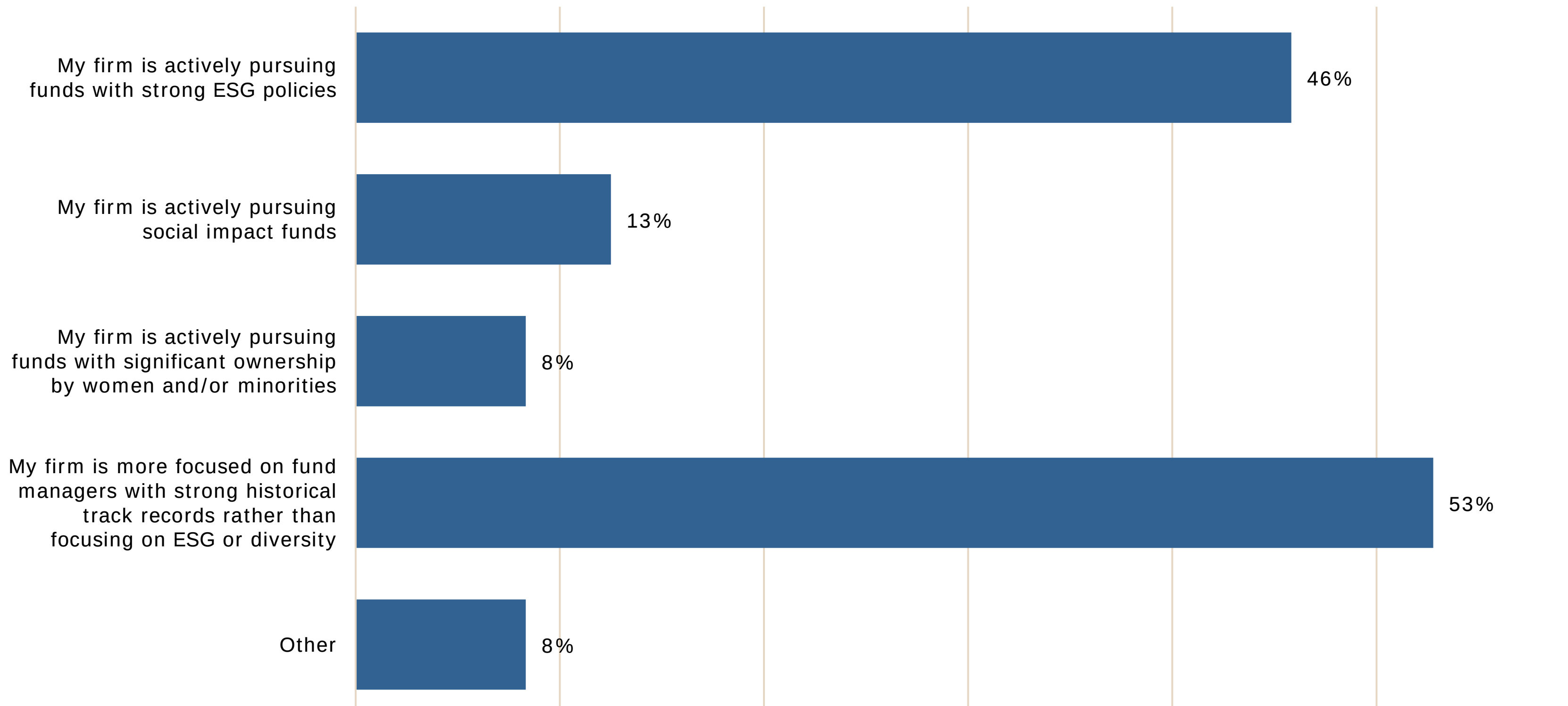


Source: Probitas Partners' COVID-19 Impact Survey

Interest in ESG and Diversity

- There has been some speculation that the current crisis might have significantly increased investor interest in funds with strong ESG policies, including social impact funds, as well as funds highlighting women or minority ownership
- This survey does show significant interest in funds with strong ESG policies, but a majority of respondents are focused on strong historical performance

Chart XVI In the current market, as far as ESG and diversity:

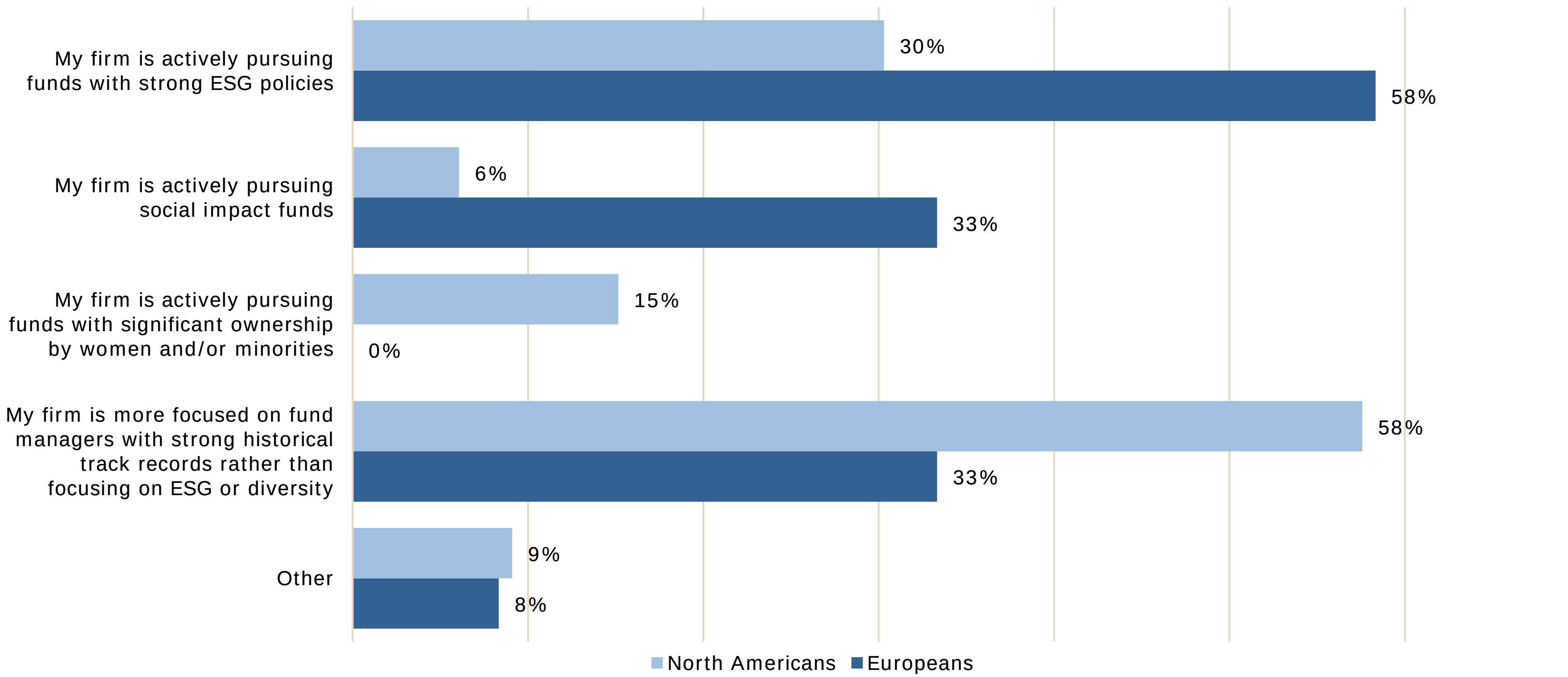


Source: Probitas Partners' COVID-19 Impact Survey

Interest in ESG and Diversity: Geographic Differences

- There are distinct differences between respondents from different geographies however
- Europeans, for example, are much more interested in strong ESG policies and social impact funds than North Americans while, though not of strong focus, North Americans are more concerned with diversity than Europeans

Chart XVII In the current market, as far as ESG and diversity:

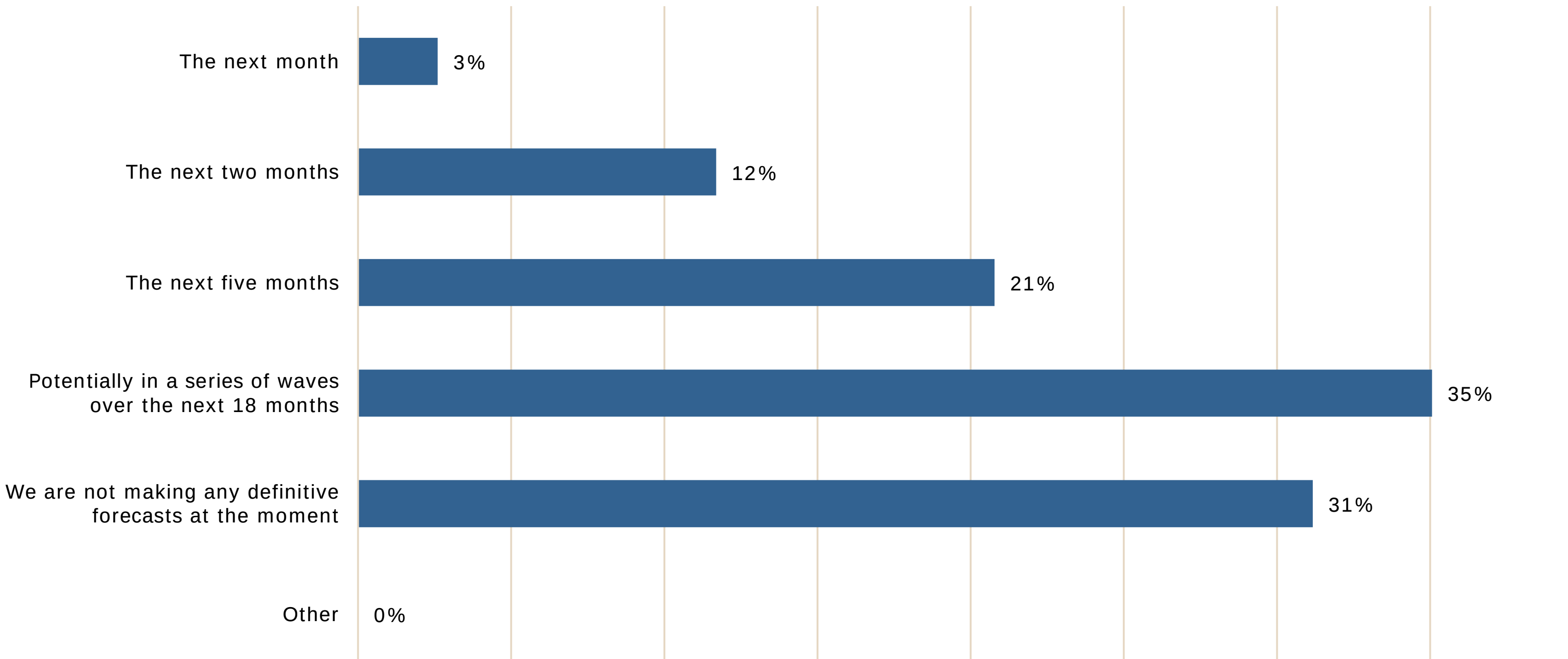


Source: Probitas Partners' COVID-19 Impact Survey

How Long Will Major Disruptions Go On?

- The majority of respondents feel that market disruptions caused by COVID-19 will be long-term, with 35% planning on dealing with a series of waves of up to 18 months and another 21% planning for ongoing disruptions of up to 5 months
- Another 31% are not making any definitive plans at the moment

Chart XVIII My firm is currently planning for major disruptions caused by COVID-19 over:

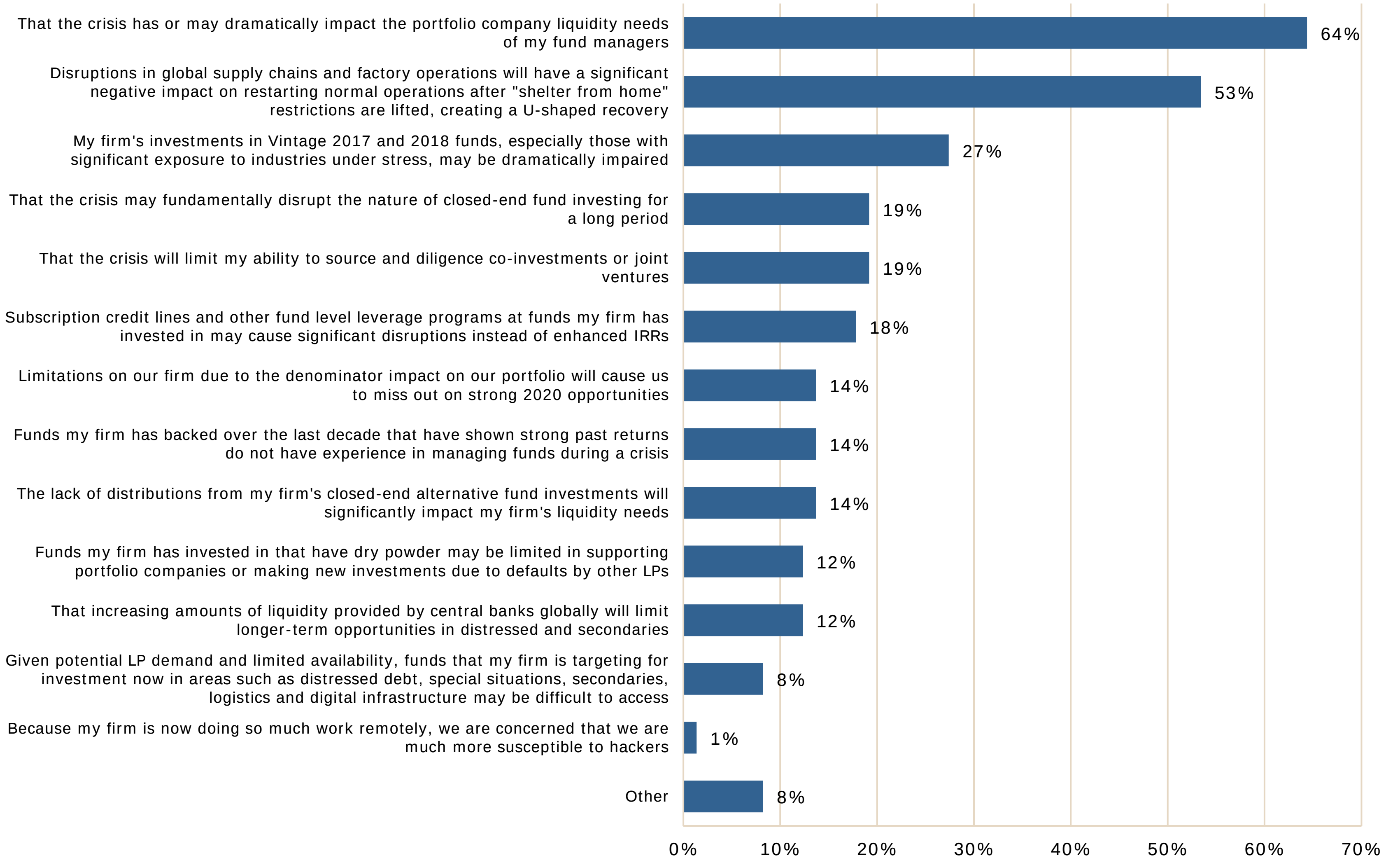


Source: Probitas Partners' COVID-19 Impact Survey
Note: Percentages in the chart do not sum to 100% as two respondents had multiple responses

Greatest Investment Fears of Respondents

Chart XIX Greatest investment fears regarding the crisis

Our four greatest investment fears regarding the crisis at the moment are:



Source: Probitas Partners' COVID-19 Impact Survey

Greatest Fears by Respondents Geography

- The two greatest fears overall were portfolio company liquidity and a U-shaped recovery driven by dislocations that will slow a return to normal activity
- There were significant differences in fears depending on investor's locations; Europeans were more focused on central bank activity limiting certain opportunities

Greatest Fears	Overall Respondents	North American	European	Asian
That the crisis has or may dramatically impact the portfolio company liquidity needs of my fund managers	64%	72%	42%	65%
Disruptions in global supply chains and factory operations will have a significant negative impact on restarting normal operations after "shelter from home" restrictions are lifted, creating a U-shaped recovery	53%	50%	58%	57%
My firm's investments in Vintage 2017 and 2018 funds, especially those with significant exposure to industries under stress, may be dramatically impaired	27%	36%	17%	22%
That the crisis may fundamentally disrupt the nature of closed-end fund investing for a long period	19%	22%	17%	17%
That the crisis will limit my ability to source and diligence co-investments or joint ventures	19%	17%	25%	17%
Subscription credit lines and other fund level leverage programs at funds my firm has invested in may cause significant disruptions instead of enhanced IRRs	18%	11%	25%	26%
That increasing amounts of liquidity provided by central banks globally will limit longer-term opportunities in distressed and secondaries	12%	8%	42%	4%

Greatest Fears: Comments

- There were several interesting comments to this question:
  - *Some government programs that target helping companies not backed by private equity may put PE-sponsored firms at a disadvantage*
  - *Prolonging exits on recent vintage funds will dent the attractiveness of the asset class*
  - *As a fund-of-funds it is now more difficult to fundraise from our investors, so we are not able to continue to invest in interesting funds*
  - *The government keeps bailing out bad actors and doesn't allow investors that have strong balance sheets to clean house while those that were too aggressive lose their shirts; we have a moral hazard issue where there is no reward for being a well-run firm*
  - *My emerging markets portfolio came through the GFC relatively unscathed due to zero-to-low leverage and continued demand growth; this time around, 20% of investments are directly affected and another 20% probably will be affected; low leverage helps but is not the protection it was*
  - *Travel bans are preventing GPs from taking advantage of opportunistic situations that, in the GFC, would have got funded; there is grit in the system preventing those with liquidity from deploying it; in the GFC the opportunistic plays boosted returns while this time around they will contribute less, in a situation which looks to be worse for the existing portfolio*

Summary and Analysis

- The two major uncertainties for investors now are how virulent and deadly the virus will be globally, and how long the crisis will last – the longer the emergency lasts, the larger the economic impacts on current investment portfolios and ongoing operations
  - Some hope that, as with other viruses, the warmer weather of summer in the Northern Hemisphere combined with current “shelter-in-place” directives and outright quarantines will limit the spread of the virus, resulting in a sharp but short economic crisis
  - Others fear a scenario more like the Spanish Influenza Pandemic of 1918-1919, which lasted roughly two years, progressing in three major waves; such a scenario would have a much longer economic impact and the survey shows several investors currently making plans along those lines
  - Aside from weather, certain countries are better able to mitigate the impact of the pandemic, which may lend to better investment opportunities
  - Another wild card affecting the length of the crisis is the development of vaccines, which is now underway, though development, testing and distribution of potential vaccines is likely to be a slow process
- Dramatic falls in public stock markets in March raised the specter of the “denominator effect” that struck investors portfolio allocations during the Internet bubble bursting and the GFC
  - In retrospect, many LPs realized that strict adherence to portfolio allocations during the height of those previous crises limited their ability to invest in funds that benefited from the market rebound that followed
  - Many LPs introduced flexibility to their allocations and currently we see little impact of the “denominator effect” – though a few investors are temporarily pausing making commitments as they determine how best to deal with market volatility and the impacts on their current closed-end fund and co-investment portfolios

Summary and Analysis (cont'd)

- Most investors are still making commitments to funds and have not paused their investing programs
  - However, many are working remotely, are no longer taking in-person meetings, and have shifted to virtual meetings and on-sites, slowing their due diligence processes and investment pace
  - Most of them have also shifted resources to portfolio management, focusing more attention on the status of their current portfolios
  - Absent continued buy-in for virtual on-sites, the bias towards incumbent relationships or managers that investors have met in-person previously will strengthen
- Certain investors have shifted their investment focus to different alternative sectors while de-emphasizing others
  - Since the crisis began, many of them have begun targeting distressed debt, special situations and secondaries as well as sub-sectors such as digital infrastructure
  - In these sectors, they are more willing to look at new managers
  - Interest in performing debt and real estate funds have notably declined
- Though there have been reports in the press about a few unidentified investors failing to make capital calls, few respondents to the survey are worried about their own liquidity at this point
  - They are, however, very focused on the liquidity needs of portfolio companies or projects in their portfolio and are in deep discussions with their fund managers on the situation

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